



SOLANO COUNTY DEPARTMENT OF RESOURCE MANAGEMENT

675 TEXAS STREET, SUITE 5500, FAIRFIELD CA 94534 707-784-6765

Incident Response Inspection/Violation Report

SWEEPS #
21/22-20015- 4

Business or Responsible Party Name: Valero Benicia Refinery Phone: 707-745-7011

Address: 3400 East Second Street, Benicia CA. 94510

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Release information

Comments

1. Date/time of actual release:	03/11/19	Received courtesy notice from Kim Ronan at Valero Refinery that they would be performing maintenance activity which could result in release of coke fines from Flue Gas Scrubber (FGS)
2. Date of report to DRM:	03/11/2019	
3. Location of release:		3400 East Second Street, Valero Benicia Refinery, Benicia CA 94510
4. Reported by:		Kim Ronan
5. Material released:		Coker Fines (which are carbon with trace amount of heavy metals)
6. Quantity of material released:		unknown
7. Responsible party information:		Valero Benicia Refinery
8. Description of events:		<p><u>3-11-2019:</u> Solano County responded to an alert from Fire Chief Josh Chadwick at Benicia Fire Department regarding visibly darker vapor cloud and fines in FGS discharge to atmosphere.</p> <p><u>3-12-2019:</u> Following Benicia Household Hazardous Waste (HHW) inspection, during which the FGS discharge was noted to be visually dark, Solano County met with Chris Crowley from the Bay Area Air Quality Management District (BAAQMD) at the intersection of East Channel Road and Industrial Road-near railroad track crossing. Using the Solano County Aerocet 831 aerosol mass monitor, we began air monitoring for particulates and collected the readings shown on the attached pages at various locations. It should be noted that on a daily basis, we were in contact with Benicia Fire Department and routinely in contact with BAAQMD regarding FGS event status.</p> <p><u>3-13-2019:</u> Office discussion of FGS and inspection meeting at Valero Refinery Control Room with Valero personnel, US EPA-Andrew Chew, BAAQMD-Ron Pilkington and Chris Crowley, and Solano County-Colby LaPlace. Valero Representatives informed us that on March 11, 2019, the fluid Coker experienced a difficulty that resulted in the carryover of Coke fines from the maintenance activities of Fluid Coker into downstream process units including the FGS, resulting in the presence of Coke fines in the FGS and a darker than normal plume. Coker maintenance operations were continued in an effort to remove fines from the process piping rather than shutting down the unit in order to avoid undesirable consequences such as flaring. Colby Laplace asked Coker unit operational questions that were explained by Valero subject matter experts. Chris Crowley asked if the plume could be reduced. Valero subject matter expert replied that the NOX unit that removes nitrous oxides is not being by-passed. The FGS is operating outside of design parameter during this incident.</p> <p><u>03-14-2019,</u> Received information from Valero representative that Center for Toxicology & Environmental Health (CTEH) was retained by Valero to perform air monitoring. He expected air monitoring sampling results on Friday, March 15th.</p> <p><u>03-15-2019:</u> Colby Laplace & Chris Ambrose met Pablo Sanchez Soria, Ph. D., CIH of CTEH and reviewed their sampling equipment and sampling plan. Colby Laplace took samples from the top of the coke silos to represent the material leaving the bottom of the Coker and a sample at the scrubber Coker Fines in the circulation water to analyze the coke fines that are leaving the top of the Coker and entering the scrubber. Thus, we had top and bottom Coker fines for analysis. Sample chain of custody forms were used and the samples were delivered to Delta Environmental for 48-hour turnaround on CAM 17 heavy metals analysis. After noon, Colby Laplace and Chris Ambrose visited the site where CTEH was taking air quality measurements. We used our Solano County Aerocet 831 and compared our reading to CTEH readings using their TSI AM510 and TSI AM 520. The reading results were similar. We were satisfied with the detailed discussion of CTEH instrument calibrations that we had with CTEH employee Andy Henault. We observed CTEH using their SKC air sampling pump, which they had mounted onto a light pole. They planned to test any captured particles for nickel. Valero provided their January 7, 2019</p>

McC Campbell Analytical, Inc Coker Fines analysis. Metals of concern were non-detect or at low concentrations. See McC Campbell Analytical results attached.

3-18-2019: John Lazorik of Valero sent email containing a photo showing the FGS discharge stream showing a reduction in Coker Fines at 9:00 am. Colby LaPlace documented discharge later in the day by taking photographs. Plume appears similar to photo taken by Valero in the AM.

3-19-2019: Received Delta Environmental Labs Analytical results of Coker Fines samples taken by Solano County on 3-15-2018. All metals were at low concentrations that were well below the California Human Health Screening Levels established for residential situations. See attached lab results for more details. Delta Environmental Labs results were provided to Benicia Fire Department, BAAQMD, and Valero. Chris Ambrose and Colby LaPlace met with Valero representatives and discussed the documents that County needed to review. While present on site Chris Ambrose and Colby Laplace witnessed the FGS plume remained light in color as noted earlier in the week.

3-20-2019: Colby Laplace and Chris Ambrose met with Valero representative of Valero and refined the document list that Solano County wanted to review in detail at Valero. Valero Representative provided their Process Hazard Analysis (PHA) training and as part of this briefing we attended a portion of their PHA training class. After leaving the meeting, Colby LaPlace, using the Aerocet 831, collected particulate measurements downwind of FGS. Visual appearance of the FGS discharge was white in color similar to what was noticed early in the week. See the attached results.

3-23-2019: Around noon received call from Jed Matcham of Benicia Fire Department that the FGS column discharge had dramatically increased with a darker color. Colby LaPlace notified Ron Carey of BAAQMD, who planned to contact additional personnel regarding this event. Colby LaPlace and Chris Ambrose planned to meet with BAAQMD and Benicia Fire Department at 8:30am on Sunday Morning.

3-24-2019: Colby Laplace received a 5:00AM call from Josh Chadwick, reporting that the increased FGS discharge was stronger than previously noted from Monday through Friday. Josh Chadwick requested that we meet as early as possible and that we contact the County Health Officer to discuss providing an advisory for residents within the City of Benicia. Colby LaPlace connected Dr. Bela Matyas and Josh Chadwick' on a conference call. Dr. Matyas was aware of the Valero situation; and based on sampling completed to date, he prepared an advisory for individuals with chronic respiratory conditions, such as asthma, for public release and sent to Josh Chadwick at Benicia Fire Department for their use. Colby LaPlace arrived at 6:30 AM. Colby LaPlace and Chris Ambrose met with Ron Pilkinton and Linda Luca of the BAAQMD. The FGS emissions appeared worse (thick, dark, greater quantity) than was seen since the beginning of the event on March 11, 2019. BAAQMD indicated that the Ringleman number was greater than that seen on March 11 and 12th. Their numbers will be available to the public at a later date. The BAAQMD received greater than 10 public complaints, thus the event was a documented as a Public Nuisance Violation. Around 9:00 AM Valero informed us that they were shutting down applicable process units. Following conversation with Benicia Fire Department, Solano County began air sampling. Around 10:00 AM the FGS cloud was remarkably different turning from a dark cloud to white cloud. See attached sample results and pictures.

Investigations with Valero and the regulatory authorities are continuing and are not complete.

9. Description of Cleanup	Not Applicable
10. Environmental/human impact:	
11. Pictures taken of:	
12. Pictures log description:	
13. OES control #:	19-1977 reported by National Response Center on 3-24-2019 at 6:21 AM
14. State OES duty officer & phone	
15. Clean-up contractor:	
16. Samples collected:	03-15-2018
17. Chain of Custody:	03-15-2018 Delivered to Delta Environmental Lab in Benicia 48-hour turnaround
18. Agencies on scene	03-13-2019 BAAQMD and US EPA, 03-24-19, BAAQMD and City of Benicia Fire

There may be violations that are applicable to this incident and that may be found in the California Code of Regulations Health and Safety Code or Federal regulations. Violations will be subject to the Administrative Enforcement Process or to other formal enforcement action.

Diagram attached at continuation page

Comments attached at continuation page

Received By _____
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Inspector

CAS JPR

Date

4-1-2019