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THE CALIFORNIA REPORT

# Air District Hits Valero With Violations Over Benicia Refinery Releases

By Ted Goldberg

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A sooty plume, containing petroleum coke particulates, emerging from flare stacks this week at Valero's Benicia refinery. *(Solano County Department of Resource Management)*

Local air regulators have issued seven notices of violation against the Valero Energy Corp. over a malfunction at its Benicia refinery that has led to the release of petroleum coke dust from the facility since Monday.

The problem has led to a response by four agencies: the Bay Area Air Quality Management District and Solano County health officials have launched investigations into the releases; the U.S. Environmental Protection Administration and the Benicia Fire Department are monitoring the situation.

It's unclear how long the problem will last.

"Valero is telling us they are unable to give an estimate of when it will be resolved," said Benicia Fire Chief Josh Chadwick.

A Valero representative says the malfunction is tied to a device that removes particulates during a process that takes place inside the refinery.

"We have been experiencing operational issues with the flue gas scrubber," said company spokeswoman Lillian Riojas.

That led to so-called coke fines — very small carbon particulates that are a byproduct of the oil refining process — being released from the refinery's flare stacks.

Normally, warm water vapor moves through the refinery's towers and exits the stacks as steam, but the petcoke particulates make the plume appear dark and sooty.

"The fines remained in the raw exhaust gas," said Professor Eric Smith, associate director of the Tulane Energy Institute, specializing in refinery operations.

"The dark smoke will continue until all of the fines in the lines leading to the exhaust stack have been cleared from the system," Smith said.

While the material is not hazardous, the releases could include trace amounts of heavy metals, according to Terry Schmidtbauer, Solano County's assistant director of resource management.

Valero's Riojas did not respond to follow-up questions about the status of the scrubber that led to this week's releases, but Benicia Fire's Chadwick said Friday that "the maintenance issue has been resolved."

So far, air tests have not raised concerns among the agencies monitoring the site. Crews have not detected high levels of sulfur dioxide, nitrogen dioxide or particulate matter, according to Chadwick.

And Schmidtbauer says the situation is slowly improving — the amount of coke dust coming from the facility has been lessening.

Nevertheless, the air district has issued four notices of violation against Valero for visible emissions and three for public nuisance, agency spokesman Ralph Borrmann said.

The U.S. EPA says significant quantities of dust from pet coke can present a [health risk](#).

"The risk of these tiny particles getting into people's lungs is yet another example of the dangers of living near a dirty refinery," said Hollin Kretzmann, a staff attorney at the Center for Biological Diversity. "Communities should not have to be afraid of breathing in pollution that could affect their health."

The problem represents one of the more extensive malfunctions at the refinery since it [lost all power](#) on May 5, 2017, an event that led to a major release of pollution, shelter-in-place and evacuation orders.