

OFFICE OF THE MAYOR



ELLIOTT ROTHMAN
Mayor

February 14, 2011

Mr. Michael Baes
Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency
1515 Clay St., 16th floor
Oakland, California 94612

Dear Mr. Baes:

Re: Proposed Public Health Goal for Hexavalent Chromium in Drinking Water

The City of Pomona appreciates the opportunity to comment on the proposed Public Health Goal (PHG) for hexavalent chromium in drinking water. The City of Pomona supplies water service to over 160,000 residents of Los Angeles and San Bernardino County. The City operates nearly 40 groundwater wells that have levels of hexavalent chromium which are above the proposed public health goal of .02 ppb.

We have the following specific comments on the proposed PHG for hexavalent chromium in drinking water:

Initial comment period

During the initial comment period for the PHG, the Water Industry, working through the Association of California Water Agencies, has submitted comments regarding the draft technical comment that we would like to reiterate in this letter.

As indicated in the draft PHG document, several studies previously estimated that saliva and stomach fluids have the capacity to reduce hexavalent chromium to trivalent chromium in amounts much larger than the "maximum plausible levels of hexavalent chromium in water that would likely be ingested by humans..." The document further asserts that "...exhaustion of the capacity of saliva and gastric fluids to reduce hexavalent chromium appears unlikely." We understand that other studies exist and are referenced in the document providing evidence that complete reduction may not always occur, but we believe the administered doses in the National Toxicology Program (NTP) study are so large they easily overwhelmed the reductive capacity of both the oral cavity and the stomach in the rodents. This is especially significant as the NTP study did not find excess cancers at the lowered studied doses in both rats and mice. Equally as important, the stomach composition of humans and rodents is very different, with humans having a much more sophisticated and higher level of gastric juices than rodents.

In addition, we have concerns with the interpretation and use of data from a key study submitted as evidence that hexavalent chromium in drinking water is a human carcinogen. The Borneff et al study is seriously flawed due to the fact there was only a single-dose level examined and an ectromelia epidemic affected both control and treated groups with significant loss of mice. The City of Pomona feels this study should not be considered in the development of the PHG.

NTP Study Results

Upon reviewing the results again of the 2007 study by the NTP, another key study used in the development of the draft hexavalent chromium PHG; it has come to our attention that a certain percentage of the results were not available to the public for review.

This report is actually based on three distinct studies: a clinical study, a histopathology study, and a tissue distribution study. In the latter study, 200 mice and 200 rats were given hexavalent chromium in their drinking water at five different concentrations, 0, 5, 20, 60, and 180 mg/L. After 6, 13, 182, and 371 days 10 rats and 10 mice from each of the five exposure groups were sacrificed and various organs and excreta were removed, weighed, and analyzed to determine chromium concentration. However, in examining the results of the tissue distribution study as presented in Tables J1 and J2 of the above mentioned study, only three results are presented for each exposure group per sample period instead of ten. In addition, there are six results for plasma instead of three, which is the case for all of the other tissues. We are uncertain as to why this data has not been made available to the public, but we believe that the results are a critical part of the study and would be of great significance in order to begin evaluating the mode of action of hexavalent chromium in the digestive tract of rodents. The City of Pomona encourages OEHHA to work with NTP to make the additional information publicly available. The complete set of 10 results per organ would have been very helpful to Pomona in our effort to assess OEHHA's draft PHG document.

Additional Studies

The City of Pomona believes the best available science should be used in the development of risk assessments, such as the draft hexavalent chromium PHG developed by OEHHA and EPA's toxicological review that is currently underway. We also feel additional information and studies on the potential risks of a drinking water contaminant only serve to strengthen the validity of any given PHG, particularly because OEHHA states in the draft technical document that "there is not a consensus as to the precise mechanism(s) of carcinogenesis [for hexavalent chromium]." In addition, the California Department of Toxic Substances Control (DTSC) indicated in a 2008 internal memo that the NTP study does not address the mode of action of hexavalent chromium via the ingestion pathway.

We are aware of some significant new studies addressing the health effects of hexavalent chromium. These studies are nearing completion and could potentially provide a more thorough understanding of hexavalent chromium's mode of action and other critical issues that should be included in a risk assessment. The City of Pomona urges OEHHA to follow the progress of this work and consider the results of this study and others that might emerge as staff must review and revise, if appropriate, all public health goals at least once every five years "...based upon the availability of new scientific data." [Health and Safety Code §116365(E)(e)(1)]

The City of Pomona's highest priority continues to be protecting public health while ensuring a reliable water supply for our customers. We look forward to working with you and the appropriate stakeholders as OEHHA and the California Department of Public Health address this very important issue.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Elliott Rothman', with a long horizontal flourish extending to the right.

Elliott Rothman
Mayor

cc: Linda Lowry, City Manager
Daryl R. Grigsby, Public Works Director
Jim Taylor, Water/Wastewater Operations Manager