



## Compliance and Enforcement Division

### INCIDENT REPORT

**Shell Martinez Refinery (Site #A0011)  
Martinez, CA  
November 8, 2005**

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On November 8, 2005, at approximately 8:20 P.M. the Shell Martinez Refinery experienced a leak in the heavy oil system in the Catalytic Cracking Unit. A Level 2 incident (offsite impact potential) was reported by refinery personnel. The leak occurred while a refinery contractor was performing maintenance on one of the "slurry oil" strainers/filters that contained high temperature oil. The contractor suffered severe burns and was transported to a local hospital.

The District received and responded to a total of nine complaints on November 9, 2005. All nine complaints were confirmed as "oil fallout" on vehicles and property. One of the nine complainants also alleged an "acrid" odor. The recorded wind data during the incident indicated light winds, 2-4 mph, from the east-northeast-east direction.

A shelter in place was not called and neither Shell, nor Contra Costa County Hazardous Materials Department detected elevated levels of hydrogen sulfide or hydrocarbons. The ground level monitors located around the refinery did not record any hydrogen sulfide or sulfur dioxide emissions. The in-stack continuous emission monitors did not record any excess emissions during the emergency shutdown of the Catalytic Cracking Unit.

Shell personnel isolated the equipment involved, stopping the leak by 8:42 P.M. The preliminary cause of the oil leak is under investigation. The District has issued Notice of Violation #A47760 to Shell Martinez Refinery for alleged violation of Regulation 1, Section 301 - Public Nuisance, for this incident. District staff will continue to investigate this incident to determine if the facility violated any additional District regulations.

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#### **UPDATE December 7, 2005:**

The injured contractor has been released from the hospital.

Shell estimates the material released from the cat cracked clarified oil system consisted mostly (99%) of heavy gas (slurry) oil and 1% flushing oil, a diesel-type material. The estimated amount of release is 150 gallons

The District received two additional fall-out complaints of oil alleging Shell Martinez Refinery. District Staff obtained wipe samples from several vehicles in the impacted area. The lab results indicate that the major component was greater than 10% of yellowish-brown waxy material and minor component 1-10% black carbonaceous particles, which are probably unrelated to the oil fallout incident. A laboratory analysis indicated the material on the vehicles was consistent with the material released by Shell.

The District also examined the potential health impacts and conducted laboratory analysis of the material released. The results indicate low concentrations of toxic compounds, including benzene, below the level of detection of the District laboratory instrumentation. The District expects no adverse health effects from this incident due to the short duration of the release.

The District has conducted air dispersion modeling of the impact in the community during this incident, using the most conservative (health protective) estimates based on the information to date, and the model yielded results that predicted the concentrations were at 100 to 1,000 times below the acute reference exposure level (REL) for benzene.

The District's investigation is on-going. No other violations have been issued.