Valero

January 28, 2022

CERTIFIED: 7016 2710 0000 3305 5408

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 2021
Valero Refining - Meraux LLC, Agency Interest # 1238
2235 Jacob Drive, St. Bernard Parish, Meraux, LA
Title V Permit Numbers: 2500-00001-V18

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 2021.

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

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

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

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

Regards,

Leslie Sullivan 1/25/22
Leslie Sullivan
Vice President and General Manager
Meraux Refinery

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

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

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

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Ametek 9900(SO_2)/Servomex Oxy 1800(O_2)

Date of Latest CMS Certification or Audit: CGA on 12/21/21

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

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

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

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

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

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

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

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

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO_2)/ Magnos 206 (O_2)

Date of Latest CMS Certification or Audit: CGA on 10/26/21

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

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

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

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	58
d. Other known causes	2
e. Unknown causes	0
2. Total CMS Downtime	60
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	2.7 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek, #4661

Date of Latest CMS Certification or Audit: CGA on 12/14/21

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

Total source operating time in reporting period: EQT 0010-1,796 hours, EQT 0011-2,052 hours, EQT 0033-2,209 hours, EQT 0058-0 hours

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

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

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

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted. (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: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/16/21

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

Total source operating time in reporting period: EQT 0013-2,209 hours; EQT 0022-2,209 hours; EQT 0024-2,209 hours; EQT 0027-2,209 hours; EQT 0028-2,205 hours; EQT 0029-2,209 hours; EQT 0014-2,209 hours

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

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

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

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

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

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/16/21

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

Total source operating time in reporting period: EQT 0127-0 hours; EQT 0159-2,209 hours

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

CMS Performance Summary[1]		
1. CMS downtime in reporting period due to:	*EQT 0127 (hours)*	*EQT 0159 (hours*
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	0	0
d. Other known causes	0	2
e. Unknown causes	0	0
2. Total CMS Downtime	0	2
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %	0.1 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/16/21

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

Total source operating time in reporting period: 0 hours

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

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/14/21

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: 2,209 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	1
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	1
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.1 %

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/27/21

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

Total source operating time in reporting period: EQT 0030-2,209 hours; EQT 0048-0 hours[3]

Emissions Data Summary[1]		
1. Duration of excess emissions in reporting period due to:	*EQT 0030 (hours)*	*EQT 0048 (hours)*
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	2	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	2	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.1 %	0.0 %

CMS Performance Summary[1]		
1. CMS downtime in reporting period due to:	*EQT 0030 (hours)*	*EQT 0048 (hours)*
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	28	0
d. Other known causes	6	0
e. Unknown causes	0	0
2. Total CMS Downtime	34	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.5 %	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 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O_2)

Date of Latest CMS Certification or Audit: CGA on 12/28/21

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

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

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

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O_2)

Date of Latest CMS Certification or Audit: CGA on 12/28/22(O_2) and 12/29/21(NOx)

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

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

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

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO_x)/(O_2)

Date of Latest CMS Certification or Audit: CGA on 12/22/21

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

Total source operating time in reporting period: 1,796 hours

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

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

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

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NOx)/(O_2)

Date of Latest CMS Certification or Audit: N/A

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

Total source operating time in reporting period: 0 hours

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

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

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

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O_2)

Date of Latest CMS Certification or Audit: CGA on 10/25/21

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

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

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

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Date of Latest CMS Certification or Audit: CGA on 12/21/21

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

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

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

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O_2)

Date of Latest CMS Certification or Audit: CGA on 10/26/21

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

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

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

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	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: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 12/15/21

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

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

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

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

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

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

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

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 12/15/21

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

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

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

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

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

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 12/15/21

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

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

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

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

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/8/21

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

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

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

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

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

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

(per 40 CFR 60.7(d) 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 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/8/21

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

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

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	6
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	6
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.3 %

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

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

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

(per 40 CFR 60.7(d) 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 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/8/21

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

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

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	3
d. Other known causes	4
e. Unknown causes	0
2. Total CMS Downtime	7
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.3 %

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

On 7/26/21, the computer processor for SO_2 CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) failed and could not be repaired. Valero installed a temporary rental SO_2 analyzer on 7/27/21. The original O_2 analyzer was retained. The rental SO_2 analyzer was in operation for the entire 4th Quarter 2021. Valero will purchase new SO_2 and O_2 analyzers and estimates they will be installed in the 1st Quarter 2022.

For all other CMS covered in this report, no changes were made in the 4th Quarter 2021 to CMS, process, or controls.

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

Daniel Patroad

Name

Signature

Sr. Environmental Engineer

Title

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Ametek 9900(SO_2)/Servomex Oxy 1800(O_2)

Date of Latest CMS Certification or Audit: CGA on 12/21/21

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

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

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

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/15/21	13:00	14:00	1	Offline to blow out sample lines and replace filters.	Calibrated and returned to service.
12/21/21	10:00	12:00	2	SO_2 and O_2 cylinder gas audit.	N/A
TOTAL			3		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO_2 corrected to 0% O_2 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 10/26/21

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

Total source operating time in reporting period: 2209 hours

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

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/9/21	07:00		55	Out of control. No calibration check occurred on 10/10/21 due to sample probe plugging that prevented the solenoid valve from injecting calibration gas into the sample system.	Valero steamed and rodded out the sample probe and removed debris from the solenoid valve. Valero calibrated the analyzers and returned them to service.
10/11/21		14:00			
10/26/21	10:00	11:00	1	SO_2 and O_2 cylinder gas audit.	N/A
11/2/21	09:00	10:00	1	Annual preventative maintenance.	N/A
11/2/21	11:00	12:00	1		
12/16/21	13:00	14:00	1	Reduced sample flow. Offline to blow out sample lines, clean probe, and replace filters.	Calibrated and returned to service.
12/16/21	15:00	16:00	1		
TOTAL			60		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/16/21

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

Total source operating time in reporting period: EQT 0127-0 hours; EQT 0159-2,209 hours

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

Ja CMS PERFORMANCE[1] – Both EQT's					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/7/21	10:00	12:00	2	While performing preventative maintenance on electrical switchgear, Valero inadvertently tripped the breaker powering the analyzer.	Valero reset the breaker and then restarted and calibrated the analyzer.
TOTAL			2		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NOx)/(O_2)

Date of Latest CMS Certification or Audit: N/A

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

Total source operating time in reporting period: 0 hours

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

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
TOTAL			0		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Date of Latest CMS Certification or Audit: CGA on 10/25/21

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

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

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

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

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 12/15/21

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

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

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

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

[1]Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H_2S 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.

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 12/15/21

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		

[1]Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H_2S 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.

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 12/15/21

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

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

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

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

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/8/21

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

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

Ja CMS PERFORMANCE[2]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/30/21	08:00	09:00	1	Adjusted for calibration drift.	N/A
TOTAL			1		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/8/21

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

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

Ja CMS PERFORMANCE[2]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/15/21	11:00	12:00	1	Troubleshooting and adjustment due to unsatisfactory operation of the range changing function.	Valero calibrated the analyzer and returned it to service.
11/1/21	13:00	14:00	1		
11/5/21	11:00	12:00	1		
11/5/21	13:00	14:00	1	Analyzer shutdown to replace switching valve rotor.	Valero calibrated the analyzer and returned it to service.
11/12/21	10:00	11:00	1	Adjusted for calibration drift.	N/A
11/22/21	10:00	11:00	1	Adjusted for calibration drift.	N/A
TOTAL			6		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/8/21

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

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

Ja CMS PERFORMANCE[2]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/18/21	10:00	11:00	1	Adjusted for calibration drift.	N/A
11/21/21	07:00	11:00	4	Analyzer did not properly return to sample after a satisfactory daily calibration check.	Valero adjusted sample flow rate and pressure, performed a calibration check, and observed the analyzer returning to sample.
11/30/21	08:00	10:00	2	Analyzer offline during area wide power failure caused by Hurricane Ida.	Valero placed the analyzer in service as soon as electrical power, the required utilities, and manpower was available.
TOTAL			7		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

Ja CMS PERFORMANCE[2]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/13/21	14:00	15:00	1	Flow meter was in error during period where Flare Gas Recovery was intentionally shut down for a planned maintenance activity.	On 11/19/21, the manufacturer came onsite and evaluated the flow meter. The meter passed all diagnostic tests, but remained in alarm. The manufacturer remarked that the high hydrogen content (~75 vol %) combined with low to near zero flow was likely what was causing the meter to remain in alarm.
TOTAL			1		

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

DATA ASSESSMENT REPORT

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

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 9900(SO_2)/Servomex Oxy 1800(O_2)

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO_2 #1 (low scale)	SO_2 #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	12/21/21	12/21/21	12/21/21	12/21/21
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	274.5 ppmv	5.99 vol %	10.05 vol %
CEM Response Value	130.5 ppmv	276.5 ppmv	6.00 vol %	10.00 vol %
Accuracy	4.5%	0.7%	0.2%	0.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

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

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO_2 #1 (low scale)	SO_2 #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	10/26/21	10/26/21	10/26/21	10/26/21
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	130.0 ppmv	280.5 ppmv	5.97 vol %	9.99 vol %
Accuracy	3.8%	1.9%	0.3%	0.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: 10/9/21 07:00 – 10/11/21 14:00

2. Number of Days 2.3 (55 hours)

B. Corrective Actions: No calibration check occurred on 10/10/21 due to sample probe plugging that prevented the solenoid valve from injecting calibration gas into the sample system. Valero steamed and rodded out the sample probe and removed debris from the solenoid valve. Valero calibrated the analyzers and returned them to service.

DATA ASSESSMENT REPORT

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

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/14/21	12/14/21
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)	73.3	157.3
Accuracy	3.0%	3.9%
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: **H_2S**

Applicable NSPS Subpart: J and Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/16/21	12/16/21
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)	74.8	182.8
Accuracy	3.0%	2.9%
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: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/16/21	12/16/21
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)	69.7	150.7
Accuracy	7.8%	8.9%
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: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/14/21	12/14/21
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)	75.4	155.8
Accuracy	0.1%	6.1%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/27/21	12/27/21
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)	73.8	166.3
Accuracy	1.6%	5.4%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: 10/5/21 07:00 – 10/6/21 11:00

2. Number of Days 1.2 (28 hours)

B. Corrective Actions: On 10/6/21, the span calibration check was greater than 4 times the Appendix B limit above the reference gas concentration due to a plugged filter on the water supply to the analyzer. Valero replaced the filter and calibrated the analyzer.

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O_2)

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 (low scale)	NO_x #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	12/28/21	12/28/21	12/28/21	12/28/21
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	25.2 ppmv	53.9 ppmv	5.80 vol %	9.95 vol %
Accuracy	0.4%	1.1%	3.3%	0.6%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O_2)

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

CEM Sampling Location: Boiler B-6

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO_x #1 (low scale)	NO_x #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	12/29/21	12/29/21	12/28/21	12/28/21
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	25.6 ppmv	54.1 ppmv	5.95 vol %	10.00 vol %
Accuracy	1.2%	0.7%	0.8%	0.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO_x)/(O_2)

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

CEM Sampling Location: Boiler TB-01

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO_x #1 (low scale)	NO_x #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	12/22/21	12/22/21	12/22/21	12/22/21
Audit Gas Cylinder No.	SG9167966BAL	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	123.1 ppmv	260.7 ppmv	5.37 vol %	9.50 vol %
Accuracy	3.0%	3.6%	10.9%	5.9%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO_x)/(O_2)

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):

Process unit did not operate in the 4th Quarter 2021.

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 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O_2)

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):

CGA	NO_x #1 (low scale)	NO_x #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	10/25/21	10/25/21	10/25/21	10/25/21
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	26.4 ppmv	55.4 ppmv	5.97 vol %	10.02 vol %
Accuracy	4.6%	0.1%	0.5%	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: **NO_x**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11 (NO_x), Magnos27 (O_2)

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):

CGA	NO_x #1 (low scale)	NO_x #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	12/21/21	12/21/21	12/21/21	12/21/21
Audit Gas Cylinder No.	LL67375	CC319153	CC483638	CC222165
Date of Audit Gas Cert.	10/4/19	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	55.4 ppmv	5.99 vol %	9.96 vol %
CEM Response Value	27.5 ppmv	59.4 ppmv	6.01 vol %	10.01 vol %
Accuracy	9.1%	7.1%	0.3%	0.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O_2)

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):

CGA	NO_x #1 (low scale)	NO_x #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	10/26/21	10/26/21	10/26/21	10/26/21
Audit Gas Cylinder No.	BLM000328	LL64381	LL100497	LL67009
Date of Audit Gas Cert.	10/4/19	10/4/19	4/22/19	4/22/19
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	55.2 ppmv	6.02 vol %	10.03 vol %
CEM Response Value	25.2 ppmv	55.8 ppmv	6.09 vol %	10.04 vol %
Accuracy	0.0%	1.1%	1.1%	0.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/15/21	12/15/21
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas[1]	Certified Gas[1]
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	77.0 ppmv	165.3 ppmv
Accuracy	3.1%	4.3%
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: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/15/21	12/15/21
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	78.3 ppmv	168.3 ppmv
Accuracy	1.5%	2.5%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/15/21	12/15/21
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	75.7 ppmv	164.3 ppmv
Accuracy	4.8%	4.9%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/8/21	12/8/21
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	978.3 ppmv	5628.7 ppmv
Accuracy	5.0%	1.3%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/8/21	12/8/21
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	1019.0 ppmv	5756.0 ppmv
Accuracy	1.1%	3.5%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/21 to 12/31/21

Date submitted: 1/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	12/8/21	12/8/21
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value	1030.0 ppmv	5559.0 ppmv
CEM Response Value	993.7 ppmv	5776.7 ppmv
Accuracy	3.5%	3.9%
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 Analysis

Incident Number: **438635**

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)**	Date of Event:	**11/18/20**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**12/22/20**
	South Flare (EPN 3-77, EQT 0049)		

(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
Completed Date: 6/18/21
Animal-deterrent electric fencing installed.

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
Completed Date: 1/17/22
Valero has concluded that the insulation covers that have been installed are adequate and no additional ones are needed at this time.

(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

Subpart Ja Root Cause / Corrective Action Analysis

Incident Number: 441292

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)**	Date of Event:	**2/15/21**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**4/1/21**
	South Flare (EPN 3-77, EQT 0049)		

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

A description of the Discharge:

On February 15, 2021 at approximately 17:37, Valero experienced a loss of boiler feed water to boilers B-5 and B-6, the #2 Sulfur Recovery Unit (SRU), and the #3 SRU. This caused an automatic shutdown of the two main boilers and the #3 SRU at approximately 17:45. The loss of steam upset other refinery units and caused an automatic safety shut down and depressurization of the Hydrocracker Unit to the North Flare at approximately 18:00. The resulting unit upsets led to excess emissions of SO2 from the refinery flares and the #3 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	**2/15/21 17:45**
Date/Time the discharge had ceased	**2/17/21 15:55**
Duration of Discharge (Calculated)	**46.2** hrs.

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

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume 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 determined that the root cause was insufficient thermal protection on the level indicator for a boiler feed water deaerator. The level indicator froze and gave a faulty high-high level reading. When the signal from the level indicator failed high, the valve supplying softened water to the boiler feed water system closed. Other instruments detected the loss of boiler feed water supply and initiated automatic safety shutdowns at Boilers B-5 and B-6. Valero found that the electrical heat tracing was not in working order due to a ground fault, and a portion of the level indicator was not insulated.

(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) Add glycol antifreeze to the North Deaerator's level transmitter legs and add deviation alarms to alert operators to potential level instrument inaccuracy.

2) Evaluate using a Distributed Control System soft stop or setpoint to prevent Deaerator softened water valve from closing.

3) Evaluate the overall Cause and Effect document for the boiler feed water Deaerator system.

4) Evaluate other technology for measuring level that isn't impacted by freezing temperatures such as capillaries or radar.

5) Implement repair or replacement of electric heat tracing and insulation on the North Deaerator level transmitters.

6) Review and evaluate operator rounds to ensure they include the necessary freeze protection items.

7) Review and evaluate freeze precaution checklists and procedures to ensure that all necessary freeze protection items are addressed.

(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) Add glycol antifreeze to the North Deaerator's level transmitter legs and add deviation alarms to alert operators to potential level instrument inaccuracy.
Commencement Date: 4/1/21
Completed Date: 6/8/21
Canceled. Level instruments and piping are scheduled to be replaced.

2) Evaluate using a Distributed Control System soft stop or setpoint to prevent Deaerator softened water valve from closing.
Commencement Date: 4/1/21
Completed Date: 5/28/21
Valero decided to implement a hard and soft stop on the softened water valves. New corrective action #8 created for implementation.

3) Evaluate the overall Cause and Effect document for the boiler feed water Deaerator system.
Commencement Date: 4/1/21
Completed Date: 5/28/21
Valero the reviewed the Cause and Effect document for the boiler feed water Deaerator system and identified potential control improvements. Valero also decided to review the entire boiler feed water control system at a high level to determine potential control improvements. New corrective action #9 created for implementation the of Deaerator system improvements and review of the entire boiler feedwater control system.

4) Evaluate other technology for measuring level that isn't impacted by freezing temperatures such as capillaries or radar.
Commencement Date: 4/1/21
Completed Date: 5/28/21
New corrective action #10 created for installation of the new level measurement technology.

5) Implement repair or replacement of electric heat tracing and insulation on the North Deaerator level transmitters.
Commencement Date: 4/1/21
Completed Date: 1/18/22
Extended due date due to scheduling issue with heat trace vendor.

6) Review and evaluate operator rounds to ensure they include the necessary freeze protection items.
Commencement Date: 4/1/21
Completed Date: 10/11/21

7) Review and evaluate freeze precaution checklists and procedures to ensure that all necessary freeze protection items are addressed.
Commencement Date: 4/1/21
Completed Date: 10/12/21

8) Implement the hard and soft stops on the Deaerator Softened Water Valves before the 2021-2022 winter.
Commencement Date: 5/28/21
Completed Date: 12/29/21

9) Implement the improvements identified in the review of the Cause and Effect document for the Deaerator control system and perform a review of the entire boiler feed water control system at a high level to determine potential control improvements.
Commencement Date: 5/28/21
Completed Date: 12/28/21

10) Complete installation of the new level measurement technology.
Commencement Date: 5/28/21
Completed Date: 1/7/22

(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
2/14/21 17:00	2/15/21 16:00	120,303	94	0.9	0.0
2/14/21 18:00	2/15/21 17:00	158,486	184	2.3	0.0
2/14/21 19:00	2/15/21 18:00	2,587,641	2809	1130.2	6.1
2/14/21 20:00	2/15/21 19:00	3,328,219	8311	2156.4	11.6
2/14/21 21:00	2/15/21 20:00	4,120,692	6764	3049.3	16.4
2/14/21 22:00	2/15/21 21:00	5,030,494	3561	3588.2	19.3
2/14/21 23:00	2/15/21 22:00	5,760,855	2115	3845.8	20.7
2/15/21 0:00	2/15/21 23:00	6,015,103	278	3857.9	20.7
2/15/21 1:00	2/16/21 0:00	6,112,114	243	3862.1	20.8
2/15/21 2:00	2/16/21 1:00	6,267,048	266	3869.3	20.8
2/15/21 3:00	2/16/21 2:00	6,421,444	264	3876.4	20.8
2/15/21 4:00	2/16/21 3:00	6,544,634	251	3881.8	20.9
2/15/21 5:00	2/16/21 4:00	6,642,932	212	3885.5	20.9
2/15/21 6:00	2/16/21 5:00	6,685,537	100	3886.4	20.9
2/15/21 7:00	2/16/21 6:00	6,723,052	68	3886.9	20.9
2/15/21 8:00	2/16/21 7:00	6,760,203	82	3887.5	20.9
2/15/21 9:00	2/16/21 8:00	6,797,379	68	3888.0	20.9
2/15/21 10:00	2/16/21 9:00	6,836,513	48	3888.3	20.9
2/15/21 11:00	2/16/21 10:00	6,876,187	43	3888.6	20.9
2/15/21 12:00	2/16/21 11:00	6,916,091	34	3888.9	20.9
2/15/21 13:00	2/16/21 12:00	6,955,973	28	3889.1	20.9
2/15/21 14:00	2/16/21 13:00	6,995,110	33	3889.3	20.9
2/15/21 15:00	2/16/21 14:00	7,033,897	36	3889.6	20.9
2/15/21 16:00	2/16/21 15:00	7,072,393	36	3889.8	20.9
2/15/21 17:00	2/16/21 16:00	7,098,532	27	3889.7	20.9
2/15/21 18:00	2/16/21 17:00	7,099,126	33	3888.5	20.9
2/15/21 19:00	2/16/21 18:00	4,789,494	372	2768.5	14.9
2/15/21 20:00	2/16/21 19:00	4,091,102	133	1743.4	9.4
2/15/21 21:00	2/16/21 20:00	3,345,984	84	851.2	4.6
2/15/21 22:00	2/16/21 21:00	2,646,813	144	317.5	1.7
2/15/21 23:00	2/16/21 22:00	2,107,974	138	64.4	0.3
2/16/21 0:00	2/16/21 23:00	2,033,806	107	55.7	0.3
2/16/21 1:00	2/17/21 0:00	2,122,288	82	54.1	0.3
2/16/21 2:00	2/17/21 1:00	2,084,712	37	47.7	0.3
2/16/21 3:00	2/17/21 2:00	2,071,092	46	41.7	0.2
2/16/21 4:00	2/17/21 3:00	2,060,295	54	37.3	0.2
2/16/21 5:00	2/17/21 4:00	2,131,449	48	35.0	0.2
2/16/21 6:00	2/17/21 5:00	2,218,646	44	35.2	0.2
2/16/21 7:00	2/17/21 6:00	2,287,649	30	35.2	0.2
2/16/21 8:00	2/17/21 7:00	2,307,438	39	35.0	0.2
2/16/21 9:00	2/17/21 8:00	2,322,419	35	34.8	0.2
2/16/21 10:00	2/17/21 9:00	2,426,228	46	35.6	0.2
2/16/21 11:00	2/17/21 10:00	2,533,022	30	36.0	0.2
2/16/21 12:00	2/17/21 11:00	2,625,182	23	36.3	0.2
2/16/21 13:00	2/17/21 12:00	2,714,922	17	36.4	0.2
2/16/21 14:00	2/17/21 13:00	2,824,617	17	36.6	0.2
2/16/21 15:00	2/17/21 14:00	2,915,493	12	36.6	0.2
2/16/21 16:00	2/17/21 15:00	2,994,057	11	36.6	0.2
2/16/21 17:00	2/17/21 16:00	2,983,228	22	36.5	0.2

(8.)

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
2/16/21 18:00	2/17/21 17:00	2,970,497	21	36.4	0.2
2/16/21 19:00	2/17/21 18:00	2,877,623	22	28.6	0.2
2/16/21 20:00	2/17/21 19:00	2,863,307	24	27.6	0.1
2/16/21 21:00	2/17/21 20:00	2,840,339	30	27.0	0.1
2/16/21 22:00	2/17/21 21:00	2,629,307	25	21.8	0.1
2/16/21 23:00	2/17/21 22:00	2,437,798	22	17.3	0.1
2/17/21 0:00	2/17/21 23:00	2,257,733	18	14.0	0.1
2/17/21 1:00	2/18/21 0:00	2,072,258	14	11.4	0.1
2/17/21 2:00	2/18/21 1:00	1,954,916	13	10.6	0.1
2/17/21 3:00	2/18/21 2:00	1,814,149	18	9.5	0.1
2/17/21 4:00	2/18/21 3:00	1,701,775	24	8.5	0.0
2/17/21 5:00	2/18/21 4:00	1,532,302	26	7.1	0.0
2/17/21 6:00	2/18/21 5:00	1,402,438	26	6.1	0.0
2/17/21 7:00	2/18/21 6:00	1,295,878	28	5.6	0.0
2/17/21 8:00	2/18/21 7:00	1,238,885	32	5.2	0.0
2/17/21 9:00	2/18/21 8:00	1,186,672	26	4.9	0.0
2/17/21 10:00	2/18/21 9:00	1,043,692	21	3.8	0.0
2/17/21 11:00	2/18/21 10:00	897,192	22	3.0	0.0
2/17/21 12:00	2/18/21 11:00	765,072	22	2.5	0.0
2/17/21 13:00	2/18/21 12:00	635,428	17	2.2	0.0
2/17/21 14:00	2/18/21 13:00	486,554	24	1.8	0.0