

## BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843



January 30, 2012

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*Manager and Chief Engineer*

DEAN A. NAKANO  
*Deputy Manager*

The Honorable Denny Coffman  
Chair and Members  
House of Representatives  
Committee on Energy  
and Environmental Protection  
State Capitol, Conference Room 325  
Honolulu, Hawaii 96813

Dear Chair Coffman and Members:

Subject: House Bill No. 2117: Relating to Health

The Board of Water Supply, City and County of Honolulu, does not support House Bill 2117, Relating to Health.

We are concerned about the cost to build, maintain and operate our water system to comply with the proposal. This bill requires of the director of health to set a maximum contaminant level for hexavalent chromium at 0.06 parts per billion in drinking water. The U.S. Environmental Protection Agency and California Department of Health Services are currently determining whether there is a need for a national and state drinking water standard for hexavalent chromium. These studies are not only reviewing the public health benefits of a standard but also the technical and economic feasibility of achieving it.

Pilot testing of various water treatment technologies in California have not yet been able to consistently and reliably remove hexavalent chromium levels below 5 ppb. Technologies such as reverse osmosis and distillation are theoretically capable of removing hexavalent chromium to 0.06 ppb, but are also prohibitively expensive to build, operate, and maintain.

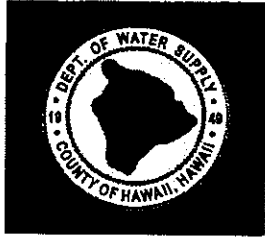
The Board of Water Supply presently delivers 150 million gallons of water to our customers each day. The cost to treat all of this water with reverse osmosis or distillation to meet the proposed 0.06 ppb is estimated to surpass \$1 billion and take more than 10 years to fund, design and build. This includes the costs for land acquisition, planning, permitting, design, construction, operation and maintenance, including concentrate disposal, permeate adjustment for compliance with other rules (namely Lead and Copper Rule), laboratory analyses, regulatory monitoring and reporting.

We appreciate the intent of House Bill 2117 to protect public health. However, any such legislation needs to seriously consider the economic and technical feasibility and cost to achieve it.

Thank you for the opportunity to testify.

Very truly yours,

DEAN A. NAKANO  
Acting Manager



**DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII**

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January 30, 2012

The Honorable Denny Coffman, Chair,  
Committee on Energy and Environmental Protection  
Hawai'i State Capitol, Room 317  
Honolulu, HI 96813

The Honorable Marcus R. Oshiro, Chair,  
Committee on Finance  
Hawai'i State Capitol, Room 306  
Honolulu, HI 96813

**HOUSE BILL 2117**

Dear Honorable Chairs Coffman and Oshiro:

The Department of Water Supply (DWS), County of Hawai'i, respectfully submits testimony in opposition of House Bill (HB 2117).

The Safe Drinking Water Act (SDWA) was signed into law by Congress in 1974 and it established rules that require water purveyors such as the DWS serve potable water, which meets minimum standards to its consumers. In addition, the law was amended in 1996 to provide a scientifically-based and transparent process for selecting contaminants to be regulated and for determining the appropriate maximum contaminant level (MCL). The DWS continually monitors and maintains its 22 water systems to meet the standards set forth under the SDWA and by the State of Hawaii's Department of Health (DOH). The DWS is committed to adhering to the water quality standards set forth by the SDWA and DOH. Providing safe and affordable water to Hawai'i Island's residents and visitors is one of DWS's core missions the DWS strives to maintain.

Total Chromium, which includes Hexavalent Chromium is currently regulated under the SDWA. The MCL for Total Chromium is 0.1 parts per million (or 100 parts per billion). The historical results for Total Chromium in DWS's sources has consistently been below the MCL for Total Chromium. In the Spring of 2011, DWS analyzed selected DWS sources specifically for Hexavalent Chromium. These sources were selected because they showed a presence (but less than the MCL) for Total Chromium. The results of the additional testing showed that these selected DWS sources had an average Hexavalent Chromium level of 1.17 ppb, and the highest source tested had a level of 4.90 ppb. These levels of Hexavalent Chromium are within the expected range of naturally occurring Hexavalent Chromium in Hawai'i, and are not indicative of industrial contamination.

*...Water, Our Most Precious Resource... Ka Wai A Kane...*

The Department of Water Supply is an Equal Opportunity provider and employer.

EEP and FIN Chairs

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If DWS is required to reduce the Hexavalent Chromium amount to the levels being proposed by HB 2117, it would place an exorbitant economic hardship on the DWS and its customers. Reverse Osmosis (RO) treatment is one treatment option that DWS is familiar with to reduce the Hexavalent Chromium levels to proposed MCL (of 0.06 ppb). However, DWS does not currently own or operate a RO treatment system. Thus, the DWS would have to plan, design, possibly acquire land, and construct new RO treatment facilities for the affected water sources. The approximate capital cost to plan, acquire land, design and construct these new facilities could conservatively exceed \$70,000,000.00. This does not include operational and maintenance costs, including additional energy requirements, which is estimated to be \$7M to \$10M annually. In addition, DWS would also have to hire additional water treatment plant operators to maintain and operate the systems islandwide. There will also be additional cost to sample and test for Hexavalent Chromium. DWS does not have this amount of capital monies on hand to design and construct new treatment facilities. DWS's capital improvement project budget is already spread thin on replacing aging and deteriorating water system infrastructure as well as projects to address existing Federal and State mandates regarding drinking water. Thus, the added costs to treat the water for Hexavalent Chromium can only be obtained by passing capital and O&M costs to our customers.

To summarize, the DWS respectfully submits this testimony in opposition of HB 2117. We also request that future regulations on contaminants relating to the SDWA be initiated and completed by the Environmental Protection Agency's (EPA) and State of Hawaii's established scientific and technical methodologies, and not the legislative processes.

Thank you for your time and consideration on DWS's testimony for this proposed bill. Should you have additional questions, please do not hesitate to contact us at (808) 961-8050.

Sincerely yours,



Quirino Antonio, Jr., P.E.  
Manager-Chief Engineer

KKO/KKU:dmj



January 30, 2012

To: The Honorable Denny Coffman, Chair  
Members of the House Committee on Energy & Environmental Protection

From: Tim Shestek  
Senior Director, State Affairs  
American Chemistry Council

Re: **HB 2117 – OPPOSE**

On behalf of the member companies of the American Chemistry Council (ACC), I am writing to respectfully oppose HB 2117, proposed legislation that would establish a drinking water total maximum contaminant level for hexavalent chromium (Cr6) at no higher than 0.06 parts per billion. As drafted, HB 2117 bypasses an open, scientifically robust regulatory process and proposes a public health standard that is not consistent with the current scientific findings.

Bear in mind that the proposed level of 0.06 parts per billion is **well below the natural levels of chromium found in Hawaii. If enacted, this legislation could have sweeping economic implications for consumers, water purveyors and businesses throughout the state to clean up background levels of Cr6 with no corresponding public health benefit.**

While HB 2117 contains language referencing studies conducted by the National Toxicology Program (NTP), the Committee should be aware of the significant difference between the exposure levels of Cr6 used in these studies and the “real world” levels of Cr6 that may be found in drinking water. Lab animals in the NTP studies were exposed to high doses of Cr6 in drinking water equivalent to **5,000 parts per billion (ppb) up to 180,000 ppb. These are levels that are 1,000 times higher than the level of human exposure in drinking water.**

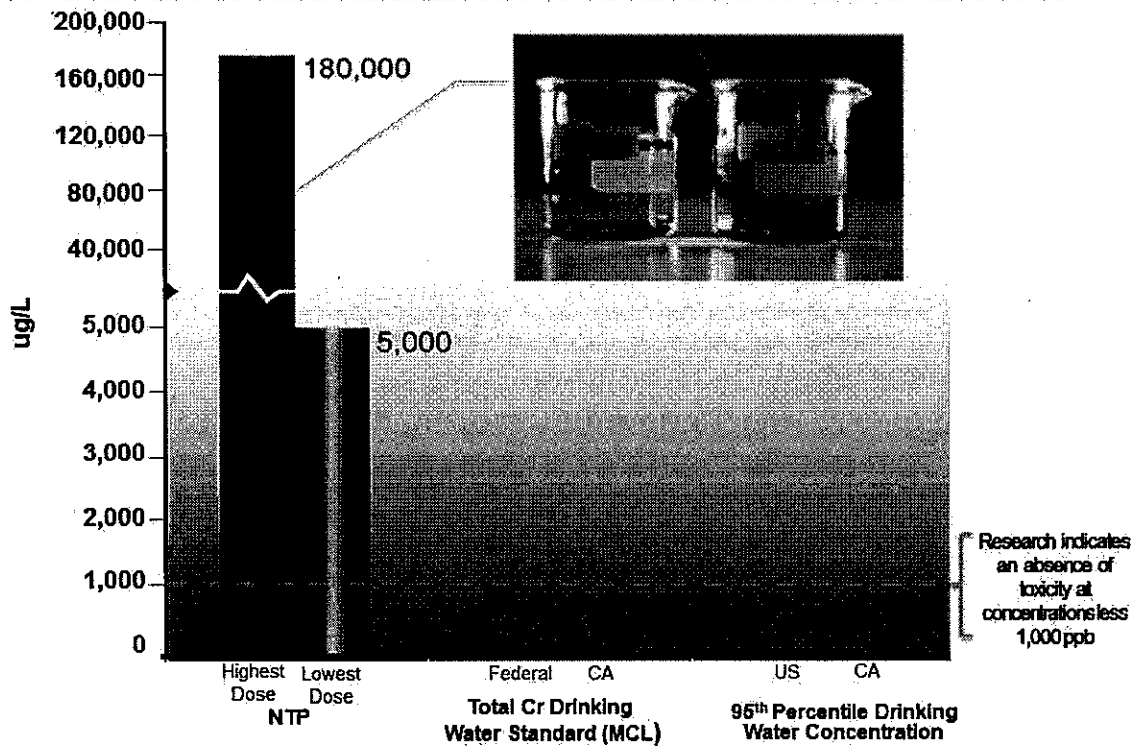
Researchers conducted a second set of studies using both the four high NTP doses and two lower doses of Cr6 equivalent to 1,000 ppb and 100 ppb. **These studies found that there are no observed health impacts (no damage to the genes, no tumors, and no pathology) from Cr6 in drinking water at and below 1,000 ppb.** As you can see from the following chart, the research indicates the absence of toxicity at concentrations of less than 1,000 ppb. This threshold is well above the current National Drinking Water Standard of 100 ppb. In fact, many scientists, including experts on USEPA’s own peer review panel have questioned whether these high dose studies are relevant to the much lower levels of Cr6 that may be found in drinking water.

ACC supports scientifically sound health standards to ensure the protection of public health and the environment. Unfortunately, this legislation falls short of that standard and would result in significant impacts for a variety of Hawaiian interests without any corresponding public health benefit.

For these reasons, ACC urges you to oppose HB 2117. If you have any questions, please feel free to contact me or our Hawaii-based representatives Red Morris or John Radcliffe at 808-531-4551. I thank you for the opportunity to provide these comments.



# Comparison of Exposure Levels



Note: 1  $\mu\text{g/L}$  = 1 part per billion (ppb)

