Safe Drinking Water

Introduction

The Safe Drinking Water Act (SDWA), which was originally enacted into law in 1974, focuses on ensuring that public drinking water meets appropriate safety standards; in contrast, the Clean Water Act regulates pollution in our nation's lakes, rivers, and other bodies of water.

The Safe Drinking Water Act was reauthorized with enactment of S. 1316, "The Safe Drinking Water Act Amendments of 1996." Rep. Waxman successfully led the fight in the House of Representatives for a tougher law that would guarantee the public's right-to-know. The new law had broad bipartisan support and was endorsed by industry, state and local governments, and public health and environmental groups.

Background

Prior to 1974, State health departments had the major responsibility for monitoring and regulating public drinking water supplies. The U.S. Public Health Service provided oversight until 1970. At that point, EPA assumed the federal regulatory role. Although the Public Health Service issued safety standards in 1962, just 14 States had adopted them by 1972.

State programs were so severely understaffed and underfunded that they could not give public water systems needed monitoring and technical assistance. The resulting water quality problems were brought sharply into focus by the 1969 Community Water Supply Survey and additional evaluations in the early 1970s.

The 1969 Survey revealed that one-third of tap water samples evidenced bacterial or chemical contamination exceeding the Public Health Service's voluntary limits. Fifty-six percent of the nation's public water systems had physical deficiencies that could seriously affect safety. Sixty-nine percent of the systems failed to test half the number of basic microbiological samples recommended by the Public Health Service. Only ten to fifteen percent of the systems met the Public Health Service's recommendations for basic microbiological testing.

These studies made it clear that state efforts weren't adequate to deal with the cancer and other health risks contaminated drinking water posed to the public.

The Safe Drinking Water Act of 1974

The Safe Drinking Water Act, proposed by President Nixon and signed into law by President Ford in 1974, was a response to these widespread concerns and is the basis for current law.

Under the Act, EPA retains oversight of the nations' drinking water. But EPA is also required to set federal drinking water standards, known as Maximum Contaminant Levels, and to establish monitoring procedures that water systems have to follow.

If drinking water exceeds EPA's standards (which are based on health impacts but consider cost), water utilities are required to treat the problem. States are given the authority to implement and enforce the Act and to issue monitoring or compliance waivers for systems that are unable to comply with federal standards.

Between the enactment of the Safe Drinking Water Act in 1974 and 1986, EPA issued only one new safety standard, and the Act's protections were restricted to the 1962 Public Health Service standards for 23 microbiological and inorganic chemical contaminants and EPA's "interim" 1979 rule for trihalomethanes.

By 1986, there was bipartisan agreement that the Agency was failing to adequately implement the law.

The 1986 Safe Drinking Water Act Amendments

The 1986 Amendments, the result of bipartisan criticism of the Act's effectiveness, were passed nearly unanimously by a Republican Senate and a Democratic House and signed into law by President Reagan. Rep. Henry Waxman, as Chairman of the Health and the Environment Subcommittee, was a key architect of the 1986 law.

Under the Amendments, EPA was required to set new drinking water standards for 83 named contaminants. EPA was also required to establish monitoring requirements for unregulated contaminants, specify the best available treatment technologies, establish filtration and disinfection standards, implement limitations on lead-based material for plumbing and public water systems, develop programs to protect ground water, and implement enhanced enforcement powers.

The law succeeded in finally setting important drinking water standards. To date, standards have been set for a total of 84 contaminants, and EPA is finally beginning to set standards for emerging and newly realized threats such as Cryptosporidium (the parasite responsible for the deadly waterborne disease outbreak in Milwaukee), carcinogenic disinfection by-products, and arsenic and other hazardous inorganic chemicals.

1988 Lead in Drinking Water Amendments

In 1988 Congress passed a new provision to the SDWA, "The Lead Contamination Control Act," requiring EPA to maintain an updated accounting of water coolers with lead-based components and develop guidance for controlling lead contamination in school drinking water supplies.

1993-94

In the 103rd Congress, both the Senate and House worked to reauthorize the Safe Drinking Water Act and address bipartisan concerns.

Late in the session, after eight months of negotiations, the House Commerce Committee reported and the House unanimously passed H.R. 3392 (the Safe Drinking Water Act Amendments of 1994). This compromise bill would have offered water systems help with funding, greater flexibility, and technical assistance, while protecting the quality of the nation's drinking water. H.R. 3392 was drafted by Congressman Waxman and a bipartisan group of Members of the Energy and Commerce Committee, including Representatives Bliley, Dingell, and Moorhead. The bill had the support of State and local governments, industry, rural water groups and environmental organizations.

Although the Senate also reported a bill, new demands from industry and state and local governments prevented final action on the legislation.

1995-96

Efforts to reauthorize the Safe Drinking Water Act continued in the 104th Congress. Rep. Dingell introduced the legislation that had passed the House in the 103rd Congress as H.R. 226.

The Senate passed S. 1316, the Safe Drinking Water Act of 1995, on Nov. 29, 1995. S. 1316 was a bipartisan bill which was supported by State and local governments, industry and rural water groups. However, it did not have the support of environmental or public health groups. On March 6, 1996, Rep. Pomeroy introduced this bill in the House as H.R. 3038.

Rep. Waxman began negotiations on Safe Drinking Water legislation with Reps. Dingell, Bliley, Bilirakis and other Members of the House Health and Environment Subcommittee in February 1996. Throughout the negotiations, Rep. Waxman fought for strong provisions to protect public health and to guarantee the public's right-to-know about contaminants detected in their drinking water. After five months of negotiations, the Members reached agreement in July.

On July 6, 1996, the House Health and Environment Subcommittee approved this legislation with a vote of 24-0. On July 11, the Commerce Committee unanimously reported H.R. 3604 and on July 25 the full House passed it by voice vote.

A House-Senate Conference agreement passed both Houses on August 2, 1996 and was signed into law by President Clinton on August 6, 1996 (Public Law 104-182)

Highlights of the Safe Drinking Water Act of 1996

Drinking Water State Revolving Funds (SRF). The Act created a State revolving loan fund (SRF) program to help States fund drinking water systems (authorized at $1 billion per year through fiscal year 2003). SRF funds are to be used for providing loans to "significantly further the health protection objectives" of the SDWA. Up to 30 percent of SRF funds may be used for loan subsidies (which include a forgiveness of principal) for disadvantaged communities. One year after the date on which a State establishes an SRF, up to 33 percent of the annual funds received by the State for its revolving fund program under the Clean Water Act may be transferred to a state's drinking water SRF. A 33% transfer from a State SRF into a Clean Water Act revolving fund is also allowed. This "transferability"

provision, however, is only authorized for 5 years. EPA is to report to Congress after 4 years on the implementation of the provision. Subject to certain restrictions, up to 15% of SRF money can be used for State administrative costs, source water protection programs, capacity development programs and operator certification programs. Up to 20% of a State's SRF funds may be withheld unless it has met requirements relating to capacity development. A similar provision applies to operator certification requirements established by the Act.

Public Notification. The bill modifies the public notification requirements of current law, reducing from 14 days to 24 hours the time that a public water system has to notify the public of violations which have the potential to have serious adverse effects on human health.

Consumer Right-To-Know. The bill requires each community water system to mail an annual report to consumers on the source of water provided, the levels of detected contaminants, whether a system is operating under a variance or exemption from drinking water standards and brief statements on the health concerns of various contaminants and any health concerns associated with a violation of a drinking water standard. The report must also contain a statement that the presence of a contaminant in drinking water does not necessarily indicate that the drinking water poses a health risk and refer consumers to an EPA hotline for more information. A Governor may decide not to apply the mailing requirement to systems serving under 10,000 people, if the report is published in a newspaper and made available on request. Communities under 500 may avoid the newspaper publishing requirement if customers are notified of the availability of the report.

Operator Certification. The bill requires EPA to publish guidelines to specify minimum standards for operator certification for operators of community and nontransient noncommunity public water systems. EPA guidelines are to allow States to enforce their own operator certification program and existing State programs are presumed to be substantially equivalent to EPA guidelines, notwithstanding program differences based on the size of systems or the quality of source water. For public water systems under 3,300, a separate $30 million authorization is provided to cover the expenses of operator training and certification programs. EPA is required to reimburse the reasonable costs of such training and certification.

Source Water Assessment. The bill creates a new program under which States with primary enforcement authority must conduct an assessment of source water areas and, to the extent practical, identify the origins of any contaminants within each delineated area. States may also establish source water partnership petition programs to facilitate the development of voluntary, incentive-based strategies for the long term protection of drinking water sources. In a separate section, $5,000,000 is authorized for fiscal years 1997 through 2003 to support partnership petition programs.

Estrogenic Substances Screening Program. The bill requires the Administrator, within 2 years, to develop a validated screening program to determine whether substances may have an effect in humans that is similar to the effect produced by naturally occurring estrogen and authorizes appropriate action under existing law.

Definitions. The Act expanded the definition of public water system to include water delivered through constructed conveyances by irrigation water systems. This provision will bring safe drinking water to communities in the West which are currently being provided some of the most contaminated drinking water in the country.

GAO Study. The Act requires the Comptroller General to undertake a study to ascertain the numbers and locations of individuals and households relying for their residential water needs on irrigation water systems, or other systems that are not public water systems. The report is to also examine the sources, costs and affordability of water used by such populations and review State and water system compliance.

Selection of New Contaminants. The Act eliminates the "25 every 3 years" mandate and gives EPA the authority to decide which contaminants to regulate based on several criteria. First EPA must compile a priority list of contaminants for consideration for regulation. Then every five years, EPA must make decisions on whether to regulate five contaminants.

Risk Assessment, Management and Communication. The Act requires that in carrying out the standard setting provisions, to the degree the action is based on science, EPA must utilize the "best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices," as well as to use data collected by accepted or best available methods. Additionally, EPA must make public, in a document supporting a promulgated regulation, the available information regarding each population addressed by any estimate of public health effects, the uncertainties involved in risk estimates and peer-reviewed studies which are relevant to new drinking water standards. In addition, when proposing any new drinking water regulation, the Administrator must publish and seek public comment on quantifiable and nonquantifiable health risk reduction benefits and costs for each alternative standard being considered, as well as the effect of the contaminant on the general population and sensitive subgroups and any increased health risk that may occur because of compliance with a new regulation.

Standard-Setting. The Act maintains present requirements to set both a maximum contaminant level (MCL) and a maximum contaminant level goal (MCLG) for a regulated contaminant. The bill, however, creates a new requirement that the Administrator must conduct an analysis of health risk reduction benefits and costs associated with each new national drinking water standard (under provisions cited above). The bill gives the Administrator the authority to set an MCL at a level other than the "feasible" level if the Administrator determines, based on the cost/benefit analysis, that the benefits of a particular standard would not justify the costs. In this case, the standard must be set at a level that maximizes health risk reduction benefits at a cost that is justified by the benefits. In addition, the Administrator is authorized to "balance" the risks involved in an MCL and minimize the overall risks in cases where a new MCL, if set at the feasible level, would increase the level of other contaminants or interfere with other treatment techniques. In the event of an urgent threat to public health, interim regulations may be promulgated subject to subsequent determinations of risk reductions, costs and benefits.

Disinfectant By-Products (DBPs). The bill would allow for "risk-risk" analysis to be applied to the DBP rulemaking and allow the EPA in Stage II to use the same considerations used in the Stage I rulemaking (e.g., risk, cost, affordability, feasible technology and health benefits).

Treatment Technologies for Small Systems. The Administrator is to list, in consultation with the States, affordable technology and treatment techniques that achieve compliance with newly promulgated MCLs for systems serving between 25 and 500 persons, 500 and 3,300 persons and 3,300 and 10,000 persons. The Administrator is also required, within 2 years, to list such technologies for existing MCLs.

Disinfection. The bill authorizes the Administrator, after 3 years from the date of enactment, but not later than promulgation of the Stage II rulemaking for DBPs, to promulgate national primary drinking water regulations requiring disinfection as a treatment technique for all public water systems, including, as necessary, groundwater systems.

Compliance Timeframes. The bill provides that MCLs shall take effect 3 years after promulgation unless EPA determines an earlier date is practicable. An additional 2 years may also be allowed for compliance where additional time is necessary for capital improvements.

Other Contaminants. *Arsenic*. The bill requires EPA to study the health risks associated with exposure to low levels of arsenic and promulgate a national drinking water standard by January 1, 2001.

Radon. The bill requires that EPA's current radon proposal be withdrawn and requires EPA to contract with the National Academy of Sciences to prepare a new risk assessment for radon. EPA is to further publish a benefit-cost analysis for radon with 30 months and propose a drinking water standard for radon within 36 months. The radon standard is to be based on the new standard setting provisions established by the bill and to consider costs and benefits. However, if the new standard is more stringent than necessary to reduce the drinking water contribution of radon to indoor air to a level equivalent to the concentration of radon in outdoor air, EPA is to promulgate an alternative radon standard equivalent to the outdoor level (approximately 3,000 picocuries/liter). States are given the option of either meeting the new radon standard or submitting multimedia programs to EPA for approval which achieve health risk reduction equal to or greater than the standard. Public water systems may also develop their own multimedia control programs, subject to EPA approval.

Sulfate. The bill would require additional study, to be completed in 30 months, to determine a reliable dose-response level for sulfate and allow EPA to promulgate a national standard. Sulfate will also be added to the initial list of contaminants selected for a determination of whether or not regulations are required.

Enforcement. The bill generally seeks to streamline the administrative enforcement of the Act and specify which sections of the Act are "applicable requirements" subject to enforcement by EPA. The bill requires EPA to notify an appropriate local elected official before taking enforcement actions in nonprimacy states, eliminates existing requirements for proposed orders before issuance of a final compliance order, increases penalties that may be assessed in administrative proceedings, and provides that EPA or State review of consolidation plans will serve to "insulate" an acquiring system for 2 years from enforcement actions for previous violations.

Bottled Water Study. Not later than 18 months after enactment, the Administrator of FDA in consultation with the Administrator of EPA is to publish for public notice and comment a draft study on the feasibility of appropriate methods of informing customers of the contents of bottled water. The final study is due 30 months from enactment.

Variances and Exemptions. The bill provides for a variance from a drinking water standard for systems serving under 3,300 people on the condition that the system install variance technology and for systems between 3,300 and 10,000 people on the condition variance technology is installed and EPA approval is obtained. Systems can receive variances only if they cannot afford to comply, under affordability criteria established by a State having primacy, or through restructuring or consolidation where practicable. Variances must ensure adequate protection of human health, considering the quality

of source water and treatment technology. Variances may not be obtained for microbial contaminants. The bill also provides for exemptions for systems serving less than 3,300 people. Exemptions may be granted for three years and are renewable for two-year periods, but may not exceed 6 six years total. In addition to factors existing under current law, the bill also requires that EPA find that management or restructuring changes, or both, cannot reasonably be made to bring a system into compliance (and thereby avoid the need for an exemption).

Lead Plumbing and Pipes. Current law already bans the use of lead pipes, solder or flux in public water systems and residential plumbing. The bill adds a ban on the use of lead plumbing fixtures and fittings and prohibits individuals from using any plumbing fitting, solder, or flux in the installation or repair of public water systems and residential or nonresidential facilities that is not lead free.

Capacity Development. A state may not receive more than 80 percent of its SRF allotment unless the State ensures that new and existing water systems have the technical, financial and managerial capacity to comply with the Act. States are to prepare capacity development strategies to assist public water systems in complying with drinking water regulations and other matters such as the training and certification of operators. States are also to ensure that all new community water systems demonstrate the technical, managerial and financial capacity to comply with SDWA.

Ground Water Programs. The bill reauthorizes the critical aquifer protection program at $15,000,000 for fiscal years 1992-2003, state wellhead protection programs at $30,000,000 for fiscal years 1992-2003 and underground injection control grants for $15,000,000 for fiscal years 1992-2003.

Small System Technology Centers/Environmental Finance Centers. The bill includes an authorization for the establish and operate small public water system technology centers to provide training and technical assistance relating to the information, performance and technical needs of small public water systems. $2,000,000 per year is authorized through fiscal year 1999; $5,000,000 per year is authorized for fiscal years 2000-2003. The bill additionally authorizes $1.5 million per year, through fiscal year 2003, for environmental finance centers and a national public water system capacity development clearinghouse to assist states in developing the capacity of public water systems.

Technical Assistance for Small Systems. This section allows the EPA Administrator to provide technical assistance to small public water systems to achieve and maintain compliance with MCLs. $15,000,000 is authorized for fiscal years 1997 through 2003 for such assistance. In separate provisions establishing the SRF, the Administrator may reserve up to 2 percent of the total funds appropriated to the SRF to carry out the provisions of this section relating to technical assistance.

Monitoring Flexibility. The bill provides for monitoring relief where a public water system can show that a contaminant is not present in a drinking water supply or, if present, it is reliably and consistently below national drinking water standards. The bill provides for both interim monitoring relief for small systems under 10,000 customers and permanent monitoring relief for all systems, subject to certain conditions and requirements. In order to receive permanent monitoring relief, a state must have a source water assessment program.

Occurrence Data Base. The bill requires the EPA Administrator to assemble and maintain a database which contains information on the national occurrence of regulated and unregulated contaminants in drinking water.

Health Effect Studies. The legislation authorizes the EPA Administrator to reserve $10,000,000 for each fiscal year from funds allocated to the SRF for health effects studies on drinking water contaminants. The Administrator is to give priority to studies concerning the health effects of Cryptosporidium, disinfection byproducts and arsenic (for which a separate $2,000,000 yearly authorization for fiscal years 1997 through 2001 also applies).

State Groundwater Protection Grants. This bill authorizes $15 million for each of fiscal years 1997 through 2003 for the EPA Administrator to make grants for the development and implementation of State programs aimed at comprehensive protection of groundwater resources within the State. Grants are subject to a 50% state match.

Drinking Water Studies. The Administrator of EPA is directed to conduct a study to identify groups that may be at greater risk than the general population of adverse health effects from exposure to contaminants in drinking water. The Administrator is also required to conduct biomedical studies to understand the mechanisms by which contaminants are absorbed, distributed, metabolized and eliminated from the human body and for other purposes. The Administrator is additionally required to support the development of several rulemakings, to include toxicological studies. $12,500,000 is authorized for fiscal years 1997 through 2003. The Director of the Centers for Disease Control and the EPA Administrator are required to jointly establish waterborne disease occurrence studies in at least 5 major U.S. cities as well as undertake national health care provider training. $3,000,000 for this purpose is authorized in fiscal years 1997 through 2001.

Bottled Water. The bill requires the promulgation of bottled water standards no less protective of public health than standards applied to public water systems. Not later than 180 days after EPA promulgates an MCL or treatment technique for a new contaminant, the Secretary of Health and Human Services shall issue a regulation for the same contaminant in bottled water or make a finding that the MCL is not needed to protect public health because the contaminant is not contained in water used for bottled water.

Articles of Interest

Supporters of the Safe Drinking Water Act Amendments of 1996

AIDS Action Council
American Cancer Society
American Oceans Campaign
American Public Health Association
American Rivers
American Water Works Association
Association of Metropolitan Water Agencies
Association of State Drinking Water Administrators
Chesapeake Bay Foundation
Childhood Lead Action Project, RI
Citizen Action
Citizen Action of New York
Clean Water Action
Clean Water Action Alliance of Minnesota
Colorado People's Environmental and Economic Network

Consumer Federation of America
Cornucopia Network of New Jersey, Inc.
Defenders of Wildlife
Environmental Information Center
Environmental Working Group
Friends of the Earth
Government Accountability Project
Kentucky Resources Council
Lake Superior Greens
Long Island Progressive Coalition
Metropolitan Ecumenical Ministry
Mothers & Others
National Association of Counties
National Association of Water Companies
National Conference of State Legislatures
National Consumers League
National Governors Association
National League of Cities
National Water Resources Association
National Wildlife Federation
Natural Resources Defense Council
Network for Environmental & Economic Responsibility
New Jersey Environmental Federation
New York Rivers United
North Carolina Coastal Federation
Northern Environmental Network
Physicians for Social Responsibility
Religious Action Center
Save the Bay, RI
Union of American Hebrew Congregations
U.S. Conference of Mayors
U.S. PIRG
WashPIRG
Wisconsin Citizen Action

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