



October 30, 2021

CERTIFIED: 7020 1290 0002 3329 4789

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

Re: NSPS Excess Emissions & CEM Performance Report – 3rd Quarter 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 Third Quarter 2021.


For this reporting period, the SO<sub>2</sub> and O<sub>2</sub> CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) and the #3 SRU Incinerator (EPN 5-00, EQT 0079) had excess emissions greater than 1% of the total operating time and the Area 1 Fuel Drum H<sub>2</sub>S CEMS and the three Total Sulfur CEMS and three flow meters monitoring the North Flare Stack (EPN 20-72, EQT 0035) and the South Flare Stack (EPN 3-77, EQT 0049) had downtime greater than 5% of the total operating time. On 7/27/21, a temporary rental SO<sub>2</sub> CEMS was installed on the #2 SRU Incinerator due to the failure of the existing CEMS. The original O<sub>2</sub> CEMS was retained.

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  
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<sub>2</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO<sub>2</sub> corrected to 0% O<sub>2</sub> shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: 7/1/21 – 7/26/21: Brimstone SGX-231(SO<sub>2</sub>)/Servomex Oxy 1800(O<sub>2</sub>)

7/27/21 – 9/30/21: Ametek 9900(SO<sub>2</sub>)/Servomex Oxy 1800(O<sub>2</sub>)

Date of Latest CMS Certification or Audit: RATA on 9/23/21

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

Total source operating time in reporting period: 1,884 hours

<b>Emissions Data Summary<sup>1</sup></b>	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	44
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	44
3. Total duration of excess emissions x (100) [Total source operating time] <sup>2</sup>	2.3 %

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	36
e. Unknown causes	0
2. Total CMS Downtime	36
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	1.9 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO<sub>2</sub> corrected to 0% O<sub>2</sub> shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO<sub>2</sub>)/ Magnos 206 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 8/3/21

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

Total source operating time in reporting period: 2,002 hours

<b>Emissions Data Summary<sup>1</sup></b>	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	22
b. Control equipment problems	0
c. Process problems	9
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	21
3. Total duration of excess emissions x (100) [Total source operating time] <sup>2</sup>	1.5 %

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From  7/1/21  to  9/30/21 

Date submitted:  10/30/21 

Company:  Valero Refining - Meraux LLC 

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

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

Monitor Manufacturer and Model No.:  Ametek, #4661 

Date of Latest CMS Certification or Audit:  CGA on 9/21/21 

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 0010-1,861 hours, EQT 0011-1,729 hours, EQT 0033-1,915 hours, EQT 0058-0 hours 

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>All EQT's (hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	152
e. Unknown causes	0
2. Total CMS Downtime	152
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	7.8 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 4661  

Date of Latest CMS Certification or Audit:   CGA on 9/23/21  

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 0013-1,906 hours; EQT 0022-1,923 hours; EQT 0024-1,747 hours; EQT 0027-1,758 hours; EQT 0028-1,814 hours; EQT 0029-1,734 hours; EQT 0014-1,974 hours  

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

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/23/21

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 0127-1,247 hours; EQT 0159-1,826 hours

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

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 4661  

Date of Latest CMS Certification or Audit:   CGA on 9/23/21  

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

Total source operating time in reporting period:   775 hours  

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

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart:  J

Reporting period dates: From  7/1/21  to  9/30/21

Date submitted:  10/30/21

Company:  Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.:  Ametek 4661

Date of Latest CMS Certification or Audit:  CGA on 9/21/21

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:  1,939 hours

<b>Emissions Data Summary<sup>1</sup></b>	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	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] <sup>2</sup>	0.1 %

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 4661  

Date of Latest CMS Certification or Audit:   CGA on 9/30/21  

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 0030-2,013 hours; EQT 0048-0 hours<sup>3</sup>  

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

<b>CMS Performance Summary<sup>1</sup></b>		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	0	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	0	0
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	0.0 %	0.0 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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.

<sup>3</sup> 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<sub>x</sub>**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: 7/1/21 – 7/13/21: ABB Limas11( NOx), Magnos27 (O<sub>2</sub>)

7/13/21 – 9/30/21: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: RATA on 9/23/21

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

Total source operating time in reporting period: 2,013 hours

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	30
e. Unknown causes	2
2. Total CMS Downtime	30
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	1.5 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>x</sub>**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: 7/1/21 – 7/13/21: CAI NOxygen 700 Series (Rental CEMS)  
7/13/21 – 9/30/21: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: RATA on 9/23/21

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

Total source operating time in reporting period: 1,860 hours

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	30
e. Unknown causes	2
2. Total CMS Downtime	32
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	1.7 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>x</sub>**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO<sub>x</sub>)/(O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 9/29/21

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

Total source operating time in reporting period: 1,920 hours

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	3
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	0.2 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>x</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O<sub>2</sub> shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO<sub>x</sub>)/(O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 9/17/21

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

Total source operating time in reporting period: 1,247 hours

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	3
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	0.2 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>x</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O<sub>2</sub> shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO<sub>x</sub>)/ Magnox 206 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 8/2/21

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

Total source operating time in reporting period: 1,826 hours

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

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>x</sub>**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11( NO<sub>x</sub>), Magnos27 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 9/28/21

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

Total source operating time in reporting period: 1,923 hours

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	31
d. Other known causes	0
e. Unknown causes	22
2. Total CMS Downtime	53
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	2.8 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>x</sub>**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 8/3/21

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

Total source operating time in reporting period: 1,915 hours

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

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

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/22/21

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

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	109
e. Unknown causes	0
2. Total CMS Downtime	109
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	4.9 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart:   Ja  

Reporting period dates: From  7/1/21  to  9/30/21 

Date submitted:  10/30/21 

Company:  Valero Refining - Meraux LLC 

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

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

Monitor Manufacturer and Model No.:  Ametek 5100 

Date of Latest CMS Certification or Audit:  CGA on 9/22/21 

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

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	109
e. Unknown causes	0
2. Total CMS Downtime	109
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	4.9 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/22/21

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

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	109
e. Unknown causes	0
2. Total CMS Downtime	109
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	4.9 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 9/15/21

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

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	139
e. Unknown causes	0
2. Total CMS Downtime	139
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	6.3 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 9/15/21

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

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	8
d. Other known causes	147
e. Unknown causes	0
2. Total CMS Downtime	155
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	7.0 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 8/3/21

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

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	141
e. Unknown causes	0
2. Total CMS Downtime	142
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	6.4 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	131
e. Unknown causes	0
2. Total CMS Downtime	131
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	5.9 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	131
e. Unknown causes	0
2. Total CMS Downtime	131
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	5.9 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

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



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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

<b>CMS Performance Summary<sup>1</sup></b>	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	131
e. Unknown causes	13
2. Total CMS Downtime	144
3. Total duration of CMS Downtime x (100) [Total source operating time] <sup>2</sup>	6.5 %

<sup>1</sup> For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup> 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))*

New NOx/O<sub>2</sub> CEMS were installed on Boiler B-5 and Boiler B-6 and began operation on July 13, 2021.

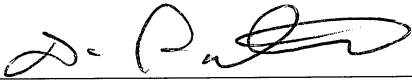
On 7/26/21, the computer processor for SO<sub>2</sub> CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) failed and could not be repaired. Valero installed a temporary rental SO<sub>2</sub> analyzer on 7/27/21. The original O<sub>2</sub> analyzer was retained. Valero will purchase new SO<sub>2</sub>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

For all other CMS covered in this report, no changes were made in the 3rd Quarter 2021 to CMS, process, or controls.

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

Daniel Patnoad

Name



Signature

Env Engineers

Title

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

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

Pollutant: **SO<sub>2</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO<sub>2</sub> corrected to 0% O<sub>2</sub> shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: 7/1/21 – 7/26/21: Brimstone SGX-231(SO<sub>2</sub>)/Servomex Oxy 1800(O<sub>2</sub>)

7/27/21 – 9/30/21: Ametek 9900(SO<sub>2</sub>)/Servomex Oxy 1800(O<sub>2</sub>)

Date of Latest CMS Certification or Audit: RATA on 9/23/21

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

Total source operating time in reporting period: 1,884 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
9/10/21	11:00		31	728	SO <sub>2</sub> at 0% O <sub>2</sub> greater than 250 ppm, 12-HRA, with combined SO <sub>2</sub> emissions from the #2 and #3 SRU less than 500 lbs/day above allowable during unit start up with no acid gas feed to the unit and the TGT bypassed. The start up was aborted due to a failed natural gas regulator supplying the SRU burner and the unit was shutdown to repair this regulator.	
9/11/21		18:00				
9/13/21	14:00		13	515	SO <sub>2</sub> at 0% O <sub>2</sub> greater than 250 ppm, 12-HRA, with combined SO <sub>2</sub> emissions from the #2 and #3 SRU less than 500 lbs/day above allowable during unit start up with no acid gas feed to the unit and the TGT bypassed.	
9/14/21		03:00				
TOTAL			44			

Ja CMS PERFORMANCE <sup>1</sup>						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
7/26/21	07:00		36	SO <sub>2</sub> analyzer computer processor failed and could not be repaired.	Valero installed a temporary rental SO <sub>2</sub> analyzer on 7/27/21. The original O <sub>2</sub> analyzer was retained. Valero will purchase new SO <sub>2</sub> and O <sub>2</sub> analyzers and estimates they will be installed in the 1 <sup>st</sup> Quarter 2022.	
7/27/21		19:00				
TOTAL			36			

<sup>1</sup>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<sub>2</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO<sub>2</sub> corrected to 0% O<sub>2</sub> shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO<sub>2</sub>)/ Magnox 206 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 8/3/21

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

Total source operating time in reporting period: 2,002 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
9/7/21	18:00		22	662	SO <sub>2</sub> at 0% O <sub>2</sub> greater than 250 ppm, 12-HRA, with combined SO <sub>2</sub> emissions from the #2 and #3 SRU less than 500 lbs/day above allowable during unit start up with no acid gas feed to the unit and the TGT bypassed.	
9/8/21		16:00				
9/12/21	01:00	10:00	9	309	SO <sub>2</sub> at 0% O <sub>2</sub> greater than 250 ppm, 12-HRA, with combined SO <sub>2</sub> emissions from the #2 and #3 SRU less than 500 lbs/day above allowable due to the automatic shutdown of the main SRU burner caused by hydrocarbon carryover from the Hydrocracker (HC) unit through the #2 Sour Water Stripper (SWS) unit. The root causes of the carryover were not establishing an oil/water interface in the HC Cold Flash Drum prior to starting wash water and plugging of the suction strainer of the oil removal pump in the #2 SWS.	Valero restarted the # SRU and returned it to operation. Valero will update the HC and #2 SWS procedures to include establishing an oil/water interface prior to starting wash water and prevent starting steam to the #2 SWS until the HC Cold Flash Drum has a stable oil/water interface. Additionally, alarms will be added to alert operators to plugging of the oil removal pump.
TOTAL			31			

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

<sup>1</sup>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<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek, #4661  

Date of Latest CMS Certification or Audit:   CGA on 9/21/21  

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 0010-1,861 hours, EQT 0011-1,729 hours, EQT 0033-1,915 hours, EQT 0058-0 hours  

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

CMS PERFORMANCE						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
9/9/21	04:00		152	Analyzer not in-service following Hurricane Ida and area wide power failure. While attempting to start up the analyzer, the condensate line that supplies water to the analyzer began passing steam and over pressured and damaged a filter housing. After the analyzer was repaired the condensate line continued to pass steam which prevented the analyzer from placed in service.	Valero repaired the filter housing. Eventually, the condensate system was back to normal operation and the analyzer was placed in operation.	
9/15/21		12:00				
TOTAL			152			

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

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/23/21

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 0127-1,247 hours; EQT 0159-1,826 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 <sup>1</sup> – Both EQT’s						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None.						
TOTAL			0			

<sup>1</sup>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<sub>x</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O<sub>2</sub> shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO<sub>x</sub>)/(O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 9/17/21

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

Total source operating time in reporting period: 1,247 hours

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

Ja CMS PERFORMANCE <sup>1</sup>						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
8/24/21	09:00	11:00	2	Annual preventative maintenance.	N/A	
8/24/21	13:00	14:00	1			
TOTAL			3			

<sup>1</sup>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<sub>x</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O<sub>2</sub> shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB Limas11( NOx), Magnos27 (O<sub>2</sub>)

Date of Latest CMS Certification or Audit: CGA on 8/2/21

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

Total source operating time in reporting period: 1,826 hours

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

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

<sup>1</sup>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<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/22/21

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

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

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

Ja CMS PERFORMANCE <sup>2</sup>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/30/21	02:00		109	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.
9/3/21		15:00			
TOTAL			109		

<sup>1</sup>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<sub>2</sub>S 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.

<sup>2</sup>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<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/22/21

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

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

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

Ja CMS PERFORMANCE <sup>2</sup>						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
8/30/21	02:00		109	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.	
9/3/21		15:00				
TOTAL			109			

<sup>1</sup>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<sub>2</sub>S 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.

<sup>2</sup>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<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/22/21

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

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

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

Ja CMS PERFORMANCE <sup>2</sup>						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
8/30/21	02:00		109	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.	
9/3/21		15:00				
TOTAL			109			

<sup>1</sup>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 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 9/15/21

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

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

Ja CMS PERFORMANCE <sup>2</sup>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/29/21	18:00		139	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.
9/4/21		13:00			
TOTAL			139		

<sup>1</sup>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 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 9/15/21

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

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

<b>Ja CMS PERFORMANCE<sup>2</sup></b>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
7/21/21	10:00	12:00	2	Troubleshooting and adjustment due to unsatisfactory operation of the range changing function.	Valero calibrated the analyzer and returned it to service.
7/30/21	08:00	10:00	2		
7/31/21	11:00	19:00	8	Analyzer shutdown to replace switching valve rotor and clear sample lines.	Valero calibrated the analyzer and returned it to service.
8/25/21	08:00	12:00	4	Troubleshooting and adjustment due to unsatisfactory operation of the range changing function.	Valero calibrated the analyzer and returned it to service.
8/29/21	18:00		139	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.
9/4/21		13:00			
TOTAL			155		

<sup>1</sup>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 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 8/3/21

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

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

Ja CMS PERFORMANCE <sup>2</sup>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/3/21	09:00	10:00	1	Cylinder gas audit.	N/A.
8/12/21	10:00	11:00	2	Offline to rebuild sample pump and clear sample lines.	Valero calibrated the analyzer and returned it to service.
8/29/21	18:00		139	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.
9/4/21		13:00			
TOTAL			142		

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

Ja CMS PERFORMANCE <sup>2</sup>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/30/21	02:00		131	Flowmeter offline during area wide power failure caused by Hurricane Ida.	Valero placed the flowmeter in service as soon as electrical power, the required utilities, and manpower was available.
9/4/21		13:00			
TOTAL			131		

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

Ja CMS PERFORMANCE <sup>2</sup>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/30/21	02:00		131	Flowmeter offline during area wide power failure caused by Hurricane Ida.	Valero placed the flowmeter in service as soon as electrical power, the required utilities, and manpower was available.
9/4/21		13:00			
TOTAL			131		

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



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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametries 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: 2,208 hours

Ja CMS PERFORMANCE <sup>2</sup>					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/30/21	02:00		131	Flowmeter offline during area wide power failure caused by Hurricane Ida.	Valero placed the flowmeter in service as soon as electrical power, the required utilities, and manpower was available.
9/4/21		13:00			
9/8/21	03:00	16:00	13	Flowmeter reading erratically and obviously incorrectly during a period of high (90%+) Hydrogen concentration and low flow.	Once the Hydrogen concentration came down the flowmeter reading returned to normal.
TOTAL			144		

<sup>1</sup>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<sub>2</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO<sub>2</sub> corrected to 0% O<sub>2</sub> shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: 7/1/21 – 7/26/21: Brimstone SGX-231(SO<sub>2</sub>)/Servomex Oxy 1800(O<sub>2</sub>)  
7/27/21 – 9/30/21: Ametek 9900(SO<sub>2</sub>)/Servomex Oxy 1800(O<sub>2</sub>)

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 (RATA):

SO <sub>2</sub> corrected to 0% O <sub>2</sub>	SO <sub>2</sub> , ppmv	O <sub>2</sub> , vol %
Date of Audit	9/23/21	9/23/21
Reference Method	EPA Method 6C	EPA Method 3A
Average RM Value (ppmv)	15.5	8.23
Average CEM Value (ppmv)	8.29	8.13
Accuracy	3.18 %	1.57 %
Limit	< 10%	< 20%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

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# DATA ASSESSMENT REPORT

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

Pollutant: **SO<sub>2</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO<sub>2</sub> corrected to 0% O<sub>2</sub> shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO<sub>2</sub>)/ Magnos 206 (O<sub>2</sub>)

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 <sub>2</sub> #1 <u>(low scale)</u>	SO <sub>2</sub> #2 <u>(high scale)</u>	O <sub>2</sub> #1 <u>(low scale)</u>	O <sub>2</sub> #2 <u>(high scale)</u>
Date of Audit	8/3/21	8/3/21	8/3/21	8/3/21
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	122.9 ppmv	269.4 ppmv	5.98 vol %	9.99 vol %
Accuracy	1.9%	2.1%	0.2%	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

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 4661  

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

CEM Sampling Location:   Area 1 Fuel Drum  

CEM Span Value:   Hydrogen Sulfide, 300 ppm  

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/21/21	9/21/21
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)	75.0	162.0
Accuracy	0.8%	1.0%
Standard	<15%	<15%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates:   N/A  

2. Number of Days   N/A  

B. Corrective Actions:   N/A  

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart: J and Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/23/21	9/23/21
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)	72.2	170.3
Accuracy	6.4%	4.1%
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

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From  7/1/21  to  9/30/21 

Date submitted:  10/30/21 

Company:  Valero Refining - Meraux LLC 

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

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

Monitor Manufacturer and Model No.:  Ametek 4661 

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

CEM Sampling Location:  Area 4 Fuel Drum 

CEM Span Value:  Hydrogen Sulfide, 300 ppm 

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/23/21	9/23/21
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)	73.0	163.0
Accuracy	3.4%	1.5%
Standard	<15%	<15%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates:   N/A  

2. Number of Days   N/A  

B. Corrective Actions:   N/A  

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 4661  

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

CEM Sampling Location:   Area 6 Fuel Drum  

CEM Span Value:   Hydrogen Sulfide, 300 ppm  

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/21/21	9/21/21
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)	74.2	162.8
Accuracy	1.5%	1.9%
Standard	<15%	<15%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates:   N/A  

2. Number of Days   N/A  

B. Corrective Actions:   N/A  

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart:   J  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 4661  

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

CEM Sampling Location:   Area 6 Fuel Drum  

CEM Span Value:   Hydrogen Sulfide, 300 ppm  

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/30/21	9/30/21
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)	69.3	160.0
Accuracy	7.6%	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  

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# DATA ASSESSMENT REPORT

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

Pollutant: **NO<sub>x</sub>**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: 7/1/21 – 7/13/21: ABB Limas11( NO<sub>x</sub>), Magnos27 (O<sub>2</sub>)

7/13/21 – 9/30/21: ABB AO2000 Uras 26(NO<sub>x</sub>)/ Magnos 28 (O<sub>2</sub>)

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 (RATA):

NO <sub>x</sub> lb/MMBtu	
Date of Audit	9/23/21
Reference Method	EPA Method 7E / EPA Method 3A
Average RM Value	0.028 lb/MMBtu
Average CEM Value	0.027 lb/MMBtu
Accuracy	4.59 %
Limit	< 20 %

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

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# **DATA ASSESSMENT REPORT**

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

Pollutant: **NO<sub>x</sub>**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: 7/1/21 – 7/13/21: CAI NO<sub>x</sub> 700 Series (Rental CEMS)

7/13/21 – 9/30/21: ABB AO2000 Uras 26(NO<sub>x</sub>)/ Magnos 28 (O<sub>2</sub>)

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 (RATA):

NO <sub>x</sub> lb/MMBtu	
Date of Audit	9/23/21
Reference Method	EPA Method 7E / EPA Method 3A
Average RM Value	0.026 lb/MMBtu
Average CEM Value	0.031 lb/MMBtu
Accuracy	2.18 %
Limit	< 20 %

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

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# DATA ASSESSMENT REPORT

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

Pollutant: **NO<sub>x</sub>**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO<sub>x</sub>)/(O<sub>2</sub>)

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 <sub>x</sub> #1 (low scale)	NO <sub>x</sub> #2 (high scale)	O <sub>2</sub> #1 (low scale)	O <sub>2</sub> #2 (high scale)
Date of Audit	9/29/21	9/29/21	9/29/21	9/29/21
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	128.6 ppmv	263.0 ppmv	6.30 vol %	10.47 vol %
Accuracy	1.3%	2.8%	4.5%	3.7%
Standard	<15%	<15%	<15%	<15%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

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# DATA ASSESSMENT REPORT

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

Pollutant: **NO<sub>x</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O<sub>2</sub> shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO<sub>x</sub>)/(O<sub>2</sub>)

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

CEM Sampling Location: Benzene Recovery Unit Reboiler

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

## I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO<sub>x</sub> #1</u> <u>(low scale)</u>	<u>NO<sub>x</sub> #2</u> <u>(high scale)</u>	<u>O<sub>2</sub> #1</u> <u>(low scale)</u>	<u>O<sub>2</sub> #2</u> <u>(high scale)</u>
Date of Audit	9/17/21	9/17/21	9/17/21	9/17/21
Audit Gas Cylinder No.	LL67375	CC307733	CC483658	CC87078
Date of Audit Gas Cert.	10/4/19	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	55.8 ppmv	5.96 vol %	9.94 vol %
CEM Response Value	24.3 ppmv	55.2 ppmv	5.73 vol %	9.70 vol %
Accuracy	3.6%	1.1%	3.9%	2.4%
Standard	<15%	<15%	<15%	<15%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

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# DATA ASSESSMENT REPORT

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

Pollutant: **NO<sub>x</sub>**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O<sub>2</sub> shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO<sub>x</sub>)/ Magnos 206 (O<sub>2</sub>)

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

CEM Sampling Location: NHT Charge Heater

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

## I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO<sub>x</sub> #1 (low scale)</u>	<u>NO<sub>x</sub> #2 (high scale)</u>	<u>O<sub>2</sub> #1 (low scale)</u>	<u>O<sub>2</sub> #2 (high scale)</u>
Date of Audit	8/2/21	8/2/21	8/2/21	8/2/21
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	25.3 ppmv	53.4 ppmv	6.10 vol %	10.20 vol %
Accuracy	0.5%	3.8%	1.7%	2.1%
Standard	<15%	<15%	<15%	<15%

## II. CALIBRATION DRIFT ASSESSMENT

### A. Out of Control Periods:

1. Dates: 8/22/21 07:00 – 8/23/21 10:00

2. Number of Days 1.1 (27 hours)

B. Corrective Actions: On 8/23/21, the high span calibration check was greater than 4 times the Appendix B limit below the standard gas concentration. Troubleshooting determined that screws on the sample pump casing had been loosened by vibrations causing a sample leak and low flow to the analyzer. The screws were tightened and a satisfactory calibration check was performed.

# DATA ASSESSMENT REPORT

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

Pollutant: **NO<sub>x</sub>**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11 (NO<sub>x</sub>), Magnos27 (O<sub>2</sub>)

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

CEM Sampling Location: No.1 Crude Heater

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

## I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO<sub>x</sub> #1</u> <u>(low scale)</u>	<u>NO<sub>x</sub> #2</u> <u>(high scale)</u>	<u>O<sub>2</sub> #1</u> <u>(low scale)</u>	<u>O<sub>2</sub> #2</u> <u>(high scale)</u>
Date of Audit	9/28/21	9/28/21	9/28/21	9/28/21
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	23.1 ppmv	54.4 ppmv	6.03 vol %	10.02 vol %
Accuracy	8.2%	1.9%	0.6%	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

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# DATA ASSESSMENT REPORT

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

Pollutant: **NO<sub>x</sub>**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O<sub>2</sub>)

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

CEM Sampling Location: MDH Product and Fractionator Heaters

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

## I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO<sub>x</sub> #1</u> <u>(low scale)</u>	<u>NO<sub>x</sub> #2</u> <u>(high scale)</u>	<u>O<sub>2</sub> #1</u> <u>(low scale)</u>	<u>O<sub>2</sub> #2</u> <u>(high scale)</u>
Date of Audit	8/3/21	8/3/21	8/3/21	8/3/21
Audit Gas Cylinder No.	BLM000328	LL4381	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	23.4 ppmv	52.2 ppmv	6.04 vol %	9.98 vol %
Accuracy	7.3%	5.5%	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

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/22/21	9/22/21
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas <sup>1</sup>	Certified Gas <sup>1</sup>
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	80.7 ppmv	171.7 ppmv
Accuracy	1.5%	0.6%
Standard	<15%	<15%

<sup>1</sup> 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

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart:   Ja  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 5100  

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

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

CEM Span Value:   Hydrogen Sulfide, 300 ppm  

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/22/21	9/22/21
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas <sup>1</sup>	Certified Gas <sup>1</sup>
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	78.0 ppmv	170.7 ppmv
Accuracy	1.9%	1.2%
Standard	<15%	<15%

<sup>1</sup> 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  

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# DATA ASSESSMENT REPORT

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

Pollutant: **H<sub>2</sub>S**

Applicable NSPS Subpart:   Ja  

Reporting period dates: From   7/1/21   to   9/30/21  

Date submitted:   10/30/21  

Company:   Valero Refining - Meraux LLC  

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

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

Monitor Manufacturer and Model No.:   Ametek 5100  

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

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

CEM Span Value:   Hydrogen Sulfide, 300 ppm  

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/22/21	9/22/21
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas <sup>1</sup>	Certified Gas <sup>1</sup>
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	76.3 ppmv	170.0 ppmv
Accuracy	4.0%	1.6%
Standard	<15%	<15%

<sup>1</sup> 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  

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# **DATA ASSESSMENT REPORT**

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

## I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	9/15/21	9/15/21
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard 1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	1008.2 ppmv	5791.1 ppmv
Accuracy	2.1%	4.2%
Standard	<15%	<15%

<sup>1</sup> 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

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# **DATA ASSESSMENT REPORT**

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 (low scale)	H <sub>2</sub> S #2 (high scale)
Date of Audit	9/15/21	9/15/21
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard 1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	975.5 ppmv	5689.2 ppmv
Accuracy	5.3%	2.3%
Standard	<15%	<15%

<sup>1</sup> 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

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**DATA ASSESSMENT REPORT**  
(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/21 to 9/30/21

Date submitted: 10/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H <sub>2</sub> S #1 <u>(low scale)</u>	H <sub>2</sub> S #2 <u>(high scale)</u>
Date of Audit	8/3/21	8/3/21
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	1021.7 ppmv	5953.3 ppmv
Accuracy	0.8%	7.1%
Standard	<15%	<15%

<sup>1</sup> 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

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## Appendix A

### Ja Root Cause and Corrective Action Analysis

**Subpart Ja Root Cause / Corrective Action Analysis**Incident Number: 372988*The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

Date of Event: 6/26/18  
 Date Analysis Completed: 8/9/18

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

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

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

	<b>North Flare</b>
Date/Time discharge was first identified	<u>6/26/18 10:56</u>
Date/Time discharge had ceased	<u>6/26/18 16:50</u>
Duration of Discharge (Calculated)	<u>5.9</u> hrs

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

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

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

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

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

- If yes, skip section 5-7.

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

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

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

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

Is corrective action required? Yes (Yes/No)

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

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

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

1) Run the Water Wash to the Recycle Gas Scrubber.

Commencement Date: 8/9/18

Completed Date: 8/9/18

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

Commencement Date: 8/9/18

Completed Date: 12/12/18

3) Repair damaged compressor components.

Commencement Date: 8/9/18

Completed Date: 8/9/18

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

Commencement Date: 8/9/18

Completed Date: 12/11/18

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

Commencement Date: 12/11/18

Estimated Completion Date: 12/3/24

Deferred from 2022 turnaround scope will be considered for 2024 Hydrocracker turnaround. Estimated completion date extended.

**(8.) North and South Flares**

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

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

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



**Subpart Ja Root Cause / Corrective Action Analysis**Incident Number: 432409*The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

Date of Event: 5/13/20  
 Date Analysis Completed: 6/18/20

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

*On May 13, 2020 at approximately 14:09, during a planned startup of the Hydrocracker Unit, a Pressure Safety Valve (PSV) on the Cold Separator vessel relieved to the flare header. Later, at approximately 14:45, this same PSV opened further, increasing the flow rate to the flare header. From 13:17-15:30, an unrelated maintenance activity affecting the South Flare contributed to this discharge.*

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

Date and Time the discharge was first identified 5/13/20 13:17  
 Date/Time the discharge had ceased 5/13/20 15:50  
 Duration of Discharge (Calculated) 2.5 hrs.

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

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

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

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

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

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

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

*Valero investigated this incident and concluded that the PSV (HC-PSV-006A) relieved prematurely. At the time of the release, the Cold Separator was operating at 95% of the PSV's Final Test Pressure (FTP). The PSV was designed and configured to comply with an ASME code allowing a unit to operate up to 97% of FTP.*

**(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) Operate the Cold Separator at a lower pressure, in the short term.

2) Remove the PSV from service and send it to a specialty shop for assessment and to adjust it back to its original FTP.

**(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) Operate the Cold Separator at a lower pressure, in the short term.

Commencement Date: 6/18/20

Completed Date: 7/30/20

2) Remove the PSV from service and send it to a specialty shop for assessment and to adjust it back to its original FTP.

Commencement Date: 6/18/20

Completed Date: 10/6/21

**(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
5/12/20 13:00	5/13/20 12:00	245,690	26	115.3	0.6
5/12/20 14:00	5/13/20 13:00	176,567	533	52.3	0.3
5/12/20 15:00	5/13/20 14:00	294,558	8591	269.3	1.4
5/12/20 16:00	5/13/20 15:00	561,776	9036	689.5	3.7
5/12/20 17:00	5/13/20 16:00	545,071	178	686.1	3.7
5/12/20 18:00	5/13/20 17:00	528,313	115	685.0	3.7
5/12/20 19:00	5/13/20 18:00	505,978	110	683.9	3.7
5/12/20 20:00	5/13/20 19:00	490,799	110	683.2	3.7
5/12/20 21:00	5/13/20 20:00	490,799	108	683.2	3.7
5/12/20 22:00	5/13/20 21:00	490,804	105	683.3	3.7
5/12/20 23:00	5/13/20 22:00	490,811	103	683.3	3.7
5/13/20 0:00	5/13/20 23:00	490,825	97	683.3	3.7
5/13/20 1:00	5/14/20 0:00	490,848	93	683.4	3.7
5/13/20 2:00	5/14/20 1:00	490,873	84	683.4	3.7
5/13/20 3:00	5/14/20 2:00	490,885	74	683.4	3.7
5/13/20 4:00	5/14/20 3:00	490,890	62	683.4	3.7
5/13/20 5:00	5/14/20 4:00	490,890	52	683.4	3.7
5/13/20 6:00	5/14/20 5:00	487,263	43	683.3	3.7
5/13/20 7:00	5/14/20 6:00	487,273	37	683.3	3.7
5/13/20 8:00	5/14/20 7:00	487,273	33	683.3	3.7
5/13/20 9:00	5/14/20 8:00	487,273	33	683.3	3.7
5/13/20 10:00	5/14/20 9:00	487,273	32	683.3	3.7
5/13/20 11:00	5/14/20 10:00	487,273	30	683.3	3.7
5/13/20 12:00	5/14/20 11:00	487,273	25	683.3	3.7
5/13/20 13:00	5/14/20 12:00	483,071	23	683.2	3.7
5/13/20 14:00	5/14/20 13:00	455,962	23	680.5	3.7
5/13/20 15:00	5/14/20 14:00	284,080	20	430.7	2.3

**Subpart Ja Root Cause / Corrective Action Analysis**Incident Number: **444559***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

Date of Event: 5/8/21  
 Date Analysis Completed: 6/17/21

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

*On February 15, 2021 at approximately 17:37, Valero experienced an automatic shutdown of the Net Gas Compressor in the Reformer Unit due to a brief period of low lube oil pressure. The loss of the Net Gas Compressor caused Hydrogen gas to be flared to the North Flare for approximately 2 hours until the compressor could be restarted.*

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

Date and Time the discharge was first identified 5/8/21 9:02  
 Date/Time the discharge had ceased 5/8/21 10:56  
 Duration of Discharge (Calculated) 1.9 hrs.

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

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

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

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

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

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

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

*Valero was unable to determine the exact root cause of the low lube oil pressure. The initial assumption was that the electric lube oil pump had tripped offline due to an electrical problem. The pump remained running through the compressor trip, but was inadvertently tripped later because of multiple attempts to restart it, which delayed the restart of the Net Gas Compressor. Valero determined the possible root causes for this incident to be:*

- 1) Running with the electric lube oil pump always running instead of as an auto start backup to the steam turbine driven lube oil pump. This removed a redundant source of lube oil pressure.*
- 2) Possible undesirable material in the lube oil system that caused a brief blockage of flow.*
- 3) Brief malfunction of one of two pressure control regulators that regulate lube oil system pressures.*

**(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) Operate the lube oil system with the steam driven lube oil pump running and the electric pump as an auto start backup.*
- 2) Open, inspect, and flush the lube oil system during the next unit outage.*
- 3) Pull and inspect the two pressure control regulator at the next available outage and repair or refurbish them as necessary. Create a preventative maintenance schedule to periodically perform this maintenance.*

**(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) Operate the lube oil system with the steam driven lube oil pump running and the electric pump as an auto start backup.

Completed Date: 6/17/21

2) Open, inspect, and flush the lube oil system during the next unit outage.

Commencement Date: 6/17/21

Completed Date: 8/17/21

3) Pull and inspect the two pressure control regulator at the next available outage and repair or refurbish them as necessary. Create a preventative maintenance schedule to periodically perform this maintenance

Commencement Date: 6/17/21

Completed Date: 9/15/21

**(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)(viii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
5/7/21 9:00	5/8/21 8:00	106,890	3	0.2	0.0
5/7/21 10:00	5/8/21 9:00	770,469	15	1.9	0.0
5/7/21 11:00	5/8/21 10:00	822,185	25	2.1	0.0
5/7/21 12:00	5/8/21 11:00	835,260	6	2.1	0.0
5/7/21 13:00	5/8/21 12:00	835,229	6	2.1	0.0
5/7/21 14:00	5/8/21 13:00	835,172	7	2.1	0.0
5/7/21 15:00	5/8/21 14:00	835,125	6	2.1	0.0
5/7/21 16:00	5/8/21 15:00	835,128	6	2.1	0.0
5/7/21 17:00	5/8/21 16:00	835,155	7	2.2	0.0
5/7/21 18:00	5/8/21 17:00	835,154	8	2.2	0.0
5/7/21 19:00	5/8/21 18:00	835,165	6	2.2	0.0
5/7/21 20:00	5/8/21 19:00	835,169	5	2.2	0.0
5/7/21 21:00	5/8/21 20:00	835,153	5	2.2	0.0
5/7/21 22:00	5/8/21 21:00	835,160	8	2.2	0.0
5/7/21 23:00	5/8/21 22:00	835,150	8	2.2	0.0
5/8/21 0:00	5/8/21 23:00	835,134	7	2.2	0.0
5/8/21 1:00	5/9/21 0:00	835,130	7	2.2	0.0
5/8/21 2:00	5/9/21 1:00	835,130	7	2.2	0.0
5/8/21 3:00	5/9/21 2:00	835,119	6	2.2	0.0
5/8/21 4:00	5/9/21 3:00	835,105	6	2.2	0.0
5/8/21 5:00	5/9/21 4:00	835,089	6	2.2	0.0
5/8/21 6:00	5/9/21 5:00	835,090	6	2.2	0.0
5/8/21 7:00	5/9/21 6:00	835,126	6	2.2	0.0
5/8/21 8:00	5/9/21 7:00	835,108	6	2.2	0.0
5/8/21 9:00	5/9/21 8:00	835,101	5	2.2	0.0
5/8/21 10:00	5/9/21 9:00	171,521	5	0.5	0.0

**Subpart Ja Root Cause / Corrective Action Analysis**

Incident Number: N/A

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

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

Date of Event: 8/8/21  
Date Analysis Completed: N/A

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

**A description of the Discharge:**

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

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

Date and Time the discharge was first identified 8/8/21 13:30  
Date/Time the discharge had ceased 8/10/21 20:07  
Duration of Discharge (Calculated) 54.6 hrs.

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

**The steps taken to limit the emissions during the discharge:**

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

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

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

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

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

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

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

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

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

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

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

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

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

*N/A*

<b>(8.)</b>					
<b>The measured or calculated cumulative quantity of gas discharged over the discharge duration.</b>					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
<b>First hour of 24-hr Period</b>	<b>Last hour of 24-hr Period</b>	<b>24-hr cumulative volume of flared gas above Baseline</b>	<b>TRS or H2S ppm (24-hr average, flow-weighted)</b>	<b>24-hr cumulative SO2</b>	<b>24-hr cumulative reduced sulfur</b>
		SCF	ppmv	lbs	lbs as H2S
8/7/21 13:00	8/8/21 12:00	106,749	7	0.4	0.0
8/7/21 14:00	8/8/21 13:00	292,738	12	0.7	0.0
8/7/21 15:00	8/8/21 14:00	366,809	34	1.2	0.0
8/7/21 16:00	8/8/21 15:00	403,332	96	1.9	0.0
8/7/21 17:00	8/8/21 16:00	403,329	13	1.9	0.0
8/7/21 18:00	8/8/21 17:00	403,332	13	1.9	0.0
8/7/21 19:00	8/8/21 18:00	403,330	15	1.9	0.0
8/7/21 20:00	8/8/21 19:00	403,336	12	1.9	0.0
8/7/21 21:00	8/8/21 20:00	403,342	9	1.9	0.0
8/7/21 22:00	8/8/21 21:00	403,343	13	1.9	0.0
8/7/21 23:00	8/8/21 22:00	403,330	14	1.9	0.0
8/8/21 0:00	8/8/21 23:00	403,330	14	1.9	0.0
8/8/21 1:00	8/9/21 0:00	403,323	13	1.9	0.0
8/8/21 2:00	8/9/21 1:00	404,960	13	1.9	0.0
8/8/21 3:00	8/9/21 2:00	431,735	18	2.0	0.0
8/8/21 4:00	8/9/21 3:00	450,272	18	2.1	0.0
8/8/21 5:00	8/9/21 4:00	470,519	11	2.1	0.0
8/8/21 6:00	8/9/21 5:00	493,176	14	2.2	0.0
8/8/21 7:00	8/9/21 6:00	515,473	8	2.2	0.0
8/8/21 8:00	8/9/21 7:00	537,788	3	2.2	0.0
8/8/21 9:00	8/9/21 8:00	560,069	6	2.2	0.0
8/8/21 10:00	8/9/21 9:00	582,242	9	2.3	0.0
8/8/21 11:00	8/9/21 10:00	604,407	8	2.3	0.0
8/8/21 12:00	8/9/21 11:00	689,873	35	2.8	0.0
8/8/21 13:00	8/9/21 12:00	813,436	21	3.3	0.0
8/8/21 14:00	8/9/21 13:00	905,528	20	3.8	0.0
8/8/21 15:00	8/9/21 14:00	1,090,257	27	4.5	0.0
8/8/21 16:00	8/9/21 15:00	1,347,898	20	4.8	0.0
8/8/21 17:00	8/9/21 16:00	1,657,654	31	6.4	0.0
8/8/21 18:00	8/9/21 17:00	1,960,815	18	7.3	0.0
8/8/21 19:00	8/9/21 18:00	2,235,691	19	8.2	0.0
8/8/21 20:00	8/9/21 19:00	2,462,839	16	8.8	0.0
8/8/21 21:00	8/9/21 20:00	2,689,748	13	9.3	0.0
8/8/21 22:00	8/9/21 21:00	2,919,150	13	9.8	0.1
8/8/21 23:00	8/9/21 22:00	3,151,924	12	10.3	0.1
8/9/21 0:00	8/9/21 23:00	3,381,433	13	10.7	0.1
8/9/21 1:00	8/10/21 0:00	3,610,340	14	11.3	0.1
8/9/21 2:00	8/10/21 1:00	3,837,374	12	11.7	0.1
8/9/21 3:00	8/10/21 2:00	4,039,243	13	12.1	0.1
8/9/21 4:00	8/10/21 3:00	4,250,176	14	12.6	0.1
8/9/21 5:00	8/10/21 4:00	4,459,052	13	13.1	0.1
8/9/21 6:00	8/10/21 5:00	4,667,012	15	13.6	0.1
8/9/21 7:00	8/10/21 6:00	4,897,600	40	15.3	0.1
8/9/21 8:00	8/10/21 7:00	5,122,189	53	17.5	0.1
8/9/21 9:00	8/10/21 8:00	5,268,006	50	18.9	0.1
8/9/21 10:00	8/10/21 9:00	5,386,755	42	19.9	0.1
8/9/21 11:00	8/10/21 10:00	5,507,466	39	20.8	0.1
8/9/21 12:00	8/10/21 11:00	5,566,102	33	21.1	0.1

(8.)

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

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

	(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))	
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
8/9/21 13:00	8/10/21 12:00	5,588,136	33	21.5	0.1
8/9/21 14:00	8/10/21 13:00	5,455,044	30	21.3	0.1
8/9/21 15:00	8/10/21 14:00	5,335,122	28	20.8	0.1
8/9/21 16:00	8/10/21 15:00	5,083,077	53	20.3	0.1
8/9/21 17:00	8/10/21 16:00	4,816,042	55	19.1	0.1
8/9/21 18:00	8/10/21 17:00	4,555,108	55	18.6	0.1
8/9/21 19:00	8/10/21 18:00	4,318,816	55	18.2	0.1
8/9/21 20:00	8/10/21 19:00	4,112,117	50	17.8	0.1
8/9/21 21:00	8/10/21 20:00	3,886,506	13	17.3	0.1
8/9/21 22:00	8/10/21 21:00	3,657,108	15	16.8	0.1
8/9/21 23:00	8/10/21 22:00	3,424,338	16	16.3	0.1
8/10/21 0:00	8/10/21 23:00	3,194,830	13	15.9	0.1
8/10/21 1:00	8/11/21 0:00	2,965,919	12	15.3	0.1
8/10/21 2:00	8/11/21 1:00	2,737,244	12	14.8	0.1
8/10/21 3:00	8/11/21 2:00	2,508,615	12	14.4	0.1
8/10/21 4:00	8/11/21 3:00	2,279,145	15	13.8	0.1
8/10/21 5:00	8/11/21 4:00	2,050,014	16	13.3	0.1
8/10/21 6:00	8/11/21 5:00	1,819,395	14	12.8	0.1
8/10/21 7:00	8/11/21 6:00	1,566,503	12	11.1	0.1
8/10/21 8:00	8/11/21 7:00	1,319,601	12	8.8	0.0
8/10/21 9:00	8/11/21 8:00	1,151,506	12	7.4	0.0
8/10/21 10:00	8/11/21 9:00	1,010,603	15	6.4	0.0
8/10/21 11:00	8/11/21 10:00	868,568	15	5.5	0.0
8/10/21 12:00	8/11/21 11:00	724,487	16	4.6	0.0
8/10/21 13:00	8/11/21 12:00	578,868	17	3.8	0.0
8/10/21 14:00	8/11/21 13:00	433,869	12	3.1	0.0

**Subpart Ja Root Cause / Corrective Action Analysis**Incident Number: N/A*The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*
 Report: Final  
 Refinery: Valero (Meraux)  
 Incident Type: Flaring (Flow)  
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)  
                               South Flare (EPN 3-77, EQT 0049)

 Date of Event: 8/28/21  
 Date Analysis Completed: N/A
**(1.)** (60.108a(c)(6)(i))**A description of the Discharge:**

*This discharge resulted from the normal shutdown of the refinery in preparation for Hurricane Ida. The entire area lost electrical power at approximately 18:00 on 8/29/21. Flare Gas Recovery and the flare total sulfur analyzers were shutdown at this time, but limited flow and H2S data was available until 8/30/21 at 02:00 when UPS power was exhausted.*

**(2.)** (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))
 Date and Time the discharge was first identified 8/28/21 13:26  
 Date/Time the discharge had ceased 8/30/21 2:00  
 Duration of Discharge (Calculated) 36.6 hrs.
**(3.)** (60.108a(c)(6)(viii))**The steps taken to limit the emissions during the discharge:**

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

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

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

 Did the discharge result from a planned startup or shutdown? Yes (Yes/No)  
 Was the flare management plan followed? Yes (Yes/No/N/A)  
 Is the event exempt from a RC/CCA based on the answers above? Yes (Yes/No)  
 - If yes, skip section 5-7.
**(5.)** (60.108a(c)(6)(ix))**Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:**
 Did this discharge result from root causes identified in a previous analysis? No (Yes/No)  
 N/A
**(6.)** (60.108a(c)(6)(ix))**Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not**
**Is corrective action required?** No (Yes/No)  
 N/A
**(7.)** (60.108a(c)(6)(x))**Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.**

N/A



(8.)

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

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
8/27/21 13:00	8/28/21 12:00	106,848	11	0.3	0.0
8/27/21 14:00	8/28/21 13:00	180,939	16	0.6	0.0
8/27/21 15:00	8/28/21 14:00	184,104	6	0.6	0.0
8/27/21 16:00	8/28/21 15:00	184,101	6	0.5	0.0
8/27/21 17:00	8/28/21 16:00	184,065	6	0.5	0.0
8/27/21 18:00	8/28/21 17:00	191,209	7	0.5	0.0
8/27/21 19:00	8/28/21 18:00	191,456	6	0.5	0.0
8/27/21 20:00	8/28/21 19:00	191,449	6	0.5	0.0
8/27/21 21:00	8/28/21 20:00	191,453	7	0.5	0.0
8/27/21 22:00	8/28/21 21:00	191,449	7	0.5	0.0
8/27/21 23:00	8/28/21 22:00	192,574	8	0.5	0.0
8/28/21 0:00	8/28/21 23:00	192,590	9	0.5	0.0
8/28/21 1:00	8/29/21 0:00	192,604	13	0.5	0.0
8/28/21 2:00	8/29/21 1:00	192,603	13	0.5	0.0
8/28/21 3:00	8/29/21 2:00	201,635	12	0.5	0.0
8/28/21 4:00	8/29/21 3:00	237,580	23	0.7	0.0
8/28/21 5:00	8/29/21 4:00	260,545	46	0.9	0.0
8/28/21 6:00	8/29/21 5:00	480,629	117	5.3	0.0
8/28/21 7:00	8/29/21 6:00	821,315	151	14.1	0.1
8/28/21 8:00	8/29/21 7:00	866,029	177	15.6	0.1
8/28/21 9:00	8/29/21 8:00	872,955	85	15.8	0.1
8/28/21 10:00	8/29/21 9:00	1,694,002	37	20.8	0.1
8/28/21 11:00	8/29/21 10:00	1,730,594	29	21.0	0.1
8/28/21 12:00	8/29/21 11:00	1,735,482	24	21.1	0.1
8/28/21 13:00	8/29/21 12:00	1,742,270	23	21.1	0.1
8/28/21 14:00	8/29/21 13:00	1,678,878	18	20.9	0.1
8/28/21 15:00	8/29/21 14:00	1,710,973	29	21.1	0.1
8/28/21 16:00	8/29/21 15:00	1,748,819	57	21.6	0.1
8/28/21 17:00	8/29/21 16:00	1,786,843	90	22.3	0.1
8/28/21 18:00	8/29/21 17:00	1,819,155	86	22.9	0.1
8/28/21 19:00	8/29/21 18:00	1,995,582	144	27.3	0.1
8/28/21 20:00	8/29/21 19:00	2,192,593	154	32.5	0.2
8/28/21 21:00	8/29/21 20:00	2,389,661	118	36.6	0.2
8/28/21 22:00	8/29/21 21:00	2,604,218	177	43.1	0.2
8/28/21 23:00	8/29/21 22:00	2,842,759	171	50.1	0.3
8/29/21 0:00	8/29/21 23:00	3,128,014	167	58.2	0.3
8/29/21 1:00	8/30/21 0:00	3,429,097	156	66.1	0.4
8/29/21 2:00	8/30/21 1:00	3,757,694	150	74.4	0.4
8/29/21 3:00	8/30/21 2:00	4,070,364	53	77.3	0.4
8/29/21 4:00	8/30/21 3:00				

Remaining data lost due to power failure.