

Pm 11/15/13



ST. CHARLES REFINERY • Valero Refining - New Orleans, L.L.C. • P. O. Box 518 • Norco, Louisiana 70079-0518 • Telephone (985) 764-8611

November 15, 2013

7011 3500 0001 6349 7465

AI# 26003
T 152289
513-35268
SERO
Lee Lemon
Air-ER

USPS Certified Mail:
LA Dept. of Environmental Quality
ATTN: Surveillance Division – SPOC
“Unauthorized Discharge Notification Report”
P. O. Box 4313
Baton Rouge, LA 70821-4313

LDEQ Southeast Regional Office
Building 4, Suite 420
201 Evans Road,
New Orleans, LA 70123-5230

State Emergency Response Commission
Office of the State Police
P. O. Box 66168.
Baton Rouge, LA 70896

Ms. Tiffany K. Clark, Council Secretary
Email: tclark@stcharlesgov.net
and
pduhe@stcharlesgov.net

RECEIVED

NOV 20 2013

DEQ
Single Point of Contact

Subject: Unauthorized Discharge Notification Report
AI # 26003
Incident Date: November 11, 2013
LA Police Incident #: 13-05012

Dear Sir/Madam:

1. Name, address, telephone number, Agency Interest (AI) number, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by LAC 33:1.3925:

Company Name: Valero St. Charles Refinery
Address: P. O. Box 518, Norco, LA 70079 (14902 River Road)
Telephone Number: 985-764-8611
AI No.: 26003

This is the first written follow-up report required by LAC 33:1.3925 for this incident.

2. Time and date of notification, the official contacted when reporting, the name of the person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred:

On November 11, 2013, at approximately 02:28 hrs, Mr. Charles Kock of our refinery made notifications that there was flaring that exceeded the reportable quantity for SO2. The following notifications were made:

Agency	Date/Time	Valero Rep	Action	Agency Rep	Purpose
State Police	11/11/13 4:03am	Charles Kock	Call Made	Ingrid	Initial Notification
St. Charles DEP	11/11/13 4:09am	Charles Kock	Call Made	Brandon	Initial Notification
State Police	11/11/13 11:24am	Danielle Bourg	Call Made	Amanda	Follow-up Notification
St. Charles DEP	11/11/13 11:27am	Danielle Bourg	Call Made	Lee	Follow-up Notification
State Police	11/11/13 4:17pm	Danielle Bourg	Call Made	Amanda	Follow-up Notification

St. Charles DEP	11/11/13 4:19pm	Danielle Bourg	Call Made	Lee	Follow-up Notification
State Police	11/12/13 7:00am	Danielle Bourg	Call Made	Dennis	Follow-up Notification
St. Charles DEP	11/12/13 7:04am	Danielle Bourg	Call Made	Lee	Follow-up Notification
State Police	11/12/13 4:09pm	Danielle Bourg	Call Made	Tara	All-Clear
St. Charles DEP	11/12/13 4:10pm	Danielle Bourg	Call Made	Lee	All-Clear

3. Date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue:

Date of Discharge: 11/11/13
Time of Discharge: Approximately 02:28 hours
Duration: Approximately 35.25 hours

4. Details of the circumstances and events leading to any emergency condition, including incidents of loss of sources of radiation and if the release point is subject to a permit:

We experienced intermittent flaring from Flare No. 1 when the vacuum jet overhead pump malfunctioned. This pump is part of our vacuum distillation unit. Details of this incident are still under investigation at this time. These details will be submitted in a follow-up correspondence accompanied with the results of our Root Cause Failure Analysis (RCFA).

a. The current permitted limit for the pollutant(s) released:

SO₂
50 pounds per hour (hourly maximum), Flare No. 1

NO_x
31 pounds per hour (hourly maximum), Flare No. 1

VOCs:
28.5 pounds per hour (hourly maximum), Flare No. 1

CO:
168.30 pounds per hour (hourly maximum), Flare No. 1

PM10/2.5
1.0 pounds per hour (hourly maximum), Flare No. 1

H₂S
1.00 pounds per hour (hourly maximum), Flare No. 1

b. The permitted release point/outfall ID:

Source ID: EQT 013
Descriptive Name: Flare No. 1

c. Which limits were exceeded for air releases?

The incident is still under investigation and the estimated emissions will be submitted in a follow-up report.

5. Common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Dept. of Transportation hazard classification, and best estimate of amounts of any or all released pollutants (expressed in pounds, including calculations):

Common or scientific chemical name = Sulfur Dioxide, SO₂,
CAS #7446-09-5
U.S. DOT hazard class = N/A

6. Statement of actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted:

The gas was combusted in Flare No. 1 and the resulting combustion products were dispersed.

7. Remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation:

Emissions were minimized by reducing rates and installing a spare vacuum jet overhead pump.

8. Procedures or measures which have or will be adopted to prevent recurrence of the incident or similar incidents, including incidents of loss of sources of radiation:

Measures to prevent recurrence will be identified as part of a pending investigation.

9. If an unpermitted or unlicensed site or facility is involved in the unauthorized discharge, a schedule for submitting a permit or license application to the department, or rationale for not requiring a permit or license:

N/A

10. The reporting party's status (former or present owner, operator, disposer, etc.):

Valero Refining – New Orleans, L.L.C. is the present owner of the facility.

11. For discharges to the ground or groundwater, the following information shall also be included: all information of which the reporting party is aware that indicates pollutants are migrating, including, but not limited to, monitoring well data; possible routes of migrations; and all information of which the reporting party is aware regarding any public or private wells in the area of the migration used for drinking, stock watering, or irrigation:

N/A

12. What other agencies were notified:

The agencies listed in question number 2 were the only agencies notified.

13. Names of all other responsible parties of which the reporting party is aware:

N/A

14. A determination by the discharger of whether or not the discharge was preventable; if not, an explanation of why the discharge was not preventable.

The incident is still under investigation. We have not yet made a determination on whether or not this discharge was preventable. We will submit additional correspondence detailing the root cause of the incident.

15. The extent of injuries, if any:

There were no injuries as a result of this incident.

16. The estimated quantity, identification, and disposition of recovered materials, if any:

No material resulting from the incident was recovered.

Should you have any questions, please feel free to call me at 985-764-5745.

Sincerely,



André Marquette
Manager Environmental Engineering

1110114



ST. CHARLES REFINERY • Valero Refining - New Orleans, L.L.C. • P. O. Box 518 • Norco, Louisiana 70079-0518 • Telephone (985) 764-8611

January 10, 2014

RECEIVED

JAN 15 2014

7011 3500 0001 6349 6260

USPS Certified Mail:
LA Dept. of Environmental Quality
ATTN: Surveillance Division – SPOC
“Unauthorized Discharge Notification Report”
P. O. Box 4313
Baton Rouge, LA 70821-4313

LDEQ Southeast Regional Office, DEQ
Building 4, Suite 420 **Single Point of Contact**
201 Evans Road,
New Orleans, LA 70123-5230

State Emergency Response Commission
Office of the State Police
P. O. Box 66168.
Baton Rouge, LA 70896

Ms. Tiffany K. Clark, Council Secretary
St. Charles Parish Emergency Group
Email pdf: tblark@stcharlesgov.net
And cc: pduhe@stcharlesgov.net

Subject: Unauthorized Discharge Notification Report
AI # 26003
Incident Date: 11/11/2013
LA Police Incident #: 13-05012

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S13-35268
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Lee Lemon
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Dear Sir/Madam:

- 1. Name, address, telephone number, Agency Interest (AI) number, and any other applicable identification numbers of the person, company, or other party who is filing the written report, and specific identification that the report is the written follow-up report required by LAC 33:I.3925:**

Company Name: Valero St. Charles Refinery
Address: P. O. Box 518, Norco, LA 70079 (14902 River Road)
Telephone Number: 985-764-8611
AI No.: 26003

This is the 60-day follow-up report required by LAC 33:I.3925 for this incident.

- 2. Time and date of notification, the official contacted when reporting, the name of the person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred:**

On November 11, 2013, at approximately 02:28 hrs, Mr. Charles Kock of our refinery made notifications of flaring that exceeded the reportable quantity for SO₂. The following notifications were made:

<u>Agency</u>	<u>Date/Time</u>	<u>Valero Rep</u>	<u>Action</u>	<u>Agency Rep</u>	<u>Purpose</u>
State Police	11/11/13 4:03am	Charles Kock	Call Made	Ingrid	Initial Notification
St. Charles DEP	11/11/13 4:09am	Charles Kock	Call Made	Brandon	Initial Notification
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State Police	11/12/13 4:09pm	Danielle Bourg	Call Made	Tara	All-Clear
St. Charles DEP	11/12/13 4:10pm	Danielle Bourg	Call Made	Lee	All-Clear

3. Date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue:

Date of Discharge: 11/11/2013
 Time of Discharge: Approximately 02:28 hours
 Duration: Approximately 35.25 hours

4. Details of the circumstances and events leading to any emergency condition, including incidents of loss of sources of radiation and if the release point is subject to a permit:

On November 11, 2013 the Valero St. Charles Refinery (Valero) experienced flaring while making repairs on the Coker Jet Pump, which supplies water to the coke drums during the coke cutting process. Portable pumps were installed during the repairs, but kept tripping due to vibration issues. Therefore, we cut feed to the coker and the heaters were put on circulation. The decreased feed into the Coker Unit from the Vacuum Unit caused the Wet Gas Compressor (WGC) to trip, which caused flaring. When the WGC tripped, pressure started to build up on the Vacuum Jet Receiver. To prevent the Vacuum Jet Receiver pump from tripping and causing a loss of vacuum in the vacuum distillation column, the backpressure on the jet receiver was relieved to the flare until the WGC stabilized.

The pressure control valve on the vacuum jet receiver was open to the flare for approximately one hour, but intermittent flaring ensued until the rates in the coker unit could be increased to provide the WGC with enough gas to operate normally.

a. The current permitted limit for the pollutant(s) released:

SO₂
 50.0 pounds per hour (hourly maximum), Flare 1

NO_x
 31.0 pounds per hour (hourly maximum), Flare 1

VOCs:
 28.5 pounds per hour (hourly maximum), Flare 1

CO:
 168.30 pounds per hour (hourly maximum), Flare 1

PM10/2.5
 1.0 pounds per hour (hourly maximum), Flare 1

H₂S
1.28 pounds per hour (hourly maximum), Flare 1

b. The permitted release point/outfall ID:

Source ID: EQT 0013
Descriptive Name: Flare #1

c. Which limits were exceeded for air releases?

We exceeded the maximum hourly permitted emissions for H₂S, SO₂ and VOCs at Flare #1 shown in Attachment 1. We also exceeded the reportable quantity of SO₂ as a result of the incident. The estimated emissions associated with this incident are found in Attachment 2.

5. Common or scientific chemical name of each specific pollutant that was released as the result of an unauthorized discharge, including the CAS number and U.S. Dept. of Transportation hazard classification, and best estimate of amounts of any or all released pollutants (expressed in pounds, including calculations):

Common or scientific chemical name = Sulfur Dioxide, SO₂
CAS No. 7446-09-5
U.S. DOT hazard class = UN1079

Common or scientific chemical name = Hydrogen Sulfide, H₂S
CAS No. 007783-06-4
U.S. DOT hazard class = UN1053

Common or scientific chemical name = Volatile Organic Compounds, VOC
CAS No. N/A
U.S. DOT hazard class = N/A

The estimated emissions associated with this incident are included as Attachment 2.

6. Statement of actual or probable fate or disposition of the pollutant or source of radiation and what off-site impact resulted:

The gas was combusted at Flare 1, and the resulting combustion products were dispersed.

7. Remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation:

The incident occurred due to the inability to maintain operation of the Coker Wet Gas Compressor (WGC), which pulls gases from the Coker and Vacuum Units. While the WGC was down, the Vacuum Jet Receiver was vented to the flare in order to maintain unit operation and avoid a larger flaring event associate with the unit trip. Additionally, the Flare Gas Recovery Unit remained in operation to reduce the amount of flared gas. The event was secured by completing repairs on the coker and stabilizing the WGC.

8. Procedures or measures which have or will be adopted to prevent recurrence of the incident or similar incidents, including incidents of loss of sources of radiation:

The following corrective actions have been identified to prevent recurrence.

1. Review this incident with affected personnel.

2. Evaluate the piping system for use with temporary jet pumps and re-design as needed to minimize vibration issues.
3. Develop a reliability improvement plan that is based on the findings of the investigation into the jet pump failure.
4. Implement a reliability improvement plan on both in-service and spare coke cutting pumps.
5. Review the Wet Gas Compressor operation for continued use at low rates or when the Coker is on circulation.

9. If an unpermitted or unlicensed site or facility is involved in the unauthorized discharge, a schedule for submitting a permit or license application to the department, or rationale for not requiring a permit or license:

N/A

10. The reporting party's status (former or present owner, operator, disposer, etc.):

Valero Refining – New Orleans, L.L.C. is the present owner of the facility.

11. For discharges to the ground or groundwater, the following information shall also be included: all information of which the reporting party is aware that indicates pollutants are migrating, including, but not limited to, monitoring well data; possible routes of migrations; and all information of which the reporting party is aware regarding any public or private wells in the area of the migration used for drinking, stock watering, or irrigation:

N/A

12. What other agencies were notified:

The agencies listed in question number 2 were the only agencies notified.

13. Names of all other responsible parties of which the reporting party is aware:

N/A

14. A determination by the discharger of whether or not the discharge was preventable; if not, an explanation of why the discharge was not preventable.

This incident was not considered reasonably preventable. Temporary pumps were installed to maintain normal operation during the necessary maintenance work of replacing the Coker Jet Pump seals. However, the temporary pumps tripped and caused the coke drums to reach their capacity. Therefore, rates were reduced to the Coker Unit, which caused the WGC to malfunction.

15. The extent of injuries, if any:

There were no injuries as a result of this incident.

16. The estimated quantity, identification, and disposition of recovered materials, if any:

No material was recovered from this event.

If you have any questions pertaining to this incident or require additional information please call Mr. André Marquette at 985-764-5745.

I certify based on information and belief formed after reasonable inquiry, the information in the attached document is true, accurate, and complete.

Sincerely,



Ralph Phillip
Vice President and General Manager

Enclosure

Attachment 1: Flaring Emissions

Flare 1 - EQT 013							
Time	Flaring Volume	Nox	CO	PM 10 & 2.5	SO2	H2S	VOC
	Permit Max. lb/hr	31	168.3	1	50	1.28	28.5
0:00	0	2.22	12.06	0.08	0	0.0	1
1:00	0	2.25	12.26	0.08	0	0.0	1
2:00	75360	7.94	43.20	0.26	943	5.1	56
3:00	436	2.20	11.97	0.08	5	0.0	1
4:00	402	2.26	12.29	0.08	5	0.0	1
5:00	222	2.18	11.85	0.08	3	0.0	1
6:00	19327	3.67	19.95	0.13	242	1.3	15
7:00	24213	4.11	22.36	0.14	303	1.6	18
8:00	29563	4.43	24.08	0.15	370	2.0	22
9:00	10701	2.98	16.22	0.10	134	0.7	8
10:00	94487	9.33	50.78	0.31	0	0.0	71
11:00	0	2.02	10.97	0.07	0	0.0	0
12:00	0	1.92	10.46	0.07	0	0.0	0
13:00	0	1.95	10.62	0.07	0	0.0	0
14:00	0	1.95	10.61	0.07	0	0.0	0
15:00	0	2.01	10.95	0.07	0	0.0	0
16:00	0	2.07	11.27	0.07	0	0.0	0
17:00	0	2.08	11.29	0.07	0	0.0	0
18:00	0	2.03	11.06	0.07	0	0.0	0
19:00	0	2.05	11.15	0.07	0	0.0	0
20:00	339	2.09	11.39	0.07	0	0.0	1
21:00	23799	3.87	21.05	0.13	20	0.1	18
22:00	17579	3.27	17.81	0.11	14	0.1	13
23:00	18300	3.35	18.24	0.11	15	0.1	14
0:00	36458	4.10	22.33	0.10	30	0.2	37
1:00	35214	4.05	22.05	0.10	29	0.2	36
2:00	40014	4.31	23.44	0.11	33	0.2	41
3:00	36559	4.12	22.42	0.11	30	0.2	38
4:00	4570	2.26	12.31	0.08	4	0.0	5
5:00	635	2.26	12.32	0.08	1	0.0	1
6:00	0	2.22	12.10	0.08	0	0.0	1
7:00	8067	2.53	13.77	0.09	30	0.2	9
8:00	0	2.24	12.20	0.08	0	0.0	1
9:00	0	2.13	11.56	0.08	0	0.0	1
10:00	0	2.02	10.97	0.07	0	0.0	0
11:00	603	1.94	10.54	0.07	2	0.0	1
12:00	0	1.96	10.64	0.07	0	0.0	0
13:00	21138	3.51	19.12	0.10	17	0.1	22
14:00	2170	1.95	10.63	0.07	2	0.0	3
15:00	0	2.01	10.95	0.07	0	0.0	0
16:00	0	0.07	0.36	0.00	0	0.0	0
17:00	0	0.00	0.00	0.00	0	0.0	0
18:00	0	0.00	0.00	0.00	0	0.0	0
19:00	0	0.00	0.00	0.00	0	0.0	0
20:00	0	0.00	0.00	0.00	0	0.0	0
21:00	0	0.00	0.00	0.00	0	0.0	0
22:00	0	0.00	0.00	0.00	0	0.0	0
23:00	0	0.00	0.00	0.00	0	0.0	0

Attachment 2:

Basis:

Start Time	End Time	Duration (hrs)	HC Gas Flow (scf)	MMBTU/hr released to flare	lbs-H ₂ S/SCF
11/11/13 2:28	11/11/13 14:03	35.58	500,156	1,432	0.059

Emissions Calculations:

Based on Amine Balance Data taken on 11/11/13

Criteria Pollutant	Emission Factor	Total Released: Flare 1 (lbs)
Nox	0.068 lb/mmbtu	113
CO	0.37 lb/mmbtu	617
PM 10 & 2.5	0.0000025 lb/scf	3.7
SO ₂	N/A	2,232
H ₂ S	N/A	12
VOC	0.14 lb/mmbtu	440

Formulas:

$$Q_{SO_2, released} = \left(\frac{x \text{ scf}_{HCGas}}{hr} \right) \left(\frac{y \text{ scf}_{H_2S}}{\text{scf}_{HCGas}} \right) \left(\frac{\text{lb} - \text{mole}_{H_2S}}{379 \text{ scf}_{H_2S}} \right) \left(\frac{0.995 \text{ lb} - \text{mole}_{SO_2}}{\text{lb} - \text{mole}_{H_2S}} \right) \left(\frac{64 \text{ lb}_{SO_2}}{\text{lb} - \text{mole}_{SO_2}} \right) = \frac{z \text{ lb}_{SO_2}}{hr}$$

$$Q_{H_2S, released} = \left(\frac{x \text{ scf}_{HCGas}}{hr} \right) \left(\frac{0.15 \text{ scf}_{H_2S}}{\text{scf}_{HCGas}} \right) \left(\frac{\text{lb} - \text{mole}_{H_2S}}{379 \text{ scf}_{H_2S}} \right) \left(\frac{34 \text{ lb}_{H_2S}}{\text{lb} - \text{mole}_{H_2S}} \right) \left(\frac{0.005 \text{ lb}_{H_2S, released}}{\text{lb}_{H_2S}} \right) = \frac{z \text{ lb}_{H_2S}}{hr}$$

$$Q_{CO, released} = \left(\frac{x \text{ scf}_{HCGas}}{hr} \right) \left(\frac{y \text{ BTU}}{\text{scf}_{HCGas}} \right) \left(\frac{0.37 \text{ lb}_{CO}}{\text{MMBTU}} \right) \left(\frac{\text{MMBTU}}{1E6 \text{ BTU}} \right) = \frac{z \text{ lb}_{CO}}{hr}$$