



## Compliance and Enforcement Division

### INCIDENT REPORT

**Valero Refinery (Site #B2626)  
3400 E 2<sup>nd</sup> Street  
Benicia, California  
June 17, 2010**

On June 17, 2010 at approximately 10 am, the Valero Benicia Refinery released hydrocarbon, hydrogen sulfide gas and coke material into the atmosphere from their coker unit. A coker is an oil refinery processing unit that converts the residual oil into light hydrocarbon gases, naphtha, light and heavy gas oils, and petroleum coke. The process thermally cracks the long chain hydrocarbon molecules in the residual oil feed into shorter chain molecules.

Preliminary observations and discussion with Valero indicate that the release was a result of some maintenance activity. The release lasted for approximately 10 minutes resulting in a visible plume that remained elevated and crossed Industrial Way through the Industrial Park up to Highway 680 and Lake Herman Drive before it dissipated. Staff has documented multiple air quality violations as a result of this incident.

Four refinery employees were reportedly injured. No perimeter ground level monitors (GLMs) indicated elevated activity and the District did not receive any air pollution complaints.

#### **Update: Friday, June 18, 2010**

Valero continues to operate. Problems at the coker unit caused failures with the associated air pollution control equipment. A dark plume is emanating from the main stack at Valero and at times, Valero has bypassed air pollution control equipment and vented directly to the atmosphere. Winds are out of the Southwest at approximately 5-10 mph blowing the plume towards the Industrial Park. Staff has documented multiple violations of air quality regulations and has received several air pollution complaints from the community.

#### **Update: Saturday, June 19, 2010**

District staff continues to monitor Valero's progress at resolving the coker problems and responding to air pollution complaints. Upon arrival, District staff observed black smoke coming out of main stack. The winds were from the Southwest 5-10 mph, blowing the plume downwind towards the Industrial park. Valero continues to operate and to have problems with their CO Boiler, Coker, and air pollution abatement equipment. The main stack continues to smoke and

at times, Valero has bypassed their air pollution control equipment and vented directly to the atmosphere. Staff continues to document multiple violations of air quality regulations.

**Update: Sunday, June 20, 2010**

District staff continues to monitor Valero's progress. Although Valero continues to operate and to have problems with their CO Boiler, Coker, and air pollution abatement equipment, Valero has decided to shut down their unit for repairs. This unit shutdown will take several days and the main stack may continue to smoke excessively. The main stack continues to smoke although the smoke appears lighter than yesterday's black plume. Staff continues to document multiple violations of air quality regulations.

Staff has collected particulate fallout from the industrial park and other fallout plates left overnight. There appeared to be some coke fines on the fallout plates. Samples were collected from Valero and comparative analysis will be performed to confirm the deposition on plates came from the refinery. Winds remained out of the Southwest at approximately 5-10 mph blowing the plume towards the Industrial Park.

District staff will continue to monitor this air pollution incident and to document violations of air quality regulations as Valero works to shut down the unit.