



- Board of Directors
Legislation Committee

5/10/2011 Board Meeting

8-14

Subject

Express support for AB 403 (Campos, D – San Jose) - Public Drinking Water Standards: Hexavalent Chromium, if amended

Description

On February 14, 2011, California Assembly Member Nora Campos (D-San Jose) introduced AB 403 to establish a drinking water standard for hexavalent chromium, also known as chromium 6, within specified time frames. The amended bill requires the California Department of Public Health (CDPH) to: (i) establish a state drinking water standard for chromium 6 by January 1, 2013, and (ii) report annually to the Legislature on progress or delays caused by other agencies involved in the standard setting process ([Attachment 1](#)).

Background

Chromium, an inorganic chemical, is a naturally occurring element that is also used in manufacturing (e.g., electroplating and wood treatment) and cooling tower treatment for corrosion control. Chromium (“total chromium”) can occur in various forms – the two most common as trivalent chromium or chromium 3, an essential dietary nutrient, and hexavalent chromium or chromium 6. Chromium 3 is the most common form of the two; however, the relative ratio between them can vary significantly. Chromium 6 is a known human carcinogen when inhaled; however, there has been considerable controversy concerning the adverse human health effects of chromium 6 when ingested.

In 1977, the United States Environmental Protection Agency (US EPA) established a federal drinking water standard (maximum contaminant level or MCL) for total chromium at 50 parts per billion (ppb) but in 1991 raised the standard to 100 ppb citing lack of evidence for human health concern for ingested total chromium. There is currently no state or federal drinking water standard for chromium 6 other than the regulations which limit total chromium. California currently has in place US EPA’s initial standard of 50 ppb as an MCL for total chromium in drinking water.

The US EPA and CDPH follow similar processes to establish drinking water standards. The US EPA process is defined in the 1996 Safe Drinking Water Act Amendments (SDWA). One of the first federal steps in standard setting is to establish a Health Advisory level which is an estimate of an acceptable amount in drinking water based on health effects information. The US EPA then uses the Health Advisory Level, along with monitoring data, treatment capability and a cost-benefit analysis to set the enforceable MCL.

California’s process for establishing state MCLs follows a similar protocol, with the California Office of Environmental Health Hazard Assessment (OEHHA) first conducting a review of health effects to set a public health goal (PHG). Once in place, CDPH must then set the state MCL as close to the PHG as technologically and economically feasible. California must set its MCL at or below the federal standard if one exists.

The federal Health Advisory level and the state PHG are both based solely on theoretical risk calculations and do not consider analytical capability, available treatment technologies or cost-benefit information. As such, drinking water MCLs may ultimately be set higher than these advisory levels.

Analysis of AB 403 as Amended

In 2001, Senator Deborah Ortiz (D-Sacramento) introduced SB 351 which, like AB 403, specifies a deadline for chromium 6 regulation. This bill was subsequently passed and required CDPH to set a drinking water MCL for chromium 6 by January 1, 2004. Because OEHHA never finalized a chromium 6 PHG, CDPH was unable to meet this deadline specified by SB 351. OEHHA recently decreased the proposed chromium 6 PHG from 0.06 ppb to 0.02 ppb, in consideration of early-in-life exposures for cancer potency. Metropolitan provided written comments ([Attachment 2](#)) to OEHHA on this revised PHG.

As amended, AB 403 would extend the date by which CDPH must establish a primary drinking water standard (MCL) for chromium 6 to January 1, 2013. The bill authorizes CDPH to adopt the standard without the review of other state agencies if they do not respond within 90 days. AB 403 also requires CDPH to report annually to the Legislature on its progress in developing a primary drinking water standard and report any delays caused by other state agencies.

Impacts to Metropolitan

A groundwater plume containing high concentrations of chromium 6 is located near a Pacific Gas and Electric (PG&E) gas compressor station near Needles, California, approximately 500 yards from the Colorado River. Chromium 6 levels in the Colorado River are typically non-detect (i.e., less than 0.03 ppb) with some values at 0.03 to 0.04 ppb. There has been no evidence, however, that the plume has increased chromium 6 in the river. Additionally, PG&E is actively cleaning up the plume and a comprehensive cleanup plan has been approved by the state and federal governments. Monitoring conducted in 2010 indicated that chromium 6 in State Water Project supplies has ranged from non-detect to 0.44 ppb and that chromium 6 levels in Metropolitan's treated water ranged from non-detect to 0.45 ppb.

Staff Recommendations

Metropolitan staff recommends a support if amended position on AB 403. AB 403 should be amended to remove the specific deadline for establishing a California MCL. Proposing numeric standards or date-specific regulations contradicts the existing regulatory framework of the California SDWA. This well-established framework requires evaluating health risks using peer-reviewed science, monitoring source water supplies to estimate exposure, establishing analytical methods, defining best-available treatment technologies, and importantly, performing an economic analysis to determine whether the benefits of a new standard justify the costs. When numeric standards or regulatory timelines are prescribed in legislation, the SDWA framework may be circumvented. Recent amendments to AB 403 that require CDPH report on any delays offer some transparency to the standard development process.

Drinking water trade associations, such as the American Water Works Association and the Association of Metropolitan Water Agencies, have historically opposed efforts by the State of California to legislate individual drinking water standards. The Association of California Water Agencies (ACWA) has taken a neutral position on the amended version of AB 403.

Policy

Source Water Protection, M.I. 39929 - November 10, 1992; Added to by M.I. 40878 - June 14, 1994; Added to by M.I. 41222 - January 10, 1995, Added to by M.I. 42820 - February 10, 1998

Drinking Water Quality, M.I. 46191- April 12, 2005

California Environmental Quality Act (CEQA)

CEQA determination for Options #1 and #2:

The proposed action is not defined as a project under CEQA because it involves continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, where it can be seen with certainty that there is no possibility that the proposed action in question may

have a significant effect on the environment, the proposed action is not subject to CEQA (Section 15061(b)(3) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is not subject to CEQA pursuant to Sections 15378(b)(2) and 15061(b)(3) of the State CEQA Guidelines.

CEQA determination for Option #3:

None required

Board Options

Option #1

Adopt the CEQA determination and authorize the General Manager to express Metropolitan’s support for AB 403, if amended.

Fiscal Impact: None

Business Analysis: Protects Metropolitan from costs associated with an unwarranted standard setting process.

Option #2

Adopt the CEQA determination and authorize the General Manager to express Metropolitan’s opposition for AB 403, unless amended.

Fiscal Impact: None

Business Analysis: Protects Metropolitan from costs associated with an unwarranted standard setting process

Option #3

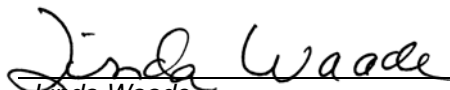
Take no position on AB 403 at this time

Fiscal Impact: None

Business Analysis: Potential for costs due to regulating constituents without thorough scientific review

Staff Recommendation

Option #1


Linda Waade
Deputy General Manager, External Affairs

5/4/2011
Date


Jeffrey Lightlinger
General Manager

5/4/2011
Date

Attachment 1 – Assembly Bill 403 (as amended 4/14/11)

Attachment 2 – Metropolitan Comment Letter to OEHA on its Revised Draft Public Health Goal for Chromium 6 (February 11, 2011)

AMENDED IN ASSEMBLY APRIL 14, 2011

CALIFORNIA LEGISLATURE—2011–12 REGULAR SESSION

ASSEMBLY BILL

No. 403

Introduced by Assembly Member Campos

February 14, 2011

An act to amend Section 116365.5 of the Health and Safety Code, relating to drinking water standards.

LEGISLATIVE COUNSEL'S DIGEST

AB 403, as amended, Campos. Public drinking water standards: hexavalent chromium.

The Calderon-Sher Safe Drinking Water Act of 1996 requires the State Department of Public Health to, among other things, adopt regulations relating to primary and secondary drinking water standards for contaminants in drinking water. Existing law requires the department to establish a primary drinking water standard for hexavalent chromium on or before January 1, 2004. *Existing law requires the department to report to the Legislature on the progress in developing a primary drinking water standard for hexavalent chromium by January 1, 2003.* Violation of certain provisions relating to public water systems is a crime.

This bill would require the department to establish a primary drinking water standard for hexavalent chromium on or before January 1, 2013, and would, ~~if a standard is not adopted by that date, make the public health goal set by the Office of Environmental Health Hazard Assessment as of January 1, 2011, the applicable standard.~~ By expanding the definition of a crime, ~~this bill would impose a state-mandated local program~~ *require the department to report to the Legislature annually on the progress and any delays caused by other agencies, as specified.*

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The bill would authorize the department to adopt a primary drinking water standard for hexavalent chromium without a required report or review from another state agency after 90 days from the date the department requests the report or review and would require the delaying state agency to report the reason for the delay to the Legislature.

~~The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.~~

~~This bill would provide that no reimbursement is required by this act for a specified reason.~~

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: ~~yes~~-no.

The people of the State of California do enact as follows:

- 1 SECTION 1. *The Legislature finds and declares all of the*
2 *following:*
3 (a) *Chapter 602 of the 2001–02 Regular Session (Senate Bill*
4 *351) required the State Department of Public Health to adopt a*
5 *primary drinking water standard for hexavalent chromium. As of*
6 *2011, this has not yet occurred.*
7 (b) *Hexavalent chromium is recognized as a human carcinogen.*
8 *Thus, it is vital that the state take swift action to limit exposure*
9 *and protect public health.*
10 ~~SECTION 1.~~
11 SEC. 2. Section 116365.5 of the Health and Safety Code is
12 amended to read:
13 116365.5. (a) The State Department of Public Health shall
14 commence the process for adopting a primary drinking water
15 standard for hexavalent chromium that complies with the criteria
16 established under Section 116365.
17 (b) The department shall report to the Legislature on its progress
18 in developing a primary drinking standard for hexavalent chromium
19 ~~by January 1, 2003~~; *annually, and shall report any delays caused*
20 *by other agencies, including, but not limited to, the Department*
21 *of Finance exceeding the 90-day requirement imposed pursuant*
22 *to Section 116365.01.*
23 (c) The department shall establish a primary drinking water
24 standard for hexavalent chromium on or before January 1, 2013.

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1 ~~(d) If the department does not adopt a primary drinking water~~
2 ~~standard for hexavalent chromium as required by subdivision (c)~~
3 ~~before January 1, 2013, then the standard shall be the public health~~
4 ~~goal set by the Office of Environmental Health Hazard Assessment~~
5 ~~as of January 1, 2011.~~

6 *(d) If a state agency that is required by law to review or report*
7 *before a primary drinking water standard for hexavalent chromium*
8 *is adopted by the department has not done so within 90 days of*
9 *the department making the request, the department may adopt the*
10 *primary drinking water standard for hexavalent chromium without*
11 *the required review or report.*

12 *(e) A state agency that has not remitted a review or report within*
13 *90 days, as required by subdivision (c) or Section 116365.01, shall*
14 *report to the Legislature explaining the delay.*

15 ~~SEC. 2. No reimbursement is required by this act pursuant to~~
16 ~~Section 6 of Article XIII B of the California Constitution because~~
17 ~~the only costs that may be incurred by a local agency or school~~
18 ~~district will be incurred because this act creates a new crime or~~
19 ~~infraction, eliminates a crime or infraction, or changes the penalty~~
20 ~~for a crime or infraction, within the meaning of Section 17556 of~~
21 ~~the Government Code, or changes the definition of a crime within~~
22 ~~the meaning of Section 6 of Article XIII B of the California~~
23 ~~Constitution.~~

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THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

February 11, 2011

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

Subject: Revised Draft Public Health Goal for Hexavalent Chromium in Drinking Water

Dear Mr. Baes:

The Metropolitan Water District of Southern California (Metropolitan) appreciates the opportunity to provide comments on the revised draft Public Health Goal (PHG) for hexavalent chromium (also known as chromium 6) in drinking water. Metropolitan, through its 26 member agencies, provides nearly half of the water used in Southern California. Several of these agencies have groundwater supplies impacted from natural occurrence of chromium 6 or from anthropogenic sources.

The PHG will be the foundation for developing a drinking water Maximum Contaminant Level (MCL) for chromium 6 in California. Conventional drinking water treatment processes do not effectively remove this contaminant, and very costly specialized technologies still must be demonstrated as best available treatment. In addition, low-level detection methodologies have not been validated. Therefore, it is critical that the PHG be set at a level that properly considers the best available data so that regulatory standards have a scientifically credible basis and financial resources are appropriately used to protect against real risks to human health.

Draft PHG Report Development Process

The two previous releases of draft PHG reports for chromium 6 by OEHHA met with opposition by stakeholders concerned with the proposed level. Each of these occasions led to external scientific peer reviews of the OEHHA report and a lower PHG of 0.06 ppb was subsequently issued. Metropolitan supported an effort by the Association of California Water Agencies (ACWA) to request an external peer review of the revised draft PHG of 0.06 ppb. OEHHA ultimately issued its current revised draft PHG of 0.02 ppb, citing updated information regarding sensitive sub-populations. Metropolitan requests clarification on whether the revision was based

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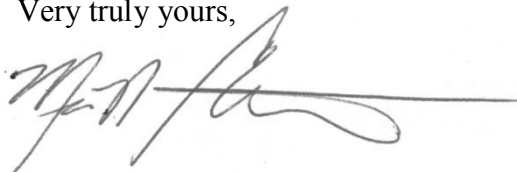
in response to the peer review and public comments, or if OEHHA was concurrently considering their own 2009 report regarding effects of early in life exposures to chromium 6.

Consideration of Available Human Health Risk Assessment Data

Metropolitan shares some concerns raised by ACWA regarding the National Toxicology Program (NTP) study that was used by OEHHA in developing the draft PHG. ACWA is preparing detailed comments for OEHHA's consideration. Moreover, Metropolitan understands that there are studies currently in progress (and scheduled to be completed in the summer of 2011) that may provide critical information on the mode of action and carcinogenicity of orally ingested chromium 6. Accordingly, Metropolitan requests that OEHHA thoroughly evaluate the findings of these studies as part of establishing a final PHG that will be used by the California Department of Public Health to set its MCL.

Metropolitan supports the work of OEHHA in developing appropriate risk assessments for all drinking water contaminants and trusts that through the established regulatory approach California will ultimately set a protective public health standard for chromium 6 in drinking water based on the best available scientific data. We also recognize the complexity of extrapolating data to predict potential human health risks and greatly appreciate this opportunity to provide input on the proposed regulatory determination for chromium 6 and ask that OEHHA carefully consider these comments. Please contact me at (213) 217-5696 if you have any questions, or if I can provide additional information.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Mic Stewart', with a long horizontal line extending to the right.

Mic Stewart, PhD
Manager, Water Quality Section