



● **Board of Directors**
Communications and Legislation Committee

5/11/2010 Board Meeting

8-5

Subject

Express opposition, unless amended, to AB 2583 (Hall, D-Los Angeles) regarding water treatment: hazardous materials

Description

Background

AB 2583 (Hall) proposes to amend Section 25536 of the California Health and Safety Code which regulates the storage and handling of acutely hazardous materials such as chlorine gas at stationary sources. The bill amends current law (but only for water and wastewater treatment facilities) to require an analysis of safer technologies to mitigate potential risks during the transportation of the hazardous material.

Water agencies already operate under a complex and sometimes conflicting set of regulations. Every year Metropolitan expends valuable time and resources to ensure that all regulations and standards applicable to water quality, process safety, employee safety and site security are met. This law would impose a new requirement for water utilities to study and possibly mitigate third-party risks of hazardous materials transportation.

Chlorine use by the water and wastewater sector is a small segment, typically less than 5 percent, of total manufactured chlorine use in the United States. Isolating water and wastewater products for regulation would negligibly improve overall transportation safety, while potentially interfering with the delivery of treated drinking water, an essential public health service.

The primary responsibility of water utilities is to provide safe drinking water in a manner that is protective of the consumer, neighboring communities, employees and the environment. Metropolitan takes this charge seriously and has invested more than \$100 million to increase site security and construct chlorine containment facilities. Wherever feasible, Metropolitan eliminated the use of chlorine gas and the number of chlorine gas facilities has been reduced from seventeen to six.

Liquefied chlorine gas use remains critical to Metropolitan's operations. For surface water treatment, some form of residual chlorine in the distribution system is required by the United States Environmental Protection Agency (EPA). Only liquefied chlorine gas can feasibly be stored in the necessary quantities and with minimal complexity in order to ensure the ability to protect public health following a major natural disaster such as an earthquake. Metropolitan maintains a 30-day reliable supply of chlorine for this purpose. This 30-day goal is recommended by the California Department of Public Health, the state agency that oversees Metropolitan's water treatment operations.

Analysis

As first introduced, AB 2583 sought to amend the California Water Code to direct water agencies to utilize raw materials from alternative technologies to mitigate the risks from potential chlorine releases during transportation. In a letter to the author ([Attachment 1](#)), Metropolitan expressed opposition unless amended citing the need for local agencies to evaluate treatments based on site-specific conditions (such as source water quality, security

risks, site constraints or supply-chain risks), as authorized in Board letter 8-8 dated December 8, 2009, outlining Metropolitan's 2010 Legislative Priorities.

As amended on April 22, AB 2583 (**Attachment 2**) seeks to amend Section 25536 of the California Health and Safety Code that regulates the risks associated with acutely hazardous materials. This new law proposes a framework for assessing "safer technologies" that does not fully reflect the relative risks of the transport and use of chemicals necessary to provide consistently high-quality potable drinking water supplies. The bill also limits the safer technology analysis to water and wastewater only, and not to other industrial sectors or users of chlorine. Should AB 2583 become law, only water and wastewater treatment plants in Southern California having Risk Management Plans could be required to procure bleach from a distant source, resulting in a relatively small reduction (approximately 20 percent) in the overall amount of chlorine entering the region.

Although chlorine gas is not specifically mentioned in AB 2583, the reference to "safer technology" is interpreted and summarized on the author's fact sheet for AB 2583 (**Attachment 3**) and refers to the substitution of gaseous chlorine by alternatives that are viewed as less risky to the public. AB 2583 does not provide the sufficient clarification necessary to fully examine its impacts and jurisdictional overlap with other regulatory agencies such as the California Department of Public Health (for drinking water quality), the California Highway Patrol (for transportation safety) or the U.S. Department of Homeland Security (for chemical and transportation security).

Metropolitan, along with the drinking water industry (specifically American Water Works Association, Association of Metropolitan Water Agencies (AMWA), and the Association of California Water Agencies) have consistently resisted efforts to mandate specific disinfection requirements. While chlorine transportation, storage and use may pose some potential risks if mishandled, the "safer technology" may exchange one set of risks for another while compromising water and wastewater agencies' ability to comply with federal and state regulations.

Moreover, federal legislation was introduced in 2009, known as the Chemical and Water Security Act of 2009, to address threats posed by specific quantities of hazardous chemicals. Metropolitan testified on the measure on behalf of AMWA. Additionally, two new federal regulations became effective in 2009 which improve rail security by rerouting some chlorine shipments and by requiring additional rail security measures to protect the shipment of acutely hazardous materials.

If Metropolitan changed how chlorine is procured to eliminate liquefied chlorine gas transportation and replaced it by shipping a 12.5 percent bleach solution, the following changes would result:

1. For Fiscal Year (FY) 2010/11, the transportation miles required for shipping chlorine gas to Metropolitan's facilities includes approximately 25,000 trucking miles and 35,000 rail miles. If this proposed law required Metropolitan to procure bleach and precluded shipment of any chlorine gas, all of the bleach would be shipped from Henderson, Nevada, and the total trucking distance would increase to ~1.1 million miles. This requirement would result in a dramatic increase in diesel truck pollutants and a negative impact on the carbon footprint of transportation.
2. The environmental effects, though very substantial, still are not the most significant reason to maintain use of liquefied chlorine gas. The primary motivation to maintain access to liquefied chlorine gas is the need to maintain reliable water disinfection in the event of known and expected natural disasters. Further, to store a 30-day supply of chlorine at each facility would require vast quantities of bleach on-site (up to 1.4 million gallons) and could impact existing levels of reliability as compared to chlorine gas.
3. Finally, bleach is more expensive. For Metropolitan's water treatment plants, the cost of chlorine for FY 2010/11 would increase from \$2.3 million to approximately \$10 million if 12.5 percent bleach was procured.

Recommended Amendments

AB 2583 is currently directed at reducing the risks associated with the transportation of hazardous chemicals and may impose "safer technology" requirements on the water and wastewater industry. The safety and security of chemical transport is important to Metropolitan; however, regulation of transportation safety should be through the proper regulatory channels, not Risk Management Plans, which regulate stationary sources and not transport.

The California Accidental Release Prevention (CalARP) programs expressly exclude transportation. AB 2583 should be amended to directly strengthen transportation safety rather than regulate chlorine use by drinking water agencies.

Amendments should be drafted that would address the following:

- Remove any language which indirectly regulates the third-party transportation of hazardous materials which may jeopardize the provision of safe and reliable drinking water.
- Any proposed changes to California law aimed at chlorine security in the water and wastewater industry should be administered by the same agencies which oversee those industries (e.g., California Department of Public Health (DPH) for drinking water and the State Water Resources Control Board for wastewater).
- Potential amendments should complement efforts by the U.S. House Resolution 2868 (Waxman, D – CA). HR 2868 directs the California DPH to propose regulations whereby water utilities would study “inherently safer technologies” as part of their site security plans.
- Any amendment to AB 2583 should allow California DPH to provide water systems with an opportunity to appeal a determination that it must implement “safer technologies” if the agency believes that such a determination would affect its ability to meet mandated drinking water standards.

Policy

Board adopted 2010 Legislative Priorities (Board Letter 8-8 – December 2009).

Board adopted Policy Principle on Drinking Water Quality (M.I. 46191- April 12, 2005)

Board adopted Policy Principle on Accidental Release of Hazardous Materials (M.I. 40877 - June 14, 1994, as revised January 10, 2000).

California Environmental Quality Act (CEQA)

CEQA determination for Options #1 and #2:

The proposed actions are not defined as a project under CEQA because they involve 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 actions in question may have a significant effect on the environment, the proposed actions are not subject to CEQA (Section 15061(b)(3) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed actions are 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 express an oppose position on AB 2583 unless it is amended to remove any regulatory agencies’ jurisdictional conflicts regarding transportation of hazardous material and current risk management planning practices.

Fiscal Impact: Unknown but potentially significant impact depending on amendments

Business Analysis: Maintains current chlorine supply chain reliability and protects water treatment operational flexibility and reliability benefits from using chlorine gas

Option #2

Adopt the CEQA determination and express an oppose position on AB 2583.

Fiscal Impact: None

Business Analysis: Protects water treatment operational flexibility and reliability benefits from using chlorine gas.

Option #3


Take no position on AB 2583.

Fiscal Impact: None

Business Analysis: None

Staff Recommendation

Option #1


Linda Waade
Deputy General Manager, External Affairs

5/5/2010

Date


Jeffrey Lightlinger
General Manager

5/5/2010

Date

Attachment 1 – Metropolitan’s letter regarding AB 2583

Attachment 2 – Assembly Bill 2583 (as amended 4/22/10)

Attachment 3 – Author’s Fact Sheet on AB 2583

Ref# ea12605858

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**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Sacramento Legislative Office
April 8, 2010

The Honorable Isadore Hall, III
Member, California State Assembly
State Capitol, Room 6025
Sacramento, CA 95814

Re: AB 2583 (Hall): Water Quality: Treatment Chemicals
OPPOSE UNLESS AMENDED

Assembly Environmental Safety and Toxic Materials Committee: April 13, 2010

Dear Assembly Member Hall:

On behalf of The Metropolitan Water District of Southern California, I regret to inform you of our opposition to your bill, AB 2583, unless it is amended to address our concerns as noted below. While I am confident we share in the goal of providing safe and reliable drinking water for Metropolitan's 19 million residents, AB 2583 establishes a framework for assessing "safer technologies" that does not fully reflect the relative risks of the transport and use of chemicals necessary to provide consistently high-quality potable supplies for our service area and other water suppliers throughout California.

Following the 9/11 terrorist attacks, federal security measures were put in place at drinking water systems throughout the nation under the Public Health Protection and Bioterrorism Preparedness and Response Act of 2002. This law created a drinking water security program under the direction of the United States Environmental Protection Agency and requires all drinking water utilities serving more than 3,300 customers to prepare vulnerability assessments and emergency response plans to identify weaknesses in their security posture and to prepare for security-related incidents, a charge Metropolitan takes very seriously.

Metropolitan works collaboratively with local, state and federal officials to ensure the security of hazardous chemicals used in the water treatment process. One of Metropolitan's highest priorities is the security of critical infrastructure. Metropolitan is meeting this challenge and supports the practical implementation of security measures for water utilities, such as the 18 risk-based criteria recently promulgated for the chemical sector within the framework of the Chemical Facility Anti-Terrorism Standards.

Metropolitan has invested more than \$150 million in security measures to safeguard employee and public health and safety and to protect critical infrastructure, including installing a state-of-the-art security system and containment of hazardous chemicals at all water treatment plants. In addition, Metropolitan's security staff manages a force of over 130 guards who maintain watch over district facilities on a 24-hour schedule. Metropolitan works closely with local law enforcement, state officials and the U.S. Department of Homeland Security officials on Homeland Security planning efforts. Our internal review of the risk-based security criteria in the

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Chemical Facility Anti-Terrorism Standards determined that Metropolitan already operates in substantial alignment with these criteria.

Local water utility experts are best equipped to make appropriate disinfection chemical choices based upon their expertise on factors such as source water quality, disposal of disinfection byproducts, supply chain reliability and treatment facility size and location. A promotion of one treatment alternative over another, whether by restricting the use or the transportation of chemicals, fails to recognize the complex process that all water utilities must undertake to evaluate potential disinfection options to maintain the utility's compliance with the federal Safe Drinking Water Act and that facilitates the delivery of clean and safe drinking water to millions of customers.

Metropolitan has identified the following concerns after review of the recent amendments to AB 2583:

- The measure would ultimately require water agencies to use raw material chemical products that are derived from "safer technology" for treatment without careful analysis by federal and state public health experts. Alternative treatment options, as promoted in AB 2583, may impact compliance with federal and state public safety standards, particularly following an event which disrupts the chemical supply chain such as an earthquake, flood, or even a labor dispute which disrupts transportation. This will impede our ability to provide water supplies to our member agencies and potentially impact the overall health and safety of the 19 million Southern Californians in our service area.
- Water suppliers must observe the water treatment requirements and oversight of various federal, state and local agencies. For example, the United States Department of Transportation regulates and monitors interstate transportation of water treatment chemicals. The United States Environmental Protection Agency, among others, regulates and monitors the use of hazardous substances. The California Department of Public Health regulates and monitors water quality and enforces standards that must be met prior to delivery and consumption. AB 2583 undercuts the existing role of federal and state agencies and creates a void for monitoring and enforcement.
- AB 2583 focuses on the risk associated with the transport and use of hazardous chemicals. The legislation, however, does not require the same assessment for the manufacturing of chemicals onsite. The real-world relative risks of the various options are not framed by the legislation. The mixing and storing of large quantities of chemicals within close confines to communities and schools creates potential risks that are not adequately covered by AB 2583's analysis process.
- Further, AB 2583 broadly includes a requirement to evaluate the transportation of hazardous chemicals (as opposed to more specifically targeting acutely hazardous or toxic-by-inhalation hazard chemicals) for water and wastewater treatment, an essential public service, as opposed to other chemical transport and use. Most chemicals used at

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water treatment facilities include, at some point in their production, the transport of hazardous chemicals. It seems unreasonable that every public water system and every wastewater agency in the state would be required to evaluate the entire chemical production sequence of every potential supplier of nearly a dozen chemicals.

- In light of the state established goal of minimizing greenhouse gas emissions, AB 2583 will require a significant increase of trucking activity through local communities to provide delivery of the necessary materials for chlorine production. For example, to replace what a single rail tanker carrying liquefied chlorine gas can now provide, the alternative could be 74 truck deliveries of 5,000 gallon loads of 5.35% bleach concentration. The end result would be higher costs, increased trucking traffic, greater air quality problems and other associated risks, not necessarily less environmental impacts.

For all of the above reasons, we must oppose AB 2583, unless amended to address our concerns. We look forward to working with you on alternatives to AB 2583 to ensure safe, reliable and affordable water supplies throughout California.

Sincerely,



Kathleen Cole
Legislative Representative

cc: Members of the Assembly Environmental Safety and Toxic Materials Committee
Bob Fredenburg, Consultant, Assembly Environmental Safety and Toxic
Materials Committee
John Kennedy, Consultant, Assembly Republican Caucus

AMENDED IN ASSEMBLY APRIL 22, 2010

AMENDED IN ASSEMBLY APRIL 7, 2010

CALIFORNIA LEGISLATURE—2009—10 REGULAR SESSION

ASSEMBLY BILL

No. 2583

Introduced by Assembly Member Hall

February 19, 2010

~~An act to add Section 13003 to the Water Code, relating to water quality.~~ *An act to add Section 25536.6 to the Health and Safety Code, relating to hazardous substances.*

LEGISLATIVE COUNSEL'S DIGEST

AB 2583, as amended, Hall. ~~Water quality: treatment chemicals.~~ *Water treatment: hazardous materials.*

(1) Existing law provides for the California accidental release prevention (CalARP) program for the prevention of accidental releases of regulated substances, which requires the owner or operator of a stationary source to prepare a risk management plan (RMP) when required under certain federal regulations or if the administering agency determines there is a significant likelihood of a regulated substance accident risk. Existing law requires the Office of Emergency Services and local administering agencies to implement CalARP, and certain violations of CalARP are crimes. Existing law creates the California Emergency Management Agency (Cal EMA) as the successor agency to the Office of Emergency Services.

This bill would require Cal EMA, by January 1, 2013, to adopt regulations to require a public water system or wastewater treatment plant that is a stationary source and is required to prepare and submit an RMP to additionally consider the use of safer technologies by the

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public water system or wastewater treatment plant in that RMP. Because a violation of CalARP is a crime, the bill would impose a state-mandated local program by creating a new crime.

(2) 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.

~~Existing law declares that activities and factors that may affect the quality of the waters of the state shall be regulated to attain the highest water quality that is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.~~

~~This bill would require water agencies, as defined, and their direct suppliers, in order to mitigate the potential catastrophic harm involved in the unintended and intentional releases of hazardous substances that are in transit, to utilize raw material chemical products derived from safer technology, as defined, if the products derived from safer technology are appropriate, given the disinfection methodology used by the water agency, and commercially available without being materially cost prohibitive to the water utilities or rate payers. The bill would provide that this requirement applies to water agencies operating potable water treatment facilities, nonpotable water treatment facilities, or both.~~

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

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

- 1 *SECTION 1. Section 25536.6 is added to the Health and Safety*
- 2 *Code, to read:*
- 3 *25536.6. (a) For purposes of this section, the following*
- 4 *definitions shall apply:*
- 5 *(1) "Cal EMA" means the California Emergency Management*
- 6 *Agency.*
- 7 *(2) "Public water system" has the same meaning as defined in*
- 8 *Section 116275.*
- 9 *(3) "Safer technology" means a technology, product, raw*
- 10 *material, or practice, the use of which, as compared to currently*

1 *used technologies, products, raw materials, or practices,*
2 *significantly reduces or eliminates both of the following:*

3 *(A) The possibility of release of hazardous or potentially*
4 *hazardous raw materials used for purposes of water treatment.*

5 *(B) The hazards to public health and safety and the environment*
6 *associated with the release or potential release of hazardous or*
7 *potentially hazardous raw materials used for purposes of water*
8 *treatment.*

9 *(4) “Wastewater treatment plant” has the same meaning as*
10 *defined in Section 13625 of the Water Code.*

11 *(b) On or before January 1, 2013, Cal EMA, in consultation*
12 *with the administering agencies, local water agencies, the public,*
13 *and interested parties, shall adopt regulations to require a public*
14 *water system or wastewater treatment plant that is a stationary*
15 *source and that is required to prepare and submit an RMP*
16 *pursuant to this article to additionally consider the use of safer*
17 *technologies by the public water system or wastewater treatment*
18 *plant, in accordance with all of the following:*

19 *(1) The operator of the public water system or wastewater*
20 *treatment plant shall, as part of the RMP, identify those process*
21 *modifications needed to mitigate the potential catastrophic harm*
22 *from the unintended and intentional releases of hazardous*
23 *substances when transported for use as raw materials by the public*
24 *water system or wastewater treatment plant and its direct suppliers.*

25 *(2) The RMP shall require the public water system or*
26 *wastewater treatment plant to utilize raw material chemical*
27 *products derived from safer technology if the products derived*
28 *from safer technology are appropriate, given the disinfection*
29 *methodology used by the public water system or wastewater*
30 *treatment plant, are commercially available, and are chosen based*
31 *on a comparison of the safety and environmental effects of the*
32 *alternatives.*

33 *(3) The comparison made pursuant to paragraph (2) shall take*
34 *into consideration, to the extent feasible, raw materials acquisition,*
35 *production, manufacturing, packaging, distribution, reuse,*
36 *operation, maintenance, disposal, energy efficiency, product*
37 *performance, durability, safety, the needs of the purchaser, and*
38 *cost.*

39 *(c) The regulations adopted pursuant to this section shall not*
40 *require the acquisition of goods or services that do not perform*

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1 *adequately for their intended use, exclude adequate competition,*
2 *or are not available at a reasonable price in a reasonable period*
3 *of time.*

4 *SEC. 2. No reimbursement is required by this act pursuant to*
5 *Section 6 of Article XIII B of the California Constitution because*
6 *the only costs that may be incurred by a local agency or school*
7 *district will be incurred because this act creates a new crime or*
8 *infraction, eliminates a crime or infraction, or changes the penalty*
9 *for a crime or infraction, within the meaning of Section 17556 of*
10 *the Government Code, or changes the definition of a crime within*
11 *the meaning of Section 6 of Article XIII B of the California*
12 *Constitution.*

13 ~~SECTION 1. Section 13003 is added to the Water Code, to~~
14 ~~read:~~

15 ~~13003. (a) Water agencies, as defined in Section 12970, and~~
16 ~~their direct suppliers, in order to mitigate the potential catastrophic~~
17 ~~harm involved in the unintended and intentional releases of~~
18 ~~hazardous substances as they are transported for use as raw~~
19 ~~materials by the water agencies and their direct suppliers, shall~~
20 ~~utilize raw material chemical products derived from safer~~
21 ~~technology if the products derived from safer technology are~~
22 ~~appropriate given the disinfection methodology used by the water~~
23 ~~agency, and are commercially available without being materially~~
24 ~~cost prohibitive to the water utilities or rate payers.~~

25 ~~(b) This section applies to water agencies operating potable~~
26 ~~water treatment facilities, nonpotable water treatment facilities, or~~
27 ~~both.~~

28 ~~(c) As used in this section, "safer technology" means a~~
29 ~~technology, product, raw material, or practice, the use of which,~~
30 ~~as compared to currently used technologies, products, raw~~
31 ~~materials, or practices, significantly reduces or eliminates both of~~
32 ~~the following:~~

33 ~~(1) The possibility of release of hazardous or potentially~~
34 ~~hazardous raw materials used for purposes of water treatment.~~

35 ~~(2) The hazards to public health and safety and the environment~~
36 ~~associated with the release or potential release of hazardous or~~
37 ~~potentially hazardous raw materials used for purposes of water~~
38 ~~treatment.~~

ASSEMBLYMEMBER ISADORE HALL, III**ASSISTANT SPEAKER PRO TEMPORE****52ND ASSEMBLY DISTRICT****STATE CAPITOL, ROOM 6025 ★ SACRAMENTO, CA 95814****WWW.ASSEMBLY.CA.GOV/HALL****AB 2583 (Hall) – Water Treatment: Safer Technology
FACT SHEET****Sponsor:** Assemblymember Isadore Hall, III **Staff Contact:** Terry Schanz, (916) 319-2052**ISSUE**

The use of chlorine is a primary method to chemically process, treat and disinfect drinking and waste water. While there are significant public health benefits to this method of water treatment, millions of Californians are exposed to potentially deadly chemical spills and accidents resulting from the transportation of chlorine, particularly along rail lines. According to a 2006 report by the Homeland Security Council, the explosion of a chlorine gas tank in a highly populated area could lead to 17,500 deaths, 10,000 severe injuries and one million hospitalizations.

Current law requires water agencies to make chemical purchase decisions for water treatment based on cost alone. This requirement prevents these agencies from being able to factor public safety and environmental safety impacts when purchasing potentially hazardous substances, like chlorine to treat drinking and waste water.

SOLUTION

AB 2583 would require the California Emergency Management Agency to work with local water agencies, the public and interested parties to develop regulations that would move California water agencies towards the use of safer technologies to achieve water treatment goals.

Many water agencies in California and throughout the United States currently use various safer technologies to achieve water sanitation and quality goals including the use of ozone, ultra violet light, sodium bisulfate or a liquid bleach created using only salt, water and electricity. These safer water treatment technologies have been successfully utilized throughout the United States and Europe for years with the same disinfectant and water quality levels found from using chlorine bleach but without the potential safety hazards associated with chlorine.

AB 2583 does not require the use of a specific technology to treat waste or drinking water. Rather, this measure only asks water agencies to consider the environmental and public safety risks in addition to cost when making water treatment procurement decisions.

By utilizing safer technologies, California water agencies will take an active and important step to not only fulfill their commitment to supply residents with clean drinking water but to also reduce the potential loss of life resulting from the accidental or intentional release of chlorine gas being transported in California.

SUPPORT

California Teamsters Public Affairs Council
Greenpeace
Sierra Club California