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Via Email: wnastri@aqmd.gov

April 2, 2019

Wayne Nastri, Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Proposed Rule 1410, Hydrogen Fluoride Storage and Use at Petroleum Refineries in LA County

Dear Mr. Nastri:

The Los Angeles County Department of Public Health (Public Health) supports the South Coast Air Quality Management District (SCAQMD) in its efforts to address the significant health and safety hazard posed by modified hydrofluoric acid (MHF) at two refineries in Los Angeles County – Valero Refining Company in Wilmington and Torrance Refining Company in Torrance. However, we are concerned that the proposed concept for Rule 1410 will not be effective. As it is currently designed, Rule 1410 would facilitate additional hazard and risk assessment of MHF that could lead to continued use for the next ten years or longer. We believe there is currently enough information to conclude that a large-scale MHF release, although a low-probability event, would have potentially catastrophic impacts on surrounding communities.

We participated in the Governing Board Hearing on February 1, 2019 and subsequent meetings with community members and SCAQMD staff. At the Governing Board Hearing, the SCAQMD staff presented key facts in support of phasing out MHF without the need for additional modeling or assessment[i]:

- Field tests have shown that releases of MHF from a small-scale breach can result in rapid expansion of a vapor cloud consisting of lethal concentrations at significant distances (i.e. two miles based on an unmitigated two-inch hole release).
- Large-scale incidents such as system failures, natural disasters and intentional acts could lead to catastrophic consequences, and considering the refineries' locations in dense urban populations, would likely result in a significant number of injuries and fatalities.
- There was one near-miss event at the Torrance Refining Company and a total of ten MHF leaks at Torrance and Valero refineries over the past two years.

- There is no scientific evidence to support the claim that MHF is a safer alternative than hydrofluoric acid. A release of MHF will result in exposure to hydrofluoric acid with the same type of vapor cloud forming and resulting health effects.
- Uniquely hazardous health effects resulting from MHF exposure would require immediate and specialized treatment.
- It is uncertain whether enhanced mitigation measures could protect the community. There is insufficient information available to determine whether mitigation systems could deploy rapidly enough, capture initial vapor clouds, target correct locations, access sufficient water supply from municipal systems, and guard against system failure.

After reviewing the available information from SCAQMD staff, along with comments provided by the refinery operators, community members, and local medical providers, Public Health has determined that in the event of a low-probability, high-consequence release of MHF, the surrounding communities would incur severe health damage and casualties.

Field tests and experience from other major chemical incidents suggest that evacuation zones in response to an MHF release could extend up to ten miles from the refinery[ii,iii]; this equates to potentially millions of people at risk. Emergency responders, emergency rooms and burn centers would be overwhelmed and unprepared; for example, medical providers have testified that local clinics do not have enough medication (calcium gluconate) to treat burn victims. Due to the uniquely hazardous nature of MHF, it would be very challenging for the current health care infrastructure to respond to resulting injuries and to mitigate the extent of casualties.

Other refineries in California have demonstrated that it is economically and technologically feasible to use safer alternatives, and the only two refineries that still rely on MHF are those located in Los Angeles County. Continued transportation, storage and use of MHF at these refineries present a substantial and needless risk to surrounding communities. Public Health urges SCAQMD to propose changes to Rule 1410 that would immediately require enhanced mitigation measures and implement a phase-out of MHF as soon as possible.

Sincerely,

Angelo J. Bellomo, MS, REHS, QEP
Deputy Director for Health Protection

AJB/kb

cc: Dr. William A. Burke, Chairman, SCAQMD Governing Board (via email to Marie Patrick)
Members of the Refinery Committee (via email to Christina Lopez)

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i South Coast Air Quality Management District (SCAQMD), Staff Presentation. Status Update on PR 1410: Hydrogen Fluoride Storage and Use at Petroleum Refineries. Governing Board Meeting, February 1, 2019.

[ii] Goldfish Study, 1986, as reported in the SCAQMD Staff Presentation.

[iii] U.S. Chemical Safety and Hazard Investigation Board. Factual Investigative Update: April 26, 2018 Husky Superior Refinery Explosion and Fire.