

Calendar No. 1057

110TH CONGRESS }
2d Session }

SENATE

{ REPORT
{ 110-486

TOXIC CHEMICAL EXPOSURE REDUCTION ACT OF 2008

SEPTEMBER 24 (legislative day, SEPTEMBER 17), 2008.—Ordered to be printed

Mrs. BOXER, from the Committee on Environment and Public Works, submitted the following

R E P O R T

together with

MINORITY VIEWS

[To accompany S. 1911]

[Including cost estimate of the Congressional Budget Office]

The Committee on Environment and Public Works, to which was referred the bill, S. 1911, to amend the Safe Drinking Water Act to protect the health of susceptible populations, including pregnant women, infants, and children, by requiring a health advisory, drinking water standard, and reference concentration for trichloroethylene vapor intrusion, and for other purposes, reports favorably thereon without amendment and recommends the bill do pass.

PURPOSE AND SUMMARY OF THE LEGISLATION

The purpose of S. 1911, the Toxic Chemical Exposure Reduction Act of 2008 is to require a new health advisory, national primary drinking water regulation, vapor intrusion standard, and safety standard for trichloroethylene (TCE). Not later than 180 days after enactment of S. 1911, the bill would require the new health advisory for TCE in drinking water to fully protect susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure. Not later than 18 months after enactment of S. 1911, the bill would require a new national primary drinking water regulation for TCE that fully protect susceptible populations (including

pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure.

Not later than one year after enactment of S. 1911, the bill would require the new health advisory for TCE usable in cases of vapor intrusion, with an adequate margin of safety, to fully protect susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure. Not later than 180 days after enactment of S. 1911, the bill would require the new safety standard for TCE to be a new integrated risk information system reference concentration that is protective of susceptible populations (including pregnant women, infants, and children) from vapor intrusion, taking into consideration body weight, exposure patterns, and all routes of exposure.

BACKGROUND AND NEED FOR THE LEGISLATION

BACKGROUND

Trichloroethylene (TCE) is a metal degreaser and an ingredient in adhesives and paint and spot removers. People, including susceptible populations, can be exposed to TCE by breathing air in and around the home that has been contaminated with trichloroethylene vapors from shower water, household products such as spot removers and typewriter correction fluid, and contaminated groundwater or soil in or around the home. People can also be exposed to TCE by drinking, swimming, or showering in contaminated water. Contact with soil contaminated with trichloroethylene, such as near a hazardous waste site, also poses a risk of exposure. People who manufacture TCE or use it to wash paint or grease from skin or equipment also face a risk of exposure.

Waste from the use and improper disposal of chemicals containing TCE is widespread in soil and water. More than 1,000 waste sites in the United States are contaminated with TCE. It is well documented that individuals in many communities are exposed to TCE and experience associated health risks.

In September 2006, the United States Geological Survey published a report entitled "Volatile Organic Compounds in the Nation's Groundwater and Drinking-Water Supply Wells," which provides the most comprehensive national analysis of the occurrence of volatile organic compounds in ground water, based on monitoring results from between 1985 to 2002. A major finding of the report is that TCE is one of the most frequently detected volatile organic compounds in the nation's groundwater.

A 2001 EPA study of TCE confirmed the danger of this ubiquitous chemical. The Agency found that TCE can cause cancer and injury to the nervous, immune and endocrine systems. TCE is linked to kidney, liver, cervical, prostate and other cancers. Children may be especially at risk from TCE, which can cross the placenta and contaminate breast milk. The Science Advisory Board for EPA has reviewed and commended the Agency's work, particularly on the risks to children.

According to a 2006 report of the National Academy of Sciences entitled "Assessing the Human Health Risks of Trichloroethylene: Key Scientific Issues," acute exposures to TCE occurring as a result of occupational industrial accidents are associated with nerve dam-

age and residual neurological deficits, including memory loss; high-concentration exposure to air contaminated with TCE can cause nervous system damage and has been associated with generalized skin eruptions and other more severe skin and mucus membrane conditions, such as Stevens-Johnson syndrome. The report also noted that such exposures can cause liver dysfunction, leading to jaundice, hepatomegaly, and hepatic encephalopathy.

The National Academy found that:

The evidence on carcinogenic risk and other health hazards from exposure to trichloroethylene has strengthened since 2001. Hundreds of waste sites in the United States are contaminated with trichloroethylene, and it is well documented that individuals in many communities are exposed to the chemical, with associated health risks. Thus, the committee recommends that federal agencies finalize their risk assessment with currently available data so that risk management decisions can be made expeditiously.

A 2008 Government Accountability Office (GAO) report on a new EPA policy for evaluating chemicals' risks examined the policy's impacts on TCE, among other chemicals. The GAO was critical of EPA's new policy and recommended that EPA withdraw the policy for a variety of reasons. The report analyzed the Agency's evaluation of TCE's risks and found that "10 years after EPA started its IRIS assessment, the TCE assessment is back at the draft development stage. EPA estimates this assessment will be finalized in 2010."

The GAO noted: "This delay represents an information gap of at least 21 years. Without completed IRIS assessments reflecting current risk data, EPA lacks assurance that its regulatory decisions concerning this widespread chemical reflect the best available science on its potential health effects." The GAO also found that, "More in line with the National Academies' recommendation to act expeditiously, five senators introduced a bill in August 2007 that, among other things, would require EPA to both establish IRIS values for TCE and issue final drinking water standards for this contaminant within 18 months."

S. 1911 is intended to address these concerns and provide additional health protections.

NEED FOR LEGISLATION

The Committee on Environment and Public Works is very concerned about the potential health effects of TCE exposure, especially for susceptible populations, including pregnant women, infants, and children, and GAO's finding that EPA has delayed reaching a decision on TCE for a decade.

The Committee takes to heart the National Academy of Sciences' statement that:

The evidence on carcinogenic risk and other health hazards from exposure to trichloroethylene has strengthened since 2001. Hundreds of waste sites in the United States are contaminated with trichloroethylene, and it is well documented that individuals in many communities are exposed to the chemical, with associated health risks. Thus, the committee recommends that federal agencies finalize

their risk assessment with currently available data so that risk management decisions can be made expeditiously.

S. 1911 is intended to protect vulnerable persons, including pregnant women, infants, children, and others in other country from dangerous TCE exposures. It will also ensure that the public is fully informed about TCE exposures and the potential health effects from such exposures.

SUMMARY OF MAJOR PROVISIONS OF THE BILL

S. 1911, the Toxic Chemical Exposure Reduction Act of 2008, would require a new health advisory, national primary drinking water regulation, vapor intrusion standard, and safety standard for trichloroethylene (TCE). Not later than 18 months after enactment of S. 1911, the bill would require a new national primary drinking water regulation for TCE that fully protects susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure.

Not later than 180 days after enactment of S. 1911, the bill would require the new health advisory for TCE in drinking water to fully protect susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure. Not later than 180 days after enactment of S. 1911, the bill would require the new National Primary Drinking Water Regulation for TCE, and a new reference concentration for TCE vapor, that are protective of susceptible populations (including pregnant women, infants, and children) from vapor intrusion, taking into consideration body weight, exposure patterns, and all routes of exposure. Not later than two years after enactment, the bill would require the Administrator to apply this reference concentration to any potential vapor intrusion-related investigations or actions undertaken to protect public health.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 establishes the short title of the Act as the “the Toxic Chemical Exposure Reduction Act of 2008”.

Section 2. Findings

This section contains detailed findings related to TCE and health effects.

Section 101. Health advisory and national primary drinking water regulations for trichloroethylene

This section amends section 300g–1 of the Safe Drinking Water Act by requiring EPA to create, not later than 180 days after the date of enactment of the Act, a new health advisory for TCE in drinking water. This advisory must fully protect, with an adequate margin of safety, susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure.

This section further amends section 300g–1 to require that notwithstanding any other provision in section 300g–1, not later than

one year after the date of enactment, the Administrator shall propose a national primary drinking water regulation for TCE that is protective of susceptible populations (including pregnant women, infants, and children), including a maximum contaminant level which is as close to the maximum contaminant level goal for TCE and as protective of those susceptible populations, as is feasible. The section also mandates that notwithstanding any other provision of section 300g-1, the Administrator must promulgate a final national primary drinking water regulation that is consistent with the criteria in the previous sentence not later than 18 months from the date of enactment.

The section amends section 300g-1 to require the Administrator to create a provision for monitoring TCE at the same time that the Administrator issues the final national primary drinking water regulations, which must be issued not later than 18 months from the date of enactment.

The section further amends section 300g-1 to require that, simultaneously with the promulgation of the final national primary drinking water regulations, the Administrator shall require drinking water consumer confidence reports to disclose the presence of TCE and describe TCE's health risks to susceptible populations (including pregnant women, infants, and children) from exposure in drinking water. The section explicitly excludes this requirement from as one of the three regulated contaminants described in the matter following clause (vi) of section 300g-3(c)(4)(B).

Section 201. Health advisory and reference concentration for trichloroethylene

This section requires EPA to create, not later than one year after the date of enactment of the Act, a new health advisory for TCE that fully protects from vapor intrusion, with an adequate margin of safety, the health of susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure.

This section would require EPA, not later than 18 months after enactment of S. 1911, to create a new integrated risk information system reference concentration in its Integrate Risk Information System for TCE that protects susceptible populations (including pregnant women, infants, and children) from vapor intrusion, taking into consideration body weight, exposure patterns, and all routes of exposure.

Not later than two years after enactment, this section would require the Administrator to apply this reference concentration to any potential vapor intrusion-related investigations or actions undertaken to protect public health.

LEGISLATIVE HISTORY AND VOTES

VOTES

On July 31, 2008, the Committee on Environment and Public Works held a business meeting to consider S. 1911, among other pieces of legislation. The Committee on Environment and Public Works considered Chairman Boxer's amendment in the nature of a substitute to S. 1911. The Committee favorably adopted the bill by a voice vote. On May 6, 2008, the Committee held a legislative

hearing titled, “Perchlorate and TCE in Drinking Water.” On April 29, 2008 the Committee held a hearing titled, “Oversight on EPA Toxic Chemicals Policies.”

REGULATORY IMPACT STATEMENT

In compliance with section 11(b) of rule XXVI of the Standing Rules of the Senate, the committee notes that the Congressional Budget Office has found that the regulatory impacts of this legislation would not be substantial. CBO concluded that the bill would impose a “private-sector mandate as defined in the Unfunded Mandates Reform Act (UMRA). . . . Based on information from industry experts, CBO estimates that the costs to provide the additional disclosures would be minimal and would not exceed the annual thresholds for . . . private-sector mandates (. . . \$136 million in 2008 . . .).”

MANDATES ASSESSMENT

In compliance with the Unfunded Mandates Reform Act of 1995 (Public Law 104–4), the Committee notes that the Congressional Budget Office has said that “S. 1911 would impose an intergovernmental and private-sector mandate as defined in the Unfunded Mandates Reform Act (UMRA). . . . Based on information from industry experts, CBO estimates that the costs to provide the additional disclosures would be minimal and would not exceed the annual thresholds for intergovernmental or private-sector mandates (\$68 million and \$136 million in 2008, respectively, adjusted annually for inflation).”

COST OF LEGISLATION

S. 1911—Toxic Chemical Exposure Reduction Act of 2007

S. 1911 would require the Environmental Protection Agency (EPA) to issue a health advisory for trichloroethylene (TCE) in drinking water that fully protects susceptible populations, including pregnant women, infants, and children. (Trichloroethylene is a toxic liquid often used as a metal degreaser and is an ingredient in adhesives and paint removers.) EPA also would be required under this legislation to establish a regulation for the amount of TCE that is permissible in drinking water, and to develop an information system concerning the risk of inhaling TCE.

Based on information from EPA, CBO estimates that implementing S. 1911 would cost about \$5 million over the 2009–2011 period, subject to the availability of appropriated funds. Such funding would be used to support 11 additional personnel and contractor costs needed to meet the requirements of this legislation.

Enacting the legislation would not affect direct spending or revenues.

By requiring community water systems to disclose the potential health risks of exposure to TCE in annual consumer confidence reports, S. 1911 would impose an intergovernmental and private-sector mandate as defined in the Unfunded Mandates Reform Act (UMRA). Community water systems are currently required to report on health risks associated with TCE only when they violate the maximum contaminant level (MCL) for TCE. Based on informa-

tion from industry experts, CBO estimates that the costs to provide the additional disclosures would be minimal and would not exceed the annual thresholds for inter-governmental or private-sector mandates (\$68 million and \$136 million in 2008, respectively, adjusted annually for inflation).

The CBO staff contacts for this estimate are Susanne S. Mehlman (for federal costs); Burke Doherty (for the state and local impact); and Amy Petz (for the private-sector impact). This estimate was approved by Theresa Gullo, Deputy Assistant Director for Budget Analysis.

MINORITY VIEWS OF SENATOR JAMES INHOFE

TCE is actively regulated by EPA. Currently, TCE has a drinking water standard of MCL goal of 0 ppb and an action level of MCL 5 ppb. However, based on recent concerns, and incorporating the advice of the National Academy of Sciences, EPA is in the process of reevaluating the risks posed by TCE pursuant to the 1996 Safe Drinking Water Act (SDWA), authored by Senator Baucus.

EPA recently released for public comment a draft “peer review charge” which means the Agency is actively seeking public input on the most appropriate science and methodologies that should be used in revising the risk assessment for TCE. By evaluating technological information, including whether it is feasible for public water systems to reliably measure TCE in drinking water below the 5 ppb standard, EPA anticipates releasing the draft results of the TCE review for public comment in 2009 and completing the review in 2010.

S. 3495 sets us back in time to a period before the SWDA when Congress itself speculated on, then dictated the drinking water regulations developed by EPA. There was nearly universal agreement that the regulatory system under the 1974 version of SDWA and the 1986 Amendments actually prevented the Agency from focusing on the most significant health risks. By passing the 1996 SDWA Amendments, Congress demanded a risk-based, scientifically sound approach to regulatory development including the prioritization and selection of contaminants for regulation. Those changes continue to ensure that the EPA focuses on contaminants that present the greatest public health concern, as well as develops regulations that reduce health risks from contaminants in public water supplies.

S. 1191 basically tells EPA to do what it is already doing, only faster, by requiring EPA to both promulgate an MCL for TCE as well as set a reference dose for TCE Vapors within 18 months of enactment. In contrast, the SDWA allows EPA nearly 3 years to propose a regulation and issue a final rule. I believe the SDWA timeframes are justified and necessary to conduct the proper analyses and issue a rule that can withstand judicial scrutiny.

I oppose passage of S. 1911 because I support the process outlined in the SWDA. Further, I do not believe it is appropriate for this Committee to impose its scientific, or worse yet, political judgment to thwart the expertise of the agency charged with regulating TCE.

JAMES M. INHOFE.

CHANGES IN EXISTING LAW

In compliance with section 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill as reported are shown as follows: Existing law proposed to be omitted is enclosed in [black brackets], new matter is printed in *italic*, existing law in which no change is proposed is shown in roman:

* * * * *

TITLE XIV OF THE PUBLIC HEALTH SERVICE ACT (THE SAFE DRINKING WATER ACT)

* * * * *

SEC. 1400. This title may be cited as the "Safe Drinking Water Act".

PART A—DEFINITIONS

DEFINITIONS

* * * * *

SEC. 1412. (a)(1) Effective on the enactment of the Safe Drinking Water Act Amendments of 1986, each national interim or revised primary drinking water regulation promulgated under this section before such enactment shall be deemed to be a national primary drinking water regulation under subsection (b). No such regulation shall be required to comply with the standards set forth in subsection (b)(4) unless such regulation is amended to establish a different maximum contaminant level after the enactment of such amendments.

(2) * * *

* * * * *

(e) The Administrator shall request comments from the Science Advisory Board (established under the Environmental Research, Development, and Demonstration Act of 1978) prior to proposal of a maximum contaminant level goal and national primary drinking water regulation. The Board shall respond, as it deems appropriate, within the time period applicable for promulgation of the national primary drinking water standard concerned. This subsection shall, under no circumstances, be used to delay final promulgation of any national primary drinking water standard.

* * * * *

(C) *TRICHLOROETHYLENE.*—

(i) *HEALTH ADVISORY.*—*Notwithstanding any other provision of this section, not later than 180 days after the date of enactment of this subparagraph, the Administrator shall publish a health advisory for trichloroethylene that fully protects, with an adequate*

margin of safety, the health of susceptible populations (including pregnant women, infants, and children), taking into consideration body weight, exposure patterns, and all routes of exposure.

(ii) NATIONAL PRIMARY DRINKING WATER REGULATION.—

(I) PROPOSED REGULATION.—Notwithstanding any other provision of this section, not later than 1 year after the date of enactment of this subparagraph, the Administrator shall propose a national primary drinking water regulation for trichloroethylene—

(aa) that is protective of susceptible populations (including pregnant women, infants, and children); and

(bb) the maximum contaminant level of which is as close to the maximum contaminant level goal for trichloroethylene, and as protective of those susceptible populations, as is feasible.

(II) FINAL REGULATION.—Notwithstanding any other provision of this section, not later than 18 months after the date of enactment of this subparagraph, after providing notice and an opportunity for public comment, the Administrator shall promulgate a final national primary drinking water regulation (including a provision for monitoring under subclause (III)) for trichloroethylene that is consistent with subclause (I).

(III) MONITORING REQUIREMENTS.—

(aa) DEFINITION OF QUALIFYING SYSTEM.—In this subclause, the term “qualifying system” means a public water system that has been granted a monitoring waiver under section 141.24 of volume 40, Code of Federal Regulations (or successor regulations).

(bb) REQUIREMENTS.—The regulation under subclause (II) shall include a provision relating to monitoring that requires—

(AA) that the Administrator shall revise monitoring requirements for all systems to ensure detection of potential trichloroethylene contamination and full compliance with the revised national primary drinking water regulation;

(BB) for each qualifying system located in the vicinity of a subsurface migration of a known volatile organic compound contamination site, that the State with primary enforcement responsibility shall review and submit the waiver of the qualifying system for review by the Administrator; and

(CC) each qualifying system potentially located in the path of subsurface migration of a known volatile organic compound be subject to minimum regular monitoring for trichloroethylene, as the Administrator and primary State officials determine to be appropriate.

(iii) CONSUMER CONFIDENCE REPORTS.—

(I) IN GENERAL.—Subject to subclause (II), simultaneously with the promulgation of the final regulation under clause (ii)(II), each consumer confidence report issued under section 1414(c)(4) shall disclose the presence of any trichloroethylene in drinking water, and the potential health risks to susceptible populations (including pregnant women, infants, and children) from exposure to trichloroethylene in drinking water, consistent with regulations promulgated by the Administrator.

(II) EXCEPTION.—Notwithstanding subclause (I), trichloroethylene shall not be considered to be 1 of the 3 regulated contaminants described in the matter following clause (vi) of section 1414(c)(4)(B).

* * * * *

