Annual Report for Air Toxics Program

December 2017

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I. Purpose

This report will describe the status of Air Toxics "Hot Spots" Program and other toxic emissions related programs implemented within the Monterey Bay Air Resources District (District), which includes Monterey, Santa Cruz, and San Benito Counties.

II. Air Toxics "Hot Spots" Program

Assembly Bill 2588 (1987) was enacted in response to public concern about the release of toxic air contaminants into the atmosphere, in accordance with the California Health and Safety Code (HSC) Section 44300, et seq. The District adopted Rules 305 and 1003 to administer the program called "Hot Spots". The purpose of the "Hot Spots" program is to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to an acceptable level. This annual report was prepared in accordance with HSC Section 44363.

"Hots Spots" Program Process

In the early 1990s, the District completed a full review of the facilities that existed at that time following the process described below. Based upon the methodology used in the 1990s, none of the sources evaluated triggered the notification or risk reduction requirements. In 2018, the District will re-start this process to review existing sources within Monterey, San Benito, and Santa Cruz counties. The Office of Environmental Health Hazard Assessment (OEHHA) methodology used to assess health risk was updated in 2015 and incorporates childhood exposure to air toxics. Evaluations based on the updated OEHHA methodology for the same level of emissions and conditions are anticipated to show an increase in potential cancer risk. For example, the estimated residential potential inhalation cancer risk using the new OEHHA methodology may be approximately 1.5 to 3 times higher than was estimated using the previous methodology.

The first step in the process is for facilities to submit a toxic emissions inventory plan which identifies the methods to be used for estimating toxics emissions and a toxic emissions inventory. The District reviews the

The goal of the program is to collect emission data, identify facilities having localized impacts, ascertain health risks, notify nearby residents of significant risks, and reduce those significant risks to an acceptable level.

inventory and uses prioritization guidelines[1] to categorize facilities as low, medium or high priority. In establishing priorities, the District considers the potency, toxicity, quantity, and volume of hazardous materials released from the facility, the proximity of the facility to potential receptors, including, but not limited to, hospitals, schools, daycare centers, worksites, and residences, and any other factors that the District finds and determines may pose a significant risk to receptors. District Rule 1003 establishes a cancer risk of 10 in one million as significant and a hazard index greater than 1 for non-cancer risk (acute or chronic) as significant. Sources with a prioritization score that exceeds the Rule 1003 limits are considered a high priority.

For facilities that are designated as high priority, the next step is conducting a detailed health risk assessment. The source can prepare and submit the risk assessment to the District or request the District to prepare the assessment. Once reviewed and approved by the District, the health risk assessment is submitted to the California Office of Environmental Health Hazard Assessment (OEHHA) for additional review of the risk assessment procedure.

Facilities identified as potentially causing a significant health risk must notify all exposed persons of the health risk assessment results and conduct a toxic risk reduction audit and develop a plan to implement measures to reduce that risk.

This process is streamlined for small business with similar characteristics such as: gas stations, dry cleaners, or auto body shops, due to the economic hardship individual reporting would cause. Industrywide risk assessments are performed for these source types which results in minimal data collection by each individual facility to assess risk.

Current Status

Toxic air emissions have decreased over time due to federal and state regulations, more stringent equipment emission standards, equipment retirement, and facility shutdowns. In 2017, the District adopted revisions to Rule 1003 to reflect the updated OEHHA Guidelines released in 2015[2] and the updated CAPCOA Prioritization Guidelines in 2016. In 2018, the District will begin to evaluate existing sources in accordance with these updated guidelines by starting with toxic emission inventories. As previously stated, the revised OEHHA methodology for assessing potential cancer risk is more conservative than prior guidance and may result in approximately 1.5 -3 times higher potential cancer risk.

III. California Air Toxics Mandates

The California Air Resources Board has been developing a number of Air Toxic Control Measures (ATCMs) to reduce emissions of air toxics. Most of these requirements are aimed at reducing diesel particulate emissions through implementation of newer, cleaner diesel engines and alternative fuel technologies. Many of the diesel engine measures have achieved their phase in period such that a newly installed diesel engine today must meet the most stringent Tier 4 standards.

[1] California Air Pollution Control Officers Association (CAPCOA). 2016. Air Toxic "Hot Spots" Program, Facility Prioritization Guidelines. http://www.capcoa.org/wp-content/uploads/2016/08/CAPCOA%20Prioritization%20Guidelines%20-%20August%202016%20FINAL.pdf

[2] Office of Environmental Health Hazard Assessment (OEHHA). 2015. Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf

In addition, California has stringent standards for vapor recovery systems to reduce vapors while fueling vehicles at service stations. Most gasoline stations have now installed monitoring equipment to help owners more rapidly determine when nozzles, hoses, and pumps need to be repaired. This was required by the In-Station Diagnostic (ISD) Program.

Finally, a program to phase out perchloroethylene emissions from dry cleaning equipment began in 2007. By the year 2023, the carcinogen perchloroethylene will no longer be allowed for use in dry cleaning. Currently, the District has two dry cleaners using perchloroethylene which are required by permit condition to be phased out by 2019 and 2022.

These and other recently enacted State programs have resulted in fewer toxic emissions impacting receptors within the District

IV. Federal Air Toxics Mandates

The Environmental Protection Agency has also been developing toxic emission reduction measures. Generally, these requirements apply to facilities much larger than those permitted within the District or have previously been complied with due to California's more restrictive emission limitations

V. District New Source Review

New stationary sources of emissions require a District permit to operate. To obtain a permit, a source must determine potential emissions and assess the associated health risk in accordance with District Rule 1000. The District updated Rule 1000 in 2017 to incorporate the updated OEHHA risk assessment guidelines

VI. California Environmental Quality Act

Air quality impacts from new facilities and developments must assess whether sensitive receptors will be exposed to substantial pollutant concentrations. The District reviews environmental documents from local cities, counties, and other agencies and will provide comments if the analysis of sensitive receptor exposure is inadequate.