

Monitoring Results for Metals at Sites #8, 15, 19, 23, and 24

In addition to hexavalent chromium monitoring, SCAQMD is collecting samples for the analysis of metals. The samples from these monitors are analyzed for a variety of metals to provide information about whether there are other emissions of concern. In general, sites were selected based on previous measurements of elevated levels of hexavalent chromium and based on proximity to facilities that were known to process various metals. The data from these samplers helps quantify the levels of specific metal air pollutants nearby facilities and may assist in identifying possible sources of concern, if any.

In the tables below, the average levels of each of the metals are compared to the average levels from SCAQMD's Multiple Air Toxics Exposure Study IV (MATES IV) <<http://www.aqmd.gov/home/library/air-quality-data-studies/health-studies/mates-iv>>. The MATES IV study provides a regional estimate of the "background" or expected levels of these air pollutants in 2012-2013 from 10 locations throughout the region. The purpose of these comparisons is to indicate whether the levels measured in the Paramount community were relatively consistent with air monitoring data across the region.

It is important to note that some metals are known air toxics, while other do not have known toxicity. Chronic non-cancer health effects are assessed based on the Reference Exposure Levels (REL's) established by the California Office of Environmental Health Hazard Assessment (OEHHA). Chronic REL's are determined such that long-term average exposures at levels below the REL are not expected to result in adverse non-cancer health effects. It should be noted that if a REL is exceeded, that does not mean that health effects will occur, but that the odds will increase that adverse health effects may occur. Cancer risk is estimated based on a methodology and potency of an individual toxic air contaminant established by OEHHA. There are no health-based thresholds (e.g. REL's) for carcinogenic compounds; instead, calculated cancer risks are generally compared to regulatory thresholds (e.g., where SCAQMD rules apply) or cancer risk due to background levels of air toxics in the region. The tables below indicate which metals have chronic REL's and cancer potency factors established by OEHHA. Note that "Cr" in the table below represents total chromium. Total chromium is comprised of one or several different forms of chrome such as trivalent chromium (which is not known to be toxic) and hexavalent chromium (which is known to be toxic). The hexavalent chromium levels are also being measured at these locations, and the results can be found on the SCAQMD Paramount website under Air Monitoring Results <<http://www.aqmd.gov/home/regulations/compliance/air-monitoring-activities>>.

The Tables below contain the "multi-metals" data for Sites #8, 15, 19, 23, and 24. The metal results for these sites are compiled by month and are analyzed at the SCAQMD laboratory using an Inductively Coupled Plasma Mass Spectrometer (ICP-MS). Additional multi-metal results for Sites # 2 and 3 can be found on the SCAQMD Paramount website under Air Monitoring Results <<http://www.aqmd.gov/home/regulations/compliance/air-monitoring-activities>>. The multi-metal measurements for Sites # 2 and 3 have been conducted since the middle of 2013 and are analyzed using X-ray fluorescence.



