February 15, 2011

Mr. Michael Baes
Pesticides and Environmental Toxics Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency
1515 Clay Street, 16th Floor
Oakland, CA 94612

Re: OEHHA's Revised Draft Public Health Goal for Hexavalent Chromium in Drinking Water

Dear Mr. Baes:

The California Manufacturers & Technology Association (CMTA) hereby submits its enclosed written comments regarding OEHHA's revised draft Public Health Goal (PHG) for hexavalent chromium (chrome 6) of 0.02 parts per billion (ppb), which was released for public comment on December 31, 2010. We have also enclosed the comments we submitted to OEHHA on November 2, 2009 regarding OEHHA's initial draft PHG for chrome 6, dated August 20, 2009. The earlier comments remain relevant to the revised draft PHG, and are incorporated herein by reference.

Public Health and Public Policy Implications Must be Considered
by the New Administration Before the Proposed PHG is Finalized

OEHHA's revised draft PHG for chrome 6 was released on New Year's Eve, December 31, 2010, just 3 days prior to the transition in leadership in California to the new administration. As a result, OEHHA's proposed PHG has not received the focused consideration by senior scientific and public policy decision makers that it deserves. Given the serious public health, public policy and scientific uncertainties associated with the proposed PHG, it is imperative that officials in the new administration, including the recently appointed Secretary of Health and Human Services and the yet-to-be appointed Secretary of Cal/EPA, are provided an opportunity to thoroughly evaluate OEHHA's proposed PHG for chrome 6 before it is adopted.

The 0.02 ppb revised draft PHG is 2,500 times lower than the current drinking water standard for total chrome of 50 ppb. If adopted in its present form, the revised draft PHG

will inevitably lead to a new drinking water standard for chrome 6 that is substantially lower than the current total chrome standard.[1] According to statewide monitoring data reported to the California Department of Public Health by public water systems for active and standby drinking water wells tested through January of 2009, chrome 6 has been detected in almost one third of all sources at or above 1 ppb,[2] the state-approved detection limit. Setting the PHG at 0.02 ppb will send a message to the public that a large portion of California's drinking water supply poses serious health risks to which they may have been exposed for many years. Yet, as explained in the attached comments and summarized below, the best available science does not support a PHG of 0.02 ppb.

Because the vast majority of chrome 6 in groundwater in California is naturally occurring, adoption of the proposed PHG at 0.02 ppb will likely compel drinking water rate payers to fund the high costs of construction and operation of new treatment technology and the purchase of expensive alternative drinking water supplies. Indeed, the ability of treatment technology to achieve levels close to the revised draft PHG remains in doubt.

Furthermore, the state is under significant pressure to address existing water supply shortages. However, when one considers the cumulative effect of the various PHGs recently adopted or proposed by OEHHA, including the proposed PHG for chrome 6, as well as a number of additional pending PHGs, it is reasonable to expect substantial additional future reductions in water allocations to agricultural operations, new residential and business development projects, and potentially, to future environmental restoration and management projects.

Major Scientific Issues Require Further
Evaluation Before Adoption of the Revised PHG

The biochemical interactions in animal species and in humans exposed to a chemical compound may differ, resulting in the development of tumors in one animal species but not in another or in a particular animal species but not in humans. Thus, the cornerstone of modern risk assessment methodology is the determination of the "mode of action" (MOA) – a description of the key events that are integral to the development of tumor formation. Identifying the MOA enables scientists to determine whether a chemical that causes tumors in animals is likely to cause the same effect in humans at relevant exposure levels. Numerous external scientific peer reviewers, including Cal/EPA's Department of Toxic Substances Control and members of the public, have criticized OEHHA for its failure to comprehensively evaluate the applicability of alternative MOAs as a basis for identification of the MOA most pertinent to test animals and its extrapolation to humans at relevant doses.

This issue is the subject of the Hexavalent Chromium Mode of Action Research Project (the Research Project), a multi-year research project being undertaken by a select group

[1] State law mandates that drinking water standards be set as close to the PHG as is technologically and economically feasible.
[2] See: http://www.cdph.ca.gov/certlic/drinkingwater/Pages/Chromium6sampling.aspx

of scientists with substantial expertise in risk assessment, toxicology and other appropriate scientific specialties. Prior to the start of this research (that is being conducted in the same lab that performed the National Toxicology Program (NTP) study described below), the research protocols were reviewed by an independent scientific advisory panel. Peer reviewed study results are expected to be available in the open scientific literature by mid-2011, just a few months from now.

The information generated from the Research Project will shed new light on the MOA associated with intestinal tumors identified in mice exposed to very high doses of chrome 6 in drinking water in a NTP study completed in 2008. OEHHA relied upon the NTP study as its primary basis for the proposed PHG. The Research Project also was designed to address the relevance of the MOA in rodents, ingesting chrome 6 in drinking water at various levels, to human ingestion of chrome 6, at the much lower levels typically found in drinking water in the United States. The overall goal of the Research Project is to provide critical information to address gaps inherent in the scientific database used to support the assessment of human health risks posed by oral exposures to chrome 6.

Although highly germane to the proposed PHG for chrome 6 in California, OEHHA's current schedule for adoption of a final PHG does not appear to allow the time necessary for consideration of the imminent release of the scientific data that will be generated in the MOA study noted above. Because the adoption of a final PHG without consideration of this valuable new research will severely undermine the scientific credibility of OEHHA's PHG, it is imperative that OEHHA not rush to judgment

Based on the issues raised above and our written comments enclosed with this letter, we urge OEHHA to provide sufficient opportunity for consideration of the forthcoming results of the Research Project, and a thorough review and evaluation of the proposed PHG by appropriate officials in the new administration, before final adoption of the proposed PHG .

Sincerely,

Michael J. Rogge
Policy Director, Environmental Quality

cc: George Alexeeff, Acting Director, Office of Environmental Health Hazard Assessment
Allan Hirsch, Chief Deputy Director, Office of Environmental Health Hazard Assessment
Nancy McFadden, Office of the Governor
Jim Hume, Office of the Governor
Diana Dooley, California Health and Human Services Agency

Enclosures: CMTA Comments 2010 Draft Cr (VI) PHG; and
CMTA Comments 2009 Draft Cr (VI) PHG