



South Coast Air Quality Management District

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NEWS

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SCAQMD Refinery Committee Directs Development of Measures to Further Reduce Risk of Toxic Chemical at Two South Bay Refineries

The South Coast Air Quality Management District's Refinery Committee on Saturday directed the agency's staff to develop a proposed regulation -- or enforceable agreement -- to further mitigate the risk from an accidental release of a highly toxic chemical at two Southland refineries.

The chemical, modified hydrofluoric acid (MHF), is used at Torrance Refining Co., owned by PBF Energy, and at the Valero Wilmington Refinery.

"If released during a refinery accident, MHF could pose a serious health threat to the community," said Clark E. Parker, Sr., Ph.D., chairman of SCAQMD's Refinery Committee. "We are directing staff to identify potential further mitigations to benefit public health and safety."

Other committee members attending Saturday's meeting were Vice Chairman and Highland Mayor Larry McCallon, Rolling Hills Estates Mayor Pro Tem Judith Mitchell, and Joseph Lyou, Ph.D. SCAQMD Chairman William A. Burke, Ed.D., participated as an ad hoc member.

More than 500 residents and refinery workers were present for the nearly six-hour meeting at Torrance City Hall to provide input on the proposed measures. The event was the fourth Refinery Committee meeting in the South Bay conducted since April 2017 to examine MHF safety issues and gather public input on rule concepts.

In addition to public testimony, speakers included representatives of both refineries, labor unions, a UCLA professor and expert on the health effects of HF, and the president of a Torrance community group.

Staff will develop a multi-tiered proposal for reducing the risk of an accidental release of MHF at the refineries. Tier 1 would include enhancements to existing mitigations and the addition of some automated mitigations. Tier 2 would require fully automated mitigation measures.

The committee also directed staff to further explore concepts for a Tier 3 mitigation, which would be equivalent to a fail-safe operation.

MHF is used in the PBF and Valero alkylation units as a catalyst to produce a component of high-octane gasoline. All other refineries in the state and about 50 across the country use sulfuric acid in their alkylation units.

Hydrofluoric acid is considered more hazardous than sulfuric acid because upon contact it not only burns skin tissue, but also damages bone and is potentially fatal. Unlike sulfuric acid, MHF has a low boiling point and in the event of an accidental release it can form a dense, ground-hugging cloud that could travel into a nearby community.

Torrance Refining Co. and Valero Wilmington Refinery use hydrofluoric acid modified with an additive to provide, at best, a 30 percent additional reduction in the potential hazard to residents. However, MHF has the same harmful properties as unmodified hydrofluoric acid to those exposed.

SCAQMD started developing its current proposed MHF regulation, known as Rule 1410, in April 2017. Since then staff has conducted numerous working group meetings composed of representatives from the refineries, community groups and other regulatory agencies. On Saturday, the Refinery Committee directed staff to develop Rule 1410 or equivalent measures in enforceable agreements with the two refineries.

In February 2015, an explosion at the former ExxonMobil refinery in Torrance resulted in a 40-ton piece of debris landing within five feet of a large vessel containing MHF. As a result of the accident, community concerns about refinery safety and new information about the safety of MHF, SCAQMD began developing its proposed Rule 1410. For more information on SCAQMD's Proposed Rule 1410, see <http://www.aqmd.gov/home/rules-compliance/rules/proposed-rules/proposed-rule-1410>.

The SCAQMD is the air pollution control agency for Orange County and major portions of Los Angeles, San Bernardino and Riverside counties.