



Compliance and Enforcement Division

INCIDENT REPORT

**Tesoro Refinery (Site #B2758)
Martinez, CA
January 12, 2005**

On January 12, 2005 at about 2:10 pm the Tesoro Refinery located in Avon, east of Martinez, experienced a boiler tube rupture within their #5 Boiler associated with refinery Coker Unit. This boiler, in addition to generating steam, mitigates some of the pollutants emitted from the Fluid Coker.

As a result of the upset, the refinery shut down the boiler and emitted process gases, coke particulates, and steam to the atmosphere. A Contra Costa County Community Alert Level-2 emergency notification was issued at 2:22 PM due to the potential for off-site/off-property impact. Tesoro Refinery staff reported to the District a breakdown for the incident. The gray/black plume emissions were visible throughout the latter part of the day on January 12 and will continue on into January 13th until refinery operations staff can complete procedures for routing Coker effluent gases to the refinery #6 Boiler. The refinery reports that this process takes anywhere from 24 to 36 hours to complete. The plume contains coke/carbon particles, carbon monoxide, and lesser amounts of hydrocarbons, sulfur and hydrocarbon compounds. The winds at the time of the initial incident were slow, (2-3 mph), prevailing from the east. The plume was observed heading west towards Martinez near the waterfront area and Vinehill/Pacheco.

District inspectors, county hazardous materials crews, and the Sheriff's department responded to the upset and were at the refinery in order to monitor the emission excesses. The District received and confirmed 2 air pollution complaints of smoke on January 12, 2005. No odors were detected from this incident four ambient air samples were captured in the community surrounding the refinery and are being analyzed in the District laboratory for concentrations of air pollutants.

District staff observed and recorded excessive visible emissions from the #5 Boiler stack and from coker unit feed tanks. District staff continues to investigate the incident and will determine if the facility violated any additional District regulations.

Update

The grey/black plume from the # 5 boiler stack was visible throughout the latter part of the day on January 12 and into January 14, 2004. Ambient air samples

taken on January 12, 2004 recorded no elevated levels of air contaminants measured. (Click here for a [copy of map](#) and [sampling results](#))

The District used emission, weather, specific study data, and source test information for the Tesoro Refinery to estimate the emissions impact from the particulate matter emitted during the coker upset incident. (Click here for a copy of the [estimated coker emission modeling results](#))

As a result of the shut down of the # 5 boiler, the refinery redirected coker gases to the # 6 boiler and experienced 17 days of opacity excess. Further, the District and refinery community relations representatives received numerous complaints of particulate fall-out in and around the city of Martinez. Tesoro Refinery reported to the District a breakdown for the incident and subsequently filed for full variance from District regulations and plant permit conditions.

District staff observed and recorded excessive visible emissions from the #5 Boiler stack, Coker unit feed tanks, and # 6 Boiler stack. District staff continue to investigate the cause of the incident and to date have issued 4 notices of violation to the refinery.

1. NOV A46652 – For an alleged violation of Regulation 1, Section 301: Public Nuisance related to fall-out.
2. NOV A46654 – For an alleged violation of Regulation 6, Section 302: Excessive opacity emissions from coker unit.
3. NOV A46671 – For an alleged violation of Regulation 6, Section 301: Excessive visible emissions from Boiler Stack #5

Notices of Violation issued by the District require immediate corrective action to bring the source into compliance and are subject to penalties pursuant to state law.

On February 23, 2005, the District filed an Accusation for a Conditional Order of Abatement against Tesoro requesting that Tesoro cease operating the Coker Unit unless Tesoro has an adequate, effective, and redundant means for treating Coker flue gas emissions. ([Click here for a copy of the press release](#))

On December 22, 2005, the District and Tesoro appeared before the Hearing Board, and an Amended Stipulated Conditional Order of Abatement (ASCOA) was adopted. The ASCOA includes a coker modification as a method of controlling coker flue gas emissions.