Calendar No. 226

104TH CONGRESS, *1st Session* | SENATE | REPORT 104–169

SAFE DRINKING WATER AMENDMENTS ACT OF 1995

REPORT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ON

S. 1316

[Including cost estimate of the Congressional Budget Office]

November 7, 1995.—Ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE
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NOVEMBER 7, 1995.—Ordered to be printed

Mr. CHAFEE, from the Committee on Environment and Public Works, submitted the following

REPORT

[To accompany S. 1316]

The Committee on Environment and Public Works, to which was referred the bill (S. 1316) to reauthorize and amend title XIV of the Public Health Service Act (commonly known as the ''Safe Drinking Water Act''), and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill do pass.

GENERAL STATEMENT

Objectives of the Legislation

The outbreak of *Cryptosporidiosis* in Milwaukee in the Spring of 1993 focused the Nation's attention on the Safe Drinking Water Act and dramatically highlighted the fundamental problem with the Act as it is currently written and implemented. Although the Environmental Protection Agency (EPA) developed a research plan to improve our understanding of *Cryptosporidium* over a decade ago, the research has not been completed and *Cryptosporidium* remains unregulated today. The problem is that the Safe Drinking Water Act unintentionally discourages EPA from concentrating its resources on regulating contaminants that pose the highest health risks. Instead, the Safe Drinking Water Act requires EPA to regulate a long list of contaminants, regardless of the seriousness of the threat they pose to public health and regardless the frequency with which they occur in drinking water.

The bill addresses the legitimate concerns that have been raised regarding current law and provides important mid-course

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corrections to the Act, while at the same time ensuring that we continue to protect public health. It reflects over 2 years of hearings and extensive discussions with the stakeholders.

In drafting the Safe Drinking Water Act Amendments of 1995, the Committee sought to achieve several objectives. First, the Act must give EPA flexibility to set drinking water standards based on peer-reviewed science and the benefits and risks associated with contaminants. Second, Congress must commit the funds to carry out needed research to identify those contaminants that pose the most serious health concern. Third, a public record must be created to educate the American people about the risks they face from a particular contaminant, and the costs to regulate it. Fourth, the Act must be administered to be affordable for small systems. Finally, Congress must allow States and local governments to be full partners in the development, implementation and enforcement of drinking water regulations.

Summary of the Major Provisions

To achieve these objectives, S. 1316:

- authorizes a new grant program to capitalize State revolving funds to make grants and loans for drinking water treatment;
- establishes new principles for the selection of contaminants for regulation based on sound science and occurrence at levels of public health concern;
- allows EPA to weigh relative costs and health benefits and competing health risks in new standards;
- provides for consideration of other risk factors in setting standards for radon, arsenic and sulfate;
- gives each State flexibility to tailor monitoring requirements to the conditions that exist in the State;
- authorizes variances for small systems that cannot afford to comply with national standards;
- provides funds for technical assistance, operator training and capacity development strategies;
- encourages voluntary partnerships at the local level to protect source waters from contamination; and
- increases funding for State program administration and technical assistance.

BACKGROUND

Compared to other environmental laws, the Safe Drinking Water Act is relatively simple in structure. But to be successful, it requires a high degree of intergovernmental cooperation. The rapid pace of new regulations and the shortage of resources at all levels of government are now causing implementation problems for those subject to the requirements of the Act.

Federal Standards

The Federal role in the Safe Drinking Water Act is expressed through national primary drinking water regulations promulgated by EPA. These are standards applicable to public water systems and are established to protect public health from contaminants that may occur in drinking water supplies. Generally, the standards are stated as concentrations of particular contaminants in the water (in parts per million or parts per billion) as delivered to the tap of the consumer. The regulations also require public water systems to monitor (sample and test) supplies to assure that the standards are not exceeded. Monitoring costs are often a substantial portion of the overall cost imposed by a drinking water regulation.

EPA is required by the Safe Drinking Water Act to set standards for 83 specific contaminants. The list was originally developed by EPA based on studies conducted by the National Academy of Sciences and from water quality surveys done by EPA to determine which contaminants actually occur in drinking water.

In addition to these 83 substances, EPA is also required to set standards for an additional 25 contaminants (selected by EPA) every 3 years. EPA has not yet issued any standards to fulfill this mandate.

The standard-setting process is accomplished in two steps. First, EPA determines how much exposure to any particular substance from drinking water is "safe". The "safe" level of exposure identified by EPA is called the maximum contaminant level goal or MCLG. The MCLG incorporates a margin of safety to reflect scientific uncertainty and, in some cases, the particular susceptibility of some groups (*e.g.*, children) within the general population. It is not an enforceable standard. Drinking water with concentrations of a contaminant at or below the MCLG for the contaminant will not cause adverse health effects.

For substances that may cause cancer, the "safe" level or MCLG has always been set at zero reflecting the principle (used in health policies across the Federal Government since the 1950s) that any exposure to a carcinogen may trigger a malignant tumor. Twenty-seven of the contaminants currently regulated have an MCLG of zero because of the cancer-causing potential of the contaminants. Forty-eight other contaminants have non-zero MCLGs.[1]

In the second step, EPA sets the enforceable standard as close to the goal as feasible using the best available treatment technology that is affordable to large, regional public water systems. The standard is called the maximum contaminant level or MCL. It is the number that water suppliers must meet at the consumers' taps. For substances that do not cause cancer, the MCL has almost always been set at the same level as the MCLG. But for the carcinogens, it is not practical to set the standard at zero. For these contaminants the standards reflect not the health goal, but the removal efficiencies and analytical limits of best available treatment and testing technologies.

[1] There are no MCLGs for several contaminants, either because they are controlled by treatment technique requirements rather than MCLs or because standards for the contaminant were established at a time when the Act did not require an MCLG.

The Safe Drinking Water Act authorizes EPA to establish a treatment requirement rather than an MCL, where compliance with a numerical standard is not practical (because it is not possible to measure the contaminant in drinking water). EPA has used this authority in addressing the lead problem. Under the recently promulgated lead and copper rule, there is no MCL for lead. Rather EPA has established a testing program and required systems to implement corrosion control or lead service line replacement where an action level for lead is exceeded.

As discussed below, the national primary drinking water regulations also include requirements for filtration and disinfection.

State Administration

Once EPA has set standards, the program is largely administered by the States. All States, except Wyoming and the District of Columbia, have been granted primacy for most rules. Primacy means that the State is responsible for assuring that Federal health standards are met by local water suppliers. Primacy for a contaminant is granted when a State adopts its own regulation for the contaminant that is no less stringent than the one issued by EPA. At the State level, the program is often run by health departments rather than by environmental agencies. The health departments frequently operate the laboratories that actually test water samples to determine whether the standards are met.

In addition to the Federal requirements, most State programs have other elements including sanitary surveys (inspections) and training for local operators that are significant factors in ensuring the safety of drinking water.

Most States make relatively modest expenditures to carry out the Safe Drinking Water Act. Setting aside the handful of States that make a substantial effort, 45 States spend an average of approximately 20 cents per person per year at the State level for their drinking water programs.

EPA also provides grants to the States to support the public water system supervision program. Frequently, the Federal grant to a State is more than the State itself provides for the program. Federal grants for this purpose totaled $70 million in fiscal year 1995.

Local Supply

Regulations issued under the Safe Drinking Water Act require the local supplier to periodically monitor for contamination. The monitoring is conducted by drawing samples at the treatment plant, in the distribution system and at consumers' taps. If the monitoring shows that a standard has been exceeded, the supplier must notify all of the users through available media (newspaper and radio) and by mail. The supplier must also take steps to correct the problem by treating the water to remove or reduce the contaminant to safe levels. Civil penalties may be imposed by EPA or a State for a failure to comply with monitoring, treatment and notification requirements.

The regulation of drinking water is complicated by the large number of public water systems and the great variation in the size and sophistication of these systems. EPA estimates that there are

approximately 185,000 public water systems subject to the requirements of the Safe Drinking Water Act. Of these, approximately 57,000 are community water systems—those that have 15 service connections or serve 25 or more persons year-round. The community systems meet the drinking water needs of a residential population totaling 243 million, 92 percent of the total U.S. population. The remaining 8 percent of the population receives its water from private wells.

The character of local systems varies dramatically. Some large city systems spend millions of dollars and employ dozens of people expert in a wide range of tasks. Other small community systems are run by homeowners with no technical training and no compensation.

About 87 percent of the community water systems are small (25 percent serve between 501 and 3,300 individuals) or very small (62 percent serve fewer than 500 individuals). While large in number, these systems serve only about 10.7 percent of the population. By contrast, nearly 80 percent of the population (served by public water systems) receives its water from systems serving more than 10,000 individuals.

There are another 128,000 public water systems that are classified as noncommunity water systems because they serve nonresident populations. Of these systems, approximately 24,000 are *non*transient, noncommunity water systems (*e.g.*, systems at schools and workplaces where the same people consume the water everyday), and 104,000 are transient, noncommunity water systems serving the general public at facilities such as camps, hotels, resorts and highway rest stops.

Another important factor in understanding drinking water supply is the variation in the source of raw water. Many of the larger city and county systems draw raw water from surface sources including rivers or lakes or from reservoirs built to store water specifically for drinking water supply. On the other hand, most small systems rely on ground water sources for raw water. Although ground water is less likely to be contaminated by substances regulated under the Safe Drinking Water Act (and therefore less likely to require treatment), a small community may operate several wells and separate distribution lines to meet its needs. Monitoring requirements established by the Act may imposes costs in multiples at these small systems, because each well will need to be individually sampled and tested to ensure that health standards are not exceeded.

Ground Water Protection

In addition to the program for drinking water health standards, the Safe Drinking Water Act also includes provisions to protect underground sources of drinking water from contamination. The principal element of ground water protection is the Underground Injection Control (UIC) program. Under this program approximately 40 States and EPA have taken steps to regulate 300,000 injection wells that dispose of waste underground, including 170,000 oil and gas injection wells and approximately 200 wells used to dispose of hazardous waste.

Because S. 1316 does not address the UIC program (other than to reauthorize EPA grants supporting State activities), this report will contain little additional discussion of this aspect of the Safe Drinking Water Act.

Part C of the Safe Drinking Water Act also includes programs to protect the recharge areas of sole source aquifers and wellhead protection areas for public water systems.

TYPES OF CONTAMINANTS AND HEALTH RISKS IN DRINKING WATER

In recent years EPA and others, including EPA's Science Advisory Board, have done several studies comparing the relative risk to public health from various "environmental" sources. The risks attributed to drinking water have always ranked high in these studies relative to other health threats addressed by EPA programs. EPA estimates that drinking water rules already issued prevent 500 cancer deaths and 200,000 other illnesses each year.

The contaminants and associated health risks from drinking water take several different forms. The following headings group contaminants according to the health effects or the type of contaminant and discuss the relative risk currently experienced from drinking water containing such contaminants.

Microbiological Contamination

Drinking water may contain bacteria, viruses, protozoa and other living organisms that continue to cause widespread health problems. Typhoid and cholera have largely been eliminated as a U.S. health problem through chlorination. But gastrointestinal illness caused by fecal contamination and by the protozoan *Giardia*, associated principally with animal wastes, continue to cause disease outbreaks (about 20 outbreaks per year with up to several hundred illnesses per outbreak). A 1994 paper published by the Centers for Disease Control estimated that 900,000 people experience illness and 900 people die each year as the result of pathogenic organisms in drinking water. A 1993 episode in Milwaukee caused by the *Cryptosporidium* organism caused 400,000 illnesses and more than 100 deaths.

Disinfection Byproducts

The chlorination process that is used to eliminate the threat of pathogenic organisms in drinking water may be the source of another major health threat attributable to the U.S. drinking water supply. Chlorine, used as a disinfectant, combines with other organic compounds (including decomposing leaves and other natural materials) that are in the raw water to form chlorinated, organic compounds like chloroform. As a class of chemicals these compounds are referred to as trihalomethanes or disinfection byproducts. One recently published summary of peer-reviewed health studies estimated that approximately 15 percent of the bladder and rectal cancers (10,000 cases per year) in the U.S. are caused by these compounds in drinking water supplies. The current drinking water standard for trihalomethanes may allow an increase in lifetime cancer risks of 1-in-10,000 (that is 1 in every 10,000 people drinking water with THMs at the standard may experience a fatal cancer as a result). Removing the organic materials before

chlorination or using alternative disinfection methods may be potential avenues to reduce this cancer risk.

Lead

Lead in drinking water presents another major health threat. The source of the lead is generally the service lines and home plumbing that deliver drinking water to the tap. Lead is no longer used in home construction, but corrosive water continues to leach lead from plumbing installed in the first three quarters of the century. Lead continues to be used in the manufacture of faucets and other plumbing fixtures. High lead levels in the blood of children is associated with slower cognitive development (lowering IQ). In adults lead may contribute to high blood pressure, heart attacks and strokes. Lead is also a carcinogen. EPA's lead rule will reduce lead exposure for three million children and prevent 180,000 cases of hypertension. It has a net health benefit of $1.4 billion per year.

Radon and Other Radionuclides

A large number of drinking water systems supplied by ground water wells are contaminated by naturally-occurring radioactive substances including radon, radium and uranium. When these contaminants decay (fission) in the human body, they may cause an increased risk of cancer. In 1991, EPA proposed a radon standard that would (according to EPA's report on the rule) prevent 84 of the estimated 192 annual cancer cases attributable to radon in drinking water at a cost of $272 million per year. The cancer risk from radon entering homes from soil gases (estimated by EPA to be 13,600 cancer cases annually) is much greater than the drinking water risk. Congress has delayed the promulgation of EPA's radon standard to consider the relative risk implications of these statistics.

Other Cancer-Causing Substances

A number of other man-made chemicals, principally industrial solvents and pesticides, occur in drinking water supplies and present a modest cancer risk over a lifetime of drinking water consumption. Almost all systems supplied by surface water (rivers, lakes and reservoirs) are likely to have a large number of these man-made chemicals but in very small quantities. Ground water systems are much less likely to be contaminated, but when they are, the level of contamination may be much higher (because the contaminant moves through ground water in a concentrated plume rather than mixing or evaporating to the air). About 10 percent of ground water wells supplying drinking water systems are contaminated with man-made chemicals—an estimated 3 percent at levels above EPA health standards.

Inorganic Substances

There are a number of other substances, many naturally-occurring, which may contaminate drinking water supplies. Most of these substances are metals or salts with health effects other than cancer. The most widespread inorganic contaminant is nitrate which may come from human and animal waste disposal and from commercial fertilizer. Infants cannot digest nitrate. It enters the

bloodstream and interferes with the uptake of oxygen producing a sometimes fatal disease ("blue baby" disease). Other inorganic contaminants of concern include arsenic, selenium, sulfate and fluoride.

HISTORY OF FEDERAL DRINKING WATER REGULATION

The Federal Government first set standards for drinking water quality in 1914. These standards applied to approximately 800 water systems that provided drinking water for interstate passenger carriers (trains, buses and eventually airlines). The standards were revised and extended in 1942, and again in 1962. The standards were administered by the Public Health Service and were used as a voluntary reference for quality in many city drinking water systems. The Public Health Service eventually set standards for 16 contaminants including bacteria and several inorganic chemicals (arsenic, mercury, cadmium, nitrate, etc.). The drinking water program was transferred to EPA as part of the 1970 reorganization plan that created the Agency.

Congress enacted the Safe Drinking Water Act in 1974. It authorized EPA to set standards for any contaminant in public water systems that may have an adverse effect on health. Congressional action came in response to a series of reports on the large number of industrial and agricultural chemicals that had polluted surface water and ground water supplies and studies conducted by researchers at Cornell University on the presence and health effects of naturally-occurring contaminants found in the water supplies of many small, rural communities.

The Safe Drinking Water Act requires all public water supply systems to comply with health standards issued by EPA. Many of the national primary drinking water regulations do not apply to noncommunity systems serving transient populations.

The standards for the 16 contaminants regulated by the Public Health Service were immediately converted (by the 1974 Act) to national standards applicable to all public water supply systems. In the late 1970s, EPA set additional standards for 6 pesticides. In 1979, EPA set a standard for trihalomethanes (THMs). Trihalomethanes are byproducts of the chlorination process (are among a group of contaminants referred to as disinfection byproducts or DBPs). This group of substances was regulated under a single trihalomethane standard (limiting the combined quantity of all substances in the group) applicable only to those public water systems serving 10,000 or more people.

The total number of standards in place by the early 1980s was 23 including the 16 regulated by the Public Health Service, the 6 pesticides and THMs.

Congress reauthorized the Safe Drinking Water Act in 1986 (the 1986 Amendments) making significant changes in the law. At the time there was a widespread consensus that EPA had not set standards for a sufficient number of contaminants to adequately protect drinking water supplies. Many States were making plans to issue standards of their own. Ground water cleanup efforts across the country were stymied by an inability to answer the question, "How clean is clean." Drinking water standards for 5 industrial solvents proposed by EPA were being held by the Office of Manage-

ment and Budget. In this environment, the States, along with water suppliers and the environmental community, urged that EPA be required to move forward on a standard-setting agenda that would fulfill the Federal role.

In the 1986 Amendments, Congress listed 83 contaminants (including 22 of the contaminants for which standards had already been set) and required EPA to establish or revise standards for each contaminant within 3 years. The list of 83 contaminants was developed by EPA based on studies conducted by EPA and the National Academy of Sciences and had been published in the Federal Register. Congress authorized EPA to modify the list subsequent to enactment allowing the Agency to delete up to 7 contaminants on the list and substitute other contaminants posing greater health problems. EPA used the authority to make 7 modifications to the list.

In addition, the 1986 Amendments required EPA to add 25 contaminants to the list every 3 years after the standards for the initial 83 contaminants had been issued. (If EPA had fully complied with this requirement of the law, standards for 133 contaminants would have been issued by 1994.)

Although EPA has yet to act on the mandate for 25 additional standards every 3 years, work on the initial set of 83 standards has largely been completed through the following regulations:

- a standard was issued for fluoride on April 2, 1986;
- standards for a group of 8 volatile organic compounds including benzene and trichloroethylene (generally called the Phase I or VOC rule) were issued on July 8, 1987;
- the surface water treatment rule setting standards for bacteria, viruses, *Giardia* and *Legionella* was issued on June 29, 1989 and covered 6 contaminants;
- a rule covering 34 organic and inorganic contaminants including pesticides and metals (previously regulated) and called the Phase II rule was issued on January 30, 1991;
- a rule for lead and copper was issued on June 6, 1991;
- a rule for aldicarb and its byproducts and pentachlorophenol (a total of 4 contaminants) was issued on July 1, 1991; and
- a rule covering 23 pesticides, organic chemicals and inorganic chemicals and called the Phase V rule was issued on July 25, 1992.

In addition EPA has proposed standards for a group of 6 radionuclides, including radon (published July 18, 1991), and sulfate (published December 1, 1994) and has under consideration a standard for arsenic.[2]

Although EPA did not complete the standard-setting process within 3 years, it has now reached the point where standards have been promulgated or proposed for 88 contaminants. EPA has also

[2] Because arsenic and some radionuclides were regulated under the old Public Health Service rules, standards for these contaminants are in place and enforced. EPA is reviewing and revising these standards in response to the 1986 Amendments. Radon was not one of the radionuclides regulated under the old rules.

identified the first group of 25 additional contaminants for which regulations are to be set. Approximately one-half of the contaminants in this group are disinfectants or disinfection byproducts, many of which are already regulated as trihalomethanes under the standard promulgated in 1979. EPA conducted a regulatory negotiation among interested parties to arrive at the new standards for disinfection byproducts leading to proposed regulations published in the Federal Register on July 29, 1994.

EPA also has under study a group of 13 contaminants, known as the Phase VIb group, that would fulfill the mandate for the first 25 contaminants to be regulated after the initial list of 83 was completed.

In addition to MCLs for specific contaminants, the Safe Drinking Water Act also mandates filtration treatment for water supplies drawn from surface water sources and disinfection for all systems. Filtration (forcing the water through sand or some other material) removes the larger microorganisms, including *Giardia* and, to some degree, *Cryptosporidium*, which may cause intestinal diseases. If the water supplier can show that the surface water source is protected (development in the watershed is controlled to prevent contamination of the reservoir), a waiver from filtration can be granted by the State in which the system is located.

Disinfection with chlorine (or other reactive agents) is used to prevent disease caused by biological contaminants. It is almost universally used in systems drawing from surface waters. However, many ground water systems have not employed disinfection because the source water is much less likely to be contaminated. Because bacteria and viruses can enter into ground water and may also grow in the distribution systems (in the pipes and lines that deliver the water to homes), the 1986 Amendments mandate disinfection for ground water supplies, as well. EPA has yet to issue the rule for disinfection of water from ground water sources.[3]

PROBLEMS AND SOLUTIONS

As regulations promulgated under the 1986 Amendments began to take effect in the late-1980s, increasing concerns were expressed about the impact of Federal mandates on local drinking water systems and the capacity of States to keep up with a growing workload. These concerns prompted amendments to the fiscal year 1993 appropriations bill for EPA to modify the direction of the drinking water program. After a thorough debate of the principal elements of the Act, including standard-setting authorities and the monitoring requirements that had been imposed, the Senate adopted a two-part amendment that required EPA to prepare a general report on implementation problems and prohibited EPA from promulgating a standard for radon until further analysis of the science supporting the standard had been completed.

EPA published the general report on the capacity of States and public water systems to comply with the Act in September, 1993 *(Technical and Economic Capacity of States and Public Water Systems to Implement Drinking Water Regulations: Report to Congress)*. At that time, EPA also made ten recommendations for re-

[3] These requirements are modified by the bill.

form that included creation of revolving funds, streamlining enforcement authorities, protecting source water and addressing the capacity problems of small systems.

In the 103d Congress, the Committee reported S. 2019, a reauthorization bill incorporating many of the recommendations made by EPA and other reforms that were proposed by a coalition of State and local organizations with direct interest in the drinking water program. That bill was considered and passed by the Senate on May 18, 1994 by a vote of 95–3 . The House also passed a reauthorization bill by a similar margin.

S. 1316 builds on this foundation in the following ways.

An Unfunded Mandate

National primary drinking water regulations issued under the 1986 Amendments are imposing substantial costs on public water systems. EPA estimates that capital expenditures needed nationwide to comply with current requirements of the Safe Drinking Water Act total approximately $8.6 billion, and approximately 40 percent of these expenditures will be required of small systems. Additional rules under development, particularly standards for disinfection byproducts, radon, arsenic and requirements for the disinfection of ground water systems may impose substantial additional capital costs. Many systems will not be able to finance treatment facilities to comply with the new regulations without financial assistance.

Other Federal statutes mandating investment in local utility services have provided grant assistance to go with the mandate. For instance, Congress has appropriated more than $65 billion to build sewage treatment facilities to meet the secondary treatment requirement imposed by the 1972 amendments to the Clean Water Act. No similar assistance has been provided through the Safe Drinking Water Act. Some other programs, notably the Rural Utilities Service in the Department of Agriculture (called the Farmers Home Administration, until recently), have provided substantial assistance for development of rural water and wastewater systems. USDA has provided more than $4 billion in grants and $12 billion in loans for drinking water supply and wastewater treatment plants since the mid-1970s.

In early 1993, President Clinton proposed creation of State Revolving Loan Funds for drinking water capital investments modeled after the loan funds created under the Clean Water Act in 1987. The bill authorizes $600 million in fiscal year 1994 and $1 billion per year through fiscal year 2003 for this new SRF program. This authorization is sufficient to cover the capital investments in treatment needed to comply with Federal health standards. EPA appropriations bills for fiscal years 1994 and 1995 included funds for this new SRF program, pending authorization. Priority funding would go to projects to address the most serious public health problems and to communities most in need of assistance, as determined by the States. And in contrast to the SRF program under the Clean Water Act, States may provide grants to systems that cannot afford to repay loans.

Small Systems

Many small public water systems have difficulty complying with Federal drinking water regulations, in some cases due to a lack of technical expertise and financial resources for treatment and monitoring.

As with most public utilities, there are significant economies of scale in drinking water supply. EPA and the Congressional Budget Office have published estimates indicating that systems serving more than 10,000 people experience costs that *average* less than $20 per household per year to comply with the current requirements of the Safe Drinking Water Act. By way of comparison, the average annual incremental household cost to comply with the requirements of the Safe Drinking Water Act for systems serving 25 to 100 persons is $145. Costs for some systems may be much higher than these national averages.

In addition to the loans and grants available through the new SRF program discussed above, S. 1316 will reduce the burdens faced by small systems in several ways:

- States are authorized to grant variances to small systems that cannot afford to comply with national primary drinking water regulations;
- States are to adopt capacity development strategies to assist small systems in attaining the technical, financial and managerial capacity that will make it possible to comply with the Act;
- a portion of the SRF funds may be set aside for technical assistance to small systems and the cost of training operators may be included in the SRF grant or loan;
- States may reduce monitoring requirements for many contaminants by 75 percent for small systems that do not detect a contaminant in the first test of a quarterly series; and
- the standard for radon (that will affect mostly small systems served by ground water sources) is set at 3000 pCi/L rather than 300 pCi/L as proposed by EPA in 1991.

Selection of Contaminants for Regulation

Because EPA had failed to take action to set national standards for contaminants that were of public health concern, the 1986 Amendments listed 83 specific contaminants and required EPA to set standards for these substances by 1989. That legislation also directed EPA to set standards for an additional 25 contaminants every 3 years beginning in 1991.

This single provision of the Safe Drinking Water Act has provoked more critical comment than virtually any other element of environmental law. Some of the 83 contaminants for which standards are required occur so infrequently in public water systems that the costs of monitoring (for a substance not present) far outweigh any health benefit that could be realized at the few systems that may detect the contaminant. In other cases, the available science is so uncertain that standards incorporate extravagant margins of safety (30,000-fold for one contaminant) making it im-

possible to assert that expenditures to implement the regulation are a public health necessity. Finally, the mandate that EPA set standards for an additional 25 contaminants every 3 years regardless of the threat posed by these contaminants in drinking water is for many the quintessential example of an arbitrary Federal law imposing burdens on consumers and the taxpayers of other governments with no rational relationship to the public benefits that might be realized.

Governor George Voinovich of Ohio clearly stated this view at the Committee's hearing on October 19, 1995:

> "The Safe Drinking Water Act is a perfect example of an arbitrary environmental statute in dire need of reform. After all, the very essence of the bill is a requirement that EPA promulgate 25 new contaminants every 3 years that communities must test for, regardless of whether or not they actually occur in the region's drinking water.
>
> "At this untenable pace local communities could have to monitor as many as 161 contaminants by 2001. Instead of prioritizing health risks and providing the means to address them, the current law is a one-size-fits-all program. It forces our water quality experts to spend scarce resources searching for dangers that often do not exist rather than identifying and removing real health risks from our drinking water."

S. 1316 repeals the requirement that EPA regulate an additional 25 contaminants every 3 years replacing it with a new selection process that gives EPA the discretion to identify contaminants that warrant regulation in the future. The selection process has several elements including:

- every 5 years EPA is to publish a list of high priority contaminants that should receive additional study;
- EPA may require monitoring at public water systems for up to 20 unregulated contaminants to gather information on the occurrence of contaminants in public water systems;
- EPA is to maintain a national occurrence database including information on regulated and unregulated contaminants;
- decisions made by EPA under the Act are to be guided by new principles for sound science;
- EPA is to set aside $10 million from the annual appropriation for SRF grants to conduct health effects research on contaminants that are candidates for regulation; and
- every 5 years EPA is to make regulatory decisions for at least 5 contaminants announcing whether they warrant regulation or not.

Standard Setting

Under current law, EPA establishes drinking water standards through a two-step process. First, the Administrator identifies the maximum contaminant level goal (MCLG) reflecting a concentration of the contaminant in drinking water at which no adverse effects to the health of persons will occur. Second, the Administrator

sets an enforceable maximum contaminant level (MCL) as close to the goal as feasible.

Feasible means that the level can be reached by large, regional drinking water systems applying best available treatment technology to raw water sources that are contaminated. EPA takes costs into account in identifying best available technology. The treatment system must be affordable on a per household basis for very large systems. With one exception, the treatment technologies that EPA has used to set standards cost less than $100 per household per year for very large systems. This approach to standard setting is used because 80 percent of the population receives its drinking water from large systems and safe water can be provided to this portion of the population at very affordable costs.

However, the standard setting authority of current law has been criticized for three principal reasons. First, treatment technologies that are affordable to large systems may be unaffordable and impose substantial per household costs at small systems.

Second, for some contaminants this approach to standard setting can impose large aggregate costs nationwide while producing only small gains in public health risk reduction. This is especially true of substances that are regulated for their cancer-causing effects, that have a low potency and that occur at low concentrations principally in the ground water relied upon by small systems. Although the treatment technology may be entirely affordable for large systems, the incremental health benefits of addressing already small risks often do not justify the aggregate costs. The only identifiable benefit that can be stated for some standards is to prevent a handful of cancer cases nationwide, in some cases at costs that exceed tens of millions of dollars per cancer case avoided.

Third, use of some treatment technologies may actually increase risks from other contaminants. For instance, chlorine used to kill pathogenic organisms may result in an increased cancer risk from disinfection byproducts. Read literally, the statute requires EPA to "over control" some contaminants to a degree that overall public health risks from drinking water would be greater using the best available technology that is feasible than risks would be if the standard were set at a less stringent level.

S. 1316 includes several provisions to respond to these concerns:

- States may provide variances to small systems that cannot afford to comply with national standards;
- EPA may balance competing risks from several contaminants, if the treatment technology to control one would increase risks from others;
- EPA may set a standard at a level less stringent than feasible, if the costs of a standard reflecting application best available technology are not justified by the benefits; and
- the unique characteristics and risks of arsenic, radon and sulfate are addressed with special standard setting provisions.

Although the bill includes new risk assessment and cost-benefit considerations to address unresolved problems in the standard

setting authorities of the Act, EPA may not use this new authority to relax any existing standard, unless new science indicates that a less stringent standard would be equally protective of public health (*i.e.*, the concentration at which no adverse effects occur is re-established at a higher level based on new scientific information).

Radon

Radon is a naturally-occurring gas that may be a contaminant in drinking water systems, especially small systems, served by ground water supplies. When water is used in the home for bathing, cooking and washing, the radon evaporates into the indoor air. Inhalation of this radon may present an increased risk of lung cancer. Radon ingested with drinking water may also present a cancer risk.

The 1986 Amendments required EPA to set a standard for radon. In 1991, EPA proposed a standard of 300 picocuries per liter (pCi/L) and estimated the compliance cost at $272 million per year nationwide. The drinking water community argued that the costs may be much higher than EPA estimated. Radon from drinking water typically contributes less than 5 percent of the radon gas in indoor air. Since a significant effort is not being made to reduce the other 95 percent of radon (where costs per cancer case avoided may be much less), the drinking water standard was viewed as too stringent to be justified. Congress has postponed promulgation of this regulation since 1992.

The bill sets a standard of 3000 pCi/L for radon, reducing the indoor inhalation risk from radon in drinking water to a level commensurate with the risk of breathing radon in outdoor air.

Monitoring

Many drinking water systems, especially small systems, are concerned with the high costs of monitoring to establish compliance with new standards for organic chemicals and pesticides. In fact, the greatest compliance costs for many small systems are for monitoring, not treatment. If a contaminant is not found through testing, no treatment is required, and there are no further costs. The existing authority to grant waivers from monitoring requirements has not been effectively used by all States, resulting in monitoring costs that are higher than necessary for many systems.

To respond to these concerns, the reported bill makes four changes in monitoring requirements. First, it allows States to develop alternative monitoring rules that would be used in lieu of the national requirements. This provision will allow States to design less stringent monitoring rules that assure compliance and enforcement while taking into account special circumstances in the State. More efficient use of sampling and laboratory capacity will reduce costs to water systems.

Second, the bill provides the authority for small systems serving less than 10,000 persons to reduce testing frequencies for many contaminants from four times in a monitoring cycle to once, if no contaminants are found in the first test and they are unlikely to be found thereafter. This cuts monitoring costs for small systems by up to 75 percent. This authority was available to systems serving fewer than 3,300 persons during fiscal year 1993.

Third, EPA is directed to review no fewer than 12 of its national monitoring requirements within 2 years to determine if they should be modified, based on the latest occurrence and health effects data.

Fourth, the bill restructures the program for monitoring of unregulated contaminants, dropping the requirement that all systems monitor and providing that States may select a representative sampling of small systems (serving a population of 10,000 or less) for this type of monitoring. EPA is to set aside $2 million from each annual appropriation for SRF grants to pay for the cost of testing samples taken from these small systems.

State Funding

A major problem with the drinking water program is lack of sufficient funds to run programs at the State level. Although there is considerable flexibility to tailor requirements and reduce costs under the Act and the regulations that EPA has issued, many States have been unable to take full advantage of this flexibility because they lack the staff and resources to conduct the science and fact-gathering needed to support variances, monitoring waivers and other discretionary features of the drinking water program that can reduce costs for local public water systems.

All the States, except Wyoming and the District of Columbia, have been granted primacy for most rules and are implementing the law today. While EPA provides grants to assist States to carry out their public water system supervision responsibilities, funding from Federal and State sources in fiscal year 1993 was slightly less than half the amount needed to implement effective programs in all States. Unless more resources are devoted to the effort at the State level, the most cost-effective program will remain an elusive goal for many States.

To reduce the funding shortfall and allow time for States to increase their own financial capacity, S. 1316 increases the authorization for grants to support State Public Water System Supervision (PWSS) programs from $40 million (in current law) to $100 million annually. Congress appropriated $70 million for fiscal year 1995 to make these grants.

More importantly, the bill also authorizes States to use a portion of their SRF funds to administer the PWSS program. Each State has the discretion to take from its SRF grant an amount equal to the amount of its PWSS grant to carry out the oversight program. While this provision will result in fewer dollars available for loans to build treatment plants for public water systems, the ability of a State to implement effectively the new authorities for alternative monitoring requirements, small system variances, capacity development and technical assistance may produce significant cost savings for all drinking water systems in the State.

S. 1316 authorizes the Governor of each State to transfer up to 50 percent of the funds in the State's drinking water SRF to the clean water SRF or to transfer an equivalent dollar amount from the clean water SRF to the drinking water fund. This provides States flexibility in the use of the loan funds to assure that their highest infrastructure priorities are addressed.

SECTION-BY-SECTION SUMMARY

SECTION 1. SHORT TITLE; TABLE OF CONTENTS; REFERENCES

Section 1 includes the title of the bill, a table of contents for the bill and provides that amendments made by the bill are to title XIV of the Public Health Service Act. The bill is entitled "The Safe Drinking Water Act Amendments of 1995".

SECTION 2. FINDINGS

The Congress finds: that a substantial number of public water systems are having difficulty meeting the requirements of the Safe Drinking Water Act because of technical and financial limitations and need greater assistance; that modifications in administration of the program could promote a more productive partnership with the States; that the quality of the science supporting drinking water standards needs improvement; that risk assessment and benefit-cost analysis are important and useful tools to improve the efficiency and effectiveness of drinking water regulations; and that Federal, State and local governments need additional resources and more effective authority to improve compliance with the Act.

SECTION 3. STATE REVOLVING LOAN FUNDS

Summary

The bill establishes a new State Revolving Loan Fund (SRF) program for drinking water infrastructure. The Federal Government will provide capitalization grants to State-run SRFs. States will use these funds, along with their own contributions, to make grants and loans to public water systems to facilitate compliance with the Safe Drinking Water Act. The bill includes an authorization of $1 billion per year through fiscal year 2003 for capitalization grants.

States may receive grants if they establish a loan fund and agree to conditions, including providing a 20 percent State match, use of loans in compliance with an intended use plan, and proper financial management.

In fiscal years 1994 through 1997, funds are allocated among the States based on a grant formula used to allocate funds for Public Water System Supervision (PWSS) grants, a long-standing grant program that provides funds to the States to support administration and enforcement of national primary drinking water regulations. For fiscal year 1998 and after, funds are to be allocated according to a new formula developed by the Administrator based on a survey of drinking water needs in each State. This needs assessment is already underway.

In addition to the allocation for States, 1.5 percent of the Federal grant funds are reserved for Indian tribes and 0.5 percent of the funds are reserved for territories. Indian tribes, territories, and the District of Columbia may receive direct grants rather than loans.

Each State may reserve a portion of its annual grant to provide technical assistance to small water systems. Assistance may include financial management, planning and design, source water

protection programs, system restructuring, and other measures for capacity development or water treatment.

Projects eligible to receive loan and grant assistance are capital expenditures for (1) compliance with national primary drinking water regulations; (2) upgrading of drinking water treatment systems; (3) replacement of private wells where they present a significant health threat; and (4) restructuring of systems and the development of alternative sources of water supply.

Drinking water systems eligible for assistance are those public water systems (as defined in the Act) that are community water systems (whether publicly or privately owned), publicly owned systems (except systems owned or operated by an agency of the Federal Government) and noncommunity water systems that are owned by a nonprofit organization. States may not provide assistance to systems with a history of noncompliance, unless steps are taken to assure that the system will have the capacity to comply with requirements of the Safe Drinking Water Act over the long term.

States may assist disadvantaged systems, including both large and small systems, through grants and forgiveness of loan principal. Each State is to develop its own affordability criteria to determine which public water systems are eligible for grants, rather than loans. The total amount of grants and loan forgiveness provided by a State in any fiscal year may not exceed 30 percent of the amount of its capitalization grant from EPA.

A State may use a portion of the capitalization grant to support its Public Water System Supervision program. A State may also use up to 15 percent of its annual grant to support programs for source water protection and capacity development.

Prior to making grants to States for SRFs, the Administrator is authorized to reserve a portion of the appropriation for research, monitoring at small systems and technical assistance.

Discussion

Complying with drinking water standards and maintaining the effective operation of drinking water systems is becoming increasingly expensive. The EPA has estimated that the total capital investment needed to comply with current drinking water standards is approximately $8.6 billion. New regulations for disinfection byproducts, radon, arsenic and disinfection of ground water supplies may substantially increase these costs.

Small systems have the most difficult time financing capital improvements needed to meet drinking water standards. These systems have limited access to the bond market and limited financial management capabilities. In addition, because small systems do not benefit from the economies of scale available to large systems in drinking water treatment, the per household costs of a capital project at a small system can be very high and result in dramatic increases in water rates.

Section 3 of the bill establishes a new grant program to assist public water systems with the infrastructure investments necessary to provide safe drinking water. The grants are made to States to capitalize revolving loan funds to help finance drinking water projects. The new loan funds are modeled after the success-

ful loan fund program now in place under the Clean Water Act. The new SRF program for drinking water was first proposed by President Clinton in early 1993. Congress has previously endorsed this initiative by making advance appropriations for this purpose for fiscal years 1994 and 1995.

The grant program is authorized in a new part G of title XIV of the Public Health Service Act (sections 1471 through 1478) that contains all of the authority necessary to carry out the program. The grant program is to be administered by EPA.

Section 1471 provides that the Administrator may enter into a capitalization grant agreement with a State where a State establishes a loan fund and agrees to conditions including providing a 20 percent State match, use of loans in compliance with an intended use plan, and proper financial management.

All of the States already operate revolving loan funds for wastewater treatment plant construction under the Clean Water Act. A State may consolidate management of the new drinking water SRF with its existing wastewater treatment loan fund, provided that accounting for drinking water loans and repayments remains separate. A Governor of a State may transfer up to 50 percent of the funds provided to the drinking water loan fund each year to the loan fund authorized under the Clean Water Act. An equal dollar amount may be taken from Federal grants to the clean water fund in a State and transferred to the drinking water fund. The authority to establish priorities for loans and grants to public water systems is to remain with the State agency that has primary enforcement responsibility for the drinking water program.

Section 1472 directs the Administrator to make capitalization grants to eligible States and provides for the allocation of funds among the eligible States and territories. In fiscal years 1995 through 1997, funds are to be allocated among the 50 States and Puerto Rico according to a formula now used for the Public Water System Supervision (PWSS) program under section 1443. However, the minimum share for each State for a capitalization grant under part G shall be 1 percent of the appropriation (after the reservations made pursuant to section 1478(b)-(d) and this section). A minimum proportionate share of 1 percent is also to be provided to the State of Wyoming even though it does not receive a PWSS grant (because it has not taken primacy).

For fiscal year 1998 and after, funds are to be allocated according to a new formula developed by the Administrator based on a survey of drinking water needs in each State. The survey of State needs for this new formula is already underway. This formula shall also include a minimum State share of 1 percent for each of the 50 States and Puerto Rico.

In addition, 1.5 percent of funds are reserved for grants to Indian tribes, and 0.5 percent for grants to the District of Columbia and the territories. Indian tribes, territories, and the District of Columbia may receive direct grants, rather than capitalization grants for the purpose of making loans.

States are authorized to reserve up to 2 percent of funds, or $300,000, whichever is greater, to provide technical assistance to water systems serving a population of 10,000 or less. Technical as-

sistance may include financial management, planning and design, source water protection, or system restructuring.

The Administrator is to withhold a portion of the SRF capitalization grant from States that have not adopted authority to prevent systems that lack the technical, managerial and financial capacity to comply with the Act from commencing operation as required by section 1418(a). The amount withheld is 5 percent for fiscal year 1999, 10 percent for fiscal year 2000, and 15 percent for each fiscal year thereafter. Funds withheld are reallocated to other States that have adopted this authority.

Section 1473 defines the projects eligible for assistance from the loan fund. Projects eligible to receive loan assistance are capital expenditures for:

- compliance with national primary drinking water regulations;
- consolidation of systems and use of an alternative source of water supply;
- upgrading of drinking water treatment systems; and
- replacement of private wells with a public water system where the private wells present a significant health threat.

Land acquisition is not eligible, unless the land is needed for a treatment facility. Other costs associated with building or acquiring water treatment facilities including engineering and economic studies, legal work and other costs typically associated with capital projects are eligible for assistance. Associated costs that are eligible for assistance also include training for system operators.

The bill precludes assistance to systems that have a history of past violations and that do not have the technical, managerial and financial capacity to comply. Assistance may only be provided in these cases where the owner or operator of the systems agrees to undertake the changes in operations that the State primacy agency determines are necessary to comply with the requirements of the Act over the long-term. The operational changes may include changes in ownership, management, accounting, rates, maintenance, consolidation with another system, and the development of an alternative water supply.

Drinking water systems eligible for assistance are: community water systems (whether publicly or privately owned); all publicly-owned systems, except systems owned or operated by Federal agencies; and noncommunity water systems owned by nonprofit organizations.

Types of assistance available through the loan fund are:

- loans (provided that interest rates do not exceed market rates; that repayments start 1 year after project completion; that there will be a dedicated source of revenue to repay the loan; and that repayment is made in 20 years, unless the recipient is a disadvantaged community and receives a loan with a 30-year repayment schedule);

- refinancing of an obligation incurred for an eligible project after October 14, 1993 or incurred to comply with regulations established pursuant to the 1986 Amendments;
- guarantee of a market loan or the purchase of insurance for such a loan;
- a source of revenue or security for a State obligation related to the loan fund; and
- a source of revenue or security for the payment of interest on a local obligation.

Experience under the SRF program of the Clean Water Act indicates that some communities cannot afford to repay a loan, even at low interest. The bill addresses this problem by allowing States to assist disadvantaged communities through forgiveness of loan principal (including all of the loan principal for a particular project). Each State is to develop affordability criteria to identify disadvantaged communities eligible for principal forgiveness. A disadvantaged community may be a large city or a small, rural public water system. The Administrator may publish information to assist States in developing affordability criteria. The total amount of the loan forgiveness in a fiscal year may not exceed 30 percent of the amount of the capitalization grant received by the State for that year.

States may use a portion of their SRF capitalization grants for land acquisition and to support source water protection programs and capacity development strategies. A State may use up to 15 percent of its grant for these purposes in combination, but not more than 10 percent for any one of the following activities:

- to acquire land or a conservation easement from a willing seller or grantor if the purpose is to protect source waters for drinking water systems;
- to implement the recommendations of a source water quality protection partnership that has submitted a petition approved by a State with a program under section 1419(d);
- to make expenditures from grants received for fiscal years 1996 and 1997 to delineate and assess source water protection areas; and
- to make expenditures to implement capacity development strategies developed under section 1418.

Funds used for land acquisition and to implement source water quality protection partnership recommendations may only be distributed in the form of loans to public water systems that are to be repaid to the fund according to the provisions of this part. The public water system may make these funds available in the form of assistance to other participants in a partnership.

Section 1474 provides that each State may reserve up to 4 percent of the capitalization grant for administration of the fund.

Each State may also expend funds from its annual capitalization grant to administer the Public Water System Supervision program in the State. Eligible expenditures also include the cost of developing and implementing source water protection programs and

capacity development strategies. There is a limitation on the amount of funds from an SRF grant that may be expended for these purposes equal to the amount of the PWSS grant received by the State under section 1443 for that year. The bill also includes a maintenance of effort requirement to ensure that States will not reduce their own appropriations as the Federal commitment increases. States may not make any use of the capitalization grants for these purposes, unless the Administrator determines that the State supports the PWSS program with its own funds in an amount not less than the amount provided in 1993.

Each State is to develop an intended use plan for its fund. The plan is to establish a priority list for projects and provide that priority be given to projects that address the most serious risks to human health, those necessary to achieve compliance with the requirements of the Act (including filtration) and those that assist systems most in need on a per household basis according to State affordability criteria. The priority list should be the focus for planning and financing decisions and the public is to be given an opportunity to review and comment on each annual intended use plan, including the priority list and the list of projects that the State intends to assist.

Section 1475 directs EPA and the States to conduct various reports, studies and audits. The bill requires an annual review or audit of the funds provided to each State. The State may conduct this audit pursuant to the Single Audit Act of 1984 with the expectation that this will significantly reduce the oversight costs associated with the audit. Each State is to file a biennial report with EPA on its use of the funds provided by the new SRF program.

The Administrator is to conduct a drinking water needs assessment. The purpose of this assessment is to provide the information that EPA will use in the future to allocate funds among the States and to determine whether the authorizations and appropriations made under this part are sufficient to meet drinking water infrastructure investment needs.

EPA has already begun to collect information for the first needs assessment. The assessment is to be completed within 1 year of enactment and to be repeated every 4 years thereafter. The needs to be assessed for the purpose of future allocation formulas are only those needs that would be eligible for assistance under section 1473(b) at public water systems that are eligible for assistance. Other projects that might receive funding under other provisions of part G (for instance those that might be assisted through one of the set asides) would not be factored into the needs assessment categories that are to be used to establish allocation factors.

The Administrator is to submit an evaluation of State loan funds established under this part with the appropriations request submitted for the Agency for fiscal year 2001. The purpose of this evaluation is to provide for modifications to the program in future authorization bills.

Section 1476 provides that the inability of a system to receive assistance from the loan fund or any other loan or grant program does not alter the obligation of the system to comply with all applicable drinking water standards and requirements of this Act in a timely manner. Compliance in a timely manner includes compli-

ance with construction schedules established in drinking water regulations, schedules associated with variances for small systems and exemptions provided under section 1416. This provision is included in light of the experience with the construction grants program under the Clean Water Act. The failure of many sewage treatment plants to meet secondary treatment requirements established by that law was sometimes overlooked, if the city or county was on a priority list and waiting to receive a Federal grant or loan for the treatment equipment. Section 1476 makes clear that compliance with Federal health standards under the Safe Drinking Water Act is not to be delayed while public water systems wait for assistance from the new drinking water SRF program.

Section 1477 provides authority for the Administrator to publish guidance and promulgate regulations necessary to implement the new revolving loan fund program.

Section 1478 authorizes appropriations for capitalization grants to States in the amount of $600 million in fiscal year 1994 and $1 billion in each fiscal year 1995 through 2003. The bill retains authorizations for fiscal year 1994 and 1995 because Congress made advanced appropriations (not to be distributed to the States pending an authorization for the program) for a drinking water SRF in both of those years. Although the largest portion of these appropriations was subsequently rescinded when an authorization was not enacted, $225 million remains available from the funds authorized for those years. These funds will be allocated to the States when the program is authorized.

The total amount of the authorization for the new SRF program is $9.6 billion. EPA's report on the drinking water program issued in September of 1993 indicated that the capital investment needed to comply with current drinking water regulations is approximately $8.6 billion and may increase substantially as a result of proposed regulations for radon and disinfection byproducts. Provisions in the bill with respect to radon will dramatically decrease compliance costs for that regulation when it is issued. The Stage I rule for disinfection byproducts is now behind schedule and would not be applicable for an additional 3 years after promulgation. Therefore, the SRF grants authorized in this bill would, if appropriated, provide sufficient capital for grants and loans (at low or no interest) to support the capital investments that must be made by public water systems to comply with the Act during the authorization period covered by this bill (1994 through 2003).

Section 1479(b) directs the Administrator to reserve $10 million from each annual appropriation for SRF grants to be used to conduct health effects research on drinking water contaminants. In allocating these funds to specific research projects, EPA is to give priority to research on the health effects of *Cryptosporidium*, disinfection byproducts, arsenic and implementation of the research plan for subpopulations at greater risk.

Although this set aside for health effects research will drain funds from capital assistance to local public water systems, the national organizations representing cities, counties and drinking water suppliers fully support the set aside. Testifying for the National League of Cities before the Committee on October 19, 1995, Mayor Jeffrey Wennberg of Rutland, Vermont, said:

"We also support the proposed set asides included in the Drinking Water SRF in S. 1316. In fact, NLC recently adopted policy calling for exactly these types of activities to be financed by any new funding made available for drinking water purposes...The amendments also recognize both the complexities and uncertainties associated with the contaminants arsenic, radon and sulfate. The special treatment of these three contaminants, coupled with the authorization to set aside $10 million per year for research, focusing on *Cryptosporidium* and disinfection by-products, is a greatly appreciated response to NLC's long-standing call for sound science before rule making."

The bill (section 19(b)) establishes new authority for monitoring for contaminants that are not currently regulated under the Safe Drinking Water Act. One purpose of this new monitoring program is to gather information on the occurrence of contaminants in drinking water to assure that future regulations are based on sound information. However, monitoring can be costly. The bill requires systems serving more than 10,000 persons to bear the cost of this monitoring.

Monitoring for systems serving fewer than 10,000 is designed to avoid the imposition of costly new mandates. First, only a representative sample of these systems in each State (to be selected by the State) will be required to conduct monitoring for unregulated contaminants. Second, the bill includes a set aside of $2 million from the annual SRF appropriation to defray testing costs for these systems. EPA may allocate these costs among the States and to testing laboratories to pay for testing costs associated with this new monitoring program.

The bill includes a third set aside from the annual SRF appropriation to provide technical assistance to small systems. This set aside is coupled with the authorization for technical assistance grants established in section 1442(g). EPA has made grants under this latter authority to the National Rural Water Association and the various regional rural community assistance programs to provide on-site assistance to public water system operators.

A set aside will only be made for technical assistance when the annual appropriation for the SRF is $800 million or greater. The set aside is to be equal to the amount necessary to close the gap between the appropriation made under section 1442(g) and the amount authorized ($15 million per year through 2003). However, the set aside cannot be greater than $10,000,000 or 2 percent of the appropriation for SRF grants, whichever is less.

SECTION 4. SELECTION OF CONTAMINANTS; SCHEDULE

Summary

The Safe Drinking Water Act Amendments of 1986 required EPA to issue standards for 83 specific contaminants by not later than 1989. That work has largely been completed, but EPA has yet to issue new standards for arsenic, sulfate, radon and other radionuclides. The 1986 Amendments also required EPA to establish standards for an additional 25 contaminants every 3 years beginning in 1991. EPA has not issued any standards to comply with this requirement, but has proposed regulations for 12 disinfection

byproducts and for *Cryptosporidium* in partial fulfillment of this duty. An additional 13 contaminants (known as the Phase VIb rule) are under study.

The bill repeals the requirement that EPA regulate an additional 25 contaminants every 3 years. EPA is required to complete regulations for 12 disinfectants and disinfection byproducts, the Enhanced Surface Water Treatment Rule and a national primary drinking water regulation for *Cryptosporidium*.

Not later than July 1, 1997, the Administrator is to publish a list of high priority contaminants not currently regulated. EPA is to develop a research plan for each of the listed contaminants to acquire information on health effects and the occurrence of the contaminant sufficient to determine whether the contaminant should be regulated under the Act.

Beginning in the year 2001, and in 5-year cycles thereafter, EPA is required to make a regulatory decision with respect to at least 5 of the listed contaminants. EPA may decide that the contaminant should not be regulated, that there is insufficient information to make a determination, or that a maximum contaminant level or treatment technique for the contaminant should be promulgated under the Safe Drinking Water Act. The Administrator is to establish national primary drinking water regulations for those contaminants that occur at concentration levels and at frequencies of public health concern.

Discussion

During the early 1980's, EPA did not fulfill expectations for the Federal role in the drinking water program. The 1986 Amendments to the Safe Drinking Water Act, which required standards for a specific list of 83 contaminants and regulations for another 25 contaminants every 3 years, came in response to the failure of EPA to carry out the intent of the 1974 Act and reflected a broad consensus, shared by officials of State and local government, that the drinking water program needed a mandated schedule. Concerns are now expressed about the cost impact of the 1986 Amendments. The bill sets forth a balanced Federal role that recognizes the value of a national government conducting health and occurrence research for use in all 50 States and to all 195,000 drinking water suppliers while at the same time recognizing the cost impacts that are imposed when a national primary drinking water regulation is promulgated for any particular contaminant.

As noted above, current law (section 1412(b)(3)) requires the Administrator to promulgate national primary drinking water regulations for 25 additional contaminants every 3 years beginning in 1991. The law also requires the Administrator to maintain a "drinking water priority list" of contaminants that might be considered for regulation. The most recently published list contains 77 contaminants. Although EPA has not met the requirement to promulgate regulations for 25 additional contaminants as yet, it is under court order to propose standards for disinfection byproducts (as discussed above) and is working on a second group of 13 contaminants (called Phase VIb) to establish maximum contaminant levels.

The bill repeals these requirements of current law. Requirements to establish national primary drinking water regulations for disinfectants and disinfection byproducts are retained. The requirement to promulgate additional standards (including standards for the remaining contaminants in the first 3-year cycle) is replaced with a new process to select contaminants, collect information and determine whether regulation is appropriate.

Under the bill, future standards would be developed in 5-year cycles. At the beginning of the cycle, the Administrator would publish a list of contaminants. The Administrator would select the contaminants of greatest public health concern based on available information with respect to their adverse effects on human health, the occurrence of the contaminants in public water systems and the levels at which the contaminants are known to occur.

The initial selection of contaminants for the list and collection of information on the frequency and level of occurrence in public water systems is supported by the provisions for a national occurrence data base and a new program for monitoring unregulated contaminants, as discussed below.

The Administrator is not required to establish standards for the listed contaminants, but is required to make a determination whether regulations are appropriate to protect human health. The Administrator is to review available information and make a determination with respect to the need for regulation for at least 5 contaminants every 5 years beginning not later than the year 2001. If the Administrator determines that available information is not sufficient to make a determination, the Administrator may conduct studies and gather additional information over a period extending for up to 5 years after the determination was originally required.

If the Administrator decides that a national primary drinking water regulation for a contaminant is needed to protect public health, the regulation is to be promulgated within 2 years of the determination. A determination by the Administrator that a regulation is not needed is reviewable under the provisions of section 1448. The court shall not set aside the Administrator's determination not to issue a standard, unless the court finds that the decision is arbitrary and capricious.

One purpose served by these provisions for future standards is to assure that the Agency continues to conduct the health effects and contaminant occurrence research that is necessary to protect the quality of the nation's drinking water supplies. By establishing a nondiscretionary duty for the Administrator to name, study and make regulatory determinations for a minimum number of contaminants over repeated cycles, the bill assures that funds will be budgeted and appropriated to carry out the Federal Government's principal responsibility in safeguarding the quality of drinking water.

In partial fulfillment of the obligation to promulgate standards for an additional 25 contaminants every 3 years, the Agency has been preparing regulations for approximately 12 contaminants that result from the disinfection of drinking water (treatment, generally with chlorine, to remove microbial contaminants). The Agency established a maximum contaminant level for total trihalomethanes,

one type of disinfection byproduct, in 1979, and the current rulemaking would include a revision of that standard.

To facilitate the rulemaking process the Agency has conducted a regulatory negotiation to arrive at a consensus proposal. The negotiation included representatives from State and local government organizations, the drinking water supply community and public interest groups. The negotiation resulted in a proposed rule for disinfectants and disinfection byproducts and a series of other regulatory actions.

The agreement reached by the parties to this negotiation includes a schedule for the development and promulgation of several regulations including an information collection rule, an enhanced surface water treatment rule and a two-stage rulemaking for the national primary drinking water regulation for disinfectants and disinfection byproducts. EPA has already fallen behind the schedule set out in the agreement principally because of difficulties in developing analytical methods for *Cryptosporidium*.

The bill requires EPA to complete each one of the rulemakings called for in the agreement. The requirement is nondiscretionary and can be enforced by a court pursuant to the citizen suit authorities of section 1449 of the Act. However, since each step in the rulemaking is tied to information gathered in the previous step, the bill provides that the schedule for actions is to be modified whenever a particular step lags behind the otherwise agreed upon date. In response to a citizen suit, a court may compel EPA to act to complete a particular action by a date that is determined by reference to the time interval that is provided in the agreement since the last required action was completed. EPA may accelerate the date for some actions completing them more quickly than the interval established by the agreement would otherwise provide, but only if EPA has consent from all parties to the agreement.

SECTION 5. RISK ASSESSMENT, MANAGEMENT, AND COMMUNICATION

Summary

The bill requires improvements in the scientific foundations for drinking water standards and better public communication of the potential risks of adverse health effects associated with contaminants in drinking water.

The Administrator is to conduct a cost-benefit analysis for each national primary drinking water regulation containing a maximum contaminant level (MCL) or treatment technique before it is proposed. The analysis will also include consideration of alternative MCLs or treatment requirements. The study is to include a determination of the costs and benefits associated with each alternative MCL or treatment technique relative to the other standards under consideration.

The analysis is to incorporate information on risks to subgroups that may be at greater risk than the general population for adverse health effects as the result of exposure to the contaminant. The Administrator is to publish and seek comment on the study and is to use an advance notice of proposed rulemaking to seek comment whenever the costs of the national primary drinking water regulation are expected to exceed $75 million.

The bill also directs the Administrator to use the best available, peer-reviewed science in carrying out the Act and requires the Administrator to publish information with each national primary drinking water regulation that gives the public a broad framework for understanding the risks that may be posed by the contaminants that are regulated.

Discussion

Considerable concern has been expressed with respect to the scientific foundation for national primary drinking water regulations. The concern is justified and some of the responsibility lies with the Congress. EPA's failure to pursue a deliberate schedule for standard-setting under the Act prior to the 1986 Amendments prompted the Congress to require the promulgation of standards for 83 contaminants by 1989. 22 of these contaminants had previously been regulated. The other 61 were taken from two lists published by EPA in advance notices of proposed rulemaking early in the 1980s. Although there was some evidence to suggest that these contaminants may occur in public water systems or that an adverse health effect may be associated with ingestion, there were significant gaps in the scientific information available for many of these contaminants. The purpose of the notices published in the Federal Register was to solicit information to close these gaps.

Nevertheless, Congress mandated that standards be issued for each substance (with 7 substitutions allowed). Information that has come to light as the result of issuing national primary drinking water regulations indicates that some of these contaminants occur only infrequently in public water systems, occur at levels well below any threshold for health effects, or have not been sufficiently studied to establish reliable dose-response relationships.

The bill makes changes in the contaminant selection process to assure that future standards are based on better science. These changes include new funds for health effects research, monitoring authority for unregulated contaminants and a national occurrence data base.

Section 5 of the bill adds to the scientific foundation of future standards by imposing three requirements on EPA. First, the Administrator is to use the best available, peer-reviewed science and supporting studies to carry out all activities under the Act. Many of the most important activities including selecting contaminants for regulation, setting standards, designing analytical methods and structuring waivers, variances and exemptions are appropriately informed by scientific studies. In these cases, the Administrator has a duty to seek and rely upon the best available science and information to support these decisions. Some decisions made by the Administrator are not appropriately informed by science. For example, the design of an allocation formula for the Public Water System Supervision program or a decision to take enforcement action with respect to violations of a particular type do not depend on information produced by scientific methods for their validity and this requirement does not apply to those decisions.

The bill also requires the Administrator to use data that has been generated through the use of accepted methods (as described in this report for section 24). If an accepted method is not available

for a particular task, the Administrator may rely on the best available method, provided that the reliability of that method is appropriate to the decision that is to be informed or supported by the data.

Second, the Administrator is to provide the public with broader and more understandable information on the public health risks that may be associated with contaminants regulated under the Act. Risk assessments conducted by or for EPA follow guidelines that are adopted only after thorough review and public comment. Nothing in this section is intended to affect or alter the scientific judgments that shape those guidelines. However, the bill does require the Agency to do a better job of explaining the alternative interpretations of the scientific evidence that is used for, and produced by, risk assessments. EPA is to publish a document with each standard-setting regulation describing, to the extent practicable, uncertainties and alternative risk estimates that put the regulation in a broader public health context.

Third, the Administrator is to conduct a cost-benefit analysis for each national primary drinking water regulation. The preliminary analysis is to be published for comment at least 90 days prior to the publication of a proposed rule. A cost-benefit analysis is required both for rules that include maximum contaminant levels and for those that impose treatment technique requirements. The analysis is to consider and compare the relative costs and benefits of alternative MCLs or treatment techniques that may be issued under the standard-setting authorities of the Act. This analysis is to be used for the cost-benefit determinations required by section 1412(b)(4)(C).

In considering costs and benefits, the Administrator is to consider both the quantifiable and nonquantifiable costs and benefits of each alternative MCL or, if appropriate, treatment technique. Nonquantifiable benefits are the beneficial results of a regulation for which it is not possible to express a monetary or other quantitative valuation. Nonquantifiable benefits include considerations such as the value of human life, the quality of life as it may be affected by impaired cognitive development or physical disability, and the avoidance of pain and suffering.

The absence of information about a particular benefit of a regulation does not make that benefit nonquantifiable. Where benefits that can be quantified (such as medical costs, lost work days, or governmental response costs) are relied upon to justify a rule, they must be quantified.

The Administrator is directed to establish a factual basis in the rulemaking record to support the conclusion that any nonquantifiable benefits relied upon to justify the costs will occur; but the Administrator is not required to arrive at any quantitative assessment of benefits of this type to support a finding that they justify the costs of a rule.

In considering costs and benefits associated with the control of a specific contaminant the Administrator may also include consideration of the health risk reduction benefits that are likely to occur from reductions in exposure to other contaminants that will be removed by the treatment technology that is used to set the MCL. However, the Administrator is not to consider the benefits (or

costs) that are attributable to compliance with other proposed or promulgated regulations, if those benefits and costs are considered in a determination as to whether benefits justify costs under those regulations.

The cost-benefit study is to include a description of the incremental costs and benefits for each alternative MCL, if appropriate, or treatment technique under consideration. Incremental costs and benefits are the costs and benefits that accrue from the last increment of control. In describing these values, it is important for the Administrator to also describe the uncertainties in any point estimate using the information that is available to support the rulemaking.

The cost-benefit analysis is also to explicitly consider the possibility that some groups within the general population will be more susceptible to adverse health effects as the result of exposure to the contaminant in drinking water than the general population. These groups include infants, children, pregnant women, the elderly and individuals with a history of serous illness. A new section 1442(l) is added to the Act to support research for the inclusion of these considerations in the cost-benefit analysis.

The bill also authorizes $35 million per year through the year 2003 to the Office of Ground Water and Drinking Water at EPA to support the risk assessments and cost-benefit studies that will be required by sections 4 and 5 of the bill. The Office currently spends approximately $20 million per year for this purpose. Although the Safe Drinking Water Act has not included an authorization for this purpose, the Committee is recommending this authorization to signal the high priority that it places on better science and analysis in support of future drinking water regulations.

SECTION 6. STANDARD-SETTING; REVIEW OF STANDARDS

Summary

The bill makes the following changes to the standard setting authorities of the Safe Drinking Water Act:

- EPA is authorized to set the maximum contaminant level goal (MCLG) for a contaminant that is a known or probable human carcinogen at a level other than zero, if the Administrator determines that there is a threshold below which there is unlikely to be any increase in cancer risk and the MCLG is set at this threshold level with an adequate margin of safety;
- at the time that the Administrator promulgates a maximum contaminant level (MCL), the Administrator must also publish a determination as to whether the benefits of the MCL justify the costs;
- EPA is authorized to set a maximum contaminant level at other than the level that is as close to the goal as feasible, if application of the treatment techniques at the feasible level would increase health risks from other contaminants; this authority may be used to set the MCL or treatment technique for the contaminant and for other contaminants at a level that minimizes the overall health risk;

- the Administrator is given discretionary authority to establish less stringent standards (than feasible), when the Administrator determines that the benefits of a maximum contaminant level set at the feasible level would not justify the costs to systems that must comply with the standard or the contaminant occurs almost exclusively in small systems; if EPA uses this authority, the standard is to be set at a level that maximizes health risk reduction at a cost that is justified by the benefits; standards may not be made less stringent, unless new science demonstrates that health protection will be maintained;
- the authority to set less stringent standards based on a benefit-cost determination is not available for the regulation of disinfectants and disinfection byproducts (in Stage I or II) or to address the threat of *Cryptosporidium;* and
- a determination that the health benefits of a standard do or do not justify the costs can be set aside by a court, only if it finds that the Administrator's determination is arbitrary and capricious.

The requirement in current law that the Administrator periodically review and revise each national primary drinking water regulation is extended from 3 years (in current law) to 6 years. Revisions to standards are to maintain or provide for greater protection of human health. Existing standards may only be made less stringent in the future, if new science demonstrates that the current level of health protection can be achieved by a less stringent standard.

Discussion

Standard-setting under the current Safe Drinking Water Act is a two-step process. First, EPA identifies a concentration level for a contaminant at which there will be no adverse effect on human health. This is called the maximum contaminant level goal or MCLG. For cancer-causing substances, the MCLG has always been set at zero.

In a second step, EPA sets the actual enforceable standard, called the maximum contaminant level or MCL, as close to the goal as feasible. Feasible means the level that can be reached using the best available treatment technology that is affordable for large, regional drinking water systems.

This approach to standard-setting is taken because the large majority of Americans (80 percent) receive their drinking water from large systems and economies of scale in treatment technology make safe water affordable.

On the other hand, this approach to standard setting has caused problems with implementation of the Act. First, standards written under this approach can impose very high costs on households served by small systems. Second, for some contaminants that occur at relatively low concentrations and are regulated for their cancer-causing effects with a goal of zero exposure, the current approach has led to high costs per cancer case avoided. And third, treatment techniques employed to reduce the risk from some contaminants may actually increase the health risks posed by other

contaminants in drinking water. For instance, chlorination of drinking water to kill pathogenic organisms increases cancer risks from chemicals, called disinfection byproducts, that form in reaction with the chlorine.

To address these problems, the bill provides EPA with discretion to consider the benefits and costs and the potential for off-setting health risks associated with proposed standards. In addition to this standard-setting flexibility, the bill amends the variance provisions of the law to ensure that small systems are not required to employ treatment technologies that are unaffordable for their consumers.

More specifically, the first change in the standard setting authority of the Act would authorize the Administrator to set a non-zero maximum contaminant level goal for a contaminant that is regulated for its cancer-causing effects, if the Administrator determines that there is a threshold of exposure for that contaminant below which ingestion of the contaminant in drinking water is not likely to cause any increase in cancer risks.

Following the legislative history of current law, EPA has always established MCLGs for contaminants with strong evidence of carcinogenicity from drinking water exposure at zero. This approach was mandated by the report of the Interstate and Foreign Commerce Committee of the House of Representatives filed with the bill that was enacted as the Safe Drinking Water Act in 1974. The mandate is based on a Federal Government policy, first recommended by Health, Education and Welfare Secretary Arthur Fleming during the Eisenhower Administration, that all exposure to carcinogens be prevented where possible, because any exposure can contribute to a growth of a malignant tumor. Although EPA applies this policy in the case of known and probable human carcinogens, the Agency has not set a zero MCLG for those substances with limited evidence of carcinogenicity. In those cases, EPA has used an additional margin of safety or a lifetime cancer risk estimate to reflect the possibility of a cancer-causing effect in setting the MCLG.

Although this principle (that any exposure to a carcinogen, however small, may trigger a cancer) has been used consistently for Federal Government policies applying to drinking water, food, drugs, air pollution and workplace exposures, it has also been challenged in a number of cases. Some have pointed to pharmacokinetic data and models that suggest the possibility of a "threshold" for some carcinogens. One suggestion is that in some cases cancer is not initiated or promoted by exposure to the substance itself, but rather by some secondary biological mechanism that is only triggered when exposure to the contaminant reaches a point that it is toxic to the biological function of an organ or system. With respect to drinking water contaminants, the possibility of a threshold below which no increased cancer risk may occur is most often suggested in the case of arsenic.

The new sentence added to section 1412(b)(4)(A) by the bill would allow the Administrator to set a non-zero MCLG for a drinking water contaminant regulated for its carcinogenic effect, but only if the Administrator determines, based on the best available scientific evidence, that a threshold for the carcinogenic effect is

present. This amendment to the law does not provide the Administrator with authority to set MCLGs based on a finding that the cancer risk is negligible or so small as to be acceptable; the Administrator is not authorized to use the authority to set a "policy" threshold below which increased cancer risks are not considered in standard setting. It may only be used where the Administrator has sound scientific evidence to conclude that there would be no cancer risk from ingesting the contaminant in drinking water at the level of the MCLG.

The legislative language employs the phrase "unlikely to be any increase in the cancer risk" to avoid an interpretation that would require the Administrator to *prove* the negative in order to use the authority.

The second change made to the standard setting authority of the Act requires the Administrator to make a determination with respect to the relative costs and benefits of each national primary drinking water regulation when it is proposed. The Administrator is to determine whether the benefits of the maximum contaminant level justify, or do not justify, the costs, based on the cost-benefit analysis required by section 1412(b)(3)(C), as amended by the bill. The new section 1412(b)(4)(C) requires the Administrator to determine whether the benefits of a standard "justify" (rather than "exceed" or "outweigh") the costs to reflect the nonquantifiable nature of some of the benefits and costs that may be considered. The Administrator is not required to demonstrate that the dollar value of the benefits are greater (or lesser) than the dollar value of the costs. All costs and benefits, both quantifiable and nonquantifiable, must be considered when making determinations under this authority.

The Administrator is not precluded from using the authority of section 1412(b)(4) to set a maximum contaminant level as close to the maximum contaminant level goal as feasible, even if the Administrator determines that the benefits of the MCL at this level do not justify the costs. In some instances, the Administrator will be required to take such action. Under the bill, the Administrator is to periodically review and, if appropriate, revise existing standards. This review is to occur on a 6-year schedule and may result in the repromulgation of some standards or a determination that the current standards satisfy the requirements of the Act.

Therefore, it is quite possible that a future Administrator will be required to issue or reconfirm an existing standard with costs that the Administrator does not believe are justified by the benefits. Because the valuation placed on the benefits achieved by a regulation is necessarily shaped by the subjective judgment of the Administrator, it is to be expected that some future occupant of the position may find a standard issued by a predecessor too costly for the benefits obtained. Nevertheless, section 1412(b)(9) would require that the standard be reissued or retained.[4]

The third change in the standard-setting authority allows the Administrator to consider the possibility that controlling a particular contaminant may actually increase the health risks posed by

[4] An existing standard may be relaxed, but not on the grounds of a cost-benefit analysis. If new science shows that a less stringent standard would provide the same level of health protection, the MCL may be revised upward.

other contaminants that may occur in drinking water. If application of the best available treatment technique that is used to determine the feasible level of control for a contaminant would increase the concentration of other contaminants or interfere with treatment techniques for other contaminants, the Administrator is authorized to set the MCL for the contaminant at other than the feasible level. In these cases, the MCL is to reflect the level that is likely to reduce the overall risk of adverse health effects from drinking water to the greatest extent.

The best known example of this interaction is the risk tradeoff between disinfection treatment to kill pathogenic organisms that may cause waterborne disease and the disinfection byproducts that are generated by the use of chlorine and other reactive agents for this purpose. Because the competing risks in this case are so serious and because the cost of properly balancing treatment systems is so large, EPA conducted a negotiated rulemaking over a period of more than 2 years to develop a framework for the regulation of these contaminants. The negotiating parties came to the conclusion that not one, but two rules are required to maximize health protection. The regulation will result in rules for disinfection byproducts and an Enhanced Surface Water Treatment Rule to address the offsetting risks of microbial organisms. The bill recognizes this possibility by indicating that the Administrator should look beyond the risk impacts of a single treatment system to determine whether a coordinated approach for the range of treatment systems used to control all of the contaminants in question would be more appropriate.

The fourth change made by the bill would allow the Administrator to establish an MCL at a level that is less stringent than the level that is as close to the MCLG as feasible, if the Administrator determines that health benefits associated with the feasible level do not justify the costs. This new authority is set forth in section 1412(b)(6). When using this authority, the Administrator is to set the MCL at the level that maximizes the health risk reduction benefits that can be achieved at a cost that is justified by the benefits.

Like many other environmental laws, the Safe Drinking Water Act relies on the application of best available technology to establish the level of protection that will be provided for human health for many of the listed contaminants, especially those that are regulated for their cancer-causing effects. Although the goals set under the Act are based on the principle that there is no safe level of exposure to a carcinogen, it is not reasonable to set enforceable standards as if these exposures could be eliminated in the real world. Although the Congress has in some instances authorized EPA or another health agency to set standards that are defined by an acceptable level of cancer risk, most often the statutory authority directs that standards be set based on the control efficiencies of technologies or practices that are available, taking costs into consideration, to regulated entities.

The advantage of technology-based standards is their practicality. They get issued, implemented and enforced. The disadvantage is the over-regulation that is sometimes associated with requiring the use of a treatment system, just because it is available, without regard to the health or environmental gains that its use may

produce or other opportunities for health and safety gains that are lost when the investment in a one-size-fits-all technology is required. This may be seen most clearly in the case of the Safe Drinking Water Act where the benefit may be clearly definable (*e.g.*, cancer cases avoided) and costs are relatively easy to estimate. Some of the standards that have been issued or that are under consideration have costs per cancer case avoided well above the typical cost-benefit ratio for Federal health and safety regulations.

The new section 1412(b)(6) allows the Administrator to set aside the technology-driven standard-setting calculus of current law when the additional removal efficiencies that might be achieved by the very best available technology come at a cost that does not justify the incremental gains in public health that are realized.

This authority is entirely discretionary with the Administrator. No court may compel the Administrator to set a standard using the authority of section 1412(b)(6), as amended, even in the event that the Administrator determines that the benefits of a standard at the feasible level do not justify the costs.

Section 1412(b)(9) precludes the use of this new cost-benefit standard-setting authority as the sole basis to relax any existing maximum contaminant level. Nevertheless, the new authority may play an important role in revising existing standards in the future. Standards issued pursuant to section 1412(b)(4) must contain MCLs as close to the MCLGs as feasible. This means that the removal efficiencies of treatment technologies or the quantitative powers of analytical methods play a decisive role in setting the standards. As these technologies and methods improve, the law requires the Administrator to make the standards even more stringent. In some cases, this added stringency comes at a high cost with little additional public health benefit. While the Administrator may not use the authority of section 1412(b)(6) to make existing standards less stringent, it can be cited as authority to avoid an unjustified tightening of standards that already provide adequate protection.

As noted at several other places in this report, there are significant economies of scale in drinking water supply. Urban communities are able to spread the costs of a treatment plant over a large population reducing the cost per household to affordable levels. The cost of a treatment plant needed by a small community to reach the same level of health protection may impose substantial per household costs for the few families that rely upon it. This physical reality has always presented a substantial public policy dilemma under the Safe Drinking Water Act. One standard does not fit the needs and budgets of both large and small communities. A standard written for the 80 percent of the population served by large cities is too expensive for many small communities. A standard written to be always affordable for every small town would deny the health benefits that are available to large cities through economies of scale. Most would also reject a system of dual standards—one for urban Americans close to the health goals of the Act and a less protective standard for Americans living in small towns or rural areas.

The bill includes several provisions intended to overcome this dilemma, including the new SRF grant program and the authority to provide variances allowing for the use of best available technologies that are affordable for small systems. It is not intended that this dilemma will be resolved by the new "cost-benefit" standard setting authorities of section 1412(b)(6). Simply averaging the costs and benefits experienced by large and small communities to produce a standard somewhere in the middle does not serve the interests of either group. An average standard will likely continue to be too expensive for small communities; and it will not provide the health protection that Americans in larger communities want and can afford.

The bill includes a specific provision, section 1412(b)(6)(B), that directs the Administrator to make a two-part analysis when using this new "cost-benefit" authority to set drinking water standards. The Administrator is to consider not only the aggregate costs and benefits that may be experienced by all systems, but is also to look at the systems that are actually expected to implement the standard to determine whether the benefits justify the costs for these systems. If most small systems are expected to receive a variance from a particular standard and the benefits of a standard at the feasible level (authorized by section 1412(b)(4)) experienced by consumers served by large systems (and other systems that do not receive a variance) justify the costs, then the Administrator is not to use the authority of section 1412(b)(6) to set a standard. This exception to the discretionary authority to set standards under section 1412(b)(6) does not apply where the contaminant occurs almost exclusively in small systems.

The bill precludes use of the authority provided by section 1412(b)(6) to establish maximum contaminant levels in the Stage I and Stage II rulemakings for disinfectants or disinfection byproducts or to establish a national primary drinking water regulation for *Cryptosporidium*. Section 1412(b)(5), as amended by the bill, applies to the maximum contaminant levels and other requirements that will be established under the Stage II rule. These prospective actions result from a negotiated rulemaking conducted by EPA and other interested parties including water suppliers, State and local governmentorganizations, public health officials and public interest organizations. Negotiated rulemakings of this type are specifically encouraged by Federal statute (see P.L. 101–648, the Negotiated Rulemaking Act of 1990).

By any yardstick, the negotiated rulemaking for disinfection byproducts was a significant achievement in the field of water hygiene. Each of the parties was required to make significant concessions to reach an agreement that covers the substance of several rulemakings that will not be fully in place for many more years. The agreement itself contains an over-arching set of principles to guide these rulemakings and to weigh the very same factors that are addressed by the standard setting amendments proposed in S. 1316. But to authorize the Administrator to set aside the carefully balanced structure of this agreement by using the new standard setting authorities of the Act for Stage I and Stage II would be counterproductive and contrary to the spirit of the statutory authority under which the negotiation was conducted.

The negotiations produced a detailed rule for Stage I that has been published for comment by EPA. The agreement provides that the negotiations are to be reconvened when additional information is available to produce a detailed proposal for Stage II. It is intended that these negotiations be held and that the Stage II rule be guided by the principles set forth in the agreement. Therefore, the bill contains a provision (section 1412(b)(6)(C)) that precludes the Administrator from using the "cost-benefit" authorities of the new paragraph (6) to set standards in the Stage I or II rulemaking for disinfection byproducts or to establish a national primary drinking water regulation for *Cryptosporidium*.

Section 1412(b)(6)(D) limits judicial review under section 1448 of determinations made by the Administrator with respect to the relative costs and benefits of national primary drinking water regulations. Review is limited in two ways. First, the review is to occur only as part of the review of a regulation that has been promulgated. Second, the court may only set aside the determination if the court finds that the Administrator's determination was arbitrary and capricious. The objective is to prevent litigation challenging the values that the Administrator implicitly assigns to preventing death and disease when the Administrator determines that the benefits of a rule do or do not justify the costs. A Federal court action under section 1448 is not the appropriate forum in which to decide the precise value of a human life or the costs that are appropriately incurred for precautionary and preventive public health measures. A court may set aside a rule for which no cogent analysis of the costs and benefits is offered in support of the determinations required by section 1412(b). But a court is not to examine the values that the Administrator brings to bear on these decisions. These determinations are delegated by the Congress solely to the Administrator.

The bill includes a fifth item on standard setting that is not an amendment to the Act but is proposed as a free-standing provision of law. As noted above, EPA has guided a difficult, but successful, regulatory negotiation with respect to new standards for disinfectants and disinfection byproducts. One product of that negotiated rulemaking is a proposed Stage I rule for these contaminants. That proposed rule appears to be in every way consistent with the authority to balance competing risks that is provided by the bill in the amendments to section 1412(b)(5).

However, to preserve this rule as negotiated, section 6(b) of the bill precludes any court from setting aside the Stage I rule when it is eventually promulgated on the grounds that it is not consistent with section 1412(b)(5). There is no part of the new standard setting authorities of this bill that is intended to force modifications in the Stage I rule. It is to be noted that the agreement of the parties itself does provide for changes in the rule between proposal and promulgation in the event that new information warrants the change. The bill is also not intended in any way to interfere with or alter these grounds for revision of the Stage I rule. It is expected that further negotiations will be necessary to finalize a proposed Stage II rule.

The provisions of new section 1412(b)(5) are consistent with the principles of the agreement reached by the parties to the DBP

negotiation. It does not apply to the Stage I rule, because that rule has already been proposed in detailed form. It does apply to the Stage II rule. The provisions of the new section 1412(b)(6) go beyond the scope of the agreement and, therefore, do not apply to either rulemaking under the terms of the bill.

The sixth change to the standard setting authorities of the Act modifies the schedule and basis for reviewing and revising the regulations that have already been promulgated. Current law requires the Administrator to review and revise, if appropriate, each national primary drinking water regulation every 3 years (section 1412(b)(9)). Standards would be revised whenever improvements in technology or treatment techniques make additional protection of public health feasible. The Agency has generally not met the requirement to review each national primary drinking water regulation on a 3-year cycle.

The resources of the Environmental Protection Agency are extremely limited and less than needed to fully satisfy all of the statutory duties that Congress has imposed. It is highly unlikely that any significant additional public health protection will result from drinking water standards that are modified on a 3-year cycle. Therefore, the bill extends the review cycle to 6 years and provides that the Administrator need not repromulgate a standard if the Administrator determines that the current provisions of a national primary drinking water regulation satisfy the requirements of the Act. However, the Administrator is required, at a minimum, to publish such a determination which is a final agency action for purposes of review under section 1448.

Amendments made by the bill require that any future standard issued for a contaminant already regulated must maintain or provide for greater protection of the health of persons. Generally, this will preclude the promulgation of a revised standard for a contaminant that is less stringent than the standard already in place. However, there are circumstances under which a standard may be relaxed. The maximum contaminant level goal for a contaminant is set at a level at which there is no adverse effect on the health of persons with an adequate margin of safety. New scientific information may cause the MCLG to be revised and in some cases these revisions may be to less stringent levels. This may lead to a revision of the maximum contaminant level since it need be no more stringent than the MCLG. New information may also allow for a smaller margin of safety because it narrows the range of uncertainty for estimates of health risks. Finally, some substances which have been regulated as carcinogens for ingestion in drinking water may be reclassified (as asbestos has been in the most recent revision) or assigned a threshold for the effect based on new scientific information. In each of these cases, EPA may issue a revised standard for a contaminant that is less stringent than the one it replaces.

SECTION 7. ARSENIC

Summary

Arsenic is currently regulated under the Safe Drinking Water Act. The MCL is 50 parts per billion. Although arsenic is a known

human carcinogen by ingestion, the current standard was not established to address this adverse effect. The 1986 Amendments required the arsenic standard to be revised. EPA has not completed this duty because of substantial scientific uncertainty about the cancer-causing effect of arsenic at very low doses. If the arsenic standard were revised based on current policy, the standard might be set as low as 5 parts per billion. A standard at this level may impose unnecessary compliance costs, if there is a threshold for the cancer-causing effect of arsenic that is substantially above this level.

This bill allows additional time for research to resolve this scientific uncertainty. The deadline for revising the national primary drinking water regulation for arsenic is delayed until January 1, 2001. The Administrator is to adopt a research plan to resolve the outstanding questions with respect to the carcinogenic effects of low levels of exposure to arsenic within 180 days of enactment. Prior to proposing a revised arsenic standard, the Administrator is to conduct a formal review of the research results and consult with the Science Advisory Board.

Discussion

Arsenic is a naturally-occurring substance that may become a contaminant in drinking water. It is a particular problem in the western regions of the United States and for small systems that rely on ground water sources, but may also be a contaminant in surface waters.

Arsenic causes several adverse health effects, the most important of which are vascular diseases and skin cancer. Arsenic is classified as a known (Group A) human carcinogen by ingestion.

Arsenic is currently regulated under the Safe Drinking Water Act and has been regulated by the Federal Government since 1942. The current standard established by the Public Health Service is 50 parts per billion. That standard was set to address vascular diseases and other adverse effects of arsenic, but was not established to address the cancer risk.

The 1986 Amendments required the arsenic standard to be repromulgated by not later than 1989 under the standard setting authority of the Safe Drinking Water Act. EPA has yet to propose a revised arsenic standard.

Because arsenic is a known human carcinogen, current policy would require the Agency to set an MCLG for arsenic at zero.[5] The maximum contaminant level would then be set as close to the goal as feasible using best available treatment technologies that are affordable for large systems. Based on the removal efficiencies of available technologies this may result in an MCL for arsenic of 2 to 5 parts per billion (ppb). If the standard were set at 5 ppb, treatment to remove arsenic from raw water would be required at approximately 5,000 public water systems at an annual cost of $620 million.

There is some scientific uncertainty with respect to the cancer-causing characteristics of arsenic, especially at very low levels. In a letter dated November 8, 1993 transmitting a review of the EPA's

[5] There is currently no MCLG for arsenic.

draft criteria document on arsenic, the Science Advisory Board, noted that "available data suggest that arsenic blood concentrations may only become elevated when the level of arsenic in water exceeds 100 micrograms per liter [100 ppb], a level that is present only in a very small proportion of U.S. drinking water sources." Since other sources of exposure (diet, air pollution, etc.) account for 40 to 70 percent of the daily exposure to arsenic, it may be that reducing levels of arsenic in drinking water would not produce a commensurate reduction in blood levels and cancer risks.

If this is the case, the expenditures necessary to comply with a drinking water standard in the range of 2 to 5 ppb issued under current authorities may not be justified by the public health benefit. These uncertainties are resolvable through additional research on the health effects of arsenic. The type of research needed is well-understood and not costly (relative to the health risks and treatment plant investments under consideration). A panel of scientists brought together by the American Water Works Association Research Foundation in May and June of this year has identified 31 research projects with a total cost of $19.3 million that may answer many of the questions about low level exposure to arsenic and the associated cancer risks. The Foundation has already provided funding for two of these projects from private sources.

It is unfortunate that EPA has not already conducted the research necessary to proceed with an arsenic standard. Although directed by the Congress in 1986 to revise the standard by not later than 1989, the Agency has never requested funds to do the research it now describes as a necessary foundation for a revised drinking water standard. Recognizing the costs and uncertainties involved in this regulation, the Agency is seeking the postponement of a court-order deadline that would have required a proposed rule to be issued by November 15, 1995. In a memorandum dated February 6, 1995, announcing his intention to seek the delay, EPA Assistant Administrator for Water, Robert Perciasepe, stated that delay should only extend for a short period:

> "In drinking water, the principle health effects of arsenic, at levels we are likely to see, are long-term chronic effects. Thus, the risk increases as exposure accrues. I believe the incremental risk resulting from a delay of a couple of years is offset by the benefit of research to reduce the uncertainty of our risk assessments and provide further data on treatment technologies. If insufficient progress has been made on the research front in that timeframe, it would be appropriate to proceed with rulemaking rather than wait for open-ended research results."

The Administrator is to publish a research plan for the health risks of arsenic in drinking water at low exposure within 180 days of enactment. The research plan should be based on a schedule consistent with the requirement in the bill that a proposed regulation be published not later than January 1, 2000.

SECTION 8. RADON

Summary

The Safe Drinking Water Act Amendments of 1986 required EPA to promulgate a national primary drinking water regulation for radon by 1989. EPA proposed a standard at 300 picocuries per liter (pCi/L) in 1991. Congress suspended action on this regulation pending a review of the costs and benefits of the drinking water standard relative to other risks from radon in the environment.

The bill directs EPA to promulgate a standard for radon not later than 180 days after enactment. The standard is to be established at 3000 pCi/L, a concentration that will reduce the health risks from radon in drinking water caused by *inhalation* (breathing radon that evaporates from water) to levels commensurate with risks from radon in outdoor air.

Under the provisions of the bill, EPA may subsequently revise the standard to make it more or less stringent. The standard may be made more stringent, but only if the Administrator determines, and the National Academy of Sciences and the Science Advisory Board concur, that revision is appropriate to address risks from *ingestion* (swallowing radon in the drinking water). In this case, the revised standard is to be no more stringent than necessary to reduce the combined inhalation and ingestion risk from radon to a level equivalent to the inhalation risk from radon in outdoor air at the national average level.

Discussion

Radon is a naturally occurring gas in soil resulting from the radioactive decay of radium in the Earth's crust. It dissolves in ground water and may become a drinking water contaminant in some public water systems served by ground water supplies. When water is used in the home for bathing, cooking and washing, the radon evaporates into the indoor air. Inhalation of this radon may present an increased risk of lung cancer. EPA estimates that radon in indoor air is the second leading cause of lung cancer in the United States (although only a small portion of this cancer risk comes from radon in drinking water). Radon ingested with drinking water may also present a cancer risk to other organs.

The 1986 Amendments required EPA to set a standard for radon. EPA proposed a standard of 300 picocuries per liter (picocuries is a measure of radioactivity). According to EPA's estimates, 19 million Americans are consuming drinking water with radon at levels above the proposed MCL. EPA estimated that an MCL at this level would prevent 84 cancer deaths per year (of the 192 attributable to radon in drinking water). EPA also estimated the compliance cost at $272 million per year nationwide or approximately $3.2 million per cancer case avoided. The drinking water community has concluded that the costs will be much higher than the EPA estimate and also strongly disputes the cancer risk estimates that EPA has published.

Radon from drinking water typically contributes less than 5 percent of the radon gas in indoor air. The largest portion of the radon in indoor air comes from soil gas entering a building from cracks in the foundation or crawl spaces. Although EPA estimates

that 13,600 cancer cases per year are being caused by radon from soil gas, the nation has not mounted a substantial effort to respond to this health threat. Estimates made by EPA indicate that modifications in new home construction and retrofits to existing buildings can reduce expected cancer cases at a cost of approximately $700,000 per case.

Since a significant effort is not being made to reduce the 95 percent of radon that comes from soil gas (where costs per cancer case avoided may be much less), the drinking water standard has been viewed as too stringent to be justified. Congress has postponed promulgation of this regulation (through annual riders to EPA appropriations bills) since 1992. In 1992, Congress required EPA to prepare a report on its proposed drinking water standard relative to the risks of radon from other media and also called for a review of that report by the Science Advisory Board. EPA transmitted that report *(Report to the United States Congress on Radon in Drinking Water: Multimedia Risk and Cost Assessment of Radon)* to Congress on March 29, 1994. The statistics cited above are taken from that report. The view of the Science Advisory Board is summarized in the following quotation from their letter of July 30, 1993 reviewing the draft EPA report:

> "Because of uncertainties in both risk estimates and costs of mitigation there is substantial uncertainty in the cost per cancer death avoided. This uncertainty is especially large for mitigation of cancers related to ingestion of water. However, even with this uncertainty, it is clear that the cost per lung cancer avoided from mitigation of indoor air radon is substantially less than the cost per cancer death avoided due to mitigation of exposure from radon in drinking water. This difference appears to be at least a factor of 4 ($3.2 million per cancer death avoided related to drinking water and $0.7 million per cancer death related to airborne radon) and may be substantially larger.
>
> "In summary, the SAB notes the extent of the uncertainties in the population exposure profiles, the risk estimates for ingested radon in drinking water and the costs of mitigation. In view of these large uncertainties for risk estimates for ingested radon in drinking water and knowledge of the substantially greater risks associated with airborne radon indoors and outdoors directly from soil, the SAB advises EPA consider various options for mitigating radon cancer risks.
>
> "[A] standard might be set at some higher level...to initiate mitigation of the highest potential risks. For example, setting a water standard at 3000 pCi/L would result in water contributing no more radon to indoor air than is present in outdoor air... At the same time it would be appropriate to intensify research on radon ingestion and radon mitigation, data gathering on radon occurrence in all media, and dialogue with interested parties."

The bill sets a standard of 3000 picocuries per liter of water for radon, reducing the indoor inhalation risk attributable to radon from drinking water to a level commensurate with the risk of breathing radon in outdoor air.

The Administrator is to promulgate the national primary drinking water regulation for radionuclides including radon not later than 180 days after enactment of the 1995 Amendments. EPA is not required to take any other action, conduct any study or make any determination under any other provision of the Safe Drinking Water Act or other law prior to issuing this regulation.

The regulation is to set the maximum contaminant level for radon at 3000 picocuries per liter of water. EPA estimates that the ratio of radon in indoor air resulting from the evaporation of radon gas from drinking water (and water used in showers, bathing and washing) to the radon in the water is 1:10,000. Therefore, a standard at 3000 pCi/L should produce indoor air radon levels attributable to drinking water no greater than radon levels in outdoor air, since the national average is 0.4 pCi/L in outdoor air (as cited by EPA's National Radon Ambient Radon study.)

EPA may subsequently revise the radon standard. The revisions would be made pursuant to all of the authorities set forth in subsection 1412(b) of the Act subject to limitations stated in the new section 1412(b)(13). This means that EPA could revise the standard to a level less stringent than 3000 pCi/L, if subsequent science indicated that a less stringent level would provide the same level of health protection as the level established by the bill. Since radon is regulated for its cancer-causing effect, such a result could occur if the Administrator determined that there is a threshold level below which exposure to radon is unlikely to result in any increase in cancer risk (section 1412(b)(4)(A)).

The bill also allows the Administrator to revise the radon MCL to a more stringent level, but only if three conditions are met.

First, the revision must be based on a determination by the Administrator that there are adverse effects from ingestion and episodic exposure to radon in drinking water that increase lifetime cancer risks from radon in drinking water beyond the inhalation risks that are experienced as the result of evaporation of radon from drinking water into indoor air. Any adjustment to the standard to make it more stringent may only be made to reflect these ingestion and episodic risks.

Second, the revised standard will continue to use the inhalation risk from radon in outdoor air as the guidepost. The revised MCL for radon in drinking water is to achieve a lifetime cancer risk from the combined inhalation, ingestion and episodic exposures that is equivalent to the lifetime cancer risk from inhaling radon in outdoor air at the national average outdoor levels. This equivalence is achieved first by estimating the increased probability of a person contracting lung cancer by inhaling radon from outdoor air over a lifetime. After the Administrator has made a risk estimate of this type for the inhalation risks from radon in outdoor air, the Administrator is to set the MCL for radon in drinking water so that a person exposed to drinking water (in all of its residential uses) with a radon concentration at the MCL level over a lifetime would experience (considering the combined inhalation, ingestion and episodic exposures) the same increase in the probability of contracting cancer as that attributed solely to inhaling radon in outdoor air.

Third, this revision cannot occur unless it is supported by peer-reviewed scientific studies and the National Academy of Sciences and EPA's Science Advisory Board agree that the revision is appropriate.

SECTION 9. SULFATE

Summary

The 1986 Amendments required EPA to establish a standard for sulfate. EPA has not completed this duty for two reasons. First, scientific information is not sufficient to determine the dose-response relationship for sulfate with a high degree of confidence. Second, because persons become quickly acclimated to sulfate in their drinking water, the adverse health effect from sulfate exposure (diarrhea) is experienced primarily by travelers, new residents and infants.

In response to public comments expressing concern about the high cost of an MCL for sulfate removal at small systems, EPA withdrew its original proposal. A rule re-proposed by EPA in December, 1994, set forth a preferred option to protect these susceptible populations that relies on bottled water and public education.

The bill authorizes the Administrator to use public education and alternative water supplies (bottled water), rather than centralized treatment, to reduce the costs of a national primary drinking water regulation for sulfate. The Administrator is directed to complete a rulemaking for sulfate not later than 2 years after enactment.

The maximum contaminant level for sulfate promulgated under the Safe Drinking Water Act is not to be used by the Administrator for ground water remediation decisions under CERCLA or RCRA, unless the Administrator engages in a separate rulemaking under the authority of those statutes to establish a remediation standard for sulfate.

Discussion

Sulfate is a naturally-occurring substance in soil and rock that may become a contaminant in drinking water. Contamination from natural sources occurs principally in the midwest and western regions of the nation. Sulfate is also a waste product in steel and metal manufacturing and may be a water pollutant from these sources.

The adverse health effect associated with sulfate is diarrhea. The effect is acute and temporary. A person who continues to ingest drinking water containing sulfate at moderate to high levels will become "acclimated" to the contaminant in a period of 2 weeks or less and the diarrhea effect will not recur. Therefore, the populations affected by sulfate contamination are newborn infants, travelers, and new residents to an area with high sulfate levels in drinking water. EPA has estimated that 1 million travelers, 127,000 new residents, and 27,000 newborn infants may be exposed each year to drinking water with sulfate concentrations at levels with a potential to cause a laxative effect.

Approximately 2000 public water systems have sulfate concentrations that are at or above the concentration level of a poten-

tial standard. Sixty percent of these systems serve transient populations and 88 percent of the affected systems serve fewer than 500 people.

The 1986 Amendments directed EPA to establish a national primary drinking water regulation for sulfate by 1989. EPA proposed a standard in 1990 that was subsequently withdrawn because of concern about the health effects science on which the rule was based and the high cost of compliance. Under a court-ordered deadline, the Agency reproposed the rule in December, 1994 and is scheduled to promulgate the final rule in May of 1996.

The proposed regulation includes a maximum contaminant level of 500 milligrams per liter. It is expected that no cases of diarrhea would be experienced by individuals ingesting water with sulfate at these levels. The proposed rule includes four possible regulatory options. The preferred option departs from previous drinking water standards by allowing public water systems to comply with the rule through public education, notification and the provision of alternative water supplies to portions of the susceptible populations affected. This option would avoid substantial costs to small public water systems and the households they serve. EPA estimated that compliance with the MCL by central treatment would cost $147 million and as much as $670 per household per year for the smallest systems. By contrast, the costs of rules relying on bottled water and public education for compliance may be as low as $16 million per year.

EPA was unable to estimate the value of the benefits produced by the rule, since EPA has concluded that the scientific evidence available on the laxative effects of sulfate is not sufficient to establish a dose-response relationship. A regulatory impact analysis done by an EPA contractor for the rule proposed in 1990 estimated the health benefits of eliminating cases of diarrhea caused by sulfate contaminated waters at $23 million per year.

The bill requires EPA to issue a final national primary drinking water regulation for sulfate not later than 2 years after enactment. The bill endorses EPA's preferred regulatory option allowing public water systems to comply with the rule through public education and the provision of alternative water supplies to the affected populations, unless new scientific information indicates that the health effects of sulfate are more serious than now known.

If the Administrator chooses to repropose the rule using the new authority of section 1412(b)(6) to reflect the relative benefits and costs of controlling sulfate in a standard, she may do so. Because this authority is discretionary, the Administrator may also promulgate a rule based on the proposal that was issued in December, 1994.

In many instances, maximum contaminant levels set under the Safe Drinking Water Act have been used as ground water cleanup and remediation standards under other laws including the Superfund program and Federal and State hazardous waste laws. The bill contains provisions precluding the use of an MCL for sulfate as a remediation standard under other Federal environmental programs unless the Administrator establishes the standard by a rulemaking under the authority of those laws.

SECTION 10. FILTRATION AND DISINFECTION

Summary

The 1986 Amendments required EPA to issue rules requiring filtration for all systems served by surface water sources and disinfection by all systems. The Surface Water Treatment Rule implemented the filtration and disinfection requirements for systems served by surface water sources. The disinfection requirement for systems served by ground water sources has not been fully implemented.

The bill postpones promulgation of rules for the disinfection of drinking water from ground water sources. This delay will ensure that potential risks from the byproducts of disinfection are balanced with the benefits of disinfecting ground water supplies. The Administrator is authorized, in consultation with the States, to develop criteria to be applied by the States to determine which systems relying on ground water sources are to use disinfection.

The Administrator is directed to publish guidance to accompany the proposal of the Interim Enhanced Surface Water Treatment Rule that identifies filtration technologies that are feasible for public water systems relying on surface water serving fewer than 3,300 persons.

Discussion

Preventing waterborne disease is a principal purpose of the Safe Drinking Water Act and of paramount importance to the health of the American people. As described by Dr. David Ozonoff (Chairman of the Department of Environmental Health, Boston University School of Public Health) at the Committee's hearing on October 19, 1995:

> "Chief among the public health triumphs of this century has been the provision of safe and healthful drinking water to most of our citizens. This single measure has done more to improve the health status of the community, and at lower cost, than any other achievement, not excepting immunization, advances in medical technology, or modern medical treatments and drugs. Community water supplies affect an entire community at once, providing an extraordinarily cost-effective way to deliver a commodity essential to good health and quality of life."

The most important measures contributing to the public health gains achieved through safer drinking water are the filtration and disinfection of municipal water supplies. Use of these water treatment strategies became widespread early in this century and effectively ended the era of typhoid and cholera epidemics caused by contaminated water. Notwithstanding the tremendous gains that have been made, the nation continues to experience waterborne disease outbreaks, some with catastrophic consequences. An outbreak of *Cryptosporidiosis* in Milwaukee in the Spring of 1993 resulted in 400,000 illnesses and over 100 deaths. Officials of the Centers for Disease Control have estimated that more than 900,000 Americans become ill and 900 die each year as the result of preventable diseases caused by bacteria, viruses and protozoa in pub-

lic drinking water supplies. These sobering public health statistics may improve as the result of the Surface Water Treatment and Total Coliform rules recently promulgated under the Safe Drinking Water Act.

The 1986 Amendments to the Safe Drinking Water Act directed EPA to issue regulations mandating filtration at most public water systems relying on surface water supplies and disinfection at all public water systems using either surface water or ground water supplies. Section 1412(b)(7), establishing the filtration requirement, includes authority for a State to waive the filtration requirement for a public water system, if measures taken in the watershed surrounding the source of supply to protect the system from contamination meet criteria issued by EPA.

The Surface Water Treatment Rule, promulgated in 1989, was designed to satisfy these provisions of the Act. The Rule set a deadline of June 29, 1993 for the use of filtration. In addition to the filtration requirement, the Surface Water Treatment Rule mandates disinfection by all systems using surface water supplies and by all systems relying on ground water that is under the direct influence of surface water.

EPA has not fully implemented the disinfection requirements in the statute that are applicable to other systems relying on ground water. There are several reasons for the delay. First, the disinfection requirement would have a large cost impact for small systems, because most small systems rely on ground water sources. If all ground water systems were required to disinfect, the annual cost may be as high as $1 billion. Second, it appears that not all ground water systems will have contaminant risks that warrant disinfection. Third, there is concern that many small systems do not have the technical capacity to safely operate disinfection systems. Fourth, disinfection may produce byproducts in some systems that are associated with other adverse health effects including cancer and birth defects (although this is less of a concern for systems supplied by ground water than it is for systems supplied by surface water because they are less likely to be contaminated with organic substances that are precursors of the byproducts).

Although not all ground water systems are prone to contamination by the microbial organisms associated with disease outbreaks, it is important to note that approximately one-half of the reported waterborne disease outbreaks occurring in the United States between 1971 and 1988 were associated with drinking water systems relying on ground water sources. Of the 574 outbreaks reported to the Centers for Disease Control during this period, 276 were at ground water systems—174 in systems with ground water that was not disinfected and 62 at systems with disinfection treatment equipment that was not operating at the time of the outbreak. It should also be noted that many ground water systems (50 percent of community systems and 20 percent of noncommunity systems) already use disinfection and that the Total Coliform Rule, requiring monitoring for coliform contamination, applies to all public water systems. It is, therefore, important that a requirement for appropriate ground water disinfection criteria be retained.

EPA has been working with a task force appointed by the States to carry out the disinfection provisions of current law. The

bill makes two important changes in section 1412(b)(8) that are consistent with the recommendations of the task force. First, the deadline for issuing regulations to require disinfection at ground water systems is delayed until at least 3 years after the date of enactment of the bill. This delay ensures that the health risks of disinfectants and disinfection byproducts will be more fully understood and considered in the design of disinfection requirements. The bill requires EPA to promulgate the disinfection regulations for ground water systems not later than the date on which the Stage II regulations for disinfectants and disinfection byproducts are finalized.

Second, EPA is to develop criteria, working in consultation with the States, to identify public water systems using ground water supplies that should install disinfection treatment. The criteria are to be issued with the regulations. The criteria will reflect factors that make ground water systems vulnerable to contamination by pathogenic organisms including depth of wells, hydrogeology in the area of the wellfield, distance to pathogenic sources and the characteristics of the distribution system. Regulations for disinfection may include separate provisions for the disinfection of source water and water in the distribution system.

Under regulations issued to implement section 1412(b)(7), all public water systems using surface water sources were to install filtration by not later than June 29, 1993, unless the State in which the system is located provided a waiver. Although filtration technologies feasible and appropriate for small systems have become available, State agencies have been reluctant to approve these systems. The Administrator could assure significant cost savings for small systems by providing timely and reliable information on the appropriate use of filtration technologies by small systems. To assure that alternative filtration technologies feasible for small systems are available at the earliest possible time, the Administrator is required to specify filtration technologies that are feasible for small and noncommunity systems. The Administrator is to include guidance on filtration treatment techniques that are feasible for small systems with the Interim Enhanced Surface Water Treatment Rule at the time that it is proposed to carry out the negotiated rulemaking agreement for disinfection byproducts.[6]

SECTION 11. EFFECTIVE DATE FOR REGULATIONS

Summary

Section 1412(b)(10) of current law is amended to require compliance with national primary drinking water regulations no later than 3 years after promulgation (extended from 18 months under current law). The compliance deadline can be extended for up to 2 additional years for all systems (by the Administrator in the regulation) or for a particular public water system (by a State), if it is determined that additional time is needed for the capital improvement projects that will be necessary to meet new treatment requirements.

[6] The Interim Enhanced Surface Water Treatment Rule was proposed July 29, 1994 and did not include these specifications.

Discussion

Under current law public water systems must comply with maximum contaminant levels (MCLs) or treatment techniques in new national primary drinking water regulations beginning 18 months after the regulation is promulgated (section 1412(b)(10)), unless the system receives a variance or an exemption. Where complex treatment systems must be designed and constructed to comply with an MCL, the 18-month period may not provide the public water system sufficient time to remain in compliance with the law. This problem was described at the Committee's October 19, 1995, hearing by Mr. Gurnie Gunter, Director of the Kansas City, Missouri Water Services Department, testifying on behalf of the Association of Metropolitan Water Agencies:

> "Another important improvement made by S. 1316 is the change in the current law's 18 month effective date for regulations. When major capital construction is required to comply with a standard, it can take more than 18 months just to get the necessary environmental and other permits necessary to start construction. The entire construction process including issuing bonds or obtaining other funding, design, permitting construction and startup can take 5 years or more. S. 1316 would allow the Administrator to establish effective dates of up to 3 years on a rule by rule basis. Additional extensions of up to 2 years may be granted when capital improvements are involved in compliance. This is a major improvement over current law and we support the bill's provision."

Section 11 of the bill extends the basic compliance period from 18 months to 3 years after the date a national primary drinking water regulation is promulgated. The Administrator may establish an earlier date for compliance as part of the regulation, if an extended period is not necessary for design and construction. The Administrator is also authorized to extend the compliance period for an additional 2 years (up to a total of 5 years) in the promulgated regulation where the additional period is necessary for construction activities that may be necessary to comply.

In addition to the Administrator's authority to extend the period beyond the 3 years by rule, a State may extend the compliance period for particular public water systems in that State that need up to an additional 2 years for the design and construction of treatment facilities or alternative water supplies to comply. The Administrator is authorized to provide case-by-case extensions for particular systems in States that do not have primary enforcement responsibility under section 1413.

Congressional intent with respect to the effective date provision in current law was recently reviewed by the United States Circuit Court of Appeals for the District of Columbia in a case involving the lead and copper rule, *American Water Works Association v. EPA*, 40 F.3d 1266 (D.C. Cir., 1992). An intervenor in the case challenged the regulation, in part because EPA had established a compliance deadline for portions of the rule that extended beyond the 18-month period provided in the Act. The intervenor argued that Congress meant the rule to be implemented and enforced not later than 18 months after promulgation.

EPA responded arguing that the purpose of the 18-month effective date provision was to prevent EPA from enforcing national primary drinking water regulations at any time before the 18-month period had elapsed.

The court held that an effective date was not intended to be the same as the date on which a rule is implemented and enforced, because the Safe Drinking Water Act provides that rules are generally to be implemented and enforced by the States and an 18-month compliance deadline would not be consistent with this State role, since State's are not even required to submit their rules for EPA review within 18 months after promulgation.

The bill makes changes to section 1412(b)(10) and other provisions of the Act that overturn the conclusion reached by the Court in this case. First, the new effective date is extended for (up to) 3 years after promulgation and the authority of the Administrator to make a regulation effective before this date is made clear. Second, the bill adds explicit authority for the Administrator to extend the effective date when additional time is necessary to facilitate compliance. Third, the period of time for States to adopt rules to retain primacy under section 1413 is extended from 18 months to 24 months, providing sufficient time for States to put their own rules in place before the date on which the rules are to be implemented and enforced. Finally, the Act is amended to make the exemption provisions of section 1416 more workable in the event that a system cannot come into compliance with the requirements of a national primary drinking water regulation in the period of time provided by section 1412(b)(10).

Each national primary drinking water regulation is to be implemented and enforced no later than a date that is established pursuant to the deadlines set forth in 1412(b)(10), as amended.

SECTION 12. TECHNOLOGY AND TREATMENT TECHNIQUES; TECHNOLOGY CENTERS

Summary

This section of the bill directs the Administrator, at the same time as a national primary drinking water regulation is promulgated, to identify the treatment technologies that are available for systems of various sizes, including systems serving: between 3,300 and 10,000 persons; between 500 and 3,300 persons; and between 25 and 500 persons. The Administrator may publish two distinct lists of technologies for these small systems. Section 1412(b)(4)(E) requires the Administrator to publish the best available technologies that are: (1) feasible for small systems in each size category; and (2) have removal efficiencies sufficient to comply with a maximum contaminant level. If there are no technologies meeting both tests for systems of a particular size, the Administrator will publish a second list of technologies under section 1412(b)(15) of the best available treatment techniques that are affordable for systems in that size category. This second list is used by the States to grant variances from the maximum contaminant level under section 1415(e).

The list of feasible technologies may also include package units for small systems and point-of-entry treatment equipment. Section

1445 of the Act is amended to give the Administrator authority to request information on treatment technologies from manufacturers, States and interested parties.

A new subsection is added to the research section of the Act authorizing the Administrator to make grants to 5 or more small public water system technology assistance centers at institutions of higher learning. The centers will provide leadership in solving national and regional rural water system technology management problems and will disseminate the results of small public water system technology research through continuing education and training programs. Appropriations of $10 million per year through the year 2003 are authorized for this purpose.

Discussion

Standards are established under the Act based on the best available treatment technology that large systems can afford. Today, many small systems can not afford the treatment systems used to establish national primary drinking water regulations. However, the EPA has been working on a Small Systems Low Cost Technology Initiative to encourage the manufacturing community to focus on the development of treatment technology for small systems. There are alternative technologies for small systems that are available and, unlike the engineered systems traditionally designed for large systems, can be sized to accommodate the needs small systems.

The bill directs EPA to develop guidance or regulations for all treatment technologies when issuing national primary drinking water regulations and to identify the effectiveness and cost of the technology. The technologies are to be listed for systems in various size categories including systems serving populations of: 3,300 to 10,000; 500 to 3,300; and 25 to 500.

Some treatment systems applied under the variance provisions of section 1415(e) may not always comply with maximum contaminant levels. To ensure public health protection, additional measures must be considered when prescribing best technologies for small systems. As part of the guidance issued under section 1412(b)(15), EPA must consider other factors related to the use of the technology, including requirements for the quality of source water to ensure adequate protection of human health, considering the removal efficiencies of the technology, and installation and operation and maintenance requirements for the technology. Particular technologies may be appropriate and affordable for systems of a particular size, but not for systems in another size category.

If new or innovative treatment technologies are developed after promulgation of a national primary drinking water regulation, the Administrator may issue guidance or regulation for the new technologies. A list of treatment technologies that are feasible for small systems, may include packaged or modular systems and point-of-entry treatment units owned and maintained by public water systems.

Finally, the Administrator is given authority to request information on commercially available treatment systems and technologies from manufacturers, States, and interested parties for the purpose of considering the systems and technologies in the develop-

ment of the guidance or national primary drinking water regulations.

Small public water systems technology assistance centers can provide significant assistance to State and local governments in the development of programs to address special concerns relating to the water systems of rural communities and Native Americans. The centers focus on development of management strategies to ensure the availability and sustainability of small public water systems serving these communities.

They are particularly important to States with relatively low population density that cover large geographic areas. Communities in these States usually consist of only a few hundred to a few thousand individuals. Delivering water from remote sources is often cost prohibitive without assistance from State and Federal sources.

Coordination of research, training, technical assistance, and outreach efforts through small public water systems technology assistance centers can provide the technical information and outreach components needed by States and local governments. These centers, located at institutions of higher education, can provide information on rural water system treatment technologies, development of alternate supplies, training to enable compliance with State and Federal regulations, and can act as clearinghouses for research efforts for small water systems.

Native American Tribes face many of the same problems that States and small communities face in developing and operating rural water systems. In recent years, more tribal organizations have assumed responsibility for management of rural water systems and general water quality management programs. They face many difficulties in developing and initiating programs and the centers can provide training and technical assistance to support these efforts.

SECTION 13. VARIANCES AND EXEMPTIONS

Summary

Under sections 1415 and 1416 of current law, public water systems may receive variances and exemptions from national primary drinking water regulations. Generally, variances are available where the poor quality of source water makes it impossible for a system to comply with a maximum contaminant level for a contaminant even when best available treatment technology is used. Exemptions are available for limited periods when systems need financial assistance or more time for construction to come into compliance with the Act.

The bill modifies the variance and exemption provisions to make them more workable. Under the bill, systems can be assured of receiving a variance on the condition that they build and operate the best available treatment system, rather than receiving the variance only after the treatment technique has failed to meet a standard (as provided in current law).

The bill also modifies the exemption authorities of the Act to recognize a wider variety of conditions that may justify a temporary exemption from the requirements of a national primary drinking water regulation.

Discussion

Public water systems may be granted a variance from a national primary drinking water regulation under section 1415 of current law, if the quality of the source water for the system makes it impossible to comply with a maximum contaminant level even when best available treatment technology is employed. However, under current law the variance may only be granted *after* the best available treatment system has been installed and has failed to achieve the standard. This approach does not provide certainty for public water systems, because it forces investments in costly treatment plants, before the system can be assured that the investment will enable the system to come into compliance with the Act.

The bill modifies the variance authority of the Act allowing public water systems to receive a variance on the condition that they install and operate the best available treatment technology for the contaminant as identified by EPA under the regulation for which the variance is sought. The variance is to be granted on the condition that best available technology is installed and properly operated. A schedule for constructing the necessary treatment facilities established by a State in a variance should reflect the most expeditious schedule practicable, consistent with other effective date provisions in section 1412 and 1415.

Under section 1416 of current law, a State that has primary enforcement responsibility for the Act may exempt a public water system from compliance with a maximum contaminant level or treatment technique in a national primary drinking water regulation. The exemption may only be granted if the system cannot comply with the regulation and no unreasonable risk to public health will result from the exemption. The Administrator may provide exemptions to systems in States that do not have primary enforcement responsibility.

Section 13(b) of the bill makes several changes in the exemption authorities of the Act. If a public water system meets the criteria for classification as a 'disadvantaged community' established by the State for the purposes of loan forgiveness under the State's revolving loan fund, the system meets the economic needs test for an exemption.

The need for additional time to develop an alternative source of water supply or to consolidate with another system is recognized as justification for an exemption in the same way that time needed to construct a treatment system is recognized under current law.

The bill deletes the current law provision (section 1416(b)(2)(A)) limiting an exemption to a period of 12 months (from the time initially granted) unless additional time (up to 3 years) is needed. The bill provides that States (and the Administrator) may grant exemptions extending up to 3 years after the compliance date for any national primary drinking water regulation. This change simplifies the exemption procedure but also limits an exemption to a period not to extend beyond 3 years after the compliance deadline (generally 6 years after a rule is promulgated) for a particular regulation. The one exception to this absolute outside date for any exemption from a national primary drinking water regulation is an additional period for systems serving populations of less than 3,300. Extensions for small systems may be granted in 2-year in-

crements for an absolute period not to exceed 6 years (in addition to the 3-year exemption available to all systems).

Systems may qualify for an exemption by showing that they have secured a promise of financial assistance (as under current law) or that they are reasonably likely to receive assistance from the State's revolving loan fund during the period of the exemption.

Systems receiving a variance under section 1415(e), as added to the Act by the bill, could not also receive an exemption under the revised section 1416.

SECTION 14. SMALL SYSTEMS; TECHNICAL ASSISTANCE

Summary

Section 14 of the bill modifies the variance provisions (section 1415) of current law to authorize variances for small systems that cannot afford to comply with national primary drinking water regulations.

This new variance authority is to be exercised by the States. A State may grant the owner or operator of a public drinking water system serving 10,000 or fewer persons a variance from compliance with a maximum contaminant level or treatment technique of a national primary drinking water regulation if a system cannot afford to comply with the regulation and the system installs the best available treatment technology that is affordable for that system. The variance must ensure adequate protection of public health.

If a variance is granted, the system has up to 3 years to comply with the terms of the variance. The variance is in effect for 5 years and reviewed every 5 years thereafter. A person who is served by the system seeking a variance may petition the Administrator to object to the granting of a variance, if the provisions of the variance are not in compliance with the Act.

Section 14 of the bill also reauthorizes the "circuit-rider" provisions of current law. Using the authority of section 1442(g), EPA has made grants to the National Rural Water Association and various regional community action organizations to provide technical assistance to very small communities. The authorization for these grants is increased to $15 million per year and is extended through the year 2003.

Discussion

Of the approximately 57,000 community water systems regulated under the Safe Drinking Water Act, nearly 54,000 serve populations of 10,000 or less. While EPA has taken steps to recognize the difficulties of small systems by establishing the Small System Technology Initiative, by forming the National Training Coalition, and by developing handbooks and computer software, the current Safe Drinking Water Act does not successfully address the problems of small systems.

The fundamental problem is one of economics. Maximum contaminant levels in national primary drinking water regulations have been based on the best available treatment techniques that are affordable for large systems. Because small systems do not enjoy the economies of scale that are available to large systems (infrastructure costs cannot be spread over a large number of house-

holds) drinking water regulations can have a much greater economic impact on small systems. EPA and the Congressional Budget Office have published estimates indicating that systems serving more than 10,000 persons experience costs averaging less than $20 per household per year to comply with the current requirements of the Safe Drinking Water Act. By way of comparison, the average annual incremental household cost to comply with the requirements of the Safe Drinking Water Act for systems serving 25 to 100 persons is $145.

Despite the relatively small portion of the population served, small systems account for a large proportion of the problems associated with the Safe Drinking Water Act implementation and compliance. And according to EPA, costs imposed on small systems may increase as the result of drinking water regulations under consideration. This future burden may be substantially reduced by modifications to the radon standard that are made by the bill. However, new requirements for the control of disinfection byproducts and arsenic may have a significant impact on some small systems.

The bill authorizes the use of best available technologies as the foundation of a new variance program for small systems that is intended to make the Safe Drinking Water Act affordable in small towns and rural areas.

The bill modifies the variance provisions of the Act to authorize variances for small systems that cannot afford to comply with national primary drinking water regulations.

This new variance authority is to be exercised by the States with primary enforcement authority. A State may grant the owner or operator of a public drinking water system serving 10,000 or fewer persons a variance from compliance with a maximum contaminant level or treatment technique of a national primary drinking water regulation if a system cannot afford to comply with the regulation, including compliance through treatment, alternative source water supply, or restructuring, including consolidation. Any variance must ensure adequate protection of public health.

The variance is to require the use of the best available treatment technology that is affordable for the small system receiving the variance. Information on the efficacy, cost, useful life and source water requirements for these small system technologies is to be published by EPA under section 1412(b)(15) which is added to the Act by section 12 of the bill.

An application for a variance is submitted to the State and within 1 year of submission the State must either grant or deny the variance. A system that applies for a variance from a regulation under this subsection is not subject to enforcement for a violation of the regulation until a variance is either granted or denied.

If a variance is granted, the system has up to 3 years to comply with the terms of the variance. A State may allow an additional 2 years to comply with the conditions of the variance if the State determines that additional time is necessary for capital improvements or financial assistance under the State revolving loan fund or other State or Federal programs. A variance is not available for a maximum contaminant level or treatment technique for a contaminant for which a standard had been promulgated under the Act prior to January 1, 1986 (even if the standard has been subse-

quently revised) or a national primary drinking water regulation for a microbial contaminant or an indicator or treatment technique for a microbial contaminant. If a variance is denied, the system must be in compliance with the regulation for which the variance was denied not later than 4 years after the date when the regulation was promulgated.

The variance is to be reviewed by the State at least every 5 years. If the State determines that the system is no longer eligible for the variance, that the system is not complying with the conditions of the variance or that the terms of the variance do not ensure protection of human health, the State is to revoke the variance.

The Administrator is directed to promulgate regulations in consultation with the States specifying procedures for granting variances, including requirements for public notice to the Administrator and consumers of the public water system, installation and proper operation of treatment technology that is feasible for small systems, the quality of source water, and the financial and technical capability to operate a treatment system, including operator training and certification. To ensure that variances provide adequate protection of human health, the regulations must address the relationship between source water quality and the effectiveness of treatment technologies. A small system may not be granted variance, if the quality of its source water, in combination with the removal efficiencies of the best treatment technologies, does not ensure adequate protection of human health.

The Administrator is directed to publish, in consultation with the States, information to assist the States in developing affordability criteria to use when deciding whether a system qualifies for a variance. Affordability determinations are to be made by the States under criteria that each State develops.

Variances are only to be granted when no other affordable avenue of compliance, including treatment, an alternative source of supply, or restructuring or consolidation is available. Even if compliance through restructuring or consolidation is affordable for a system, the State may nevertheless grant a variance to that system if the State issues a written determination that consolidation is not required for other public policy reasons. As an example, consolidation may not be an achievable option where a small suburban community has resisted annexation by a larger city and the city declines to consolidate water systems in the absence of formal annexation.

The Administrator is to periodically review the small system variance program of each State and to notify a State in writing if there are deficiencies. The Administrator may review and object to any variance proposed to be granted by a State and recommend modifications. If the State issues the variance without resolving the concerns, the Administrator may overturn the State decision.

A person who is served by a system seeking a variance, and who has commented during the public review of the variance, may petition the Administrator to object to the granting of a variance, if the provisions of the variance are not in compliance with the Act. The Administrator has 60 days to respond to the petition and the State may not grant the variance during this review period.

Other amendments incorporated in the bill support the new variance program under section 1415(e). Section 12 of the bill requires the Administrator to issue guidance identifying the best available treatment technologies that are affordable to small systems in various population categories. Several recent reports, including a March, 1994, General Accounting Office study of small system technologies, indicate that a new generation of package plants and point-of-entry devices offers hope of improved water quality at more affordable costs for small systems. The GAO report ("Stronger Efforts Essential for Small Communities to Comply with Standards," March, 1994) urges the EPA to step up its efforts to help small communities use more cost-effective technologies that are available for protecting drinking water:

> "Officials from EPA, the States, and small systems all agree that more information is needed to evaluate the cost and performance of alternative drinking water technologies. If such information is widely available and accepted as reliable, the use of alternative drinking water technologies by small systems could become more widespread.
>
> "Although EPA is involved in efforts to develop such data, limited resources have prevented the agency from expanding its efforts to help field test various technologies...
>
> "Even if EPA cannot expand its efforts to develop such information because of resource constraints, we believe the agency could focus on (1) encouraging State regulators, equipment manufacturers, and equipment users to participate in efforts to develop nationwide protocols for the testing and approval of alternate technologies and (2) ensuring that any data developed as a result of these efforts are effectively distributed. Active participation by all of these parties is essential if the resulting protocols are to be widely accepted and widely used to facilitate approval of alternative drinking water technologies....[B]ecause State officials stressed that they would be very conservative in granting any waivers on the basis of use of these best available technologies, EPA will need to work closely with State regulators to address their concerns in this area."

Making the new variance provisions of section 1415(e) a successful response to the affordability problems experienced by small systems under the Safe Drinking Water Act will take an aggressive technology transfer effort by EPA, the States and the manufacturers of small system technologies.

Technical assistance for small public water systems is currently provided by several Federal, State, and private organizations. The technical assistance ranges from simple advice offered over the phone to hands-on maintenance and repair of plant equipment. The Rural Utilities Service at USDA and the EPA fund "circuit rider" programs. The circuit riders visit individual sites and provide technical assistance to drinking water system operators.

EPA has made grants to the National Rural Water Association and various regional community action programs to support technical assistance under the authority of section 1442(g) of the Act. The bill recognizes the importance and success of these programs by increasing the authorization for these grants from $10 million

to $15 million per year and extending the grants through fiscal year 2003. The bill also makes clear that multi-State regional technical assistance programs are appropriate vehicles for this activity under the Act.

Although the technical assistance programs funded through section 1442(g) have been very successful in most instances, some concerns have been expressed. Some States are concerned that these programs have not been directed to the small systems most in need in their States. Two States have seen virtually no activity within their borders supported by these grants. To address these concerns, the bill makes two changes to section 1442(g). First, nonprofit organizations receiving grants to provide technical assistance must consult with each State in which any assistance activity is to be conducted. And second, the Administrator is to assure that the distribution of funds under section 1442(g) (as it is directed through these organizations) achieves an equal allocation among the States.

SECTION 15. CAPACITY DEVELOPMENT; FINANCE CENTERS

Summary

Within 4 years of enactment, each State is to develop and implement a capacity development strategy to assist public water systems that do not have technical, managerial and financial capacity to comply with the requirements of the Safe Drinking Water Act. The drinking water primacy agency in the State is to report to the Governor 2 years after the strategy is adopted and every 3 years thereafter on progress toward improving the capacity of public water systems in the State.

Each State is to obtain the legal authority or other means to prevent the startup of new public water systems that do not have the capacity to comply with the requirements of the Safe Drinking Water Act. States that have not adopted this authority lose 5 percent of their SRF grant in 1999, 10 percent in 2000 and 15 percent each year thereafter.

Within 1 year after the date of enactment, each State is to prepare a list of public water systems that are in significant noncompliance with the requirements of the Safe Drinking Water Act. The State is to report on its efforts to bring such systems into compliance, through capacity development or enforcement actions, 5 years after enactment.

Grants to the existing network of Environmental Finance Centers are authorized at $2.5 million per year through the year 2003. The Centers are directed to establish a capacity development clearinghouse for public water systems.

Discussion

Some small systems, most often those owned and operated by groups of homeowners or other nongovernmental entities, do not have the technical, financial or managerial capacity to comply with the requirements of the Safe Drinking Water Act. Many of these systems were built before any health standards or monitoring requirements were imposed. They have little experience with financing capital projects and have often relied on the financial assets of

the system owner to get bank loans. They may have deteriorating distribution systems that impose large capital needs, along with the costs for treatment recently imposed by the Safe Drinking Water Act.

Although some of these systems are located in isolated rural areas, more than one-half are located in standard metropolitan statistical areas and are within one-half mile of a neighboring water system.

Several States have developed new initiatives to address the problems of these systems. The leaders in the field are Maryland, Washington, Connecticut, Pennsylvania and West Virginia. There are many options available to address the problems of these systems, including operator training, financial planning and changes in the source of water supply, management and ownership of the system. The essential elements of a successful capacity development program appear to be: authority to prevent the creation of new, nonviable systems; resources to provide on-site technical assistance and training for system operators; and resources to encourage restructuring ranging from cooperative agreements where systems share management and engineering services to changes in ownership that merge small systems with neighboring systems that have a large customer base and access to capital financing.

In its report, *Technical and Economic Capacity of States and Public Water Systems to Implement Drinking Water Regulations*, EPA described the authorities that have been adopted by several States to ensure that new systems have capacity:

> "A number of States are developing or implementing programs to ensure the viability of new small water systems. In general these States are requiring that their proposed systems will be viable over the long-run before allowing the system to be built and operated. For example, the States of Connecticut, Maryland and Washington use a permitting process to ensure that new small systems comply with minimum design, operating, and construction standards. These States also require financial, operational, and management evaluations before the installation of a proposed new system. An additional approach to new system screening is to require financially-backed assurances or guarantees of viability."

The bill includes four provisions to encourage other States to address the capacity problem and to assist systems that need capacity improvements.

First, each State is to adopt legal authority or other means to ensure that new systems have the technical, financial and managerial capacity to comply with the Act before they commence operation. This authority is to be in place before October 1, 1998. At a minimum it must be applicable to new community water systems and new nontransient noncommunity water systems. EPA is to provide guidance on the various means that would fulfill this requirement. The guidance is to be developed in consultation with the States.

Second, each State is to maintain a list of the systems that are in significant noncompliance with the requirements of the Act. At the beginning of 1994, more than 500,000 people were served by

community water systems that were in significant noncompliance with the Act. The purpose of section 1418(b) is to give high priority to resolving the problems of systems on this list. The term 'significant noncompliance' has been defined by EPA and the definition is to be used for this purpose unless modified by guidance that is developed in consultation with the States. The States are to identify the reasons that each system on the list is in significant noncompliance. States are to use the capacity development strategies implemented under section 1418(c) to address the needs of the systems on this list that are in noncompliance because they lack the technical, managerial and financial capacity to comply. States are to report to the Administrator 5 years after enactment on the success of enforcement and capacity development assistance in bringing the systems on the list into compliance.

Third, each State is to develop and implement a capacity development strategy to assist public water systems in acquiring and maintaining the technical, managerial and financial means to comply with the requirements of the Safe Drinking Water Act. The strategy is to include criteria to identify systems that need assistance, methods to improve capacity and the means to measure progress in developing capacity. The State agency with primary enforcement responsibility is to report to the Governor and the public on the effectiveness of the strategy 2 years after it has been adopted and every 3 years thereafter.

EPA is directed to provide several types of assistance to those States implementing capacity development strategies. First, EPA is to disseminate information on the capacity development strategies that are already being implemented by a few States. Second, EPA is to initiate a partnership with the States to recommend model operator training and certification requirements. Third, EPA is to publish guidance developed in consultation with the States on the legal authorities and other means that States can use to ensure that new community water systems and nontransient noncommunity water systems have the capacity to comply with the Act before commencing operations. Fourth, EPA will estimate the impact of each national primary drinking water regulation on capacity at the time that it is promulgated.

EPA is also to use the knowledge gained through the capacity development strategies of the States to modify regulations for variances and exemptions to make them more workable for small systems.

Fourth, the bill authorizes the Administrator to support capacity development studies, training and technical assistance delivered by the existing network of Environmental Finance Centers. A national clearinghouse on capacity development is to be located at one of the centers. In addition, the centers are to develop techniques that aid in identifying systems that are not likely to have the capacity to comply, ensure that new systems do have sufficient capacity and bring existing systems with a history of significant noncompliance into compliance. The bill authorizes $2.3 million per year through the year 2003 for this purpose.

SECTION 16. OPERATOR AND LABORATORY CERTIFICATION

Summary

Each community water system or nontransient noncommunity water system receiving assistance from a State Revolving Loan Fund is to be operated by a trained and certified operator. If a system that has received assistance is operated by a person who is not certified, the Administrator is to withhold funds from the SRF capitalization grant of the State in which that system is located in an amount equal to the assistance that was provided to the system. Systems applying for assistance are to make a commitment to train and certify operators before new treatment equipment supported by SRF loans or grants goes into operation.

The Administrator is to initiate a partnership with the States to develop recommendations regarding operator certification and to publish information for the States to use in designing training programs. However, the determination as to the level of training necessary to receive certification is to remain with the States.

The Administrator's guidance may also cover certification for laboratories that perform testing to meet the monitoring requirements of national primary drinking water regulations.

Discussion

Most States have a drinking water system operator training and certification program, but a few States have no certification requirements at all. Experience prerequisites, testing, certification renewal and continuing education may or may not be required in a State program and the size of the systems covered by certification requirements varies.

In a 1991 report "A Study of State Operator Certification Programs", EPA found that 11 States require all public water system operators be certified, and 5 States require all public water systems that use treatment to employ certified operators. Nine States require all community water systems to have certified operators and 2 States require all community water systems that use treatment to have certified operators. However, there are 15 States with operator certification programs that explicitly exclude systems serving fewer than 500 people. These exemptions are significant because 62 percent of all community water systems nationwide serve 500 people or fewer.

The lack of adequate operator certification and training requirements, especially for small systems, can create compliance problems. Complex technologies require proper installation and maintenance and technical expertise to perform as intended.

In addition, monitoring and sampling done by a trained drinking water system operator are more likely to produce accurate results. Sampling is best done by a person trained to take samples and interpret the results. Untrained operators are more likely to make errors which can produce invalid and costly "false" positive.

The bill recognizes the importance of operator certification and training in several ways. Loans and grants provided from the new State Revolving Funds may include the costs of training operators for the treatment plants that will be built with the loan or grant. The new variance program for small systems established under sec-

tion 1415(e) of the Act includes training considerations for operators of the treatment technologies that are employed under the conditions of the variance. The bill also adds a new program for capacity development that includes training and technical assistance across the range of duties assumed by the operator of a drinking water system.

Section 16 of the bill requires that the operators of systems that receive assistance under the new SRF grant program be trained and certified. If a system is applying for a loan or grant and does not now have an operator who is trained and certified, the system must make an enforceable commitment to meet this condition prior to the operation of any treatment or other equipment that is obtained as the result of the assistance. This provision does not require each system to have its own operator. Once a system has received assistance, the requirement for a trained and certified operator applies in perpetuity.

If EPA determines that a system that has received assistance under an SRF program is being operated by a person who is not trained and certified, a sanction is applied to the State's revolving loan fund. In that case, the Administrator may either withhold an amount from a future grant to the fund or ask that the amount be repaid to the Federal Government from monies in the fund. The amount withheld or repaid is to be the amount of assistance that the system received from the State's SRF.

EPA is to initiate a partnership with the States to develop information and recommendations that will be useful in operator training and certification programs. But the guidance may not establish mandatory conditions for certification. The level of training that is requisite for certification in any State that has primary enforcement responsibility under section 1413 is to be determined by that State. The Administrator may also allow States that do not have primacy (Wyoming) to carry out training and certification programs. Training and certification programs in nonprimacy States are to be consistent with the guidance issued by EPA.

The bill also addresses certification of the laboratories that test drinking water samples for compliance purposes. The guidance that EPA develops for operator certification may also include guidance to the States for certifying these facilities.

SECTION 17. SOURCE WATER QUALITY PROTECTION PARTNERSHIPS

Summary

Over the past 20 years, the Safe Drinking Water Act has focused principally on monitoring and treatment of drinking water to protect public health. Although the 1986 Amendments added pollution prevention provisions for sole source aquifers and the areas around the wellfields of public systems, protecting the quality of source water to avoid the expense of treating contaminated water has not been a major part of the national program. However, building on the lessons from the wellhead protection efforts made under the 1986 Amendments, S. 1316 authorizes a new source water quality protection partnership program to encourage the development of locally-driven, voluntary, incentive-based efforts by public

water systems, local governments and private parties to respond to contamination problems that would otherwise require treatment.

The bill provides for the delineation of source water protection areas for each community water system and, for priority source water areas, vulnerability assessments. The delineations and assessments are to be completed within 60 months, but may be conducted on a priority-based schedule to the extent that Federal funds are insufficient to pay for the delineations and assessments. States may use up to 10 percent of their SRF capitalization grants for 1996 and 1997 to pay for the delineation and assessment work.

States may establish source water quality protection partnership petition programs. The purpose of a State petition program is to identify voluntary, incentive-based source protection measures to prevent contamination of drinking water and to redirect Federal and State financial and technical assistance to support those measures.

Public water systems and local governments (in partnership with other persons who may be affected by these measures) may submit a petition to a State with a program seeking assistance to carry out the recommendations of the partnership.

Petitions may only address contaminants that are subject to promulgated or proposed regulations and that are detected at levels that are not reliably and consistently below the maximum contaminant level.

States may use up to 10 percent of their annual SRF grants to provide loans to carry out projects that are recommended by partnerships with petitions approved under a State program.

Discussion

The Safe Drinking Water Act traditionally has governed the quality of drinking water through standard setting, monitoring, treatment, and enforcement. Other than programs to control underground injection, and to protect wellhead areas and sole source aquifers, source water protection has been the domain of the Clean Water Act. Thus, the only options typically available to community water systems finding contaminants in their water supply have been treatment or the development of new water supplies. Efforts by community water systems to access Clean Water Act programs and other water quality protection measures indirectly, through agencies outside the drinking water regulatory arena, have been difficult.

To remedy this problem, the bill adds a new section to the Safe Drinking Water Act that provides a means other than treatment for community water systems to address problems or emerging problems of contamination. The bill does not require States to adopt a new regulatory framework. Rather, the new section 1419 provides for the delineation and assessment of source water areas and for the establishment of state Source Water Quality Protection Partnership Petition Programs. The petition process is designed to facilitate the development of voluntary, locally-driven, incentive-based partnerships for the protection of source water.

Recognizing the success that has been achieved locally through watershed initiatives that involve all appropriate stakeholders in defining both problems and solutions, section 1419 seeks to engage

local governments, community water systems, and upstream stakeholders in partnerships to respond to contamination issues facing community water systems. Through the petition process, partnerships will be able to leverage information and technical and financial assistance available through the Clean Water Act and other State and Federal water quality programs.

The petition program is a common-sense approach, crafted to avoid Federal and State intrusion into the relationships between local communities and their upstream neighbors and to allow source water quality concerns to be addressed in a cooperative, non-adversarial process. The new program is intended to add momentum to a growing number of success stories where local communities, farmers and other upstream entities have worked together through watershed planning to address source water concerns.

A new section 1419 requires States to delineate (either directly or through delegation) all source water areas for the community water systems within the State within 5 years. For those source water areas considered to be a priority by the State, vulnerability assessments are also required to be completed.

Delineation and assessment can be an expensive and burdensome requirement on the States. The bill addresses the potential burden in several ways. First, a State may set aside up to 10 percent of its SRF capitalization grant in 1996 and 1997 to carry out delineations and vulnerability assessments. This amount remains available for a period of 5 years. If this amount of funding is not sufficient to pay for all delineations and assessments, States are only required to delineate and assess priority source water areas that can be addressed with available funds.

Second, the bill gives each State the authority to decide how delineations are to be carried out and to define the degree of hydrogeological data needed for a delineation. This allows States to tailor delineation requirements to reflect the resources of the community water system and the nature and extent of the activities taking place within the source water areas.

Third, delineations that have already been completed under other State or Federal programs, such as State wellhead protection programs, may be used to satisfy the delineation requirements of this section.

In conducting vulnerability assessments to assess the risks to drinking water in priority source water areas, a State should focus on contaminants of greatest public health concern. To provide for greater consistency in the conduct of assessments, States are strongly encouraged to use existing assessment data gathered under other State and Federal programs and guidance developed by EPA under other Federal laws.

The bill authorizes States to develop and implement petition programs through which community water systems or local governments may complement drinking water treatment by seeking assistance to support the work of local voluntary, incentive-based partnerships to reduce the presence of contaminants in the community's drinking water supplies through coordinated source water protection activities. The partnership petition program is intended as a means to direct or redirect financial and technical assistance

available through other State and Federal programs to support implementation of local partnership recommendations. The contaminants that may be addressed by a petition are regulated microbial contaminants, including those that will be regulated under the Enhanced Surface Water Treatment Rule, and contaminants that occur in a community water system at levels that exceed a maximum contaminant level (or a proposed maximum contaminant level) or that are not reliably and consistently below the MCL (or a proposed MCL), based on reliable monitoring data.

A petition program targets Federal and State assistance through local partnerships to address those contaminants occurring at levels that would otherwise require a community drinking water system to install treatment facilities, now or in the future, to comply with the Safe Drinking Water Act. In responding to a petition, a State has the authority to balance the risks being addressed by that petition against other competing State water quality concerns.

The objective of source water protection is to reduce the presence of contaminants in drinking water by working with upstream entities whose activities may affect contaminant levels in raw water supplies. A response to a petition may or may not affect land uses in the source water area through voluntary application of best management practices, but does not require source reduction that mandates reductions or prohibitions on the use of inputs that could lead to contamination of the drinking water supplies.

Each State is to determine whether to establish a petition program within 1 year of enactment and publicly announce the determination, providing an opportunity for public notice and comment, and at least one hearing if requested by any community water system. Up to 10 percent of the SRF grant for any year is available to make loans to develop and implement the recommendations of source water protection partnerships.

In setting forth the possible elements of a petition, the bill assures that partnerships are a locally-developed, cooperative framework for source water protection. To the maximum extent practicable, all appropriate stakeholders should be invited and encouraged to participate in the partnership. Furthermore, the partnership should be used to educate upstream stakeholders to the contamination concerns and financial constraints faced by the downstream community water system, and the community water system should be apprised of those voluntary and non-voluntary actions that upstream stakeholders are already taking to reduce the likelihood that contaminants will enter the drinking water supply of the community water system.

For a partnership to be successful, the drinking water supplier and entities located in source water areas, such as farmers, who actually implement partnership recommendations, must be involved. The terms ‘other persons,’ ‘each person,’ and ‘persons’ used in referring to the source water entity component of voluntary partnerships mean farmers and other source water entities whose participation is essential to the success of a partnership, including those who can offer technical or financial assistance or who actually implement partnership recommendations. The requirement to outline how voluntary and other efforts already undertaken by source water entities are taken into account is a method to credit efforts

already underway to ensure that limited resources are targeted where additional progress can have the most significant effect on drinking water quality.

A State with a program is to respond to a petition within 120 days of submission, and may approve a petition if it meets the requirements of the State program. The notice of approval is to include (1) identification of technical, financial or other assistance the State will provide to assist in implementing the recommendations of the partnership, based on the relative priority of the problem raised in the petition in relation to other water quality needs in the State, (2) a description of Federal or State technical or financial assistance available in other programs, and (3) a description of activities the State will undertake to coordinate Federal and State assistance. If a State disapproves a petition, the partnership may be resubmit an amended petition if there is new information, conditions change, or the assistance requested is modified.

Section 1419 also authorizes EPA to make grants to States to cover up to 50 percent of the costs of administering a State Source Water Quality Protection Partnership Petition Program. The grants are available to those States whose petition programs are consistent with guidance issued by EPA. In using its authority to approve State grants, however, EPA cannot in any way, directly or indirectly, require a State to impose enforceable mechanisms to achieve source water protection in connection with a petition program or apart from that program.

EPA guidance is intended to provide information that may be helpful to States in the development of a partnership program under this section and to local drinking water entities in the development of partnerships and the assessment of source water quality. At a minimum, the guidance shall include recommended approval or disapproval criteria; submission procedures; assessment criteria; a description of available Federal or State technical or financial assistance; and the steps EPA will undertake to coordinate technical and financial assistance with the goals and objectives of this section.

A State may respond to petitions where appropriate by facilitating locally developed, voluntary partnerships through technical assistance and financial incentives available under existing water quality, agriculture and other programs, and by the use of up to 10 percent of a State's annual SRF capitalization grant to make loans to implement partnership recommendations.

Source water quality protection partnerships are voluntary. They are based on the premise that land owners will be responsive when approached by their neighbors with a defined drinking water problem that could be addressed through source water protection efforts and invited to participate in a voluntary, incentive-based partnership.

This section does not preempt State or local law or prevent States or local governments from undertaking their own source water protection programs pursuant to State or local law. Moreover, if a State receives information through an assessment or deliberation, the State may use that information in the implementation of as source water protection program under State or local law. In addition to being voluntary for States and localities, nothing in

this section requires any source water entity or entities to participate in a partnership established pursuant to this section, or to participate in any programs or assistance provided by a State in response to a petition. The voluntary premise of this section is further reinforced by limiting both assistance requested by a partnership and a State response to a petition to technical, financial or other forms of non-regulatory assistance. This section neither creates any new regulatory authorities nor prohibits regulation established pursuant to other authorities.

The voluntary foundation of the petition program makes it imperative that regulatory mandates not be employed in response to a petition. To do so would be in direct contradiction of the program's voluntary basis. Enforceable regulations, if applied, should be undertaken through other administrative structures normally utilized for those purposes. Nothing in this section precludes community water systems or local governments from independently pursuing voluntary, incentive-based partnerships under other authority.

SECTION 18. STATE PRIMACY; STATE FUNDING

Summary

Under the Safe Drinking Water Act, EPA establishes drinking water quality standards that apply to all public water systems. Assuring compliance with these standards is a task achieved almost entirely by the States. Each State that adopts a regulation that is no less stringent than the Federal standard is granted primary enforcement responsibility for that regulation. 55 of the 57 States and territories have primacy for most regulations that have been issued under the Act.

Under current law, the deadline for a State to submit its regulations to retain primacy for a new or revised drinking water standard is 18 months after EPA has promulgated the national rule. Section 18 of the bill extends that deadline to 24 months. In addition, the bill provides States with "interim" primary enforcement authority during the period after the State regulation is submitted and until such time as it is approved or disapproved by the Administrator. The State regulation is effective during this interim period.

EPA makes an annual grant to each State to support its activities to carry out the Act. The bill reauthorizes these grants for Public Water System Supervision (PWSS) programs at $100 million per year through the year 2003. In addition, States are authorized (under the new SRF program added by section 3 of the bill) to set aside funds from their annual capitalization grants in amounts up to the amount of their PWSS grant to use for administration of the program.

Discussion

Strong and effective State drinking water programs are the key to successful implementation of the Safe Drinking Water Act. Currently, 55 of the 57 States and territories (all except Wyoming and the District of Columbia) have primary enforcement responsibility (called primacy) for the Public Water System Supervision

program. However, many States are struggling to provide adequate funding and personnel to administer PWSS, given the increased workload imposed by the 1986 Amendments and tight State budgets.

Federal and State resources devoted to drinking water have increased in the past few years. In FY 1988, State resources totaled $63 million and Federal grants $33 million. By FY 1993, the resources had increased to $82 million in State funds and $60 million in Federal PWSS grants, for a total of $142 million. The Federal appropriation for FY 1995 was $70 million

However, the need for resources has increased at an even faster pace. Between 1988 and 1993, program needs at the State level increased by 140 percent, far more than the 76 percent increase in funding. In 1993, EPA and the States prepared a careful analysis of this funding shortfall. The results of this study are set forth by EPA in its report entitled *Technical and Economic Capacity of States and Public Water Systems to Implement Drinking Water Regulations: Report to Congress,* (September, 1993). That analysis indicated that a total of $304 million is needed to effectively implement drinking water programs in all States. Funds available from Federal and States sources in 1993 totaled $140 million—leaving a gap of $162 million.

This shortfall has limited the ability of States to implement the drinking water program. For example, four States missed the December 31, 1992 deadline for adoption of rules concerning surface water treatment and total coliform bacteria. California and Pennsylvania notified EPA that they could not adopt a recent rule concerning lead because of the high cost of the State responsibilities under that rule. And EPA has communicated with no fewer than 8 States on the need to increase resources for administration of PWSS or lose primacy under the Act.

The funding shortfall also has cost implications for local public water systems. The dollar impacts at the local level may actually be much larger than the gap measured by EPA and the States. Many of the national primary drinking water regulations have included opportunities for States to reduce costs by tailoring requirements to the conditions actually experienced by their drinking water systems. But States can only make use of this flexibility if they have adequate staff and administrative support to make the case-by-case determinations necessary to grant the waivers and exceptions that are available under EPA's rules. The funding shortfall in State budgets is magnified at the local level in the form of rigid, one-size-fits-all prescriptions that could be avoided if more resources were available to the States.

The reforms in science, selection of contaminants and standard setting made by the bill will slow the pace of new responsibilities. The bill also addresses the shortfall in State program resources in two, more direct, ways. First, the bill increases the authorization for PWSS grants from $40 million per year (in current law) to $100 million per year through 2003.[7] Second, the bill allows a State to use a portion of its annual SRF capitalization grant for the admin-

[7] The appropriation for fiscal year 1995 at $70 million was significantly more than the most recently authorized level.

istration of the PWSS program. The amount that the State can take from the SRF for this purpose is equal to the amount the State receives under section 1443 as a PWSS grant.

States are delegated primary enforcement responsibility (primacy) for national primary drinking water regulations pursuant to section 1413 of the Act. To attain primacy, the Act requires that a regulation adopted under State authority that is no less stringent than the Federal regulation be submitted to EPA by the State within 18 months of the date on which EPA promulgates the national regulation. Section 1412(b)(10) of the Act provides that the national regulation is applicable to local public water systems in the same timeframe—18 months after promulgation of the national rule. This schedule has caused a great deal of confusion; first because States are hard-pressed to complete their new rules in the 18-month period. And second, because local compliance is required before EPA has an opportunity to review and approve the State regulation.

The bill addresses this problem with three amendments. Section 18 of the bill gives the States 2 years (instead of 18 months as in current law) to adopt and submit their rules. The bill amends section 1412(b)(10) to give local water systems 3 years before compliance with a new rule is required. This provides a full year between the issuance of a State rule and the deadline for local compliance that should facilitate a less harried implementation of new requirements. In addition, a new section 1413(c) is added to the Act granting States "interim" primary enforcement authority during the period after their rule is submitted to EPA and the time that EPA approves or disapproves the State rule. Under current law, it is not clear which rules apply after a State has adopted its own requirements and before EPA has officially approved the State rule. The confusion is removed by giving States primacy during this interim period.

SECTION 19. MONITORING AND INFORMATION GATHERING

Summary

Each national primary drinking water regulation includes monitoring requirements to assure continuing compliance with the maximum contaminant levels established by the regulation. These monitoring requirements may impose substantial costs on public water systems. Although EPA has included opportunities for cost reduction (through waivers based on contaminant use or water supply vulnerability), States have been unable to make full use of this flexibility due to a lack of resources in some State programs and caution by EPA in approving State waivers.

The bill includes several reforms to reduce monitoring costs. First, the bill requires the Administrator to review and revise existing monitoring requirements for not fewer than 12 contaminants within 2 years.

Second, the bill authorizes States to develop and implement their own monitoring regime for most contaminants. The State requirements may be less stringent than Federal requirements but are to assure compliance and enforcement with the health standards. This authority takes effect after the first cycle of monitoring

under Federal regulations. The authority does not apply to monitoring for contaminants that are pathogenic organisms. The State program must provide for monitoring at a frequency consistent with Federal requirements in systems where a contaminant has been detected, unless monitoring indicates that the level of the contaminant is reliably and consistently below the maximum contaminant level. The Administrator is to approve or disapprove a State alternative monitoring program within 180 days of submission or may subsequently withdraw a State's authority to establish monitoring requirements, if the State program does not ensure compliance and enforcement.

Third, the Administrator or a State may suspend quarterly monitoring requirements applicable to small systems for any contaminant (other than a pathogenic organism, a contaminant that causes an acute effect, or a contaminant formed in the treatment process or distribution system) that is not detected during the first quarterly sample in a monitoring cycle and the Administrator or the State determines that detection is unlikely to occur in subsequent sampling.

The bill also redirects the program for monitoring for "unregulated" contaminants. The authorities of current law are replaced with listing and sampling provisions designed to gather information on unregulated contaminants for the development of future national primary drinking water regulations. The Administrator may list up to 20 unregulated contaminants for this purpose. All systems serving more than 10,000 persons are required to monitor for the unregulated contaminants listed by the Administrator. Each State is to establish monitoring requirements for these contaminants for a representative sample of small systems within the State. An annual appropriation of $10 million is authorized to offset the costs of this monitoring. In addition, the Administrator may set aside $2 million from each annual appropriation for the State Revolving Fund grant program to pay for testing costs associated with monitoring for unregulated contaminants at small systems.

The Administrator is to establish a national data base containing information from monitoring for regulated and unregulated contaminants and other reliable information on the presence of contaminants in drinking water.

Authority to collect information for the purpose of developing regulations or to determine compliance on a case-by-case basis is streamlined by authorizing the Administrator to gather information with procedures other than a formal rulemaking.

Discussion

Each national primary drinking water regulation that establishes a maximum contaminant level (MCL) or treatment technique for a particular contaminant typically also includes monitoring requirements to determine whether that contaminant (or an indicator of the contaminant) is present in the water served by public water systems at levels exceeding the MCL. Existing monitoring requirements have been shaped by the Agency, as the statute itself provides very little guidance on the form that monitoring requirements are to take.

Although national primary drinking water regulations have included some flexibility to grant waivers from monitoring requirements, based on the likely presence of the contaminant or the vulnerability of the source water supply, some States have not been able to take full advantage of this flexibility to reduce monitoring requirements for public water systems. In some States there has not been adequate personnel to collect and review the data necessary to determine that a waiver of monitoring requirements is warranted. As a result, and especially for very small systems, monitoring for contaminants is now imposing a substantial cost burden on public water systems.

Section 19 of the bill includes three provisions that are intended to reduce the monitoring costs imposed by the Safe Drinking Water Act. First, the Administrator is to review existing monitoring requirements for at least 12 contaminants and make revisions to the requirements within 2 years if the review indicates that the frequency or methods for monitoring currently required are not needed to fully protect public health. Revisions to monitoring requirements resulting from this review may include additional grounds to waive monitoring requirements for systems of a particular type or with water supplied from a source of a particular type where the contaminant is unlikely to occur.

Second, States that have primary enforcement responsibility under section 1413 are authorized to develop alternative monitoring requirements for specific national primary drinking water regulations. These State requirements may be less stringent (require less frequent monitoring) than the Federal requirements and would be implemented in lieu of those imposed by the national primary drinking water regulation.

A less stringent monitoring regime developed by a State cannot take effect until one full cycle of monitoring has occurred under the national primary drinking water regulation or State regulations that have been approved pursuant to section 1413(a)(1) as no less stringent than the Federal rules. This restriction on State programs is imposed to ensure that systems that may be affected by a contaminant are likely to detect the presence of the contaminant before the alternative State program is put into place and to provide information that the States may use to establish an alternative monitoring regime.

Under the provisions of the bill, a system that has detected a contaminant at quantifiable levels must continue to monitor at the same frequency as required in the Federal rules for a period of at least 5 years after the most recent detection. The requirement that systems that have detected a contaminant monitor no less frequently than provided under Federal rules may be set aside if monitoring results for the system indicate that the contaminant is only present at quantifiable levels that are reliably and consistently below the maximum contaminant level.

A State monitoring program is to be adopted by a rulemaking that provides notice to the public and an opportunity for comment. The alternative monitoring requirements must be based on the best available science and supported by data collected by accepted methods. These are the same standards for sound science that apply to EPA's rules establishing Federal monitoring requirements. Modi-

fications to the Federal rules are to be based on the likelihood that the contaminant will occur in public water systems considering the characteristics of the contaminant and the vulnerability of the systems to contamination.

The fundamental standard that is to guide States in developing these alternative monitoring programs is the need to ensure that Federal health standards will be met and enforced. Monitoring requirements that undermine compliance or preclude enforcement would be disapproved by the Administrator under the provisions of the bill. As an example, if an analytical method allowed under a State program is not sufficiently reliable to form the basis for the State to take an enforcement action against a system for a violation of an MCL (as indicated by the method), the Administrator is to disapprove the State program. If after operating for a period of years, it is apparent that noncompliance rates for one or more MCLs has increased significantly under the monitoring program adopted by a particular State, the Administrator is to withdraw the authority for that State to establish alternative monitoring rules.

Because the monitoring regime for pathogenic organisms under the Surface Water Treatment Rule is already carefully tailored to reduce burdens while assuring the safety of drinking water, States are not authorized to develop alternative monitoring requirements for any microbial contaminants or indicators of microbial contaminants.

In addition, a State program cannot reduce the frequency of monitoring for any system that is required to treat for a contaminant formed in the distribution system. For example, this restriction addresses the lead and copper rule which contains an action level triggering treatment measures, including corrosion control and service line replacement, when the action level is exceeded. Any system that is required to adopt these or other measures because the action level for lead has been exceeded in the requisite number of cases must continue to monitor under rules that are no less stringent than the national primary drinking water regulation for lead and copper.

Section 1413 of the Act sets forth the conditions under which a State may assume primary enforcement responsibility for national primary drinking water regulations. Generally, current law provides that a State must submit a regulation adopted under State authority that is no less stringent than the Federal regulation and that meets other conditions established by EPA. If EPA approves this regulation, the State is considered to have primary enforcement responsibility. Section 1413 applies not only to the health standard in a primary drinking water regulation, but to the monitoring requirements, as well. The bill makes several modifications in the application of section 1413 to monitoring programs that are developed by States pursuant to the new authorities in section 1445(a)(1)(D). The modifications are designed to ensure that States will be able to exercise the authorized flexibility in practice without EPA micro-management.

First, the State monitoring regulations need not be as stringent or more stringent than the Federal requirements. States may adopt less stringent (less frequent or less analytically rigorous) monitoring requirements, provided that the State monitoring pro-

gram ensures compliance with, and enforcement of, national primary drinking water regulations.

Second, the information requirements imposed on States to support the submission of an alternative monitoring program for review under section 1413 are not to be more extensive than necessary to facilitate the Administrator's decision to approve or disapprove the proposed State program. Since the Administrator is to approve a proposed program, unless it does not ensure compliance with, and enforcement of, a national primary drinking water regulation, the information required to support a State proposal should be relevant to compliance and enforcement issues. EPA is to develop the information requirements in consultation with the States taking care not to frustrate the intent of this provision by requiring unnecessary data that States are in no position to supply.

Third, under current law State regulations submitted under section 1413 are to be approved or disapproved by the Administrator within 90 days. The bill extends this period to 180 days for monitoring programs developed by States under section 1445(a)(1)(D) and provides that a State program shall be deemed approved if the Administrator has not taken action to approve or disapprove a State proposal within that period of time.

Fourth, consistent with the "interim" primacy authority added to the Act by section 18(a)(2) of the bill, a State program may become effective any time after it has been submitted to the Administrator and on a date selected by the State. However, as noted above, an alternative monitoring program cannot be put into place until one full cycle of monitoring under the national primary drinking water regulation (or an equally stringent State regulation) has been completed.

Fifth, States are not to lose primacy (primary responsibility for enforcement of the Act) if a monitoring program submitted under section 1445(a)(1)(D) is subsequently withdrawn by the Administrator. If EPA determines that a State program is not adequate to ensure compliance with, and enforcement of, national primary drinking water regulations, EPA can withdraw the authority of the State to operate the program. This will not automatically lead to a loss of primacy, provided that the State is able to impose monitoring requirements that otherwise meet the requirements of section 1413 of the Act. Because one full cycle of monitoring will have been conducted under rules that meet the requirements of section 1413 before a State can institute an alternative program, the State will likely have authority to maintain primacy.

EPA is to review monitoring programs developed by the States under this authority not less often than every 5 years. The Administrator may withdraw a State's authority to establish monitoring requirements under section 1445(a)(1)(D). If the Administrator determines that withdrawal is justified, the Administrator is to notify the State and provide the State with an opportunity to correct any deficiencies in the program.

The authority to develop alternative monitoring programs is also available in the States that did not have primary enforcement authority on the date of enactment (Wyoming and the District of Columbia). The Governor (or equivalent executive officer) may request the Administrator to modify the monitoring requirements in

these jurisdictions to the same extent that modifications are authorized in States with primacy.

The Administrator is to issue guidance to assist the States in developing alternative monitoring programs. This guidance is also to address the waivers that may be available to small systems pursuant to section 1445(a)(1)(E), as described below.

The third provision in the bill intended to reduce the cost of monitoring is section 19(a)(3) which reduces monitoring requirements for small systems (those serving a population of 10,000 or less) by eliminating multiple tests for some contaminants where an initial sample during a cycle of tests does not detect the presence of the contaminant and the Administrator or the State determines that the contaminant is not likely to be detected in future samples. Many of the contaminants addressed in national primary drinking water regulations are listed because of their chronic effects (they cause cancer or other adverse effects as the result of long periods of exposure). The maximum contaminant levels for these substances are based on preventing health effects that may only develop after decades or an entire lifetime of exposure. Because the concern is not for an "acute" effect (an effect typically associated with a single or small number of exposures that causes illness or disease in the near-term), preventing disease does not always require frequent monitoring.

The Agency's monitoring requirements for contaminants with "chronic" effects generally require small systems to monitor for the substance in 1 year out of each three. During the year of monitoring, the system is required to test one sample each quarter. For small systems, especially systems drawing from ground water sources, it is unlikely that a contaminant not detected at all in the first test will subsequently be found in a later sample.

Recognizing the high cost for some of the tests, the low probability of finding the contaminant in the second, third or fourth test and the "chronic" nature of the health threat posed by these specific contaminants, Congress enacted amendments to the Fiscal Year 1993 appropriation bill for the Environmental Protection Agency (P.L. 102–389) that allowed States to waive subsequent quarterly monitoring for a group of contaminants for small systems (serving a population under 3,300) for any one of these contaminants that was not detected in the first test. Several States took advantage of these amendments and reported considerable savings for small systems in monitoring costs.

The bill extends a similar waiver of monitoring requirements to systems serving populations up to 10,000. The waiver provides that additional monitoring for some contaminants may not be required (as determined by the Administrator or the State), if the initial test in a cycle fails to detect the contaminant and the Administrator or the State determines that the contaminant is not likely to be detected in future samples. If a test does detect the contaminant the waiver does not apply, even if a subsequent test during the same cycle indicates no detectable level. The waiver is not available for microbial contaminants (or indicators for microbial contaminants), for contaminants associated with acute effects, or for contaminants formed in the treatment process (*e.g.*, disinfection byproducts) or the distribution system (*e.g.*, lead and copper).

In addition to monitoring requirements for contaminants for which maximum contaminant levels have been established, current law (section 1445(a)(2)-(8)) also includes requirements for monitoring with respect to "unregulated" contaminants.

Under provisions of current law, EPA is to promulgate a list of "unregulated" contaminants, establish monitoring requirements with a frequency of at least once every 5 years and require that the consumers on a system be informed if a contaminant on the list is detected in the water supplied by that system. Systems serving less than 150 service connections are not required to pay for tests; funds are authorized for the Agency to provide monitoring for these systems. These provisions of current law have not been implemented as intended.

Section 19(b) of the bill alters the monitoring program for unregulated contaminants. The Administrator is to publish a list of up to 20 contaminants within 3 years and update the list every 5 years thereafter. Systems serving a population of more than 10,000 are to monitor for the contaminants on the list and report the results of the monitoring for inclusion in the national occurrence data base discussed below.

Each State is to establish monitoring requirements for a representative sample of systems serving a population under 10,000 in the State. The bill authorizes $10 million per year to assist the States and individual systems in conducting the monitoring for unregulated contaminants required by these provisions. In addition, the bill reserves $2 million from each annual appropriation for the SRF grant program to be used by the Administrator to pay for the testing and laboratory costs associated with monitoring for unregulated contaminants by small systems.

The Administrator is to revise the list every 5 years removing the contaminants for which sufficient information has been collected to satisfy future regulatory needs. If a State demonstrates that a particular contaminant on the list established by the Administrator will not be found in that State, the Administrator may waive the monitoring requirements for that contaminant in that State.

The Administrator is required to establish a new data base to better manage available information on the occurrence of contaminants in drinking water supplied by public water systems. One important use of the data base is to identify contaminants that may warrant regulation in the future—those that occur with a frequency and at a level that may be of public health concern. If information on the health effects of a contaminant indicates that it may pose a threat to the health of persons, information from the data base would be used to shape a national primary drinking water regulation for the contaminant.

The data base is to be assembled within 3 years. It is to include information on the occurrence of all the contaminants addressed by national primary drinking water regulations. The current information system maintained by the Agency only includes data on violations of maximum contaminant levels for the regulated contaminants. This new occurrence data base is to include additional information derived from the monitoring that is required by national primary drinking water regulations and for listed un-

regulated contaminants. Whenever a system detects the presence of a regulated or unregulated contaminant at a quantifiable level, the system is to report that information (to the State or to the Administrator) for the purpose of including the information in the data base.

The data base is also to include information on contaminants not currently regulated under the Act. Under other provisions of the bill (see above), the Administrator is to establish a monitoring program for unregulated contaminants that may cover up to 20 substances. Information from this monitoring program will be included in the data base. The Administrator may also include in the data base reliable information from other sources (including surveys conducted by the Agency, other Federal departments or agencies or the States) on the occurrence of contaminants in drinking water supplied by public water systems.

Information in the data base is to be readily available to the public including access by electronic means. Any person may recommend that a particular contaminant be listed in the data base. The Administrator is to periodically solicit listing recommendations from the National Academy of Sciences and the States. All recommendations for listing are to be accompanied by reasonable documentation establishing that the contaminant may occur in drinking water and that it may pose a threat to human health as the result of its occurrence.

Section 1445 of the Safe Drinking Water Act provides the basic authority for EPA to require regulated entities to maintain records and other information, conduct monitoring and make reports "as the Administrator may reasonably require by regulation." Section 1445 also authorizes the Administrator to conduct inspections in order to determine whether a regulated entity is complying with the Safe Drinking Water Act.

Some statutory requirements of section 1445 unnecessarily complicate information gathering efforts; as a result, the requirements undermine the Administrator's ability to ensure compliance and protect public health. Accordingly, section 19(d) of the bill amends section 1445 to streamline these authorities.

The principal modification relates to the Administrator's establishment of recordkeeping, information gathering, and monitoring requirements. Currently, such requirements may be established only by regulation, subject to the full notice and comment procedures of the Administrative Procedures Act. While these procedures are appropriate in the case of generally applicable requirements, they are inappropriate and cumbersome in the case of information gathering at a particular facility or at a small group of facilities.

The bill revises section 1445(a)(1) by deleting the requirement that all information gathering be done by regulation, allowing the Administrator to use other means to gather general data and other data to assist the Administrator "in determining, on a case-by-case basis, whether the person has acted or is acting in compliance" with the Safe Drinking Water Act.

The bill retains the condition that recordkeeping, information gathering, and monitoring requirements be promulgated by regulation when imposed to assist the Administrator "in determining compliance with national primary drinking water regulations,"

such as issuing generally applicable monitoring requirements, and when imposed to assist the Administrator "in administering any program of financial assistance" under the Safe Drinking Water Act.

Monitoring required of public water systems is to be by accepted methods, unless the monitoring is being carried out for the purpose of testing new or alternative methods.

SECTION 20. PUBLIC NOTIFICATION

Summary

This section of the bill amends section 1414(c) of the Act to ensure that consumers served by a public water system receive timely and understandable information when the system violates a requirement of the Safe Drinking Water Act. The bill also requires each State and EPA to publish annual reports informing the general public about the degree of noncompliance with the Act.

Discussion

Current law requires each public water system to notify consumers when violations of the Act occur. Under section 1414(c), a public water system is to notify people served by the system of any violation of a maximum contaminant level, a treatment technique requirement, a testing procedure requirement, a monitoring requirement, or the schedule of a variance or an exemption. If a violation poses a serious threat to health, the notice must be provided within 14 days of the violation; for other violations, notice must be provided within a year. Current law also permits the Administrator to require a public water system to provide notification about the concentration levels of an unregulated contaminant that the system has detected pursuant to monitoring under section 1445(a)(2)-(8).

Public notification is a powerful force for prevention. Unfortunately, the current provisions of the Act are not working effectively. The General Accounting Office reported ("Consumers Often Not Well-informed of Potentially Serious Violations," June, 1992) the following conclusions with respect to public notification under current law and regulations:

> "On the basis of its review of 28 water systems in 6 States, GAO found that a variety of factors contributed to high rates of noncompliance with the public notification requirement. Together, the water systems issued timely notice of only 17 of 157 violations. Of the other 140 violations in which timely notice was not given, 103 violations involved serious long-term health risks. Part of the problem can be explained by limited enforcement by States against noncomplying water systems and by limited oversight by EPA. A major cause of noncompliance, however, involves the public notification requirements themselves, which have been difficult to understand and implement for many operators—particularly those operating small systems.
>
> "Even if total compliance could be achieved, other problems make the notification process less effective than it should be at informing the public of problems with their drinking water. For example, the notices often do not clearly convey ap-

propriate information to the public concerning the health risks associated with a violation and the preventive actions to be taken. GAO also concluded that the public notification process would be more effective in informing the public—and easier to implement by water systems—if it focused more on serious violations. "Among GAO's recommendations to improve the public notification process are that the Administrator, EPA, (1) revise the agency's public notification language so that it highlights the risks posed by violations and uses less technical language and (2) focus notifications more on serious violations by allowing water systems to consolidate notices for [less serious] violations and education matters into a semiannual or annual report."

Improving the effectiveness of public notification under the Safe Drinking Water Act should be a high priority for EPA and the States. The bill makes several substantive changes to section 1414(c), along the lines recommended by GAO, to ensure that violations with the potential for serious adverse health effects as a result of short-term exposure are communicated quickly and that all of the information provided to consumers is in a form that is understandable and useful.

New subsection (c)(1) retains the existing requirement that a public water system notify consumers of various types of violations. It also retains the provision permitting the Administrator to require a system to provide notification about the concentration levels of unregulated contaminants. Public water systems must also notify consumers when they are operating under a variance or an exemption.

New subsection (c)(2) requires the Administrator to promulgate regulations, after consulting with the States, prescribing the manner, form, and content of giving notice. The regulations are to make distinctions between violations that are serious and frequent or continuing and those that do not present a significant risk to public health.

To assure that States have sufficient flexibility to adjust the requirements to fit local circumstances, the bill provides that a State may establish alternative notification requirements. In the case of violations that present a serious risk to health, State regulations may address the manner (broadcast, newspaper, posting, and door-to-door) to be used for the notice and the form and content of the notice. In the case of other violations (for which notice is required within 1 year), the State regulations may only address the form and content of the notice. Nothing in the section authorizes a State to waive the requirement that each water system provide a direct written communication to each household served by the system within 1 year of any violation covered by section 1414(c)(2)(D).

Alternative public notice requirements established by a State are to provide for the same type and amount of information as prescribed in the Act and implementing regulations. Alternative requirements are to be reviewed by the Administrator in the context of primacy determinations made under section 1413.

The bill also distinguishes between violations that require immediate action and those that do not. If a violation has the poten-

tial to have serious adverse effects on human health as a result of short-term exposure, the notice must be distributed (to the State as well as to consumers) as soon as practicable but no later than 24 hours after the violation. The notice must clearly describe the violation, its potential adverse effects, the remedial steps that the public water system is taking, and whether people should resort to alternative water supplies. In order to assure that the notice is disseminated effectively, the bill provides that the State may decide what manner of notice is most appropriate, either by regulation or on a case-by-case basis after consultation between the public water system and the State primacy agency, but the manner must include one of the following: communication through broadcast media, publication in the local newspaper, posting, or door-to-door notification.

In the case of other violations, written notice must be provided not later than 1 year after the violation and the manner of notification must include one of the following: inclusion in the first billing after the violation, inclusion in an annual report, or distribution by mail or direct delivery.

New subsection (c)(3) requires each State that has primary enforcement responsibilities under the Act to issue an annual report on violations of the Act, and requires the Administrator to issue an annual report summarizing the State reports (and similar reports by Indian Tribes).

SECTION 21. ENFORCEMENT; JUDICIAL REVIEW

Summary

Several modifications to the enforcement authorities of the Act are made by the bill. The major changes are:

- the Administrator is directed to notify local elected officials before taking enforcement actions against public water systems in nonprimacy States;
- the Administrator or a State is authorized to suspend enforcement action with respect to a violation for a period of 2 years, if the violation is to be corrected through a consolidation between two or more systems during that period;
- States are to adopt administrative penalties (of at least $1000 per violation for large systems) to facilitate enforcement of the Safe Drinking Water Act; and
- the maximum amount for an administrative penalty imposed by EPA is increased from $5000 to $25,000 per violation; administrative penalties in amounts greater than $5000 may only be imposed after a full, on-the-record hearing.

Discussion

The bill amends section 1414 of the Safe Drinking Water Act to improve and streamline enforcement authorities. Section 1414 authorizes the Administrator to issue compliance orders, assess administrative penalties within certain limits, and pursue civil actions in Federal district court. Enforcement actions to correct violations of the Act can be taken both by EPA and by a State with pri-

mary enforcement responsibility. Because many community water systems are owned and operated by local governments, accountable through elections to the consumers served by the system, the enforcement authorities of the Safe Drinking Water Act are structured and applied in a manner different from other environmental laws.

The current enforcement system relies primarily on the States. Section 1413 requires that, in order to grant a State primary enforcement responsibility, the Administrator must find that the State has adopted and is implementing adequate enforcement procedures. Currently, 55 of 57 States and territories have primary enforcement responsibility. As a result, compliance with maximum contaminant levels and other requirements of the Act is ensured primarily through State actions. The Administrator also is authorized to bring enforcement actions directly. But, before doing so, the Administrator must notify the State, give the State a chance to take appropriate action, and seek to provide advice and technical assistance to the public water system.

This enforcement system works relatively well. However, in part because of the many new regulations recently issued, the overall rate of compliance remains lower than under other Federal environmental laws. In fiscal year 1994, 43,354 public water systems had violations with 19,568 of these violations occurring at community water systems. Eight percent of the systems reported violations of maximum contaminant levels.

Under the Safe Drinking Water Act in fiscal year 1994, EPA issued 309 final administrative orders, 44 complaints for administrative penalties resulting from violations of orders, 8 emergency response orders and referred 6 cases to the Justice Department for civil action. By way of comparison, in the same year EPA referred 86 cases under the Clean Water Act and 139 cases under the Clean Air Act for civil actions.

Several amendments to the Act made elsewhere in the bill will improve compliance by improving the regulatory process itself, by increasing State and local flexibility, by providing better public notification, and by providing financial assistance for the construction of treatment works. In addition, section 21 of the bill makes modest improvements in the enforcement system, consistent with an emphasis on State, rather than Federal, enforcement and on a compliance-oriented enforcement policy.

Specifically, section 21 of the bill makes seven changes to the enforcement provisions of the Act.

First, section 21(a) of the bill amends section 1414 of the Act to clarify the scope of enforcement authority. Section 1414(a) of the Act currently provides that the Administrator may take enforcement action against any public water system that fails to comply either with a national primary drinking water regulation or with an exemption or variance from such a regulation. Section 1414(a) does not, however, expressly provide that the Administrator may take enforcement action against *any* person that fails to comply with *any* provision of the Act. As a result, it is uncertain whether the Administrator may take enforcement action for some significant violations, such as a violation of the prohibition against the sale of leaded water fixtures. The Administrator's authority to take

enforcement action for a violation of a requirement of an approved State program is also not clearly stated in current law.

The bill addresses these problems by replacing several references to enforceable drinking water regulations with references to an 'applicable requirement.' The bill also adds a new section 1414(i) to the Act, which defines an 'applicable requirement' as one of several specific sections of the Act: section 1412 (primary drinking water regulations), section 1414 (public notification), section 1415 (variances), section 1416 (exemptions), section 1417 (lead fixtures), section 1441 (chemical supplies), and section 1445 (records and inspections). New section 1414(i) also defines an applicable requirement as a regulation promulgated pursuant to one of those sections, a schedule or requirement imposed pursuant to one of those sections, or a requirement of, or a permit issued under, an approved State program.

Second, section 21(a)(1)(B) of the bill amends section 1414(b) of the Act to improve enforcement in nonprimacy states. Under current law, when the Administrator takes enforcement action in a nonprimacy State, the Administrator is not required to notify local officials of the action. As a result, governmental officials such as mayors or county commissioners with authority over a public water system may not know of an EPA enforcement action until after it has been taken. The bill rewrites section 1414(b), making one significant substantive change (in addition to the reference to applicable requirements, described above)—requiring that, before taking enforcement action, the Administrator must "notify an appropriate local elected official, if any, with jurisdiction over the public water system of the action taken."

Third, section 21(a)(3)(B) of the bill amends section 1414(g) of the Act to promote the administrative resolution of disputes in cases in which administrative resolution is appropriate and efficient. If, under current law, the Administrator wishes to assess a penalty of more than $5,000, the Administrator must ask the Justice Department to bring a complaint in Federal District Court, which is a relatively complex process. As a result, it sometimes is difficult and expensive to resolve simple cases.

To facilitate more appropriate enforcement in such cases, the bill streamlines the process for taking administrative enforcement action. Under current law, the Administrator must take five separate steps before imposing an administrative penalty for a violation of the Act. First, the Administrator must notify the State and give the State an opportunity to act. Second, the Administrator must issue a proposed order. Third, the Administrator must hold a hearing on the proposed order. Fourth, the Administrator must issue a final order. Fifth, if the Administrator determines that the final order has been violated, the Administrator must bring an administrative action seeking to impose an administrative penalty.

To simplify this cumbersome process, the bill eliminates the requirement that the Administrator issue a proposed order, and hold a public hearing, before issuing a final compliance order. As a result, the Administrator may, after notifying the State and giving the State an opportunity to act, issue a compliance order. This process, which is similar to the process that occurs under section 309(g) of the Clean Water Act, will expedite administrative pro-

ceedings, while fully preserving the role of the States and the rights of public water systems.

Fourth, section 21(a)(3)(C) of the bill further promotes the administrative resolution of disputes by amending section 1414(g) of the Act to increase the penalty amount that may be assessed in an administrative proceeding. Under current law, the Administrator may not assess a penalty of more than $5,000 in an administrative proceeding; if the Administrator wishes to assess a higher penalty, the Administrator must ask the Justice Department to file a complaint in Federal court. In contrast, under the Clean Water Act, the Administrator may assess a penalty of up to $100,000 in an administrative proceeding.

The bill provides for an expedited process for assessing small administrative penalties (that is, those up to $5,000). This is designed to make the process more efficient, while still according individuals a right to a hearing. If the Administrator seeks a penalty of no more than $5,000, EPA may assess that penalty through an informal process—that is, after notice and an opportunity for a public hearing, but without a full hearing on the record under the terms of the Administrative Procedures Act (unless the person against whom the penalty is sought requests a hearing on the record rather than an informal process). If the Administrator seeks a penalty of between $5,000 and $25,000, EPA must offer a formal process—that is, with a full hearing on the record under the terms of the Administrative Procedures Act.

Fifth, section 21(a)(4) of the bill adds a new section 1414(h) to the Act to create an incentive for system consolidation. Many public water systems do not have the technical, financial or managerial capacity to comply with the requirements of the Safe Drinking Water Act. Quite often, consolidation with a neighboring system or systems is the most effective means to improve system operations and the safety of the supply. Under current law, a public water system that is in a position to acquire or consolidate with another system could be discouraged from doing so if there is a risk that the acquiring system will be subject to enforcement actions based on violations previously committed by the system that is acquired. To encourage consolidations that resolve compliance problems and improve safety, new section 1414(j) authorizes the Administrator or a State to review consolidation plans. If a plan is approved, neither the Administrator nor a State may bring an enforcement action for a period of 2 years for a violation that is specifically identified in the plan and that will be resolved when the consolidation is complete. Systems acquiring or consolidating with others will have a reasonable period to correct pre-existing violations before being exposed to enforcement actions.

Sixth, section 21(b) of the bill amends section 1413(a) of the Act to require States to establish their own administrative enforcement systems, if they have not already done so. The administrative resolution of disputes arising under the Act is likely to benefit both public water systems and the public generally. The use of administrative enforcement authority, rather than litigation, makes it simpler and less expensive to resolve certain types of cases. In light of this, many States have enacted administrative enforcement systems of their own for resolving relatively minor enforcement cases.

The bill builds on these State efforts by requiring each State with primary enforcement authority to adopt authority for administrative penalties (unless the State's constitution prohibits it from doing so). The authority must include, in the case of large systems, penalties in a maximum amount of at least $1,000 for each day of each violation, and, in the case of small systems, in an amount that is adequate to ensure compliance. In addition, the bill expressly provides that a State may establish an overall limit on the amount of the penalty that may be imposed on a public water system for a particular violation.

Seventh, section 21(c) of the bill amends section 1448(a) of the Act to clarify procedures for judicial review of certain administrative actions. Under current law, a person may petition for judicial review of any "action" by the Administrator under the Act. This creates the possibility that a person may petition for judicial review of interim actions, such as the issuance of a proposed penalty (as opposed to a final penalty). To prevent this, the bill clarifies that judicial review is limited to final actions by the Administrator. In addition, the bill describes the procedure a petitioner should follow to seek judicial review of a final penalty assessment, and the standard of review that applies.

SECTION 22. FEDERAL AGENCIES

Summary

Many public water systems are owned and operated by Federal agencies at military bases, national parks and other facilities. Section 1447 of current law was enacted to waive the sovereign immunity of the Federal Government with respect to all drinking water laws and regulations and to authorize enforcement for violations at public water systems operated by Federal agencies in the same manner that enforcement actions can be taken with respect to other systems. However, recent court decisions reviewing similar provisions of other laws call into question the efficacy of section 1447.

Section 22 of the bill amends current law to clarify the waiver of sovereign immunity that would otherwise apply to Federal agencies ensuring that all Federally-operated public water systems are subject to the provisions of the Safe Drinking Water Act and State and local safe drinking water laws. The bill also establishes procedures for the Administrator to impose administrative penalties for violations at Federal facilities and for the payment of those penalties.

Discussion

The Federal Government owns or operates more than 5,000 public drinking water systems, at military bases, national parks, and other Federal facilities. Currently, the application of the Safe Drinking Water Act and of State and local safe drinking water laws to these Federally-operated systems is uncertain. Under the general doctrine of sovereign immunity, the Federal Government is subject to liability only if it has expressly agreed to be subject to such liability and, accordingly, has specifically waived its sovereign immunity. Section 1447 of the Safe Drinking Water Act was in-

tended to be an explicit waiver of immunity and provides that each Federal agency that operates a public drinking water system "shall be subject to, and comply with, all Federal, State, and local requirements, administrative authorities, and process and sanctions respecting the provision of safe drinking water."

However, this provision may have limited effect. In 1992, in the case of *Department of Energy v. Ohio* (503 U.S. 607), the Supreme Court held that similar provisions of the Clean Water Act and the Resource Conservation and Recovery Act did not fully waive the sovereign immunity of a Federal agency with respect to fines that punish past violations of the law (as opposed to coercive sanctions intended to induce future compliance with the law). The waiver of sovereign immunity contained in section 1447 is similar to the waivers that the Supreme Court considered in *Department of Energy v. Ohio;* therefore, the waiver in section 1447 might be construed similarly, as not waiving sovereign immunity with respect to penalties for past violations.

Such a construction of the section 1447 would prevent State and local officials from taking enforcement actions that they consider necessary to protect their citizens and would prevent the Administrator from taking actions necessary to protect public health. It would also reduce incentives for Federal agencies to comply. And it would generally undermine public confidence in the even-handed enforcement of the law. Therefore, the bill amends section 1447 to clarify the waiver of sovereign immunity for all enforcement actions under the Safe Drinking Water Act and similar State and local laws. These amendments generally follow the provisions of the Federal Facilities Compliance Act (P.L. 102–386) that clarifies the waiver of sovereign immunity under the Resource Conservation and Recovery Act.

Section 22(a) of the bill rewrites section 1447(a) of the Act establishing the duty of Federal agencies to comply with safe drinking water laws (including laws relating to underground injection). The revision specifically provides that this duty includes complying with all civil or administrative penalties and fines, whether the penalties or fines are punitive or coercive, and waives sovereign immunity with respect to such compliance. It also provides, like the Federal Facilities Compliance Act, that Federal agents, employees, and officers are not subject to personal civil liability for any acts or omissions within the scope of their duties, but may be subject to criminal sanctions under State or local safe drinking water laws.

Section 22(a) of the bill also rewrites section 1447(b) of the Act providing for an exemption, in certain circumstances, from the otherwise applicable duty to comply. Under current law, such an exemption must be granted by the Administrator if the exemption is requested by the Secretary of Defense and is necessary for national security. New section 1447(b) revises current law in five ways, along the lines of the Federal Facilities Compliance Act. First, it provides the exemption authority to the President rather than the Administrator. Second, it permits an exemption to apply to any Federal agency, not only the Department of Defense. Third, it changes the standard for granting an exemption from a national security interest to "the paramount interest of the United States." The need for an exemption may not be based on the lack of an ap-

propriation, unless the President has specifically requested the appropriation and Congress has not made it. Fourth, it limits the period of the exemption to one year. The President may grant additional exemptions. Fifth, it requires the President to issue an annual report on any exemptions.

Section 22(b) of the bill adds a new section 1447(d) to the Act authorizing the Administrator to assess administrative penalties against Federal agencies for violations of the Safe Drinking Water Act and establishing procedures for the assessment of such penalties. Under the theory of the unified executive, the Justice Department has declined to initiate court litigation against other Federal agencies. Administrative proceedings offer an alternative means for EPA to enforce the provisions of the Safe Drinking Water Act with respect to Federal agencies. New section 1447(d) authorizes the Administrator to initiate such proceedings and to assess administrative penalties of up to $25,000 for each day that each violation occurs. It also directs the Administrator to provide an agency an opportunity to confer and with notice and an opportunity to be heard before an administrative penalty order becomes final. To assure that the public can participate in these deliberations, the amendments permit any interested person to obtain judicial review of an administrative penalty order assessed against a Federal agency.

As a related matter, section 22(c) amends the citizen suit provision of the Act to permit citizens to bring a suit against an agency that has failed, for more than a year, to pay an administrative penalty assessed under section 1447. The penalties are paid by the agency to the general fund of the Federal Government and not to EPA or to a citizen bringing a successful suit.

Section 22(d) of the bill addresses the special circumstances of the Washington Aqueduct. An important purpose of section 21 of the bill is to give Federal agencies a stronger financial incentive to comply with the Safe Drinking Water Act. This purpose would be frustrated if a Federal agency could pass a penalty through to consumers served by the water systems it operates. This is a particular concern in the case of the Washington Aqueduct operated by the Army Corps of Engineers and serving people in the District of Columbia and parts of Northern Virginia. It would be inappropriate for a penalty assessed against the Corps to be passed on in any way to the residents who have no responsibility for the violation and no authority over the drinking water treatment system operated by the Corps. Therefore, section 22(d) of the bill amends section 1447 of the Act to specifically prohibit the Corps of Engineers from passing any penalty through to the users of the Washington Aqueduct system. Instead, any such penalty should be incurred exclusively by the Corps of Engineers.

SECTION 23. RESEARCH

Summary

The general research authorities of current law are clarified and an authorization of $25 million is provided for each fiscal year through 2003. From this amount, $4 million is available for research on the health effects of arsenic. In addition, $8 million per

year is authorized for the Administrator to make grants to States to assist in responding to drinking water emergencies and $10 million per year is authorized to educate and train personnel needed to manage and operate drinking water systems.

The bill includes new research programs for the interactive risks of pathogenic organisms and disinfectants and disinfection byproducts and for risks to subpopulations that may experience greater risks of adverse health effects from exposure to particular contaminants than the general population.

Discussion

Section 1442(a) of the Act authorizes the Administrator to conduct research, studies and demonstrations relating to the causes, diagnosis, treatment control, and prevention of diseases resulting from contaminants in drinking water. The bill adds authority to collect and make available information on the dependability of a safe drinking water supply and to make available research facilities of the Agency to public authorities, institutions and individuals engaged in research. The authorization of $25 million per year for this subsection is extended through the year 2003.

Under current law, EPA has authority to make grants to States to assist in emergency situations relating to water systems. This provision is retained and the authorization of $8 million per year is extended through the year 2003.

A report to Congress on the long-term availability of drinking water supply, submitted in 1988, is to be revised 2 years after the date of enactment of the bill and every 5 years thereafter.

Various authorities relating to education and training are consolidated and a new authority to develop methods for forecasting supply and demand for occupational categories for the protection and treatment of drinking water is added. Also, an new authorization of $10 million per year is included to support these activities.

A new section 1442(i) is added to the Act directing EPA to conduct studies to reduce the uncertainties with respect to the substances present in drinking water and the type and magnitude of the associated adverse effects. Emphasis is placed on developing biologically-based risk assessment models that incorporate mechanistic data to the extent that they become available and relevant and examining noncancer endpoints and infectious disease, and susceptible individuals and subpopulations.

A new section 1442(j) directs EPA to establish long-term priorities for research and an integrated risk characterization strategy to identify unmet needs, priorities for study and needed improvements in science. With the increasing desire for peer-reviewed sound science, the Administrator should publish a strategy setting out the research priorities of the Agency. The initial strategy shall be made available not later than 3 years after the date of enactment of the bill.

In addition to improving the understanding of chemical risks, there is a need to better understand waterborne microbial risks. Pathogenic and toxigenic microbiological agents in drinking water have long been known to cause disease and death in consumers. The introduction of water chlorination and the subsequent decline in the incidence of waterborne diseases such as cholera, typhoid

fever, and gastroenteritis is one of the foremost public health achievements of the 20th century. However, waterborne diseases are now known to be caused by a much broader variety of organisms than previously thought. Some of the recently discovered waterborne diseases include fatal pneumonia caused by Legionella pneumophila; hepatitis caused by hepatitis virus types A and E; cardiomyopathies caused by coxsackie virus; incurable gastroenteritis caused by *Cryptosporidium* parvum in AIDS patients; and neurotoxicity caused by blue-green algae.

To evaluate the health risks of microbes in drinking water, section 1442(k) added by the bill requires the Administrator to develop a research plan to support promulgation of the Enhanced Surface Water Treatment Rule, including *Cryptosporidium*, the rules for disinfectants and disinfection byproducts, and the ground water disinfection rule. $12.5 million is authorized for each of fiscal years 1997 through 2003 to carry out this research plan.

A new section 1442(l) is added to the Act directing the Administrator to carry out a continuing research program to identify groups within the general population that may be at greater risk of adverse health effects from exposure to contaminants in drinking water. Within 1 year of the date of enactment, the Administrator shall develop and implement a research plan to integrate the research into the regulatory process and to identify the risks and the groups that are at greater risk from the contaminants in drinking water. The Administrator is to report to Congress on the results of the research not later than 4 years after the date of enactment.

SECTION 24. DEFINITIONS

Summary

Under current law, the term 'public water system' is defined to include only those water supply systems that deliver water for human consumption through a pipe or pipes. Other systems that may deliver water to a home or other location for drinking, cooking and bathing by a ditch or a canal (typically the water is being transported for irrigation, but may have incidental use for residential water supply) are not considered public water systems. The bill modifies the definition of 'public water system' to include some systems that provide water for residential and similar uses by means other than a piped system.

Modifications to the definition of 'primary drinking water regulation' are also made by the bill. The changes provide that: (1) only accepted methods for quality control and testing may be imposed by a national primary drinking water regulation; and (2) that the Administrator may issue guidance after a regulation has been promulgated to allow the use of other methods to comply with the monitoring requirements in a regulation.

The bill also adds definitions for 'community water system' and 'noncommunity water system' and modifies the definitions of 'State' and 'Indian tribes' for purposes of the new State revolving loan fund grant program authorized by part G.

Discussion

Current law defines a 'public water system' to include only those water supply systems "for the provision to the public of *piped* water for human consumption." In December, 1992, the Environmental Protection Agency issued an administrative order to an irrigation district delivering water to residential users through canals requiring it to comply with the maximum contaminant levels and monitoring requirements of the Safe Drinking Water Act. EPA issued the order following an investigation that led the Agency to believe that the sale of untreated canal water to 5,700 residential users could lead to the ingestion of contaminants and constituted a risk to public health. Although most residential consumers served by this system treated the water before using it, or obtained bottled or trucked water for drinking and cooking, EPA stated that there was reason to believe that some users were ingesting the canal water without treatment.

The irrigation district sought review of the order under the judicial review provisions of the Act. In an opinion issued on September 7, 1993, *Imperial Irrigation District v. U.S. E.P.A.*, 4 F.3d 774 (9th Cir. 1993), the United States Court of Appeals for the Ninth Circuit held that the Imperial Irrigation District is not a public water system within the meaning of the Safe Drinking Water Act because it does not constitute a system of "piped water" for human consumption. The bill modifies the definition of "public water system" in the Act to assure that systems such as the Imperial Irrigation District delivering water for human consumption by constructed conveyances (ditches, canals, culverts, etc.; but not including bottled or trucked water) in addition to piped systems are subject to the requirements of the Act as public water systems.

The definition of public water system is modified by expanding the reference to delivery systems to include "pipes or other constructed conveyances". The term "constructed conveyances" refers to transport systems such as ditches, canals, culverts, waterways and similar delivery systems that are manmade and that transport large quantities of water in a utility network. The term does not include water delivered by bottle or in other package units, by vending machines or coolers and does not include water that is trucked or delivered by a similar vehicle.

Under current law, water delivery systems are not public water systems if they serve less than 15 connections and less than 25 persons. The definition of public water system is further modified in the bill to exclude from consideration certain connections that might otherwise qualify a system as a public water system. These exclusions only apply (with an exception noted below) where the water is delivered by a constructed conveyance other than a pipe. The first exclusion is for connections where the water delivered by the system *is not used* for drinking or cooking for residential or similar uses. In this case, water is provided by the system for these uses from another source such as bottled water or trucked water. The alternative source of water for these uses must be provided (not merely be available) and must meet a level of health protection equivalent to the applicable national primary drinking water regulation.

The second exclusion applies where the water *is used* for drinking and cooking, but the water is treated prior to use. In this instance, the water may be treated centrally or at the point-of-entry to a residence or other facility where similar uses occur by the water system, by a pass-through entity or by the consumer. As a general principle, the Safe Drinking Water Act does not allow a public water system to place the burden of compliance on the consumer. However, in many rural areas, a water system that is constructed principally for irrigation or other agricultural and industrial uses may not desire to be regulated as a public water system and would decline to provide water to residential users, if the system were required to provide the treatment. Therefore, in this second case the obligation to treat the water to a level of public health protection equivalent to the applicable national primary drinking water regulation may appropriately be assumed by the consumer to assure that people living in rural areas are not precluded from obtaining the best quality water at an affordable cost.

Generally, the bill excludes these two types of connections from consideration only where the connection is to a water system that conveys water by means other than pipes. Piped water systems may not avoid regulation as public water systems by providing bottled water or treating at the point of entry. However, an exception is made for some piped water delivery systems that were in operation prior to May 18, 1994, and that were constructed principally for the purpose of agricultural service with only incidental use for human consumption. These piped systems are not to be considered public water systems if all of the connections to the system comply with the requirements applicable under one or the other of the exclusions for alternative water or point-of-entry treatment noted above.

The bill includes new definitions for 'community water system' and 'noncommunity water system'. Community water systems include those systems that are connected to 15 year-round residences or serve 25 persons in a residential setting on a year-round basis. Noncommunity water systems are all other public water systems that are not community water systems. This distinction has significance in several cases under the statute and the regulations issued by EPA. For instance, all community water systems, whether owned by a public or by a private entity, are eligible for assistance under the new SRF grant program. However, only some noncommunity systems are eligible (those that are owned by a public entity or a nonprofit organization). There are approximately 57,000 community water systems and 128,000 noncommunity water systems in the United States.

Under current law, the term State includes all of the 50 States, territories and the District of Columbia. For purposes of the allocation formula under the new SRF program, the term 'State' is limited by the bill to the 50 States and the Commonwealth of Puerto Rico. The District of Columbia and the territories also receive funds under the SRF program, but the funds are allocated through a set aside rather than proportionately based on formula factors.

Also for the purposes of the new SRF program, the definition of 'Indian Tribe' under the Act is expanded to include any Native Village as defined in the Alaska Native Claims Settlement Act.

This provision allows Alaska Native Villages to qualify for funds that are set aside for Indian Tribes under the new SRF program.

The bill makes two changes to the definition of 'primary drinking water regulation.' Provisions in this definition authorize the Administrator to impose quality control and testing requirements as part of a national primary drinking water regulation. This authority, in addition to the provisions of section 1445, is the basis for monitoring requirements for contaminants regulated under the Act. The first change requires that the quality control and testing methods imposed be *accepted* methods. Generally, any process to develop a method that includes public review and response to comments in the development of a method qualifies the method as an accepted method. These procedures may include an EPA notice and comment rulemaking but may also include peer-review procedures in the scientific community or a consensus process conducted by a private organization that establishes technical and engineering standards.

Second, the bill authorizes EPA to issue guidance adding alternative quality control and testing methods to the list of methods that may be used to comply with a national primary drinking water regulation after the regulation has been promulgated. Current law could be read to require a formal rulemaking to revise the national primary drinking water regulation in order to allow the use of alternative methods that are developed after a regulation has been promulgated. The bill reduces the procedural burden by allowing the Administrator to add other methods by guidance, on the condition that the methods are accepted methods pursuant to some other review procedure.

SECTION 25. GROUND WATER PROTECTION

Summary

The Administrator is authorized to make grants to the States to support up to 50 percent of the cost of general ground water protection programs. The bill authorizes $20 million per year through 2003 for this new grant program.

Grants to support State administration of the Underground Injection Control (UIC) program under part C of current law are reauthorized through the year 2003 at $20.85 million per year. No other amendments to the UIC program are made by the bill.

Grants to support the wellhead protection program established by section 1428 are reauthorized through the year 2003 at $35 million per year.

Grants to support the critical aquifer protection program under section 1427 are reauthorized at $20 million per year through 2003. In addition, section 1427 is amended to reopen the grant application period.

The Administrator is to conduct a study of the extent and seriousness of contamination of private sources of drinking water not regulated under this Act and, within 3 years of the date of enactment, provide a report to the Congress describing the findings of the study and recommendations for actions needed to protect public health.

A requirement in section 1450 of current law for an annual report to the Congress on the activities of the Administrator to carry out the Safe Drinking Water Act is deleted.

Discussion

Thirty-eight percent of the community water systems in the nation rely on ground water sources. Ground water is the source of supply for 83 percent of the systems serving populations of 10,000 or less. And 95 percent of Americans living in unincorporated areas rely on ground water (including ground water drawn from private wells) for their drinking water supply.

Prevention of ground water contamination is the most cost effective means of ensuring ample supplies of safe drinking water for the future. The importance of ground water protection has always been reflected in the provisions of the Safe Drinking Water Act through such initiatives as the wellhead protection program, control of underground injection, and the designation of sole source aquifer areas.

The bill provides an additional tool to protect ground water by authorizing a new State grant program to encourage States to develop coordinated, comprehensive ground water protection programs. Section 25(a) of the bill authorizes $20 million annually for fiscal years 1995 through 2003 for these grants.

Since 1993, EPA has been encouraging States and Indian Tribes to develop Comprehensive State Ground Water Protection Programs (CSGWPPs). This voluntary effort is intended to prevent ground water contamination through better coordination of various Federal programs under the Safe Drinking Water Act, the Clean Water Act, the Resource Conservation and Recovery Act and the Federal Insecticide, Fungicide and Rodenticide Act.

Eighteen States are implementing voluntary CSGWPPs in cooperation with EPA based on guidance issued in 1993. Five States (Alabama, Connecticut, New Hampshire, Wisconsin, and Massachusetts) have programs that have been endorsed by EPA. The other 13 States are in the process of submitting programs to EPA or participating with EPA in cross-program endorsements. The new ground water grant program may be used to support States implementing the CSGWPPs and will provide a financial incentive for other States to join the program. EPA's efforts along these lines provide flexibility in program regulations and guidance and promote specific projects that cross the lines of environmental statutes to prevent the pollution of ground water. The grant funds may also be used to support other ground water protection efforts of the States.

This comprehensive approach to ground water protection was endorsed in a December, 1994, recommendation of the National Drinking Water Advisory Council:

> "The Council commends EPA on its progress implementing the Comprehensive State Ground Water Protection Program and recommends that EPA continue promoting CSGWPP as an innovative cross program model and the Council recommends that EPA encourage States and Tribes to identify Wellhead Protection (WHP) areas as part of their Comprehensive State Ground Water Protection Programs."

The bill includes a minimum number of administrative provisions for the new grant program. Within 1 year of enactment, EPA is to establish application procedures and publish guidance on the key elements of a State ground water protection program. Grants are to be awarded according to the extent of the ground water resources in each State and the likelihood that the grant will result in sustained and reliable protection of ground water resources. Innovative programs proposed by the States to prevent ground water contamination may also receive grants. However, no grant may be awarded for projects to remediate ground water contamination. Grant awards must be coordinated with grants made under section 319(i) of the Clean Water Act and any other Federal grants related to ground water protection. States are required to provide a 50 percent match for the costs of the program. EPA is to report to Congress every 3 years on the effectiveness of State programs funded under this new authority.

Part C of the Safe Drinking Water Act includes the Underground Injection Control (UIC) program that is intended to prevent contamination of underground sources of drinking water (aquifers with sufficient water of a quality adequate for human consumption) from injection wells used to dispose of hazardous and other industrial wastes and brines and oily waters for oil and gas exploration and production. EPA and the States (which have primary responsibility for most wells) regulate 300,000 injection wells through permits and regulations under this program. Recent emphasis in the program has been on shallow wells used for nonhazardous wastes that may present a threat in wellhead protection areas of public water systems relying on ground water. In recent years, grants have been made to approximately 40 States and territories under this authority. The bill authorizes $20.85 million per year through the year 2003 for grants to States to carry out activities under the UIC program.

The Safe Drinking Water Act contains two other significant programs, added by the 1986 Amendments, to protect ground water resources from contamination. Under the Section 1424(e) of the Act, local governments or other organizations may seek designation of an aquifer supplying the community's drinking water needs as a sole source aquifer. Along with the designation, the local government may develop a plan to protect the aquifer from contamination. Federal actions that may contaminate a sole source aquifer are to be conducted in a manner that is consistent with the local plan. 65 aquifers across the country have been designated as sole source aquifers pursuant to this authority.

Section 1427 of the Act authorizes grants to local governments and other organizations to develop and implement plans to protect the "critical aquifer protection areas" that serve to recharge aquifers that have been designated as sole source aquifers. Although Congress has never appropriated funds pursuant to this authorization, the bill extends authorizations for this program at $20 million per year through the year 2003. The bill deletes a provision in section 1427(b) of current law that requires applications for grants to be submitted within 24 months of enactment of the 1986 Amendments. The effect of this deletion is to reopen the grant pro-

gram for applications in the event that Congress makes appropriations for this purpose.

A second ground water protection program added by the 1986 Amendments has proved more successful, although it has not been supported by Federal appropriations. Section 1428 of the Act directs the States to develop wellhead protection programs. A wellhead area is the land area around a drinking water well where the release of a potential contaminant through an activity on the surface will lead to contamination of the ground water drawn to the well. The purpose of the wellhead protection program is to encourage the delineation of wellhead areas and surveys of the activities within wellhead areas to determine whether the water supply is vulnerable to contamination.

Despite limited Federal financial support, 26 States have EPA-approved wellhead protection programs. In addition, the National Rural Water Association has encouraged more than 400 local governments to adopt ordinances to protect the wellhead areas around their municipal supplies. The bill reauthorizes grants for States that have wellhead protection programs at $35 million per year through fiscal year 2003.

Section 1450(h) of current law requires the Administrator of the Environmental Protection Agency to file an annual report with the Congress on activities conducted to carry out the Act. The report is also to include an estimate of the compliance costs imposed on State and local governments. EPA has not filed this report since the mid-1980s. The bill (section 25(e)) repeals this annual reporting requirement by replacing the current section 1450(h) with a new provision requiring a one-time report on the health risks posed by private drinking water supplies.

The Safe Drinking Water Act only applies to public water systems—those systems serving more than 15 service connections or regularly serving more than 25 people. Other drinking water supplies, including private wells serving only one or a few households, are not protected by Federal health standards or the monitoring and testing that occurs under the Act. Americans relying on these supplies also do not benefit from the technical and financial assistance that is available to public water systems under the Safe Drinking Water Act.

The bill (section 25(e)) requires EPA to conduct a study of the contamination of private drinking water supplies that are not regulated under the Safe Drinking Water Act and to report to Congress on the findings of the study within 3 years. EPA is required to consult with scientists, including hydrogeologists, and well contractors and suppliers in carrying out this private water supply study.

SECTION 26. LEAD PLUMBING AND PIPES; RETURN FLOWS

Summary

Section 1417 of the Act is amended to ban the use of plumbing fittings and plumbing fixtures that exceed lead leaching rates established by the National Sanitation Foundation (or other third party certifier) in public water systems or residential plumbing that provides water for human consumption. The bill also bans the sale (introduction into commerce) of lead pipe, plumbing fittings

and plumbing fixtures effective 2 years after the date of enactment. The use and sale of leaded solder and flux is prohibited unless the solder or flux is clearly labeled to prevent use in plumbing delivering water for human consumption.

Section 3013 of the Energy Policy Act of 1992 (P.L. 102–486), encouraging the use of geothermal heat pumps that draw water from and return water to the distribution lines of public water systems, is repealed.

Discussion

Section 1417 and part F of current law address the problem of lead contamination of drinking water that is caused by materials used in public water distribution systems, plumbing of private residences and water coolers used at schools and businesses. Lead causes adverse developmental effects in children (slows cognitive development) and hypertension in adults. It is also a probable (Group B) human carcinogen. The principal source of lead in drinking water is the plumbing (service lines, pipes, fittings and coolers) that carry and store water between the water main and the tap. Lead and brass (which contains lead) have in the past been preferred materials for use in plumbing systems because they are not prone to brittleness and catastrophic failure.

The bill expands the reach of the current provisions of the Act to cover the use of leaded plumbing fittings and fixtures (faucets) and the sale of leaded solder and flux.

The National Sanitation Foundation (NSF) is a private organization that develops consensus technical and engineering standards for use in a variety of fields including drinking water treatment, distribution and supply. NSF has developed and implemented a consensus standard (under NSF-61, Drinking Water Systems Components Health Effects) to reduce lead leaching rates from plumbing fittings and fixtures including faucets. Negotiations to produce this standard involved the plumbing industry, EPA, numerous State and local regulatory officials, water utilities, independent health consultants, and the academic community.

The negotiations achieved agreement among all of these participants on a health-effects-based performance standard limiting the lead leaching rate from plumbing fittings and fixtures. The standard, issued in September of 1994, has been approved by the American National Standards Institute. The standard will allow public water systems to provide drinking water with lead levels below the EPA action level of 15 parts per billion, if the source water and distribution system are relatively free of lead (contribute less than 4 parts per billion to the total). The first list of products in compliance with the standard was issued in the Fall of 1995.

Current law already bans the use of pipe, solder or flux that is not lead free in public water systems and residential plumbing intended to provide water for human consumption. The bill adds a ban on the use of lead plumbing fittings and fixtures and defines 'lead free' in this instance to mean fittings that do not meet a consensus standard (the NSF standard) that is established within 1 year of enactment.

The bill directs EPA to provide accurate and timely technical information and assistance to qualified third party certifiers (such

as NSF) for the development of voluntary industry standards for the leaching of lead from plumbing fittings and fixtures that are intended to dispense water for human ingestion. If a voluntary standard is not established by a qualified third party certifier within 1 year after enactment, EPA is required to establish a standard for the leaching of lead within 2 years after the date of enactment. The regulation is to be effective within 5 years after it is issued. The section prohibits the import, manufacture, processing or distribution of a fitting containing more than 4 percent lead by dry weight if regulations are required, but not issued, within 5 years after the date of enactment. Because NSF has already issued a standard, the provisions of the bill with respect to EPA regulation of plumbing fittings and fixtures will not be triggered.

The bill makes clear that the ban on lead pipe does not apply to pipe used in manufacturing or industrial processes. The bill also amends current law to prohibit the sale of solder or flux containing lead at businesses selling plumbing supplies or the introduction into commerce of any leaded solder or flux, unless the solder or flux is labeled to prohibit use in plumbing providing water for human consumption.

Section 26 of the bill also amends section 1445(a)(1) of the Act to authorize the Administrator to collect information from all persons subject to the requirements of the Act including those who manufacture or sell pipes, plumbing fittings and plumbing materials.

The Energy Policy Act of 1992 includes a provision (section 3013) to encourage the use of geothermal heat pumps that withdraw water from public water systems, remove heat from the water, and then return the water to the public water system. Representatives of public water systems communicating to the Committee through the American Water Works Association and the Association of Metropolitan Water Agencies are very concerned that any widespread use of geothermal heat pumps of this type might increase the risk of illness and disease by introducing contaminants into drinking water supplies. The bill repeals section 3013 of the Energy Policy Act of 1992.

SECTION 27. BOTTLED WATER

Summary

Health standards for bottled water are established by the Food and Drug Administration under authority of the Federal Food, Drug and Cosmetic Act (FFDCA). Although FDA is directed by current law to set a bottled water standard for each contaminant for which a tap water standard has been established, FDA has been slow to act.

The bill directs the Secretary of Health and Human Services (FDA is part of the Department of Health and Human Services) to establish regulations for the quality of bottled water for each contaminant for which a national primary drinking water regulation is issued, unless the Secretary determines that the contaminant is unlikely to be present in bottled water. The regulations are to be issued no later than 180 days after the tap water standards (as provided in the current FFDCA) and are to be no less stringent

than the standards that apply to tap water (drinking water supplied by public water systems). If the Secretary fails to act within the 180-day period, the maximum contaminant levels established under the Safe Drinking Water Act for tap water apply by operation of law as the standards for bottled water.

For those contaminants for which EPA had issued a tap water standard prior to enactment of the bill and FDA had not issued a standard for bottled water, the Secretary is to issue standards or publish a finding that standards are not necessary within 1 year.

Discussion

There are 430 companies producing bottled water in the United States. Annual sales of bottled water are estimated to be $2.7 billion. This product is regulated as a food item by the Food and Drug Administration under authority of section 410 of the Federal Food, Drug and Cosmetic Act.

Although that law requires FDA to set a standard for each contaminant regulated under the Safe Drinking Water Act within 180 days of the date on which EPA promulgates standards for tap water, FDA has been slow to act. FDA took 4 years to set standards for the 8 volatile organic chemicals (including benzene) regulated by EPA in 1989. FDA did not set standards for the 35 contaminants covered by EPA's 1991 Phase II rulemaking until December, 1994. Standards for bottled water have not been issued for those contaminants regulated in the Phase V rule for tap water, although it was promulgated by EPA in 1992 and became effective for tap water on January 1, 1994.

One reason FDA regulations lag far behind tap water standards is that FDA appears not to begin work on its regulation until EPA has reached the stage of promulgating the rule for tap water. The bill addresses this problem by requiring consultation between EPA and FDA no later than the date on which EPA publishes proposed standards to assure a more timely commencement of FDA's regulatory process.

The bill also provides that the maximum contaminant level for tap water will apply to bottled water, if FDA has not promulgated standards within 180 days of EPA's final action. If FDA fails to act, the maximum contaminant level becomes the bottled water standard on a date certain.

Under provisions of current law and the bill, FDA can publish a determination that a standard is not necessary for a particular contaminant because the contaminant does not occur in bottled water.

FDA standards for a contaminant in bottled water are to be no less stringent than standards established for the contaminant in tap water, and may be more stringent if the Secretary determines that more stringent standards are appropriate to protect public health. It would be appropriate for the Secretary to use the authority to set more stringent standards for bottled water whenever the maximum contaminant level that applies to tap water has not been set at the same level as the maximum contaminant level goal because of treatment or distribution economics that are applicable to public water systems but that are not relevant to the bottled water industry. As an example, the national primary drinking water reg-

ulation for lead and copper under the Safe Drinking Water Act reflects considerations (most lead in tap water comes from plumbing in homes) that do not apply to bottled water. FDA's bottled water standard for lead (an absolute limit of 5 parts per billion) is appropriately more protective of public health than the tap water regulation established by EPA (an action level of 15 parts per billion).

FDA is also authorized to impose monitoring requirements for bottled water that are different from those applying to tap water under the Safe Drinking Water Act.

SECTION 28. ASSESSING ENVIRONMENTAL PRIORITIES, COSTS, AND BENEFITS

Summary

The Administrator is directed to rank sources of pollution with respect to the relative degree of risk that they pose to human health, the environment, and public welfare. The Administrator also is directed to evaluate the private and public costs associated with each source of pollution and the costs and benefits of complying with regulations designed to protect against the risks associated with the sources of pollution.

Discussion

In 1993, the Office of Technology Assessment estimated that it may cost Americans $150 billion a year to comply with environmental regulations. While this may not be too much to spend, it is too much to spend unwisely.

Therefore, in recent years, there has been increasing attention given to the potential use of risk assessment and cost-benefit analysis as tools to make environmental laws more efficient and effective. As the Commission on Risk Assessment and Risk Management recently wrote, "the tools of risk assessment and cost-benefit analysis can contribute useful information for critical decisions affecting health, safety, the environment, and the nation's economy." At the same time, risk assessment and cost-benefit analysis remain imperfect tools, subject to limitations and uncertainty; as a result, in some cases the over-reliance on risk assessment and cost-benefit analysis can, as the Commission also said, "lead to an excessive regulatory burdens, unreasonable costs to businesses and taxpayers, and prolonged litigation."

In light of both the prospects and the limitations of risk assessment and cost-benefit analysis, the Committee has been seeking to strike a balance, carefully incorporating risk assessment and cost-benefit analysis into environmental laws where appropriate. An example is section 5 of the bill, which uses risk assessment and cost-benefit analysis in the specific context of considering maximum contaminant levels for drinking water.

Risk assessment and cost-benefit analysis also can be useful in setting overall environmental priorities. For example, a periodic ranking of the risks posed by various sources of pollution, and of the costs and benefits of controlling them, will lead to a better understanding of how to improve environmental protection at a reasonable cost to society.

Several recent reports, including EPA's *Unfinished Business: A Comparative Assessment of Environmental Problems* (1987) and the Science Advisory Board's *Regulating Risk: Setting Priorities and Strategies for Environmental Protection* (1990) have sought to rank the relative risks of various health and environmental threats. Section 28 of the bill is designed to build and improve on the work of these studies, by directing the Administrator to report, every 3 years, on the relative risks posed by various sources of pollution and on the costs and benefits of reducing those risks.

Subsection (a) defines the following terms for purposes of section 28: 'Administrator,' 'adverse effect on human health,' 'risk,' and 'source of pollution.'

Subsection (b) makes several findings regarding the usefulness, limitations, and uncertainties of risk assessment and cost-benefit analysis, and about the need for periodic reports on the costs and benefits of Federal environmental laws and regulations.

Subsection (c) directs the Administrator to submit two reports to Congress. Not later than 1 year after the date of enactment of the bill, the Administrator must submit a preliminary report describing the approach and methodology to be used in ranking environmental priorities. Not later than 3 years after the date of enactment (and not later than every 3 years thereafter), the Administrator must submit a final report, which has two main components. One is a ranking of sources of pollution, with respect to the relative degree of risk that each source poses to human health, the environment, and public welfare. The second is an evaluation of the costs and benefits of complying with regulations designed to protect against those risks.

The bill gives the Administrator broad discretion to select the sources of pollution to evaluate and rank and the methods to rank them. But, to assure that rankings and evaluations are based on the best possible information, the bill provides specific requirements with respect to the consideration of uncertainties, costs, and benefits.

With respect to uncertainties, the Administrator is required to define the major uncertainties encountered in the evaluations and rankings, to explain how they affect the analyses, and to identify research that will reduce the uncertainties.

With respect to costs, the Administrator is required to consider the public as well as private costs of complying with environmental laws.

With respect to benefits, to assure that any risk rankings and cost-benefit analyses properly reflect the full range of potential benefits, the bill requires the Administrator to consider and, to the extent practicable, estimate a broad range of benefits, specifically including the benefits of avoiding premature mortality, avoiding cancer and noncancer diseases that reduce the quality of life, preserving biological diversity and the sustainability of ecological resources, maintaining an aesthetically pleasing environment, valuing services performed by ecosystems that, if lost or degraded, would have to be replaced by technology, and avoiding other risks identified by the Administrator. Moreover, to assure that nonquantifiable benefits are fully taken into consideration, the bill

expressly requires the Administrator to identify benefits that cannot be described in monetary terms.

In addition, the bill requires the Administrator, in evaluating costs and benefits, to specifically consider the following: the costs and benefits of certain Federal actions; opportunities to achieve risk reductions by modifying Federal regulations or taking other Federal Actions; and choices between competing risks.

Subsection (d) provides for the implementation of the section. It requires the Administrator to consult with various agencies, groups, and individuals in the development of the report. It requires the Administrator to make public the information upon which the rankings and evaluations are made. It requires the Administrator to establish methods for determining costs and benefits. And it requires the Science Advisory Board to review the report before it is submitted to Congress.

SECTION 29. OTHER AMENDMENTS

Summary

The Chief of the Army Corps of Engineers is authorized to borrow the funds necessary to modernize the Washington Aqueduct that provides drinking water to the District of Columbia and several Virginia cities and counties.

Membership on the National Drinking Water Advisory Council is modified to require that 2 members represent small, rural water systems.

The bill provides that title XIV of the Public Health Service Act may be cited as the Safe Drinking Water Act.

The bill contains technical amendments to conform section headings throughout the Act.

Discussion

The Army Corps of Engineers is authorized to borrow from the Secretary of the Treasury amounts necessary to finance capital improvements at the Washington Aqueduct. Amounts borrowed from the Bank are to be repaid by the customers of the Washington Aqueduct.

The Washington Aqueduct system consists of the Dalecarlia and McMillan water treatment plants located in Washington, DC. The system was constructed in 1853 and is under the control of the U.S. Army Corps of Engineers for appropriate management and maintenance. The system distributes approximately 250 million gallons of water per day to the over one million customers in the metropolitan Washington area.

Fees are collected from the water system customers and are deposited into the District of Columbia Water and Sewer Enterprise Fund. This Fund provides the revenue to finance the system's annual operating expenses. The Corps of Engineers, as owner of the system, has no authority to finance capital improvement projects necessary to meet Federal drinking water standards.

The bill authorizes the Corps of Engineers to borrow funds from the Secretary of the Treasury to underwrite the cost of necessary improvements to the Washington Aqueduct. Amounts borrowed from the bank are to be repaid by the customers of the

Washington Aqueduct. The Corps has indicated that the most probable total cost of projects to modernize the Washington Aqueduct is $280 million.

Section 1446 of current law establishes the National Drinking Water Advisory Council. This group of individuals knowledgeable on public health and drinking water supply issues meets regularly to advise the Administrator of EPA with respect to her duties under the Act. The Council currently has 15 members—5 from the general public, 5 from State and local government agencies, and 5 from organizations with an active interest in the fields of water hygiene and public water supply. The bill provides that 2 of the members appointed from this latter group of 5 shall represent small, rural drinking water systems.

Public Law 93–523 (December 16, 1974), entitled the Safe Drinking Water Act, added a new title XIV to the Public Health Service Act. Although commonly referred to as the Safe Drinking Water Act, title XIV has not previously been amended to include a short title. The bill provides that title XIV may be cited as the Safe Drinking Water Act and renames P.L. 93–523 as the Safe Drinking Water Act of 1974.

Conforming amendments are made to section headings and titles to reflect new or amended language within individual sections.

HEARINGS

On October 19, 1995, the Committee on Environment and Public Works held a hearing on S. 1316, the Safe Drinking Water Act Amendments of 1995. Testimony was given by The Honorable Carol M. Browner, Administrator, United States Environmental Protection Agency; The Honorable E. Benjamin Nelson, Governor, State of Nebraska, for the National Governors Association; The Honorable George V. Voinovich, Governor, State of Ohio, for the National Governors Association; The Honorable Jeffrey Wennberg, Mayor, Rutland, Vermont, for the National League of Cities and the National Association of Counties; Mr. Gurnie Gunter, Director, Kansas City Water Services Department, for the Association of Metropolitan Water Agencies; Mr. Erik D. Olson, Senior Attorney, Natural Resources Defense Council; Mr. Don Satchwell, for the American Water Works Association; Mr. Dan Keil, Board Member and National Director, Montana Rural Water Systems, Inc., for the National Rural Water Association; Dr. David Ozonoff, Chair, Department of Environmental Health, Boston University School of Public Health; Dr. Richard James Bull, Senior Staff Scientist, Batelle Pacific Northwest Laboratory; Mr. William R. Mills, Jr., General Manager, Orange County Water District, for the Association of California Water Agencies. Also, a number of statements were submitted for inclusion in the record.

ROLLCALL VOTES

Section 7(b) of rule XXVI of the Standing Rules of the Senate and the rules of the Committee on Environment and Public Works require that any rollcall votes taken during the Committee's consideration of a bill be noted in the report.

The Committee met to consider the bill on October 24, 1995. On October 24, the bill was ordered reported by a roll call vote of 16 ayes to 0 nays.

REGULATORY IMPACT

In compliance with section 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact of the reported bill.

S. 1316 is projected to dramatically reduce the scope and extent of future regulations promulgated to implement the drinking water program and could potentially reduce current monitoring costs. Because a large portion of the entities regulated under the Safe Drinking Water Act are agencies of local government, the letter from the Congressional Budget Office printed below provides a detailed statement of the reduction in regulatory costs that is likely to result from enactment of the bill.

Current law requires that EPA promulgate drinking water regulations for 25 new contaminants every 3 years. As indicated in the section-by-section analysis above, the bill strikes this requirement and replaces it with a process for the Administrator to review information concerning drinking water contaminants. The Administrator is to review 5 contaminants every 5 years beginning in the year 2001.

Current law requires that maximum contaminant levels be established at a level that is as close to the level at which there is no adverse health effect (maximum contaminant level goal) as is feasible taking cost into consideration. The reported bill revises the standard setting authority of the Act to allow the Administrator to set less stringent standards for future contaminants where the Administrator determines that the benefits of an MCL at the feasible level do not justify the costs.

In addition, the bill provides new authority for States to grant variances to small systems serving fewer than 10,000 persons allowing use treatment technology affordable for these systems. The current law requires that the Administrator develop drinking water standards based on the technology and costs appropriate for large and regional water systems. Small systems, which lack the economies of scale available to larger systems, often have difficulty complying with the standards.

The reported bill also revises the standard setting schedule and process with respect to specific contaminants including radon, arsenic and sulfate. The Administrator is directed to set a maximum contaminant level for radon at a level that is 10 times less stringent than the level that EPA has proposed under current law. A revised standard for arsenic is delayed until 2001. The bill also provides EPA with authority to rely on public education and bottled water, rather than centralized treatment, to protect the populations susceptible to adverse effects from high sulfate levels in drinking water.

The bill also eases the burden of compliance by extending the period for designing and constructing treatment facilities needed to meet new or revised the standards. Current law requires compliance with standards within 18 months of the promulgation. The bill extends the compliance period to 3 years and allows a further

extension of up to 2 additional years by the Administrator or the State where the additional time is needed to meet construction schedules.

The bill also amends the variance and exemption provisions of the Act to allow for a further extension of up to 3 years where compelling factors, including economic factors and the availability of funds from the new State loan fund, warrant such an extension. Small communities are eligible for a further compliance extension of up to 6 additional years based on the same factors.

Current regulations impose extensive monitoring requirements. Many drinking water systems view monitoring requirements as the most costly and burdensome element of the drinking water program. The reported bill reduces the regulatory burden associated with monitoring in several ways. New authority is provided to States to develop alternative Statewide monitoring programs. Small systems may substantially reduce the frequency of monitoring when contaminants have not been detected. And the monitoring program for unregulated contaminants is modified to remove the requirement for all but a representative sample of systems serving fewer than 10,000 people.

Finally, the bill will help water systems comply with the Act by providing substantial financial assistance. The bill authorizes $9.6 billion in Federal fund for loans and grants to assist water systems to finance projects necessary to comply with drinking water regulations. These funds will reduce the financial burden imposed on small systems.

New requirements are imposed on public water systems and other persons in only six provisions.

First, States must adopt authority to prevent a public water system that does not have the capacity to comply with the requirements of the Act from commencing operations.

Second, systems receiving assistance from the new SRF program must have trained and certified operators.

Third, the bill expands the ban on the use of materials containing lead in drinking water systems and home plumbing. The largest impact of this provision is implemented through a voluntary industry standard applicable to plumbing fittings and fixtures.

Fourth, section 1447 is amended to clarify the waiver of sovereign immunity for Federal agencies with respect to compliance with the Act and comparable State and local laws.

Fifth, the bill imposes the standards set for tap water under the Safe Drinking Water Act as regulations on the quality of bottled water, if the Food and Drug Administration has not acted within 180 days of the issuance of the tap water standards to establish bottled water standards.

Sixth, the public notification provisions of the Act are modified to make them more workable and to ensure that notice of violations is provided in a more timely fashion. These modifications will not, however, increase the frequency of notices as compared to current law.

The bill will not have any effect on the personal privacy of individuals.

COST OF LEGISLATION

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, November 7, 1995.

Hon. JOHN H. CHAFEE,
Chairman, Committee on Environment and Public Works,
U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 1316, the Safe Drinking Water Act Amendments of 1995.

Enacting S. 1316 would affect both direct spending and receipts; therefore, pay-as-you-go procedures would apply.

If you wish further details on this estimate, we will be pleased to provide them.

Sincerely,

JUNE E. O'NEILL

CONGRESSIONAL BUDGET OFFICE

COST ESTIMATE

November 7, 1995.

1. BILL NUMBER: S. 1316

2. BILL TITLE: Safe Drinking Water Act Amendments of 1995.

3. BILL STATUS: As ordered reported by the Senate Committee on Environment and Public Works on October, 24, 1995.

4. BILL PURPOSE: The bill would amend the Safe Drinking Water Act (SDWA) to authorize the Environmental Protection Agency (EPA) to make grants to States for capitalizing State revolving loan funds (SRFs). These SRFs would finance the construction of facilities for the treatment of drinking water. The bill would authorize appropriations of $1 billion annually over the 1996–2003 period for these capitalization grants. In addition, major provisions of the bill would:

- amend the procedures that EPA uses to identify contaminants for regulation under the SDWA;
- allow States to establish an alternative monitoring program for contaminants in drinking water;
- allow operators of small drinking water systems to obtain variances from drinking water standards under certain conditions;
- direct EPA to define treatment technologies that are feasible for small drinking water systems when the agency issues new contaminant regulations;
- require States to ensure that public water systems have the technical expertise and financial resources to implement the SDWA;

- establish a standard for the amount of radon in drinking water;
- authorize appropriations of $100 million annually for State public water system supervision programs (PWSS), $40 million annually for protecting underground drinking water sources, $35 million annually for protecting drinking water wellhead areas, and $35 million annually for assisting small drinking water systems; and
- authorize a loan for capital improvements to the Washington Aqueduct, which is operated by the U.S. Corps of Engineers to provide drinking water to the District of Columbia and parts of Northern Virginia.

5. ESTIMATED COST TO THE FEDERAL GOVERNMENT: Assuming appropriation of the entire amounts authorized for discretionary programs, enacting S. 1316 would lead to fiscal year 1996 funding for safe drinking water programs about $1.2 billion above the 1995 appropriation. CBO estimates that the bill would authorize appropriations totaling nearly $7 billion over the 1996–2000 period.

The authorization for most of EPA's safe drinking water activities expired in 1991, but the program has been continued through annual appropriations. In 1995 about $166 million was appropriated to EPA for safe drinking water work and grants. In addition to this amount, $700 million was appropriated in 1995 and $599 million was appropriated in 1994 for EPA capitalization grants to safe drinking water State revolving loan funds (SRFs). Spending of these SRF funds was made contingent upon enactment of legislation authorizing safe drinking water SRFs. Public Law 104–19 rescinded all but $225 million of the SRF appropriations.

Enacting S. 1316 would have a small effect on revenues from civil and criminal penalties and on resulting direct spending. Finally, enacting the bill could increase direct spending for the payments of judgments against the Federal Government resulting from claims made by States under SDWA; however, CBO cannot predict the number or amount of any such judgments that could result from enacting the bill. The estimated budgetary effects of S. 1316 are summarized in the following table.

(By fiscal year, in millions of dollars)

	1995	1996	1997	1998	1999	2000
SPENDING SUBJECT TO APPROPRIATIONS						
Spending Under Current Law						
Budget Authority	166	0	0	0	0	0
Estimated Outlays	161	66	17	0	0	0
Proposed changes						
Estimated Authorization Level	0	1,371	1,386	1,388	1,389	1,391
Estimated Outlays	0	257	649	1,045	1,262	1,360
Spending Under S. 1316						
Estimated Authorization Level	166	1,371	1,386	1,388	1,389	1,391
Estimated Outlays	161	323	666	1,045	1,262	1,360
ADDITIONAL REVENUES AND DIRECT SPENDING[1]						
Revenues						
Estimated Revenues	—	a	a	a	a	a
Estimated Budget Authority	—	—	a	a	a	a

(By fiscal year, in millions of dollars)

	1995	1996	1997	1998	1999	2000
Estimated Outlays	—	—	a	a	a	a

a = Less than $500,000.

[1] The bill also could increase direct spending for judgments against the government, but CBO cannot estimate the amount of any judgment payments that might occur from enacting S. 1316.

The costs of this bill fall within budget function 300.

6. BASIS OF ESTIMATE:

Spending Subject to Appropriations. For purposes of this estimate, CBO assumes that the bill will be enacted before 1996 appropriations for EPA are provided and that all funds authorized by S. 1316 will be appropriated for each year. Over the 1996–2003 period, the bill would authorize appropriations totaling $10.6 billion, including $8 billion for grants to safe drinking water State revolving loan funds.

In addition to the bill's specified authorization amounts, CBO has estimated that $60 million to $70 million a year would be necessary to pay for activities authorized by the bill without specific dollar authorizations. Estimated costs for these activities are based on information provided by EPA Estimated outlays are based on historical spending patterns of ongoing EPA drinking water programs and its grant program for waste water treatment State revolving loan funds.

CBO estimates that enacting the bill would require about $55 million annually (at 1996 price levels) to pay for EPA's general oversight and administrative costs for the safe drinking water program. This amount would constitute an increase of about $15 million above EPA's current program costs, principally for administration of the new SRF program. We estimate that no funds would be required for grants to States for the source-water protection programs that would be established under section 17 of the bill because States are unlikely to implement the optional petition programs described in the bill. CBO also estimates a cost of at least $5 million annually over the 1996–2000 period for EPA to prepare the reports on environmental priorities, costs, and benefits that would be required by section 28 of the bill.

CBO believes that the proposed authority for modernizing the Washington Aqueduct should be treated as authority for providing a Federal loan to the three localities that receive water from the aqueduct. In effect, the localities are borrowing money from the Treasury to pay for modernizing the aqueduct. Such a loan would be subject to credit reform provisions of the Budget Enforcement Act of 1990. We estimate that this authorization would have no net cost to the Federal Government because the bill would allow the Secretary of the Treasury to impose loan terms and conditions on the localities involved sufficient to offset any subsidy cost of the loan.

The Army Corps of Engineers estimates that the aqueduct modernization project would cost about $275 million in 1995 dollars and would take 7 years to complete. Credit reform requires that the subsidy cost of any loan—estimated as a net present value—be recorded as an outlay in the year that the loan is disbursed. But

since the bill would require that the three localities pay interest and any additional amounts necessary to offset the risk of default, the subsidy cost of this loan would be zero. Hence, we estimate that the proposed loan would have no effect on outlays.

Revenues and Direct Spending. Enactment of this bill would increase governmental receipts from civil and criminal penalties, as well as direct spending from the Crime Victims Fund, but CBO expects that the amounts involved would be insignificant. Any additional amounts deposited into the Crime Victims Fund would be spent in the following year.

In addition, section 22 of the bill would explicitly waive any Federal immunity from administrative orders or civil or administrative fines or penalties assessed under SDWA, and would clarify that Federal facilities are subject to reasonable service charges assessed in connection with a Federal or State program. This provision of SDWA may encourage States to seek to impose fines and penalties on the Federal Government under SDWA. If Federal agencies contest these fines and penalties, it is possible that payments would have to be made from the government's Claims and Judgments Fund, if not otherwise provided from appropriated funds. The Claims and Judgments Fund is a permanent, open-ended appropriation, and any amounts paid from it would be considered direct spending. CBO cannot predict the number or the dollar amount of judgments against the government that could result from enactment of this bill. Further, we cannot determine whether those judgments would be paid from the Claims and Judgments Fund or from appropriated funds.

7. PAY-AS-YOU-GO CONSIDERATIONS: Section 252 of the Balanced Budget and Emergency Deficit Control Act of 1985 sets up pay-as-you-go procedures for legislation affecting direct spending or receipts through 1998. Enacting S. 1316 would increase governmental receipts from civil and criminal penalties, and the spending of such penalties; hence, pay-as-you-go provisions would apply. The following table summarizes CBO's estimate of the bill's pay-as-you-go effects.

(by fiscal year, in millions of dollars)

	1996	1997	1998
Change in outlays	0	0	0
Change in receipts	0	0	0

8. ESTIMATED COST TO STATE AND LOCAL GOVERNMENTS: S. 1316 would change the process for setting standards for drinking water contaminants, alter requirements for monitoring and treatment, and create State revolving loan funds to provide low-cost financing for public water systems.

The primary impact of the bill on State and local governments would be to reduce the likely costs of complying with future drinking water regulations. These future regulations would impose significant costs, primarily on local public water systems. The number and severity of these regulations is likely to be less under S. 1316.

However, because these regulations are not yet in place, we cannot estimate the magnitude of any savings at this time.

For example, the bill would change the level at which future standards would be set for drinking water contaminants. By allowing EPA to consider the cost of compliance and the extent of the reduction in risks to health when establishing new standards, the bill would allow less stringent standards to be set in some circumstances and would therefore lower the cost of compliance for local water systems. Again, because these regulations are not yet in place, we cannot estimate the magnitude of any savings, although we expect that they would be significant.

The bill also would create some new responsibilities (mostly for States), but CBO expects that the cost of these new responsibilities would likely be far less than the potential savings realized from changing the current standard-setting process and altering current monitoring and treatment requirements. Furthermore, the bill extends the authorization of certain existing appropriations and authorizes the appropriation of additional Federal funds to help State and local governments meet compliance costs. In total, the bill would authorize over $9.9 billion in funding for State and local governments over fiscal years 1996 to 2003 and would make available for spending about $225 million that was previously appropriated in fiscal years 1994 and 1995. Assuming the appropriation of these funds, CBO estimates that the bill would likely result in significant net savings to State and local governments.

CHANGES LIKELY TO REDUCE COMPLIANCE COSTS

Standard-Setting

The bill would change the procedures for determining permissible levels of contaminants in drinking water in ways that would likely lower compliance costs for public water systems. First, it would rescind the requirement that the EPA Administrator issue rules for 25 drinking water contaminants every 3 years. No specific number of contaminants would have to be regulated. Although it is possible that with this change EPA would regulate more contaminants than current law dictates, CBO expects that the agency would regulate fewer contaminants than currently required.

Second, the bill would allow EPA to set the maximum contaminant level goal (MCLG) for contaminants known or likely to be carcinogens at a level other than zero in some circumstances. MCLGs are concentration levels below which there is thought to be no adverse effect on human health. Under current law, the maximum contaminant level (MCL) is an enforceable standard that is set as close to the MCLG as EPA determines is feasible. Current law requires MCLGs for known or likely carcinogens to be set at zero.

Third, the bill would give EPA the authority to set MCLs at a level other than the feasible level if using the feasible level would increase the health risks from other contaminants. If EPA uses this authority, it must set the MCL at a level that minimizes the overall health risk. Current law does not allow EPA to consider the effect of new regulations on the concentration of contaminants that are already regulated.

Fourth, the bill would require that EPA conduct a cost-benefit analysis for national primary drinking water regulations before they are proposed. The bill also would require EPA, when proposing a maximum contaminant level, to publish a determination as to whether the benefits of the proposed MCL justify the costs of complying with it. EPA would be given the discretionary authority to establish less stringent standards when it determines that the benefits of an MCL set at the feasible level would not justify the cost of compliance or when it determines that the contaminant occurs almost exclusively in small systems. If EPA uses this discretionary authority, it would have to set the MCL at a level that maximizes health risk reduction at a cost justified by the benefits. While current law requires EPA to perform cost/benefit analyses of new regulations, it does not give the agency the discretion to use those analyses as justification for changing the standards contained in new regulations. These last three changes in current law would give EPA greater discretion to set less stringent standards in future regulations. Any use of that discretion would lower the cost of compliance for public water systems.

Finally, the bill would establish an MCL for radon and would set specific requirements for regulations governing arsenic and sulfates in drinking water. The impact of these provisions on State and local government budgets is difficult to gauge, since EPA has not yet written final regulations for these contaminants. The bill would require the EPA Administrator to issue an MCL for radon of 3,000 picocuries per liter of water (pCi/Lwater). The impact of this change is difficult to assess because the MCL for radon under current law has not yet been determined. EPA has issued a draft MCL of 300 pCi/Lwater, and agency officials estimate that public drinking water systems serving 17 million people would be required to treat water for radon at that level. Under the higher MCL in the bill, systems serving fewer than 1 million people would have to treat for radon. Without a clear indication of the MCLs EPA would establish for other substances under current law, CBO has no sound basis for estimating the possible savings that would result from these provisions.

Monitoring

Section 19 would change monitoring requirements for local water systems in ways that probably would lower compliance costs. First, it would allow the EPA Administrator to waive monitoring requirements for States under certain conditions. Second, it would allow States with primary enforcement responsibility to establish alternative monitoring requirements for some national drinking water regulations. Alternative requirements could apply to all or just some public water systems in the State. Third, this section would give States with primary enforcement responsibility separate authority to establish alternate monitoring requirements specifically for small systems. Fourth, under "representative monitoring plans" developed by the States, small and medium water systems would probably monitor for unregulated contaminants less frequently than they would under current law. Finally, this section would direct the EPA Administrator to pay the reasonable costs of testing

and analysis that small systems incur by carrying out the representative monitoring plans.

Compliance Period, Exemptions, and Variances

Section 11 would change the date that primary drinking water regulations become effective from eighteen months to 3 years after the date of promulgation, unless the EPA Administrator determines that an earlier date is practicable. This change would give water systems more time to install new equipment or take other steps necessary to come into compliance with the new regulation.

Section 13 would ease the conditions under which a State with primary enforcement responsibility may grant exemptions from primary drinking water regulations. Exemptions are currently given to water systems that, because of "compelling factors," cannot comply with national drinking water regulations. These exemptions must be accompanied by a schedule that indicates when the system will come into compliance with the regulation. This section would specifically provide that a system serving a disadvantaged community may be eligible for an exemption.

Section 14 of the bill would set out conditions under which small systems could be granted variances from complying with primary drinking water regulations. Variances are currently given to water systems that, because of the quality of their raw water sources, cannot comply with regulations, even after applying the best technology or treatment technique. This section would broaden the qualifying criteria for small water systems, increasing the likelihood that they would be granted variances.

NEW REQUIREMENTS THAT WOULD INCREASE COSTS

Conditions of Primacy

Several sections of the bill would increase the responsibilities of States only if they choose to accept primary enforcement responsibility for national drinking water regulations. Every State except Wyoming currently has primary enforcement authority. Specifically, primacy States would have to set up new procedures to review applications for variances submitted by small systems and ensure that systems remain eligible for any variances granted. They would also have to establish requirements for the training and certification of operators of public water systems. Beginning in fiscal year 1997, they would have to prepare an annual report for EPA on violations of national primary drinking water regulations committed by their public water systems. Primacy States would also have to consider and act upon consolidation proposals from public water systems.

These new requirements would entail some costs for primacy States. Based on information from State drinking water officials, CBO believes that if all funds authorized are subsequently appropriated, States would probably receive enough money to pay for these additional requirements.

Procedures for Small Systems

Some provisions of this bill would require all States, whether or not they have accepted primary enforcement responsibility, to insti-

tute new procedures that would benefit small water systems. These requirements could impose significant additional costs on the States themselves. For example, section 19 of the bill would require each State to develop a "representative monitoring plan" to assess the occurrence of unregulated contaminants in small water systems. Under these plans, only a representative sample of small water systems in each State would be required to monitor for unregulated contaminants. Current law requires all systems to do such monitoring. While these plans could reduce the cost of monitoring for most small systems, they would require extra effort by the States. Based on information from a number of State drinking water officials, CBO believes that if all funds authorized are later appropriated, the States would probably receive enough funding to pay for any additional costs.

Section 15 of the bill would require each State to take certain actions to ensure that public water systems in the State develop the technical, managerial, and financial capacity to comply with drinking water regulations. States would have to prepare a "capacity development strategy" for small water systems as well as a list of systems that have not complied with drinking water regulations. In some circumstances, States would be allowed to spend money from their annual SRF capitalization grant to pay for developing and implementing their strategy.

Record-Keeping and Notification

The bill includes other provisions that might lead to additional recordkeeping and reporting responsibilities for States and for public water systems. Section 4 would allow the Administrator of the Environmental Protection Agency to require States and localities to submit monitoring data and other information necessary for developing studies, work plans, or national primary drinking water regulations. This section could increase reporting costs for State and local governments, but on balance the bill would likely result in a significant decrease in overall monitoring requirements and costs.

Section 20 of the bill would substitute more specific legislative requirements for current regulations governing how water systems notify customers of violations of national primary drinking water regulations. For example, this section would add a new requirement that community water systems notify customers of violations by mail. These requirements might result in increased costs for local governments.

Definition of Public Water System

Section 24 would change the definition of "public water system" to include systems that provide water for residential use through "other constructed conveyances." This change would make drinking water regulations applicable to some irrigation districts that currently supply water to residential customers by means other than pipes. Districts would not fall under the new definition if alternative water is being provided for residential uses or ff the water provided for residential uses is being treated by the provider, a pass-through entity, or the user. Those districts that fall under the new definition could face increased costs for treatment or for providing an alternative water supply.

CBO is still gathering information on the number of districts that would be affected by this change; however, we believe that because most of the water supplied by these districts is for agricultural uses, the amount of water that they would need to treat would be a small fraction of the water they supply. Furthermore, the bill would allow districts to make residential users of their water responsible for treatment or for obtaining an alternative water supply.

AUTHORIZATIONS OF APPROPRIATIONS

The bill would authorize the appropriation of over $9.9 billion for State and local governments over fiscal years 1996 to 2003. The largest authorization would be $8.0 billion for the creation of State revolving loan funds (SRFs). In addition, the bill would make available for spending $225 million that was appropriated for the revolving funds in fiscal years 1994 and 1995. If the authorized funds are appropriated, these SRFs would be a significant new source of low-cost infrastructure financing for many public water supply systems. The bill would give States the flexibility to transfer capitalization grant funds between the new safe drinking water SRFs and the SRFs established by the Clean Water Act for financing wastewater treatment facilities.

The bill would also extend the authorization for grants to the States for public water system supervision (PWSS) programs through fiscal year 2003 at $100 million per year and in some situations would allow States to supplement their PWSS grant by reserving an equal amount from their annual SRF capitalization grant. The PWSS programs implement the Safe Drinking Water Act at the State level through enforcement, staff training, data management, sanitary surveys, and certification of testing laboratories. The fiscal year 1995 appropriation for PWSS grants totaled $70 million. Both EPA and the Association of State Drinking Water Administrators have found this level of funding to be inadequate to meet the requirements of current law.

The bill would also allow the District of Columbia, Arlington County, Virginia, and Falls Church, Virginia to enter into agreements to pay the Army Corps of Engineers to modernize the Washington Aqueduct. The Corps estimates that the modernization would cost about $275 million in 1995 dollars and would take around 7 years to complete. The terms of the agreements are subject to negotiation, but it is likely that payment of principal and interest would begin within two or 3 years and would be spread out over thirty years. The three localities would raise the necessary funds by increasing the water rates paid by their customers. The localities' respective shares of the costs would be roughly as follows: District of Columbia (75 percent), Arlington County (15 percent), and Falls Church (10 percent).

9. ESTIMATE COMPARISON: None.

10. PREVIOUS CBO ESTIMATE: None.

11. ESTIMATE PREPARED BY: Federal Cost Estimate: Kim Cawley (226–2860) and Stephanie Weiner (226–2720). State and Local Government Cost Estimate: Pepper Santalucia (225–3220).

12. ESTIMATE APPROVED BY: Paul N. Van de Water, Assistant Director for Budget Analysis

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 as proposed to be omitted is printed in **bold** and enclosed in brackets; new matter proposed to be added to existing law is printed in *italic*; and existing law in which no change is proposed is shown in roman.

TITLE XIV—SAFETY OF PUBLIC WATER SYSTEMS [1]

SHORT TITLE

Sec. 1400. This title may be cited as the 'Safe Drinking Water Act'.

PART A—DEFINITIONS

DEFINITIONS

SEC. 1401. For purposes of this title:

(1) The term 'primary drinking water regulation' means a regulation which—

(A) applies to public water systems;

(B) specifies contaminants which, in the judgment of the Administrator, may have any adverse effect on the health of persons;

(C) specifies for each such contaminant either—

(i) a maximum contaminant level, if, in the judgment of the Administrator, it is economically and technologically feasible to ascertain the level of such contaminant in water in public water systems, or

(ii) if, in the judgment of the Administrator, it is not economically or technologically feasible to so ascertain the level of such contaminant, each treatment technique known to the Administrator which leads to a reduction in the level of such contaminant sufficient to satisfy the requirements of section 1412; and

(D) contains criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including *accepted methods for* quality control and testing procedures to insure compliance with such levels and to insure proper operation and maintenance of the system, and requirements as to (i) the minimum quality of water which may be taken into the system and (ii) siting for new facilities for public water systems. *At any time after promulgation of a regulation referred to in this paragraph, the Ad-*

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[1] This title, commonly referred to as the "Safe Drinking Water Act," consists of title XIV of the Public Health Service Act (42 U.S.C. 300f–300j–9) as added by Public Law 93–523 (December 16, 1974), and amendments made by subsequent enactments.

ministrator may add equally effective quality control and testing procedures by guidance published in the Federal Register. The procedures shall be treated as an alternative for public water systems to the quality control and testing procedures listed in the regulation.

(2) The term 'secondary drinking water regulation' means a regulation which applies to public water systems and which specifies the maximum contaminant levels which, in the judgment of the Administrator, are requisite to protect the public welfare. Such regulations may apply to any contaminant in drinking water (A) which may adversely affect the odor or appearance of such water and consequently may cause a substantial number of the persons served by the public water system providing such water to discontinue its use, or (B) which may otherwise adversely affect public welfare. Such regulations may vary according to geographic and other circumstances.

(3) The term 'maximum contaminant level' means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

[(4) The] *(4) PUBLIC WATER SYSTEM.—*

(A) IN GENERAL.—The term 'public water system' means a system for the provision to the public of **[piped water for human consumption]** *water for human consumption through pipes or other constructed conveyances,* if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes **[(A)]** *(i)* any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and **[(B)]** *(ii)* any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

(B) CONNECTIONS.—

(i) RESIDENTIAL USE.—

(I) IN GENERAL.—A connection described in subclause (II) shall not be considered to be a connection for determining whether the system is a public water system under this title, if—

(aa) the Administrator or the State (in the case of a State exercising primary enforcement responsibility for public water systems) determines that alternative water to achieve the equivalent level of public health protection provided by the applicable national primary drinking water regulation is provided for residential or similar uses for drinking and cooking; or

(bb) the Administrator or the State (in the case of a State exercising primary enforcement responsibility for public water systems) determines that the water provided for residential or similar uses for drinking and cooking is centrally treated or treated at the point of entry by the provider, a pass-through entity, or the user to achieve the equivalent level of protection provided by the applicable national primary drinking water regulations.

(II) CONNECTIONS.—A connection referred to in this subclause is a connection to a water system that conveys water by a means other than a pipe principally for 1 or more purposes other than residential use (which other purposes include irrigation, stock watering, industrial use, or municipal source water prior to treatment)—

(aa) for a residential use (consisting of drinking, bathing, cooking, or other similar use); or

(bb) to a facility for a use similar to a residential use.

(ii) IRRIGATION DISTRICTS.—An irrigation district in existence prior to May 18, 1994, that provides primarily agricultural service through a piped water system with only incidental residential use shall not be considered to be a public water system if the system and the residential users of the system comply with subclauses (I) and (II) of clause (i).

(5) The term 'supplier of water' means any person who owns or operates a public water system.

(6) The term 'contaminant' means any physical, chemical, biological, or radiological substance or matter in water.

(7) The term 'Administrator' means the Administrator of the Environmental Protection Agency.

(8) The term 'Agency' means the Environmental Protection Agency.

(9) The term 'Council' means the National Drinking Water Advisory Council established under section 1446.

(10) The term 'municipality' means a city, town, or other public body created pursuant to State law, or an Indian tribe.

(11) The term 'Federal agency' means any department, agency, or instrumentality of the United States.

(12) The term 'person' means an individual, corporation, company, association, partnership, State, municipality, or Federal agency (and includes officers, employees, and agents of any corporation, company, association, State, municipality, or Federal agency).

(13) **[The]** *(A) Except as provided in subparagraph (B), the* term 'State' includes, in addition to the several States, only the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Northern Mariana Islands, the Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands.

(B) For purposes of part G, the term 'State' means each of the 50 States and the Commonwealth of Puerto Rico.

(14) The term 'Indian Tribe' means any Indian tribe having a Federally recognized governing body carrying out substantial governmental duties and powers over any area. *For purposes of part G, the term includes any Native village (as defined in section 3(c) of the Alaska Native Claims Settlement Act (43 U.S.C. 1602(c))).*

(15) COMMUNITY WATER SYSTEM.—The term 'community water system' means a public water system that—

(A) serves at least 15 service connections used by year-round residents of the area served by the system; or

(B) regularly serves at least 25 year-round residents.

(16) NONCOMMUNITY WATER SYSTEM.—The term 'noncommunity water system' means a public water system that is not a community water system.

PART B—PUBLIC WATER SYSTEMS

COVERAGE

SEC. 1411. Subject to sections 1415 and 1416, national primary drinking water regulations under this part shall apply to each public water system in each State; except that such regulations shall not apply to a public water system—

(1) which consists only of distribution and storage facilities (and does not have any collection and treatment facilities);

(2) which obtains all of its water from, but is not owned or operated by, a public water system to which such regulations apply;

(3) which does not sell water to any person; and

(4) which is not a carrier which conveys passengers in interstate commerce.

NATIONAL DRINKING WATER REGULATIONS

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) After the enactment of the Safe Drinking Water Act Amendments of 1986 each recommended maximum contaminant level published before the enactment of such amendments shall be treated as a maximum contaminant level goal.

(3) Whenever a national primary drinking water regulation is proposed under **[paragraph (1), (2), or (3) of subsection (b)]** *paragraph (1) or (2) of subsection (b)* for any contaminant, the maximum contaminant level goal for such contaminant shall be proposed simultaneously. Whenever a national primary drinking water regulation is promulgated under **[paragraph (1), (2), or (3) of subsection (b)]** *paragraph (1) or (2) of subsection (b)* for any contaminant, the maximum contaminant level goal for such contaminant shall be published simultaneously.

(4) Paragraph (3) shall not apply to any recommended maximum contaminant level published before the enactment of the Safe Drinking Water Act Amendments of 1986.

[(b)(1) In the case of those contaminants listed in the Advance Notice of Proposed Rulemaking published in volume 47, Federal Register, page 9352, and in volume 48, Federal Register, page 45502, the Administrator shall publish maximum contaminant level goals and promulgate national primary drinking water regulations—

(A) not later than 12 months after the enactment of the Safe Drinking Water Act Amendments of 1986 for not less than 9 of those listed contaminants;

(B) not later than 24 months after such enactment for not less than 40 of those listed contaminants; and

(C) not later than 36 months after such enactment for the remainder of such listed contaminants.

(2)(A) If the Administrator identifies a drinking water contaminant the regulation of which, in the judgment of the Administrator, is more likely to be protective of public health (taking into account the schedule for regulation under paragraph (1) than a contaminant referred to in paragraph (1), the Administrator may publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for such identified contaminant in lieu of regulating the contaminant referred to in such paragraph. There may be no more than 7 contaminants in paragraph (1) for which substitutions may be made. Regulation of a contaminant identified under this paragraph shall be in accordance with the schedule applicable to the contaminant for which the substitution is made.

(B) If the Administrator identifies one or more contaminants for substitution under this paragraph, the Administrator shall publish in the Federal Register not late than one year after the enactment of the Safe Drinking Water Act Amendments of 1986 a list of contaminants proposed for substitution, the contaminants referred to in paragraph (1) for which substitutions are to be made, and the basis for the judgment that regulation of such proposed substitute contaminants is more likely to be protective of public health (taking into account the schedule for regulation under such paragraph). Following a period of 60 days for public comment, the Administrator shall publish in the Federal Register a final list of contaminants to be substituted and contaminants referred to in paragraph (1) for which substitutions are to be made, together with responses to significant comments.

(C) Any contaminant referred to in paragraph (1) for which a substitution is made, pursuant to subparagraph (A) of this paragraph, shall be included on the priority list to be published by the Administrator not later than January 1, 1988, pursuant to paragraph (3)(A).

(D) The Administrator's decision to regulate a contaminant identified pursuant to this paragraph in lieu of a contaminant referred to in paragraph (1) shall not be subject to judicial review.

(3)(A) The Administrator shall publish maximum contaminant level goals and promulgate national primary drinking water regulations for each contaminant (other than a contaminant referred to in paragraph (1) or (2) for which a national primary drinking water regulation was promulgated) which, in the judgment of the Administrator, may have any adverse effect on the health of persons and which is known or anticipated to occur in public water systems. Not later

than January 1, 1988, and at 3-year intervals thereafter, the Administrator shall publish a list of contaminants which are known or anticipated to occur in public water systems and which may require regulation under this Act.

(B) For the purpose of establishing the list under subparagraph (A), the Administrator shall form an advisory working group including members from the National Toxicology Program and the Environmental Protection Agency's Offices of Drinking Water, Pesticides, Toxic Substances, Ground Water, Solid Waste and Emergency Response and any others the Administrator deems appropriate. The Administrator's consideration of priorities shall include, but not be limited to, substances referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, and substances registered as pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act.

(C) Not later than 24 months after the listing of contaminants under subparagraph (A), the Administrator shall publish proposed maximum contaminant level goals and national primary drinking water regulations for not less than 25 contaminants from the list established under subparagraph (A).

(D) Not later than 36 months after the listing of contaminants under subparagraph (A), the Administrator shall publish a maximum contaminant goal and promulgate a national primary drinking water regulation for those contaminants for which proposed maximum contaminant level goals and proposed national primary drinking water regulations were published under subparagraph (C).]

(b) Standards.—

(1) IDENTIFICATION OF CONTAMINANTS FOR LISTING.—

(A) GENERAL AUTHORITY.—The Administrator shall publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for each contaminant (other than a contaminant referred to in paragraph (2) for which a national primary drinking water regulation has been promulgated as of the date of enactment of the Safe Drinking Water Act Amendments of 1995) if the Administrator determines, based on adequate data and appropriate peer-reviewed scientific information and an assessment of health risks, conducted in accordance with sound and objective scientific practices, that—

(i) the contaminant may have an adverse effect on the health of persons; and

(ii) the contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern.

(B) SELECTION AND LISTING OF CONTAMINANTS FOR CONSIDERATION.—

(i) IN GENERAL.—Not later than July 1, 1997, the Administrator (after consultation with the Secretary of Health and Human Services) shall publish and peri-

odically, but not less often than every 5 years, update a list of contaminants that are known or anticipated to occur in drinking water provided by public water systems and that may warrant regulation under this title.

(ii) RESEARCH AND STUDY PLAN.—At such time as a list is published under clause (i), the Administrator shall describe available and needed information and research with respect to—

(I) the health effects of the contaminants;

(II) the occurrence of the contaminants in drinking water; and

(III) treatment techniques and other means that may be feasible to control the contaminants.

(iii) COMMENT.—The Administrator shall seek comment on each list and any research plan that is published from officials of State and local governments, operators of public water systems, the scientific community, and the general public.

(C) Determination.—

(i) IN GENERAL.—Except as provided in clause (ii), not later than July 1, 2001, and every 5 years thereafter, the Administrator shall take one of the following actions for not fewer than 5 contaminants:

(I) Publish a determination that information available to the Administrator does not warrant the issuance of a national primary drinking water regulation.

(II) Publish a determination that a national primary drinking water regulation is warranted based on information available to the Administrator, and proceed to propose a maximum contaminant level goal and national primary drinking water regulation not later than 2 years after the date of publication of the determination.

(III) Propose a maximum contaminant level goal and national primary drinking water regulation.

(ii) INSUFFICIENT INFORMATION.—If the Administrator determines that available information is insufficient to make a determination for a contaminant under clause (i), the Administrator may publish a determination to continue to study the contaminant. Not later than 5 years after the Administrator determines that further study is necessary for a contaminant pursuant to this clause, the Administrator shall make a determination under clause (i).

(iii) ASSESSMENT.—The determinations under clause (i) shall be based on an assessment of—

(I) the available scientific knowledge that is consistent with the requirements of paragraph (3)(A) and useful in determining the nature and extent of adverse effects on the health of persons that may occur due to the presence of the contaminant in drinking water;

(II) information on the occurrence of the contaminant in drinking water; and

(III) the treatment technologies, treatment techniques, or other means that may be feasible in reducing the contaminant in drinking water provided by public water systems.

(iv) PRIORITIES.—In making determinations under this subparagraph, the Administrator shall give priority to those contaminants not currently regulated that are associated with the most serious adverse health effects and that present the greatest potential risk to the health of persons due to the presence of the contaminant in drinking water provided by public water systems.

(v) REVIEW.—Each document setting forth the determination for a contaminant under clause (i) shall be available for public comment at such time the determination is published.

(vi) JUDICIAL REVIEW.—Determinations made by the Administrator pursuant to clause (i)(I) shall be considered final agency actions for the purposes of section 1448. No determination under clause (i)(I) shall be set aside by a court pursuant to a review authorized under that section, unless the court finds that the determination is arbitrary and capricious.

(D) URGENT THREATS TO PUBLIC HEALTH.—The Administrator may promulgate an interim national primary drinking water regulation for a contaminant without listing the contaminant under subparagraph (B) or publishing a determination for the contaminant under subparagraph (C) to address an urgent threat to public health as determined by the Administrator after consultation with and written response to any comments provided by the Secretary of Health and Human Services, acting through the director of the Centers for Disease Control and Prevention or the director of the National Institutes of Health. A determination for any contaminant in accordance with subparagraph (C) subject to an interim regulation under this subparagraph shall be issued not later than 3 years after the date on which the regulation is promulgated and the regulation shall be repromulgated, or revised if appropriate, not later than 5 years after that date.

(E) MONITORING DATA AND OTHER INFORMATION.—The Administrator may require, in accordance with section 1445(a)(2), the submission of monitoring data and other information necessary for the development of studies, research plans, or national primary drinking water regulations.

(2) SCHEDULES AND DEADLINES.—

(A) IN GENERAL.—In the case of the contaminants listed in the Advance Notice of Proposed Rulemaking published in volume 47, Federal Register, page 9352, and in volume 48, Federal Register, page 45502, the Administrator shall publish maximum contaminant level goals and promulgate national primary drinking water regulations—

(i) not later than 1 year after June 19, 1986, for not fewer than 9 of the listed contaminants;

(ii) not later than 2 years after June 19, 1986, for not fewer than 40 of the listed contaminants; and

(iii) not later than 3 years after June 19, 1986, for the remainder of the listed contaminants.

(B) SUBSTITUTION OF CONTAMINANTS.—If the Administrator identifies a drinking water contaminant the regulation of which, in the judgment of the Administrator, is more likely to be protective of public health (taking into account the schedule for regulation under subparagraph (A)) than a contaminant referred to in subparagraph (A), the Administrator may publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for the identified contaminant in lieu of regulating the contaminant referred to in subparagraph (A). Substitutions may be made for not more than 7 contaminants referred to in subparagraph (A). Regulation of a contaminant identified under this subparagraph shall be in accordance with the schedule applicable to the contaminant for which the substitution is made.

(C) DISINFECTANTS AND DISINFECTION BYPRODUCTS.—

(i) INFORMATION COLLECTION RULE.—

(I) IN GENERAL.—Not later than December 31, 1995, the Administrator shall, after notice and opportunity for public comment, promulgate an information collection rule to obtain information that will facilitate further revisions to the national primary drinking water regulation for disinfectants and disinfection byproducts, including information on microbial contaminants such as cryptosporidium.

(II) EXTENSION.—The Administrator may extend the deadline under subclause (I) for up to 180 days if the Administrator determines that progress toward approval of an appropriate analytical method to screen for cryptosporidium is sufficiently advanced and approval is likely to be completed within the additional time period.

(ii) ADDITIONAL DEADLINES.—The time intervals between promulgation of a final information collection rule, an Interim Enhanced Surface Water Treatment Rule, a Final Enhanced Surface Water Treatment Rule, a Stage I Disinfectants and Disinfection Byproducts Rule, and a Stage II Disinfectants and Disinfection Byproducts Rule shall be in accordance with the schedule published in volume 59, Federal Register, page 6361 (February 10, 1994), in table III.13 of the proposed Information Collection Rule. If a delay occurs with respect to the promulgation of any rule in the timetable established by this subparagraph, all subsequent rules shall be completed as expeditiously as practicable subject to agreement by all the parties to the negotiated rulemaking, but no later than a revised date

that reflects the interval or intervals for the rules in the timetable.

(D) PRIOR REQUIREMENTS.—The requirements of subparagraphs (C) and (D) of section 1412(b)(3) (as in effect before the amendment made by section 4(a) of the Safe Drinking Water Act Amendments of 1995), and any obligation to promulgate regulations pursuant to such subparagraphs not promulgated as of the date of enactment of the Safe Drinking Water Act Amendments of 1995, are superseded by this paragraph and paragraph (1).

(3) RISK ASSESSMENT, MANAGEMENT AND COMMUNICATION.—

(A) USE OF SCIENCE IN DECISIONMAKING.—In carrying out this title, the Administrator shall use—

(i) the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices; and

(ii) data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies use of the data).

(B) PUBLIC INFORMATION.—In carrying out this section, the Administrator shall ensure that the presentation of information on public health effects is comprehensive, informative and understandable. The Administrator shall, in a document made available to the public in support of a regulation promulgated under this section, specify, to the extent practicable—

(i) each population addressed by any estimate of public health effects;

(ii) the expected risk or central estimate of risk for the specific populations;

(iii) each appropriate upper-bound or lower-bound estimate of risk;

(iv) each uncertainty identified in the process of the assessment of public health effects and research that would assist in resolving the uncertainty; and

(v) peer-reviewed studies known to the Administrator that support, are directly relevant to, or fail to support any estimate of public health effects and the methodology used to reconcile inconsistencies in the scientific data.

(C) HEALTH RISK REDUCTION AND COST ANALYSIS.—

(i) MAXIMUM CONTAMINANT LEVELS.—Not later than 90 days prior to proposing any national primary drinking water regulation that includes a maximum contaminant level, the Administrator shall, with respect to a maximum contaminant level that would be considered in accordance with paragraph (4) in a proposed regulation and each alternative maximum contaminant level that would be considered in a proposed regulation pursuant to paragraph (5) or (6)(A), publish, seek public comment on, and use for the purposes of paragraphs (4), (5), and (6) an analysis of—

(I) the health risk reduction benefits (including nonquantifiable health benefits identified and described by the Administrator, except that such benefits shall not be used by the Administrator for purposes of determining whether a maximum contaminant level is or is not

justified unless there is a factual basis in the rulemaking record to conclude that such benefits are likely to occur) expected as the result of treatment to comply with each level;

(II) the health risk reduction benefits (including non-quantifiable health benefits identified and described by the Administrator, except that such benefits shall not be used by the Administrator for purposes of determining whether a maximum contaminant level is or is not justified unless there is a factual basis in the rulemaking record to conclude that such benefits are likely to occur) expected from reductions in co-occurring contaminants that may be attributed solely to compliance with the maximum contaminant level, excluding benefits resulting from compliance with other proposed or promulgated regulations;

(III) the costs (including non-quantifiable costs identified and described by the Administrator, except that such costs shall not be used by the Administrator for purposes of determining whether a maximum contaminant level is or is not justified unless there is a factual basis in the rulemaking record to conclude that such costs are likely to occur) expected solely as a result of compliance with the maximum contaminant level, including monitoring, treatment, and other costs and excluding costs resulting from compliance with other proposed or promulgated regulations;

(IV) the incremental costs and benefits associated with each alternative maximum contaminant level considered;

(V) the effects of the contaminant on the general population and on groups within the general population such as infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations that are identified as likely to be at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population;

(VI) any increased health risk that may occur as the result of compliance, including risks associated with co-occurring contaminants; and

(VII) other relevant factors, including the quality and extent of the information, the uncertainties in the analysis supporting subclauses (I) through (VI), and factors with respect to the degree and nature of the risk.

(ii) TREATMENT TECHNIQUES.—Not later than 90 days prior to proposing a national primary drinking water regulation that includes a treatment technique in accordance with paragraph (7)(A), the Administrator shall publish and seek public comment on an analysis of the health risk reduction benefits and costs likely to be experienced as the result of compliance with the treatment technique and alternative treatment techniques that would be considered in a

proposed regulation, taking into account, as appropriate, the factors described in clause (i).

(iii) APPROACHES TO MEASURE AND VALUE BENEFITS.—The Administrator may identify valid approaches for the measurement and valuation of benefits under this subparagraph, including approaches to identify consumer willingness to pay for reductions in health risks from drinking water contaminants.

(iv) FORM OF NOTICE.—Whenever a national primary drinking water regulation is expected to result in compliance costs greater than $75,000,000 per year, the Administrator shall provide the notice required by clause (i) or (ii) through an advanced notice of proposed rulemaking.

(v) AUTHORIZATION.—There are authorized to be appropriated to the Administrator, acting through the Office of Ground Water and Drinking Water, to conduct studies, assessments, and analyses in support of regulations or the development of methods, $35,000,000 for each of fiscal years 1996 through 2003.

[(4) Each] *(4) GOALS AND STANDARDS.—*

(A) MAXIMUM CONTAMINANT LEVEL GOALS.—Each maximum contaminant level goal established under this subsection shall be set at the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety. *The maximum contaminant level goal for contaminants that are known or likely to cause cancer in humans may be set at a level other than zero, if the Administrator determines, based on the best available, peer-reviewed science, that there is a threshold level below which there is unlikely to be any increase in cancer risk and the Administrator sets the maximum contaminant level goal at that level with an adequate margin of safety.*

[Each national] *(B) MAXIMUM CONTAMINANT LEVELS.—Except as provided in paragraphs (5) and (6), each national* primary drinking water regulation for a contaminant for which a maximum contaminant level goal is established under this subsection shall specify a **[maximum level]** *maximum contaminant level* for such contaminant which is as close to the maximum contaminant level goal as is feasible.

(C) DETERMINATION.—At the time the Administrator proposes a national primary drinking water regulation under this paragraph, the Administrator shall publish a determination as to whether the benefits of the maximum contaminant level justify, or do not justify, the costs based on the analysis conducted under paragraph (3)(C).

[(5) For the] *(D) DEFINITION OF FEASIBLE.—For the* purposes of this subsection, the term "feasible" means feasible with the use of the best technology, treatment techniques and other means which the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available (taking cost into consideration). For the purpose of **[paragraph (4)]** *this paragraph*, granular activated carbon is feasible for the control of synthetic organic chemicals, and any technology, treatment technique, or other

means found to be the best available for the control of synthetic organic chemicals must be at least as effective in controlling synthetic organic chemicals as granular activated carbon.

[(6) Each national] *(E) FEASIBLE TECHNOLOGIES.—Each national* primary drinking water regulation which establishes a maximum contaminant level shall list the technology, treatment techniques, and other means which the Administrator finds to be feasible for purposes of meeting such maximum contaminant level, but a regulation under **[this paragraph]** *this subsection* shall not require that any specified technology, treatment technique, or other means be used for purposes of meeting such maximum contaminant level. *The Administrator shall include in the list any technology, treatment technique, or other means that is feasible for small public water systems serving—*

(i) a population of 10,000 or fewer but more than 3,300;

(ii) a population of 3,300 or fewer but more than 500; and

(iii) a population of 500 or fewer but more than 25;

and that achieves compliance with the maximum contaminant level, including packaged or modular systems and point-of-entry treatment units that are controlled by the public water system to ensure proper operation and maintenance and compliance with the maximum contaminant level and equipped with mechanical warnings to ensure that customers are automatically notified of operational problems.

(5) ADDITIONAL HEALTH RISK CONSIDERATIONS.—

(A) IN GENERAL.—Notwithstanding paragraph (4), the Administrator may establish a maximum contaminant level for a contaminant at a level other than the feasible level, if the technology, treatment techniques, and other means used to determine the feasible level would result in an increase in the health risk from drinking water by—

(i) increasing the concentration of other contaminants in drinking water; or

(ii) interfering with the efficacy of drinking water treatment techniques or processes that are used to comply with other national primary drinking water regulations.

(B) ESTABLISHMENT OF LEVEL.—If the Administrator establishes a maximum contaminant level or levels or requires the use of treatment techniques for any contaminant or contaminants pursuant to the authority of this paragraph—

(i) the level or levels or treatment techniques shall minimize the overall risk of adverse health effects by balancing the risk from the contaminant and the risk from other contaminants the concentrations of which may be affected by the use of a treatment technique or process that would be employed to attain the maximum contaminant level or levels; and

(ii) the combination of technology, treatment techniques, or other means required to meet the level or levels shall not be more stringent than is feasible (as defined in paragraph (4)(D)).

(6) ADDITIONAL HEALTH RISK REDUCTION AND COST CONSIDERATIONS.—

(A) IN GENERAL.—Notwithstanding paragraph (4), if the Administrator determines based on an analysis conducted under paragraph (3)(C) that the benefits of a maximum contaminant level promulgated in accordance with paragraph (4) would not justify the costs of complying with the level, the Administrator may, after notice and opportunity for public comment, promulgate a maximum contaminant level for the contaminant that maximizes health risk reduction benefits at a cost that is justified by the benefits.

(B) EXCEPTION.—The Administrator shall not use the authority of this paragraph to promulgate a maximum contaminant level for a contaminant, if the benefits of compliance with a national primary drinking water regulation for the contaminant that would be promulgated in accordance with paragraph (4) experienced by—

(i) persons served by large public water systems; and

(ii) persons served by such other systems as are unlikely, based on information provided by the States, to receive a variance under section 1415(e); would justify the costs to the systems of complying with the regulation. This subparagraph shall not apply if the contaminant is found almost exclusively in small systems (as defined in section 1415(e)).

(C) DISINFECTANTS AND DISINFECTION BYPRODUCTS.—The Administrator may not use the authority of this paragraph to establish a maximum contaminant level in a Stage I or Stage II national primary drinking water regulation for contaminants that are disinfectants or disinfection byproducts (as described in paragraph (2)), or to establish a maximum contaminant level or treatment technique requirement for the control of cryptosporidium. The authority of this paragraph may be used to establish regulations for the use of disinfection by systems relying on ground water sources as required by paragraph (8).

(D) JUDICIAL REVIEW.—A determination by the Administrator that the benefits of a maximum contaminant level or treatment requirement justify or do not justify the costs of complying with the level shall be reviewed by the court pursuant to section 1448 only as part of a review of a final national primary drinking water regulation that has been promulgated based on the determination and shall not be set aside by the court under that section, unless the court finds that the determination is arbitrary and capricious.

(7)(A) The Administrator is authorized to promulgate a national primary drinking water regulation that requires the use of a treatment technique in lieu of establishing a maximum contaminant level, if the Administrator makes a finding that it is not economically or technologically feasible to ascertain the level of the contaminant. In such case, the Administrator shall identify those treatment techniques which, in the Administrator's judgment, would prevent known or anticipated adverse effects on the health of persons to the extent feasible. Such regulations shall specify each treatment technique known to the Administrator which meets the requirements of this paragraph, but the Administrator may

grant a variance from any specified treatment technique in accordance with section 1415(a)(3).

(B) Any schedule referred to in this subsection for the promulgation of a national primary drinking water regulation for any contaminant shall apply in the same manner if the regulation requires a treatment technique in lieu of establishing a maximum contaminant level.

(C)(i) Not later than 18 months after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall propose and promulgate national primary drinking water regulations specifying criteria under which filtration (including coagulation and sedimentation, as appropriate) is required as a treatment technique for public water systems supplied by surface water sources. In promulgating such rules, the Administrator shall consider the quality of source waters, protection afforded by watershed management, treatment practices (such as disinfection and length of water storage) and other factors relevant to protection of health.

(ii) In lieu of the provisions of section 1415 the Administrator shall specify procedures by which the State determines which public water systems within its jurisdiction shall adopt filtration under the criteria of clause (i). The State may require the public water system to provide studies or other information to assist in this determination. The procedures shall provide notice and opportunity for public hearing on this determination. If the State determines that filtration is required, the State shall prescribe a schedule for compliance by the public water system with the filtration requirement. A schedule shall require compliance within 18 months of a determination made under clause (iii).

(iii) Within 18 months from the time that the Administrator establishes the criteria and procedures under this subparagraph, a State with primary enforcement responsibility shall adopt any necessary regulations to implement this subparagraph. Within 12 months of adoption of such regulations the State shall make determinations regarding filtration for all the public water systems within its jurisdiction supplied by surface waters.

(iv) If a State does not have primary enforcement responsibility for public water systems, the Administrator shall have the same authority to make the determination in clause (ii) in such State as the State would have under that clause. Any filtration requirement or schedule under this subparagraph shall be treated as if it were a requirement of a national primary drinking water regulation.

(v) FILTRATION TECHNOLOGY FOR SMALL SYSTEMS.—At the same time as the Administrator proposes an Interim Enhanced Surface Water Treatment Rule pursuant to paragraph (2)(C)(ii), the Administrator shall propose a regulation that describes treatment techniques that meet the requirements for filtration pursuant to this subparagraph and are feasible for community water systems serving a population of 3,300 or fewer and noncommunity water systems.

(8) **[Not later than 36 months after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall propose and promulgate]** *At any time after the end of the 3-year period that begins on the date of enactment of the Safe Drinking Water Act Amendments of 1995 but not later than the date on which the Administrator promulgates a Stage II rulemaking for*

disinfectants and disinfection byproducts (as described in paragraph (2)), the Administrator shall also promulgate national primary drinking water regulations requiring disinfection as a treatment technique for all public water systems**[.]**, *including surface water systems and, as necessary, ground water systems. After consultation with the States, the Administrator shall (as part of the regulations) promulgate criteria that the Administrator, or a State that has primary enforcement responsibility under section 1413, shall apply to determine whether disinfection shall be required as a treatment technique for any public water system served by ground water.* The Administrator shall simultaneously promulgate a rule specifying criteria that will be used by the Administrator (or delegated State authorities) to grant variances from this requirement according to the provisions of section 1415(a)(1)(B) and 1415(a)(3). In implementing section 1442(g) the Administrator or the delegated State authority shall, where appropriate, give special consideration to providing technical assistance to small public water systems in complying with the regulations promulgated under this paragraph.

[(9) National primary drinking water regulations shall be amended whenever changes in technology, treatment techniques, and other means permit greater protection of the health of persons, but in any event such regulations shall be reviewed at least once every 3 years. Such review shall include an analysis of innovations or changes in technology, treatment techniques or other activities that have occurred over the previous 3-year period and that may provide for greater protection of the health of persons. The findings of such review shall be published in the Federal Register. If, after opportunity for public comment, the Administrator concludes that the technology, treatment techniques, or other means resulting from such innovations or changes are not feasible within the meaning of paragraph (5), an explanation of such conclusion shall be published in the Federal Register.]

(9) REVIEW AND REVISION.—The Administrator shall, not less often than every 6 years, review and revise, as appropriate, each national primary drinking water regulation promulgated under this title. Any revision of a national primary drinking water regulation shall be promulgated in accordance with this section, except that each revision shall maintain or provide for greater protection of the health of persons.

[(10) National primary drinking water regulations promulgated under this subsection (and amendments thereto) shall take effect eighteen months after the date of their promulgation. Regulations under subsection (a) shall be superseded by regulations under this subsection to the extent provided by the regulations under this subsection.]

(10) EFFECTIVE DATE.—A national primary drinking water regulation promulgated under this section shall take effect on the date that is 3 years after the date on which the regulation is promulgated unless the Administrator determines that an earlier date is practicable, except that the Administrator, or a State in the case of an individual system, may allow up to 2 additional years to comply with a maximum contaminant level or treatment technique if the

Administrator or State determines that additional time is necessary for capital improvements.

(11) No national primary drinking water regulation may require the addition of any substance for preventive health case purposes unrelated to contamination of drinking water.

(12) ARSENIC.—

(A) SCHEDULE AND STANDARD.—Notwithstanding paragraph (2), the Administrator shall promulgate a national primary drinking water regulation for arsenic in accordance with the schedule established by this paragraph and pursuant to this subsection.

(B) RESEARCH PLAN.—Not later than 180 days after the date of enactment of this paragraph, the Administrator shall develop a comprehensive plan for research in support of drinking water rulemaking to reduce the uncertainty in assessing health risks associated with exposure to low levels of arsenic. The Administrator shall consult with the Science Advisory Board established by section 8 of the Environmental Research, Development, and Demonstration Act of 1978 (42 U.S.C. 4365), other Federal agencies, and interested public and private entities.

(C) RESEARCH PROJECTS.—The Administrator shall carry out the research plan, taking care to avoid duplication of other research in progress. The Administrator may enter into cooperative research agreements with other Federal agencies, State and local governments, and other interested public and private entities to carry out the research plan.

(D) ASSESSMENT.—Not later than 3½ years after the date of enactment of this paragraph, the Administrator shall review the progress of the research to determine whether the health risks associated with exposure to low levels of arsenic are sufficiently well understood to proceed with a national primary drinking water regulation. The Administrator shall consult with the Science Advisory Board, other Federal agencies, and other interested public and private entities as part of the review.

(E) PROPOSED REGULATION.—The Administrator shall propose a national primary drinking water regulation for arsenic not later than January 1, 2000.

(F) FINAL REGULATION.—Not later than January 1, 2001, after notice and opportunity for public comment, the Administrator shall promulgate a national primary drinking water regulation for arsenic.

(13) RADON IN DRINKING WATER.—

(A) REGULATION.—Notwithstanding paragraph (2), not later than 180 days after the date of enactment of this paragraph, the Administrator shall promulgate a national primary drinking water regulation for radon.

(B) MAXIMUM CONTAMINANT LEVEL.—Notwithstanding any other provision of law, the regulation shall provide for a maximum contaminant level for radon of 3,000 picocuries per liter.

(C) REVISION.—

(i) IN GENERAL.—Subject to clause (ii), a revision to the regulation promulgated under subparagraph (A) may be made pursuant to this subsection. The revision may include a maximum contaminant level less stringent that 3,000

picocuries per liter as provided in paragraphs (4) and (9) or a maximum contaminant level more stringent than 3,000 picocuries per liter as provided in clause (ii).

(ii) MAXIMUM CONTAMINANT LEVEL.—

(I) CRITERIA FOR REVISION.—The Administrator shall not revise the maximum contaminant level for radon to a more stringent level than the level established under subparagraph (B) unless—

(aa) the revision is made to reflect consideration of risks from the ingestion of radon in drinking water and episodic uses of drinking water;

(bb) the revision is supported by peer-reviewed scientific studies conducted in accordance with sound and objective scientific practices; and

(cc) based on the studies, the National Academy of Sciences and the Science Advisory Board, established by section 8 of the Environmental Research, Development, and Demonstration Act of 1978 (42 U.S.C. 4365), consider a revision of the maximum contaminant level to be appropriate.

(II) AMOUNT OF REVISION.—If the Administrator determines to revise the maximum contaminant level for radon in accordance with subclause (I), the maximum contaminant level shall be revised to a level that is no more stringent than is necessary to reduce risks to human health from radon in drinking water to a level that is equivalent to risks to human health from radon in outdoor air based on the national average concentration of radon in outdoor air.

(14) SULFATE.—

(A) IN GENERAL.—In the absence of scientific evidence suggesting new or more serious health effects than are suggested by the evidence available on the date of enactment of this paragraph, for the purposes of promulgation of a national primary drinking water regulation for sulfate, notwithstanding the requirements of paragraphs (4) and (7), the Administrator shall specify in the regulation—

(i) a requirement for best technology or other means under this subsection; and

(ii) requirements for public notification and options for the provision of alternative water supplies to populations at risk as an alternative means of complying with the regulation.

(B) SCHEDULE.—Notwithstanding paragraph (2), the regulation referred to in subparagraph (A) shall be promulgated not later than 2 years after the date of enactment of this paragraph.

(C) AUTHORITY.—Paragraph (6) shall apply to the national primary drinking water regulation for sulfate first promulgated after the date of enactment of this paragraph only if the Administrator reproposes the national primary drinking water regulation for sulfate after that date based on evidence suggesting new or more serious health effects as described in subparagraph (A).

(D) EFFECT ON OTHER LAWS.—

(i) FEDERAL LAWS.—Notwithstanding part C, section 311 of the Federal Water Pollution Control Act (33 U.S.C. 1321), subtitle C or D of the Solid Waste Disposal Act (42 U.S.C. 6921 et seq.), or section 107 or 121(d) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9607 and 9621(d)), no national primary drinking water regulation for sulfate shall be—

(I) used as a standard for determining compliance with any provision of any law other than this subsection;

(II) used as a standard for determining appropriate cleanup levels or whether cleanup should be undertaken with respect to any facility or site;

(III) considered to be an applicable or relevant and appropriate requirement for any such cleanup; or

(IV) used for the purpose of defining injury to a natural resource;

unless the Administrator, by rule and after notice and opportunity for public comment, determines that the regulation is appropriate for a use described in subclause (I), (II), (III), or (IV).

(ii) STATE LAWS.—This subparagraph shall not affect any requirement of State law, including the applicability of any State standard similar to the regulation published under this paragraph as a standard for any cleanup action, compliance action, or natural resource damage action taken pursuant to such a law.

(15) SYSTEM TREATMENT TECHNOLOGIES.—

(A) GUIDANCE OR REGULATIONS.—

(i) IN GENERAL.—At the same time as the Administrator promulgates a national primary drinking regulation pursuant to this section, the Administrator shall issue guidance or regulations describing all treatment technologies for the contaminant that is the subject of the regulation that are feasible with the use of best technology, treatment techniques, or other means that the Administrator finds, after examination for efficacy under field conditions and not solely under laboratory conditions, are available taking cost into consideration for public water systems serving—

(I) a population of 10,000 or fewer but more than 3,300;

(II) a population of 3,300 or fewer but more than 500; and

(III) a population of 500 or fewer but more than 25.

(ii) CONTENTS.—The guidance or regulations shall identify the effectiveness of the technology, the cost of the technology, and other factors related to the use of the technology, including requirements for the quality of source water to ensure adequate protection of human health, considering removal efficiencies of the technology, and installation and operation and maintenance requirements for the technology.

(iii) LIMITATION.—The Administrator shall not issue guidance or regulations for a technology under this paragraph unless the technology adequately protects human health, considering the expected useful life of the technology and the source waters available to systems for which the technology is considered to be feasible.

(B) REGULATIONS AND GUIDANCE.—Not later than 2 years after the date of enactment of this paragraph and after consultation with the States, the Administrator shall issue guidance or regulations under subparagraph (A) for each national primary drinking water regulation promulgated prior to the date of enactment of this paragraph for which a variance may be granted under section 1415(e). The Administrator may, at any time after a national primary drinking water regulation has been promulgated, issue guidance or regulations describing additional or new or innovative treatment technologies that meet the requirements of subparagraph (A) for public water systems described in subparagraph (A)(i) that are subject to the regulation.

(C) NO SPECIFIED TECHNOLOGY.—A description under subparagraph (A) of the best technology or other means available shall not be considered to require or authorize that the specified technology or other means be used for the purpose of meeting the requirements of any national primary drinking water regulation.

(c) The Administrator shall publish proposed national secondary drinking water regulations within 270 days after the date of enactment of this title. Within 90 days after publication of any such regulation, he shall promulgate such regulation with such modifications as he deems appropriate. Regulations under this subsection may be amended from time to time.

(d) Regulations under this section shall be prescribed in accordance with section 553 of title 5, United States Code (relating to rulemaking), except that the Administrator shall provide opportunity for public hearing prior to promulgation of such regulations. In proposing and promulgating regulations under this section, the Administrator shall consult with the Secretary and the National Drinking Water Advisory Council.

(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.

STATE PRIMARY ENFORCEMENT RESPONSIBILITY

SEC. 1413. (a) For purposes of this title, a State has primary enforcement responsibility for public water systems during any period for which the Administrator determines (pursuant to regulation prescribed under subsection (b)) that such State—

[(1) has adopted drinking water regulations which are no less stringent than the national primary drinking water regulations in effect under such section 1412(a) and 1412(b);]

(1) has adopted drinking water regulations that are no less stringent than the national primary drinking water regulations promulgated by the Administrator under section 1412 not later than 2 years after the date on which the regulations are promulgated by the Administrator;

(2) has adopted and is implementing adequate procedures for the enforcement of such State regulations, including conducting such monitoring and making such inspections as the Administrator may require by regulation;

(3) will keep such records and make such reports with respect to its activities under paragraphs (1) and (2) as the Administrator may require by regulation;

(4) if it permits variances or exemptions, or both, from the requirements of its drinking water regulations which meet the requirements of paragraph (1), permits such variances and exemptions under conditions and in a manner which is not less stringent than the conditions under, and the manner in, which variances and exemptions may be granted under sections 1415 and 1416; **[and]**

(5) has adopted and can implement an adequate plan for the provision of safe drinking water under emergency circumstances**[.]**; *and*

(6) has adopted authority for administrative penalties (unless the constitution of the State prohibits the adoption of the authority) in a maximum amount—

(A) in the case of a system serving a population of more than 10,000, that is not less than $1,000 per day per violation; and

(B) in the case of any other system, that is adequate to ensure compliance (as determined by the State);

except that a State may establish a maximum limitation on the total amount of administrative penalties that may be imposed on a public water system per violation.

(b)(1) The Administrator shall, by regulation (proposed within 180 days of the date of enactment of this title), prescribe the manner in which a State may apply to the Administrator for a determination that the requirements of paragraphs (1), (2), (3), and (4) of subsection (a) are satisfied with respect to the State, the manner in which the determination is made, the period for which the determination will be effective, and the manner in which the Administrator may determine that such requirements are no longer met. Such regulations shall require that before a determination of the Administrator that such requirements are met or are no longer met with respect to a State may become effective, the Administrator shall notify such State of the determination and the reasons therefor and shall provide an opportunity for public hearing on the determination. Such regulations shall be promulgated (with such modifications as the Administrator deems appropriate) within 90 days of the publication of the proposed regulations in the Federal Register. The Administrator shall promptly notify in writing the

chief executive officer of each State of the promulgation of regulations under this paragraph. Such notice shall contain a copy of the regulations and shall specify a State's authority under this title when it is determined to have primary enforcement responsibility for public water systems.

(2) When an application is submitted in accordance with the Administrator's regulations under paragraph (1), the Administrator shall within 90 days of the date on which such application is submitted (A) make the determination applied for, or (B) deny the application and notify the applicant in writing of the reasons for his denial.

(c) INTERIM PRIMARY ENFORCEMENT AUTHORITY.—A State that has primary enforcement authority under this section with respect to each existing national primary drinking water regulation shall be considered to have primary enforcement authority with respect to each new or revised national primary drinking water regulation during the period beginning on the effective date of a regulation adopted and submitted by the State with respect to the new or revised national primary drinking water regulation in accordance with subsection (b)(1) and ending at such time as the Administrator makes a determination under subsection (b)(2) with respect to the regulation.

ENFORCEMENT OF DRINKING WATER REGULATIONS

SEC. 1414. (a)(1)(A) Whenever the Administrator finds during a period during which a State has primary enforcement responsibility for public water systems (within the meaning of section 1413(a)) that any public water system—

(i) for which a variance under section 1415 or an exemption under section 1416 is not in effect, does not comply with **[any national primary drinking water regulation]** *any applicable requirement* **[in effect under section 1412]**, or

(ii) for which a variance under section 1415 or an exemption under section 1416 is in effect, does not comply with any schedule or other requirement imposed pursuant thereto,

he shall so notify the State and such public water system and provide such advice and technical assistance to such State and public water system as may be appropriate to bring the system into compliance **[with such regulation or requirement]** *with the requirement* by the earliest feasible time.

(B) If, beyond the thirtieth day after the Administrator's notification under subparagraph (A), the State has not commenced appropriate enforcement action, the Administrator shall issue an order under subsection (g) requiring the public water system to comply with such **[regulation or]** *applicable* requirement or the Administrator shall commence a civil action under subsection (b).

[(2) Whenever, on the basis of information available to him, the Administrator finds during a period during which a State does not have primary enforcement responsibility for public water systems that a public water system in such State—

(A) for which a variance under section 1415(a)(2) or an exemption under section 1416(f) is not in effect, does not

comply with any national primary drinking water regulation in effect under section 1412, or

(B) for which a variance under section 1415(a)(2) or an exemption under section 1416(f) is in effect, does not comply with any schedule or other requirement imposed pursuant thereto,

the Administrator shall issue an order under subsection (g) requiring the public water system to comply with such regulation or requirement or the Administrator shall commence a civil action under subsection (b).]

(2) ENFORCEMENT IN NONPRIMACY STATES.—

(A) IN GENERAL.—If, on the basis of information available to the Administrator, the Administrator finds, with respect to a period in which a State does not have primary enforcement responsibility for public water systems, that a public water system in the State—

(i) for which a variance under section 1415 or an exemption under section 1416 is not in effect, does not comply with any applicable requirement; or

(ii) for which a variance under section 1415 or an exemption under section 1416 is in effect, does not comply with any schedule or other requirement imposed pursuant to the variance or exemption;

the Administrator shall issue an order under subsection (g) requiring the public water system to comply with the requirement, or commence a civil action under subsection (b).

(B) NOTICE.—If the Administrator takes any action pursuant to this paragraph, the Administrator shall notify an appropriate local elected official, if any, with jurisdiction over the public water system of the action prior to the time that the action is taken.

(b) The Administrator may bring a civil action in the appropriate United States district court to require compliance with **[a national primary drinking water regulation]** *any applicable requirement*, with an order issued under subsection (g), or with any schedule or other requirement imposed pursuant to a variance or exemption granted under section 1415 or 1416 if—

(1) authorized under paragraph (1) or (2) of subsection (a), or

(2) if requested by (A) the chief executive officer of the State in which is located the public water system which is not in compliance with such regulation or requirement, or (B) the agency of such State which has jurisdiction over compliance by public water systems in the State with national primary drinking water regulations or State drinking water regulations.

The court may enter, in an action brought under this subsection, such judgment as protection of public health may require, taking into consideration the time necessary to comply and the availability of alternative water supplies; and, if the court determines that there has been a violation of the regulation or schedule or other requirement with respect to which the action was brought, the court may, taking into account the seriousness of the violation, the population at risk, and other appropriate factors, impose on the violator

a civil penalty of not to exceed $25,000 for each day in which such violation occurs.

[(c) Each owner or operator of a public water system shall give notice to the persons served by it—

(1) of any failure on the part of the public water system to—

(A) comply with an applicable maximum contaminant level or treatment technique requirement of, or a testing procedure prescribed by, a national primary drinking water regulation, or

(B) perform monitoring required by section 1445(a), and

(2) if the public water system is subject to a variance granted under section 1415(a)(1)(A) or 1415(a)(2) for an inability to meet a maximum contaminant level requirement or is subject to an exemption granted under section 1416, of—

(A) the existence of such variance or exemption, and

(B) any failure to comply with the requirements of any schedule prescribed pursuant to the variance or exemption.

The Administrator shall by regulation prescribe the form, manner, and frequency for giving notice under this subsection. Within 15 months after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall amend such regulations to provide for different types and frequencies of notice based on the differences between violations which are intermittent or infrequent and violations which are continuous or frequent. Such regulations shall also take into account the seriousness of any potential adverse health effects which may be involved. Notice of any violation of a maximum contaminant level or any other violation designated by the Administrator as posing a serious potential adverse health effect shall be given as soon as possible, but in no case later than 14 days after the violation. Notice of a continuous violation of a regulation other than a maximum contaminant level shall be given no less frequently than every 3 months. Notice of violations judged to be less serious shall be given no less frequently than annually. The Administrator shall specify the types of notice to be used to provide information as promptly and effectively as possible taking into account both the seriousness of any potential adverse health effects and the likelihood of reaching all affected persons. Notification of violations shall include notice by general circulation newspaper serving the area and, whenever appropriate, shall also include a press release to electronic media and individual mailings. Notice under this subsection shall provide a clear and readily understandable explanation of the violation, any potential adverse health effects, the steps that the system is taking to correct such violation, and the necessity for seeking alternative water supplies, if any, until the violation is corrected. Until such amended regulations are promulgated, the regu-

lations in effect on the date of the enactment of the Safe Drinking Water Act Amendments of 1986 shall remain in effect. The Administrator may also require the owner or operator of a public water system to give notice to the persons served by it of contaminant levels of any unregulated contaminant required to be monitored under section 1445(a). Any person who violates this subsection or regulations issued under this subsection shall be subject to a civil penalty of not to exceed $25,000.]

(c) NOTICE TO PERSONS SERVED.—

(1) IN GENERAL.—Each owner or operator of a public water system shall give notice to the persons served by the system—

(A) of any failure on the part of the public water system to—

(i) comply with an applicable maximum contaminant level or treatment technique requirement of, or a testing procedure prescribed by, a national primary drinking water regulation; or

(ii) perform monitoring required by section 1445(a);

(B) if the public water system is subject to a variance granted under section 1415(a)(1)(A), 1415(a)(2), or 1415(e) for an inability to meet a maximum contaminant level requirement or is subject to an exemption granted under section 1416, of—

(i) the existence of the variance or exemption; and

(ii) any failure to comply with the requirements of any schedule prescribed pursuant to the variance or exemption; and

(C) of the concentration level of any unregulated contaminant for which the Administrator has required public notice pursuant to paragraph (2)(E).

(2) FORM, MANNER, AND FREQUENCY OF NOTICE.—

(A) IN GENERAL.—The Administrator shall, by regulation, and after consultation with the States, prescribe the manner, frequency, form, and content for giving notice under this subsection. The regulations shall—

(i) provide for different frequencies of notice based on the differences between violations that are intermittent or infrequent and violations that are continuous or frequent; and

(ii) take into account the seriousness of any potential adverse health effects that may be involved.

(B) STATE REQUIREMENTS.—

(i) IN GENERAL.—A State may, by rule, establish alternative notification requirements—

(I) with respect to the form and content of notice given under and in a manner in accordance with subparagraph (C); and

(II) with respect to the form and content of notice given under subparagraph (D).

(ii) CONTENTS.—The alternative requirements shall provide the same type and amount of information as required pursuant to this subsection and regulations issued under subparagraph (A).

(iii) RELATIONSHIP TO SECTION 1413.—Nothing in this subparagraph shall be construed or applied to modify the requirements of section 1413.

(C) VIOLATIONS WITH POTENTIAL TO HAVE SERIOUS ADVERSE EFFECTS ON HUMAN HEALTH.—Regulations issued under subparagraph (A) shall specify notification procedures for each violation by a public water system that has the potential to have serious adverse effects on human health as a result of short-term exposure. Each notice of violation provided under this subparagraph shall—

(i) be distributed as soon as practicable after the occurrence of the violation, but not later than 24 hours after the occurrence of the violation;

(ii) provide a clear and readily understandable explanation of—

(I) the violation;

(II) the potential adverse effects on human health;

(III) the steps that the public water system is taking to correct the violation; and

(IV) the necessity of seeking alternative water supplies until the violation is corrected;

(iii) be provided to the Administrator or the head of the State agency that has primary enforcement responsibility under section 1413 as soon as practicable, but not later than 24 hours after the occurrence of the violation; and

(iv) as required by the State agency in general regulations of the State agency, or on a case-by-case basis after the consultation referred to in clause (iii), considering the health risks involved—

(I) be provided to appropriate broadcast media;

(II) be prominently published in a newspaper of general circulation serving the area not later than 1 day after distribution of a notice pursuant to clause (i) or the date of publication of the next issue of the newspaper; or

(III) be provided by posting or door-to-door notification in lieu of notification by means of broadcast media or newspaper.

(D) WRITTEN NOTICE.—

(i) IN GENERAL.—Regulations issued under subparagraph (A) shall specify notification procedures for violations other than the violations covered by subparagraph (C). The procedures shall specify that a public water system shall provide written notice to each person served by the system by notice—

(I) in the first bill (if any) prepared after the date of occurrence of the violation;

(II) in an annual report issued not later than 1 year after the date of occurrence of the violation; or

(III) by mail or direct delivery as soon as practicable, but not later than 1 year after the date of occurrence of the violation.

(ii) FORM AND MANNER OF NOTICE.—The Administrator shall prescribe the form and manner of the notice to provide a clear and readily understandable explanation of—

(I) the violation;

(II) any potential adverse health effects; and

(III) the steps that the system is taking to seek alternative water supplies, if any, until the violation is corrected.

(E) UNREGULATED CONTAMINANTS.—The Administrator may require the owner or operator of a public water system to give notice to the persons served by the system of the concentration levels of an unregulated contaminant required to be monitored under section 1445(a).

(3) REPORTS.—

(A) ANNUAL REPORT BY STATE.—

(i) IN GENERAL.—Not later than January 1, 1997, and annually thereafter, each State that has primary enforcement responsibility under section 1413 shall prepare, make readily available to the public, and submit to the Administrator an annual report on violations of national primary drinking water regulations by public water systems in the State, including violations with respect to—

(I) maximum contaminant levels;

(II) treatment requirements;

(III) variances and exemptions; and

(IV) monitoring requirements determined to be significant by the Administrator after consultation with the States.

(ii) DISTRIBUTION.—The State shall publish and distribute summaries of the report and indicate where the full report is available for review.

(B) ANNUAL REPORT BY ADMINISTRATOR.—Not later than July 1, 1997, and annually thereafter, the Administrator shall prepare and make available to the public an annual report summarizing and evaluating reports submitted by States pursuant to subparagraph (A) and notices submitted by public water systems serving Indian Tribes provided to the Administrator pursuant to subparagraph (C) or (D) of paragraph (2) and making recommendations concerning the resources needed to improve compliance with this title. The report shall include information about public water system compliance on Indian reservations and about enforcement activities undertaken and financial assistance provided by the Administrator on Indian reservations, and shall make specific recommendations concerning the resources needed to improve compliance with this title on Indian reservations.

(d) Whenever, on the basis of information available to him, the Administrator finds that within a reasonable time after national secondary drinking water regulations have been promulgated, one or more public water systems in a State do not comply with such secondary regulations, and that such noncompliance appears to re-

sult from a failure of such State to take reasonable action to assure that public water systems throughout such State meet such secondary regulations, he shall so notify the State.

(e) Nothing in this title shall diminish any authority of a State or political subdivision to adopt or enforce any law or regulation respecting drinking water regulations or public water systems, but no such law or regulation shall relieve any person of any requirement otherwise applicable under this title.

(f) If the Administrator makes a finding of noncompliance (described in subparagraph (A) or (B) of subsection (a)(1)) with respect to a public water system in a State which has primary enforcement responsibility, the Administrator may, for the purpose of assisting that State in carrying out such responsibility and upon the petition of such State or public water system or persons served by such system, hold, after appropriate notice, public hearings for the purpose of gathering information from technical or other experts, Federal, State, or other public officials, representatives of such public water system, persons served by such system, and other interested persons on—

(1) the ways in which such system can within the earliest feasible time be brought into compliance with the regulation or requirement with respect to which such finding was made, and

(2) the means for the maximum feasible protection of the public health during any period in which such system is not in compliance with a national primary drinking water regulation or requirement applicable to a variance or exemption.

On the basis of such hearings the Administrator shall issue recommendations which shall be sent to such State and public water system and shall be made available to the public and communications media.

(g)(1) In any case in which the Administrator is authorized to bring a civil action under this section or under section 1445 with respect to any **[regulation, schedule, or other]** *applicable* requirement, the Administrator also may issue an order to require compliance with such **[regulation, schedule, or other]** *applicable* requirement.

(2) An order issued under this subsection shall not take **[effect until after notice and opportunity for public hearing and,]** *effect*, in the case of a State having primary enforcement responsibility for public water systems in that State, until after the Administrator has provided the State with an opportunity to confer with the Administrator regarding the **[proposed order]** *order*. A copy of any order **[proposed to be]** issued under this subsection shall be sent to the appropriate State agency of the State involved if the State has primary enforcement responsibility for public water systems in that State. Any order issued under this subsection shall state with reasonable specificity the nature of the violation. In any case in which an order under this subsection is issued to a corporation, a copy of such order shall be issued to appropriate corporate officers.

(3)(A) Any person who violates, or fails or refuses to comply with, an order under this subsection shall be liable to the United States for a civil penalty of not more than $25,000 per day of violation.

[(B) Whenever any civil penalty sought by the Administrator under this paragraph does not exceed a total of $5,000, the penalty shall be assessed by the Administrator after notice and opportunity for a hearing on the record in accordance with section 554 of title 5 of the United States Code.]

(B) EFFECT OF PENALTY AMOUNTS.—In a case in which a civil penalty sought by the Administrator under this paragraph does not exceed $5,000, the penalty shall be assessed by the Administrator after notice and opportunity for a public hearing (unless the person against whom the penalty is assessed requests a hearing on the record in accordance with section 554 of title 5, United States Code). In a case in which a civil penalty sought by the Administrator under this paragraph exceeds $5,000, but does not exceed $25,000, the penalty shall be assessed by the Administrator after notice and opportunity for a hearing on the record in accordance with section 554 of title 5, United States Code.

(C) Whenever any civil penalty sought by the Administrator under this **[paragraph exceeds $5,000]** *subsection for a violation of an applicable requirement exceeds $25,000,* the penalty shall be assessed by a civil action brought by the Administrator in the appropriate United States district court (as determined under the provisions of title 28 of the United States Code).

(D) If any person fails to pay an assessment of a civil penalty after it has become a final and unappealable order, or after the appropriate court of appeals has entered final judgment in favor of the Administrator, the Attorney General shall recover the amount for which such person is liable in any appropriate district court of the United States. In any such action, the validity and appropriateness of the final order imposing the civil penalty shall not be subject to review.

(h) CONSOLIDATION INCENTIVE.—

(1) IN GENERAL.—An owner or operator of a public water system may submit to the State in which the system is located (if the State has primary enforcement responsibility under section 1413) or to the Administrator (if the State does not have primary enforcement responsibility) a plan (including specific measures and schedules) for—

(A) the physical consolidation of the system with 1 or more other systems;

(B) the consolidation of significant management and administrative functions of the system with 1 or more other systems; or

(C) the transfer of ownership of the system that may reasonably be expected to improve drinking water quality.

(2) CONSEQUENCES OF APPROVAL.—If the State or the Administrator approves a plan pursuant to paragraph (1), no enforcement action shall be taken pursuant to this part with respect to a specific violation identified in the approved plan prior to the date that is the earlier of the date on which consolidation is completed according to the plan or the date that is 2 years after the plan is approved.

(i) DEFINITION OF APPLICABLE REQUIREMENT.—In this section, the term 'applicable requirement' means—

(1) a requirement of section 1412, 1414, 1415, 1416, 1417, 1441, or 1445;

(2) a regulation promulgated pursuant to a section referred to in paragraph (1);

(3) a schedule or requirement imposed pursuant to a section referred to in paragraph (1); and

(4) a requirement of, or permit issued under, an applicable State program for which the Administrator has made a determination that the requirements of section 1413 have been satisfied, or an applicable State program approved pursuant to this part.

VARIANCES

SEC. 1415. (a) Notwithstanding any other provision of this part, variances from national primary drinking water regulations may be granted as follows:

(1)(A) A State which has primary enforcement responsibility for public water systems may grant one or more variances from an applicable national primary drinking water regulation to one or more public water systems within its jurisdiction which, because of characteristics of raw water sources which are reasonably available to the systems, cannot meet the requirements respecting the maximum contaminant levels of such drinking water regulation. A variance may **[only be issued to a system after the system's application]** *be issued to a system on condition that the system install* of the best technology, treatment techniques, or other means, which the Administrator finds are available (taking costs into consideration), *and based upon an evaluation satisfactory to the State that indicates that alternative sources of water are not reasonably available to the system*. The Administrator shall propose and promulgate his finding of the best available technology, treatment techniques or other means available for each contaminant for purposes of this subsection at the time he proposes and promulgates a maximum contaminant level for each such contaminant. The Administrator's finding of best available technology, treatment techniques or other means for purposes of this subsection may vary depending on the number of persons served by the system or for other physical conditions related to engineering feasibility and costs of compliance with maximum contaminant levels as considered appropriate by the Administrator. Before a State may grant a variance under this subparagraph, the State must find that the variance will not result in an unreasonable risk to health. If a State grants a public water system a variance under this subparagraph, the State shall prescribe at time the variance is granted, a schedule for—

(i) compliance (including increments of progress) by the public water system with each contaminant level requirement with respect to which the variance was granted, and

(ii) implementation by the public water system of such additional control measures as the State may require for each contaminant, subject to such contaminant level re-

quirement, during the period ending on the date compliance with such requirement is required.

Before a schedule is prescribed by a State pursuant to this subparagraph may take effect, the State shall provide notice and opportunity for a public hearing on the schedule. A notice given pursuant to the preceding sentence may cover the prescribing of more than one such schedule and a hearing held pursuant to such notice shall include each of the schedules covered by the notice. A schedule prescribed pursuant to this subparagraph for a public water system granted a variance shall require compliance by the system with each contaminant level requirement with respect to which the variance was granted as expeditiously as practicable (as the State may reasonably determine).

(B) A State which has primary enforcement responsibility for public water systems may grant to one or more public water systems within it jurisdiction one or more variances from any provision of a national primary drinking water regulation which requires the use of a specified treatment technique with respect to a contaminant if the public water system applying for the variance demonstrates to the satisfaction of the State that such treatment technique is not necessary to protect the health of persons because of the nature of the raw water source of such system. A variance granted under this subparagraph shall be conditioned on such monitoring and other requirements as the Administrator may prescribe.

(C) Before a variance proposed to be granted by a State under subparagraph (A) or (B) may take effect, such State shall provide notice and opportunity for public hearing on the proposed variance. A notice given pursuant to the preceding sentence may cover the granting of more than one variance and a hearing held pursuant to such notice shall include each of the variances covered by the notice. The State shall promptly notify the Administrator of all variances granted by it. Such notification shall contain the reason for the variance (and in the case of a variance under subparagraph (A), the basis for the finding required by that subparagraph before the granting of the variance) and documentation of the need for the variance.

(D) Each public water system's variance granted by a State under subparagraph (A) shall be conditioned by the State upon compliance by the public water system with the schedule prescribed by the State pursuant to that subparagraph. The requirements of each schedule prescribed by a State pursuant to that subparagraph shall be enforceable by the State under its laws. Any requirement of a schedule on which a variance granted under that subparagraph is conditioned may be enforced under section 1414 as if such requirement was part of a national primary drinking water regulation.

(E) Each schedule prescribed by a State pursuant to subparagraph (A) shall be deemed approved by the Administrator unless the variance for which it was prescribed is revoked by the Administrator under such subparagraph.

(F) Not later than 18 months after the effective date of the interim national primary drinking water regulations the Administrator shall complete a comprehensive review of the variances granted under subparagraph (A) (and schedules prescribed pursuant thereto) and under subparagraph (B) by the States during the one-year period beginning on such effective date. The Administrator shall conduct such subsequent reviews of variances and schedules as he deems necessary to carry out the purposes of this title, but each subsequent review shall be completed within each 3-year period following the completion of the first review under this subparagraph. Before conducting any review under this subparagraph, the Administrator shall publish notice of the proposed review in the Federal Register. Such notice shall (i) provide information respecting the location of data and other information respecting the variances to be reviewed (including data and other information concerning new scientific matters bearing on such variances), and (ii) advise of the opportunity to submit comments on the variances reviewed and on the need for continuing them. Upon completion of any such review, the Administrator shall publish in the Federal Register the results of his review together with findings responsive to comments submitted un connection with such review.

(G)(i) If the Administrator finds that a State has, in a substantial number of instances, abused its discretion in granting variances under subparagraph (A) or (B) or that in a substantial number of cases the State has failed to prescribe schedules in accordance with subparagraph (A), the Administrator shall notify the State of his findings. In determining if a State has abused its discretion in granting variances in a substantial number of instances, the Administrator shall consider the number of persons who are affected by the variances and if the requirements applicable to the granting of variances were complied with. A notice under this clause shall—

(I) identify each public water system with respect to which the finding was made,

(II) specify the reasons for the finding, and

(III) as appropriate, propose revocations of specific variances or propose revised schedules or other requirements for specific public water systems granted variances, or both.

(ii) The Administrator shall provide reasonable notice and public hearing on the provisions of each notice given pursuant to clause (i) of this subparagraph. After a hearing on a notice pursuant to such clause, the Administrator shall (I) rescind the finding for which the notice was given and promptly notify the State of such rescission, or (II) promulgate (with such modifications as he deems appropriate) such variance revocations and revised schedules or other requirements proposed in such notice as he deems appropriate. Not later than 180 days after the date a notice is given pursuant to clause (i) of this subparagraph, the Administrator shall complete the hearing on the notice and take the action required by the preceding sentence.

(iii) If a State is notified under clause (i) of this subparagraph of a finding of the Administrator made with respect to a variance granted a public water system within that State or to a schedule or other requirements for a variance and if, before a revocation of such variance or a revision of such schedule or other requirement promulgated by the Administrator takes effect, the State takes corrective action with respect to such variance or schedule or other requirement which the Administrator determines makes his finding inapplicable to such variance or schedule or other requirement, the Administrator shall rescind the application of his finding to that variance or schedule or other requirement. No variance revocation or revised schedule or other requirement may take effect before the expiration of 90 days following the date of the notice in which the revocation or revised schedule or other requirement was proposed.

(2) If a State does not have primary enforcement responsibility for public water systems, the Administrator shall have the same authority to grant variances in such State as the State would have under paragraph (1) if it had primary enforcement responsibility.

(3) The Administrator may grant a variance from any treatment technique requirement of a national primary drinking water regulation upon a showing by any person that an alternative treatment technique not included in such requirement is at least as efficient in lowering the level of the contaminant with respect to which such requirement was prescribed. A variance under this paragraph shall be conditioned on the use of the alternative treatment technique which is the basis of the variance.

(b) Any schedule or other requirement on which a variance granted under paragraph (1)(B) or (2) of subsection (a) is conditioned may be enforced under section 1414 as if such schedule or other requirement was part of a national primary drinking water regulation.

(c) If an application for a variance under subsection (a) is made, the State receiving the application or the Administrator, as the case may be, shall act upon such application within a reasonable period (as determined under regulations prescribed by the Administrator) after the date of its submission.

(d) For purposes of this section, the term "treatment technique requirement" means a requirement in a national primary drinking water regulation which specifies for a contaminant (in accordance with section 1401(1)(c)(ii)) each treatment technique known to the Administrator which leads to a reduction in the level of such contaminant sufficient to satisfy the requirements of **[section 1412(b)(3)]** *section 1412(b)(7)(A).*

(e) SMALL SYSTEM VARIANCES.—

(1) IN GENERAL.—The Administrator (or a State with primary enforcement responsibility for public water systems under section 1413) may grant to a public water system serving a population of 10,000 or fewer (referred to in this subsection as a 'small system') a variance under this subsection for compliance with a requirement specifying a maximum contaminant level or

treatment technique contained in a national primary drinking water regulation, if the variance meets each requirement of this subsection.

(2) AVAILABILITY OF VARIANCES.—A small system may receive a variance under this subsection if the system installs, operates, and maintains, in accordance with guidance or regulations issued by the Administrator, treatment technology that is feasible for small systems as determined by the Administrator pursuant to section 1412(b)(15).

(3) CONDITIONS FOR GRANTING VARIANCES.—A variance under this subsection shall be available only to a system—

(A) that cannot afford to comply, in accordance with affordability criteria established by the Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413), with a national primary drinking water regulation, including compliance through—

(i) treatment;

(ii) alternative source of water supply; or

(iii) restructuring or consolidation (unless the Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) makes a written determination that restructuring or consolidation is not feasible or appropriate based on other specified public policy considerations); and

(B) for which the Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) determines that the terms of the variance ensure adequate protection of human health, considering the quality of the source water for the system and the removal efficiencies and expected useful life of the treatment technology required by the variance.

(4) APPLICATIONS.—An application for a variance for a national primary drinking water regulation under this subsection shall be submitted to the Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) not later than the date that is the later of—

(A) 3 years after the date of enactment of this subsection; or

(B) 1 year after the compliance date of the national primary drinking water regulation as established under section 1412(b)(10) for which a variance is requested.

(5) VARIANCE REVIEW AND DECISION.—

(A) TIMETABLE.—The Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) shall grant or deny a variance not later than 1 year after the date of receipt of the application.

(B) PENALTY MORATORIUM.—Each public water system that submits a timely application for a variance under this subsection shall not be subject to a penalty in an enforcement action under section 1414 for a violation of a maximum contaminant level or treatment technique in the national primary drinking water regulation with respect to which the variance application was submitted prior to the date of a decision to grant or deny the variance.

(6) COMPLIANCE SCHEDULES.—

(A) VARIANCES.—A variance granted under this subsection shall require compliance with the conditions of the variance not later than 3 years after the date on which the variance is granted, except that the Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) may allow up to 2 additional years to comply with a treatment technique, secure an alternative source of water, or restructure if the Administrator (or the State) determines that additional time is necessary for capital improvements, or to allow for financial assistance provided pursuant to part G or any other Federal or State program.

(B) DENIED APPLICATIONS.—If the Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) denies a variance application under this subsection, the public water system shall come into compliance with the requirements of the national primary drinking water regulation for which the variance was requested not later than 4 years after the date on which the national primary drinking water regulation was promulgated.

(7) DURATION OF VARIANCES.—

(A) IN GENERAL.—The Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) shall review each variance granted under this subsection not less often than every 5 years after the compliance date established in the variance to determine whether the system remains eligible for the variance and is conforming to each condition of the variance.

(B) REVOCATION OF VARIANCES.—The Administrator (or the State in the case of a State that has primary enforcement responsibility under section 1413) shall revoke a variance in effect under this subsection if the Administrator (or the State) determines that—

(i) the system is no longer eligible for a variance;

(ii) the system has failed to comply with any term or condition of the variance, other than a reporting or monitoring requirement, unless the failure is caused by circumstances outside the control of the system; or

(iii) the terms of the variance do not ensure adequate protection of human health, considering the quality of source water available to the system and the removal efficiencies and expected useful life of the treatment technology required by the variance.

(8) INELIGIBILITY FOR VARIANCES.—A variance shall not be available under this subsection for—

(A) any maximum contaminant level or treatment technique for a contaminant with respect to which a national primary drinking water regulation was promulgated prior to January 1, 1986; or

(B) a national primary drinking water regulation for a microbial contaminant (including a bacterium, virus, or

other organism) or an indicator or treatment technique for a microbial contaminant.

(9) REGULATIONS AND GUIDANCE.—

(A) IN GENERAL.—Not later than 2 years after the date of enactment of this subsection and in consultation with the States, the Administrator shall promulgate regulations for variances to be granted under this subsection. The regulations shall, at a minimum, specify—

(i) procedures to be used by the Administrator or a State to grant or deny variances, including requirements for notifying the Administrator and consumers of the public water system applying for a variance and requirements for a public hearing on the variance before the variance is granted;

(ii) requirements for the installation and proper operation of treatment technology that is feasible (pursuant to section 1412(b)(15)) for small systems and the financial and technical capability to operate the treatment system, including operator training and certification;

(iii) eligibility criteria for a variance for each national primary drinking water regulation, including requirements for the quality of the source water (pursuant to section 1412(b)(15)(A)); and

(iv) information requirements for variance applications.

(B) AFFORDABILITY CRITERIA.—Not later than 18 months after the date of enactment of the Safe Drinking Water Act Amendments of 1995, the Administrator, in consultation with the States and the Rural Utilities Service of the Department of Agriculture, shall publish information to assist the States in developing affordability criteria. The affordability criteria shall be reviewed by the States not less often than every 5 years to determine if changes are needed to the criteria.

(10) REVIEW BY THE ADMINISTRATOR.—

(A) IN GENERAL.—The Administrator shall periodically review the program of each State that has primary enforcement responsibility for public water systems under section 1413 with respect to variances to determine whether the variances granted by the State comply with the requirements of this subsection. With respect to affordability, the determination of the Administrator shall be limited to whether the variances granted by the State comply with the affordability criteria developed by the State.

(B) NOTICE AND PUBLICATION.—If the Administrator determines that variances granted by a State are not in compliance with affordability criteria developed by the State and the requirements of this subsection, the Administrator shall notify the State in writing of the deficiencies and make public the determination.

(C) OBJECTIONS TO VARIANCES.—

(i) BY THE ADMINISTRATOR.—The Administrator may review and object to any variance proposed to be granted by a State, if the objection is communicated to the

State not later than 90 days after the State proposes to grant the variance. If the Administrator objects to the granting of a variance, the Administrator shall notify the State in writing of each basis for the objection and propose a modification to the variance to resolve the concerns of the Administrator. The State shall make the recommended modification or respond in writing to each objection. If the State issues the variance without resolving the concerns of the Administrator, the Administrator may overturn the State decision to grant the variance if the Administrator determines that the State decision does not comply with this subsection.

(ii) PETITION BY CONSUMERS.—Not later than 30 days after a State with primary enforcement responsibility for public water systems under section 1413 proposes to grant a variance for a public water system, any person served by the system may petition the Administrator to object to the granting of a variance. The Administrator shall respond to the petition not later than 60 days after the receipt of the petition. The State shall not grant the variance during the 60-day period. The petition shall be based on comments made by the petitioner during public review of the variance by the State.

EXEMPTIONS

SEC. 1416. (a) A State which has primary enforcement responsibility may exempt any public water system within the State's jurisdiction from any requirement respecting a maximum contaminant level or any treatment technique requirement, or from both, of an applicable national primary drinking water regulation upon a finding that—

(1) due to compelling factors (which may include economic factors, *including qualification of the public water system as a system serving a disadvantaged community pursuant to section 1473(e)(1),* the public water system is unable to comply with such contaminant level of treatment technique requirement, *or to implement measures to develop an alternative source of water supply,*

(2) the public water system was in operation on the effective date of such contaminant level or treatment technique requirement, a system that was not in operation by that date, only if no reasonable alternative source of drinking water is available to such new system, and

(3) the granting of the exemption will not result in an unreasonable risk to health.

(b)(1) If a State grants a public water system an exemption under subsection (a), the State shall prescribed, at the time the exemption is granted, a schedule for—

(A) compliance **[(including increments of progress)]** *(including increments of progress or measures to develop an alternative source of water supply)* by the public water system with each contaminant level **[requirement and treatment]** *re-*

quirement or treatment technique requirement with respect to which an exemption was granted, and

(B) implementation by the public water system of such control measures as the State may require for each contaminant, subject to such contaminant level requirement or treatment technique requirement, during the period ending on the date compliance with such requirement is required.

Before a schedule prescribed by a State pursuant to this subsection may take effect, the State shall provide notice and opportunity for a public hearing on the schedule. A notice given pursuant to the preceding sentence may cover the prescribing of more than one such schedule and a hearing held pursuant to such notice shall include each of the schedules covered by the notice.

(2)(A) A schedule prescribed pursuant to this subsection for a public water system granted an exemption under subsection (a) shall require compliance by the system with each contaminant level and treatment technique requirement with respect to which the exemption was granted as expeditiously as practicable (as the State may reasonably determine) but **[(except as provided in subparagraph (B))—**

(i) in the case of an exemption granted with respect to a contaminant level or treatment technique requirement prescribed by the national primary drinking water regulations promulgated under section 1412(a), not later than 12 months after enactment of the Safe Drinking Water Act Amendments of 1986; and

(ii) in the case of an exemption granted with respect to a contaminant level or treatment technique requirement prescribed by national primary drinking water regulations, other than a regulation referred to in section 1412(a), 12 months after the date of issuance of the exemption.

(B) The final date for compliance provided in any schedule in the case of any exemption may be extended by the State (in the case of a State which has primary enforcement responsibility) or by the Administrator (in any other case) for a period not to exceed 3 years after the date of the issuance of the exemption if] *not later than 3 years after the otherwise applicable compliance date established in section 1412(b)(10).*

(B) No exemption shall be granted unless the public water system establishes that—

(i) the system cannot meet the standard without capital improvements which cannot be completed **[within the period of such exemption]** *prior to the date established pursuant to section 1412(b)(10);*

(ii) in the case of a system which needs financial assistance for the necessary improvement, the system has entered into an agreement to obtain such financial assistance *or assistance pursuant to part G, or any other Federal or State program is reasonably likely to be available within the period of the exemption*; or

(iii) the system has entered into an enforceable agreement to become a part of a regional public water system; and

the system is taking all practicable steps to meet the standard.

(C) In the case of a system which does not serve more than **[500 service connections]** *a population of 3,300* and which needs financial assistance for the necessary improvements, an exemption granted under clause (i) or (ii) of subparagraph (B) may be renewed for one or more additional 2-year periods, *but not to exceed a total of 6 years,* if the system establishes that it is taking all practicable steps to meet the requirements of subparagraph (B).

(D) LIMITATION.—A public water system may not receive an exemption under this section if the system was granted a variance under section 1415(e).

(3) Each public water system's exemption granted by a State under subsection (a) shall be conditioned by the State upon compliance by the public water system with the schedule prescribed by the State pursuant to this subsection. The requirements of each schedule prescribed by a State pursuant to this subsection shall be enforceable by the State under its laws. Any requirements of a schedule on which an exemption granted under this section is conditioned may be enforced under section 1414 as if such requirement was part of a national primary drinking water regulation.

(4) Each schedule prescribed by a State pursuant to this subsection shall be deemed approved by the Administrator unless the exemption for which it was prescribed is revoked by the Administrator under subsection (d)(2) or the schedule is revised by the Administrator under such subsection.

(c) Each State which grants an exemption under subparagraph (a) shall promptly notify the Administrator of the granting of such exemption. Such notification shall contain the reasons for the exemption (including the basis for the finding required by subsection (a)(3) before the exemption may be granted) and document the need for the exemption.

(d)(1) Not later than 18 months after the effective date of the interim national primary drinking water regulations the Administrator shall complete a comprehensive review of the exemptions granted (and schedules prescribed pursuant thereto) by the States during the one-year period beginning on such effective date. The Administrator shall conduct such subsequent reviews of exemptions and schedules as he deems necessary to carry out the purposes of this title, but each subsequent review shall be completed within each 3-year period following the completion of the first review under this subparagraph. Before conducting any review under this subparagraph, the Administrator shall publish notice of the proposed review in the Federal Register. Such notice shall (A) provide information respecting the location of data and other information respecting the exemptions to be reviewed (including data and other information concerning new scientific matter bearing on such exemptions) and (B) advise of the opportunity to submit comments on the exemptions reviewed and on the need for continuing them. Upon completion of any such review, the Administrator shall publish in the Federal Register the results of his review together with findings responsive to comments submitted in connection with such review.

(2)(A) If the Administrator finds that a State has, in a substantial number of instances, abused its discretion in granting exemptions under subsection (a) or failed to prescribe schedules is accord-

ance with subsection (b), the Administrator shall notify the State of his finding. In determining if a State has abused its discretion in granting exemptions in a substantial number of instances, the Administrator shall consider the number of persons who are affected by the exemptions and if the requirements applicable to the granting of the exemptions were complied with. A notice under this subparagraph shall—

(i) identify each exempt public water system with respect to which the finding was made,

(ii) specify the reasons for the finding, and

(iii) as appropriate, propose revocations of specific exemptions or propose revised schedules for specific exempt public water systems, or both.

(B) The Administrator shall provide reasonable notice and public hearing on the provisions of each notice given pursuant to subparagraph (A). After a hearing on a notice pursuant to subparagraph (A), the Administrator shall (i) rescind the finding for which the notice was given and promptly notify the State of such rescission, or (ii) promulgate (with such modifications as he deems appropriate) such exemption revocations and revised schedules proposed in such notice as he deems appropriate. Not later than 180 days after the date a notice is given pursuant to subparagraph (A), the Administrator shall complete the hearing on the notice and take the action required by the preceding sentence.

(C) If a State is notified under subparagraph (A) of a finding of the Administrator made with respect to an exemption granted a public water system within the State or to a schedule prescribed pursuant to such an exemption and if before a revocation of such exemptions or a revision of such schedules promulgated by the Administrator takes effect the State takes corrective action with respect to such exemption or schedule which the Administrator determines makes his finding inapplicable to such exemption or schedule, the Administrator shall rescind the application of his finding to that exemption or schedule. No exemption revocation or revised schedule may take effect before the expiration of 90 days following the date of the notice in which the revocation or revised schedule was proposed.

(e) For purposes of this section, the term "treatment technique requirement" means a requirement in a national primary drinking water regulation which specifies for a contaminant (in accordance with section 1401(C)(ii)) each treatment technique known to the Administrator which leads to a reduction in the level of such contaminant sufficient to satisfy the requirements of section 1412(b).

(f) If a State does not have primary enforcement responsibility for public water systems, the Administrator shall have the same authority to exempt public water systems in such State from maximum contaminant level requirements and treatment technique requirements under the same conditions and in the same manner as the State would be authorized to grant exemptions under this section if it had primary enforcement responsibility.

(g) If an application for an exemption under this section is made, the State receiving the application of the Administrator, as the case may be, shall act upon such application within a reasonable

period (as determined under regulations prescribed by the Administrator) after the date of its submission.

[SEC. 1417. PROHIBITION ON USE OF LEAD PIPES, SOLDER AND FLUX.]

PROHIBITION ON USE OF LEAD PIPES, FITTINGS, SOLDER AND FLUX

SEC. 1417. (a) IN GENERAL.—

[(1) Prohibition.—Any pipe, solder, or flux, which is used after the enactment of the Safe Drinking Water Act Amendments of 1986, in the installation or repair of—

(A) any public water system, or

(B) any plumbing in a residential or nonresidential facility providing water for human consumption which is connected to a public water system,

shall be lead free (within the meaning of subsection (d)). This paragraph shall not apply to leaded joints necessary for the repair of cast iron pipes.]

(1) PROHIBITIONS.—

(A) IN GENERAL.—No person may use any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux, after June 19, 1986, in the installation or repair of—

(i) any public water system; or

(ii) any plumbing in a residential or nonresidential facility providing water for human consumption, that is not lead free (within the meaning of subsection (d)).

(B) LEADED JOINTS.—Subparagraph (A) shall not apply to leaded joints necessary for the repair of cast iron pipes.

(2) PUBLIC NOTICE REQUIREMENTS.—

(A) IN GENERAL.—Each *owner or operator of a* public water system shall identify and provide notice to persons that may be affected by lead contaminant of their drinking water where such contaminant results from either or both of the following:

(i) The lead content in the construction materials of the public water system distribution system.

(ii) Corrosivity of the water supply sufficient to cause leaching of lead.

The notice shall be provided in such manner and form as may be reasonably required by the Administrator. Notice under this paragraph shall be provided notwithstanding the absence of a violation of any national drinking water standard.

(B) CONTENTS OF NOTICE.—Notice under this paragraph shall provide a clear and readily understandable explanation of—

(i) the potential sources of lead in the drinking water,

(ii) potential adverse health effects,

(iii) reasonably available methods of mitigating known of potential lead content in drinking water,

(iv) any steps the system is taking to mitigate lead content in drinking water, and

(v) the necessity for seeking alternative water supplies, if any.

(3) UNLAWFUL ACTS.—Effective 2 years after the date of enactment of this paragraph, it shall be unlawful—

(A) for any person to introduce into commerce any pipe, or any pipe or plumbing fitting or fixture, that is not lead free, except for a pipe that is used in manufacturing or industrial processing;

(B) for any person engaged in the business of selling plumbing supplies, except manufacturers, to sell solder or flux that is not lead free; or

(C) for any person to introduce into commerce any solder or flux that is not lead free unless the solder or flux bears a prominent label stating that it is illegal to use the solder or flux in the installation or repair of any plumbing providing water for human consumption.

(b) STATE ENFORCEMENT.—

(1) ENFORCEMENT OF PROHIBITION.—The requirements of subsection (a)(1) shall be enforced in all State effective 24 months after the enactment of this section. States shall enforce such requirements through State or local plumbing codes, or such other means of enforcement as the State may determine appropriate.

(2) ENFORCEMENT OF PUBLIC NOTICE REQUIREMENTS.—The requirements of subsection (a)(2) shall apply in all States effective 24 months after the enactment of this section.

(c) PENALTIES.—If the Administrator determines that a State is not enforcing the requirements of subsection (a) as required pursuant to subsection (b), the Administrator may withhold up to 5 percent of Federal funds available to that State for State program grants under section 1443(a).

(d) DEFINITION OF LEAD FREE.—For purpose of this section, the term "lead free"—

(1) when used with respect to solders and flux refers to solders and flux containing not more than 0.2 percent **[lead, and]** *lead;*

(2) when used with respect to pipes and pipe fittings refers to pipes and pipe fittings containing not more than 8.0 percent **[lead.]** *lead; and*

(3) when used with respect to plumbing fittings and fixtures, refers to plumbing fittings and fixtures in compliance with standards established in accordance with subsection (e).

(e) PLUMBING FITTINGS AND FIXTURES.—

(1) IN GENERAL.—The Administrator shall provide accurate and timely technical information and assistance to qualified third-party certifiers in the development of voluntary standards and testing protocols for the leaching of lead from new plumbing fittings and fixtures that are intended by the manufacturer to dispense water for human ingestion.

(2) STANDARDS.—

(A) IN GENERAL.—If a voluntary standard for the leaching of lead is not established by the date that is 1 year after the date of enactment of this subsection, the Administrator shall, not later than 2 years after the date of enactment of

this subsection, promulgate regulations setting a health-effects-based performance standard establishing maximum leaching levels from new plumbing fittings and fixtures that are intended by the manufacturer to dispense water for human ingestion. The standard shall become effective on the date that is 5 years after the date of promulgation of the standard.

(B) ALTERNATIVE REQUIREMENT.—If regulations are required to be promulgated under subparagraph (A) and have not been promulgated by the date that is 5 years after the date of enactment of this subsection, no person may import, manufacture, process, or distribute in commerce a new plumbing fitting or fixture, intended by the manufacturer to dispense water for human ingestion, that contains more than 4 percent lead by dry weight.

CAPACITY DEVELOPMENT

SEC. 1418. (a) STATE AUTHORITY FOR NEW SYSTEMS.—Each State shall obtain the legal authority or other means to ensure that all new community water systems and new nontransient, noncommunity water systems commencing operation after October 1, 1998, demonstrate technical, managerial, and financial capacity with respect to each national primary drinking water regulation in effect, or likely to be in effect, on the date of commencement of operations.

(b) SYSTEMS IN SIGNIFICANT NONCOMPLIANCE.—

(1) LIST.—Beginning not later than 1 year after the date of enactment of this section, each State shall prepare, periodically update, and submit to the Administrator a list of community water systems and nontransient, noncommunity water systems that have a history of significant noncompliance with this title (as defined in guidelines issued prior to the date of enactment of this section or any revisions of the guidelines that have been made in consultation with the States) and, to the extent practicable, the reasons for noncompliance.

(2) REPORT.—Not later than 5 years after the date of enactment of this section and as part of the capacity development strategy of the State, each State shall report to the Administrator on the success of enforcement mechanisms and initial capacity development efforts in assisting the public water systems listed under paragraph (1) to improve technical, managerial, and financial capacity.

(c) CAPACITY DEVELOPMENT STRATEGY.—

(1) IN GENERAL.—Not later than 4 years after the date of enactment of this section, each State shall develop and implement a strategy to assist public water systems in acquiring and maintaining technical, managerial, and financial capacity.

(2) CONTENT.—In preparing the capacity development strategy, the State shall consider, solicit public comment on, and include as appropriate—

(A) the methods or criteria that the State will use to identify and prioritize the public water systems most in need of improving technical, managerial, and financial capacity;

(B) a description of the institutional, regulatory, financial, tax, or legal factors at the Federal, State, or local level that encourage or impair capacity development;

(C) a description of how the State will use the authorities and resources of this title or other means to—

(i) assist public water systems in complying with national primary drinking water regulations;

(ii) encourage the development of partnerships between public water systems to enhance the technical, managerial, and financial capacity of the systems; and

(iii) assist public water systems in the training and certification of operators;

(D) a description of how the State will establish a baseline and measure improvements in capacity with respect to national primary drinking water regulations and State drinking water law; and

(E) an identification of the persons that have an interest in and are involved in the development and implementation of the capacity development strategy (including all appropriate agencies of Federal, State, and local governments, private and nonprofit public water systems, and public water system customers).

(3) REPORT.—Not later than 2 years after the date on which a State first adopts a capacity development strategy under this subsection, and every 3 years thereafter, the head of the State agency that has primary responsibility to carry out this title in the State shall submit to the Governor a report that shall also be available to the public on the efficacy of the strategy and progress made toward improving the technical, managerial, and financial capacity of public water systems in the State.

(d) FEDERAL ASSISTANCE.—

(1) IN GENERAL.—The Administrator shall support the States in developing capacity development strategies.

(2) INFORMATIONAL ASSISTANCE.—

(A) IN GENERAL.—Not later than 180 days after the date of enactment of this section, the Administrator shall—

(i) conduct a review of State capacity development efforts in existence on the date of enactment of this section and publish information to assist States and public water systems in capacity development efforts; and

(ii) initiate a partnership with States, public water systems, and the public to develop information for States on recommended operator certification requirements.

(B) PUBLICATION OF INFORMATION.—The Administrator shall publish the information developed through the partnership under subparagraph (A)(ii) not later than 18 months after the date of enactment of this section.

(3) VARIANCES AND EXEMPTIONS.—Based on information obtained under subsection (c)(2)(B), the Administrator shall, as appropriate, modify regulations concerning variances and exemptions for small public water systems to ensure flexibility in the use of the variances and exemptions. Nothing in this para-

graph shall be interpreted, construed, or applied to affect or alter the requirements of section 1415 or 1416.

(4) PROMULGATION OF DRINKING WATER REGULATIONS.—In promulgating a national primary drinking water regulation, the Administrator shall include an analysis of the likely effect of compliance with the regulation on the technical, financial, and managerial capacity of public water systems.

(5) GUIDANCE FOR NEW SYSTEMS.—Not later than 2 years after the date of enactment of this section, the Administrator shall publish guidance developed in consultation with the States describing legal authorities and other means to ensure that all new community water systems and new nontransient, noncommunity water systems demonstrate technical, managerial, and financial capacity with respect to national primary drinking water regulations.

(e) ENVIRONMENTAL FINANCE CENTERS.—

(1) IN GENERAL.—The Administrator shall support the network of university-based Environmental Finance Centers in providing training and technical assistance to State and local officials in developing capacity of public water systems.

(2) NATIONAL CAPACITY DEVELOPMENT CLEARINGHOUSE.—Within the Environmental Finance Center network in existence on the date of enactment of this section, the Administrator shall establish a national public water systems capacity development clearinghouse to receive, coordinate, and disseminate research and reports on projects funded under this title and from other sources with respect to developing, improving, and maintaining technical, financial, and managerial capacity at public water systems to Federal and State agencies, universities, water suppliers, and other interested persons.

(3) CAPACITY DEVELOPMENT TECHNIQUES.—

(A) IN GENERAL.—The Environmental Finance Centers shall develop and test managerial, financial, and institutional techniques—

(i) to ensure that new public water systems have the technical, managerial, and financial capacity before commencing operation;

(ii) to identify public water systems in need of capacity development; and

(iii) to bring public water systems with a history of significant noncompliance with national primary drinking water regulations into compliance.

(B) TECHNIQUES.—The techniques may include capacity assessment methodologies, manual and computer-based public water system rate models and capital planning models, public water system consolidation procedures, and regionalization models.

(f) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out subsection (e) $2,500,000 for each of fiscal years 1995 through 2003.

SOURCE WATER QUALITY PROTECTION PARTNERSHIP PROGRAM

SEC. 419. (a) *SOURCE WATER AREA DELINEATIONS.—Except as provided in subsection (c), not later than 5 years after the date of*

enactment of this section, and after an opportunity for public comment, each State shall—

(1) delineate (directly or through delegation) the source water protection areas for community water systems in the State using hydrogeologic information considered to be reasonably available and appropriate by the State; and

(2) conduct, to the extent practicable, vulnerability assessments in source water areas determined to be a priority by the State, including, to the extent practicable, identification of risks in source water protection areas to drinking water.

(b) ALTERNATIVE DELINEATIONS AND VULNERABILITY ASSESSMENTS.—For the purposes of satisfying the requirements of subsection (a), a State may use delineations and vulnerability assessments conducted for—

(1) ground water sources under a State wellhead protection program developed pursuant to section 1428;

(2) surface or ground water sources under a State pesticide management plan developed pursuant to the Pesticide and Ground Water State Management Plan Regulation (subparts I and J of part 152 of title 40, Code of Federal Regulations), promulgated under section 3(d) of the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136a(d)); or

(3) surface water sources under a State watershed initiative or to satisfy the watershed criterion for determining if filtration is required under the Surface Water Treatment Rule (section 141.70 of title 40, Code of Federal Regulations).

(c) FUNDING.—To carry out the delineations and assessments described in subsection (a), a State may use funds made available for that purpose pursuant to section 1473(f). If funds available under that section are insufficient to meet the minimum requirements of subsection (a), the State shall establish a priority-based schedule for the delineations and assessments within available resources.

(d) PETITION PROGRAM.—

(1) IN GENERAL.—

(A) ESTABLISHMENT.—A State may establish a program under which an owner or operator of a community water system in the State, or a municipal or local government or political subdivision of a government in the State, may submit a source water quality protection partnership petition to the State requesting that the State assist in the local development of a voluntary, incentive-based partnership, among the owner, operator, or government and other persons likely to be affected by the recommendations of the partnership, to—

(i) reduce the presence in drinking water of contaminants that may be addressed by a petition by considering the origins of the contaminants, including to the maximum extent practicable the specific activities that affect the drinking water supply of a community;

(ii) obtain financial or technical assistance necessary to facilitate establishment of a partnership, or to develop and implement recommendations of a partnership for the protection of source water to assist in the provision of drinking water that complies with na-

tional primary drinking water regulations with respect to contaminants addressed by a petition; and

(iii) develop recommendations regarding voluntary and incentive-based strategies for the long-term protection of the source water of community water systems.

(B) STATE DETERMINATION.—Not later than 1 year after the date of enactment of this section, each State shall provide public notice and solicit public comment on the question of whether to develop a source water quality protection partnership petition program in the State, and publicly announce the determination of the State thereafter. If so requested by any public water system or local governmental entity, prior to making the determination, the State shall hold at least one public hearing to assess the level of interest in the State for development and implementation of a State source water quality partnership petition program.

(C) FUNDING.—Each State may—

(i) use funds set aside pursuant to section 1473(f) by the State to carry out a program described in subparagraph (A), including assistance to voluntary local partnerships for the development and implementation of partnership recommendations for the protection of source water such as source water quality assessment, contingency plans, and demonstration projects for partners within a source water area delineated under subsection (a); and

(ii) provide assistance in response to a petition submitted under this subsection using funds referred to in subsections (e)(2)(B) and (g).

(2) OBJECTIVES.—The objectives of a petition submitted under this subsection shall be to—

(A) facilitate the local development of voluntary, incentive-based partnerships among owners and operators of community water systems, governments, and other persons in source water areas; and

(B) obtain assistance from the State in directing or redirecting resources under Federal or State water quality programs to implement the recommendations of the partnerships to address the origins of drinking water contaminants that may be addressed by a petition (including to the maximum extent practicable the specific activities) that affect the drinking water supply of a community.

(3) CONTAMINANTS ADDRESSED BY A PETITION.—A petition submitted to a State under this section may address only those contaminants—

(A) that are pathogenic organisms for which a national primary drinking water regulation has been established or is required under section 1412(b)(2)(C); or

(B) for which a national primary drinking water regulation has been promulgated or proposed and—

(i) that are detected in the community water system for which the petition is submitted at levels above the maximum contaminant level; or

(ii) that are detected by adequate monitoring methods at levels that are not reliably and consistently below the maximum contaminant level.

(4) CONTENTS.—A petition submitted under this subsection shall, at a minimum—

(A) include a delineation of the source water area in the State that is the subject of the petition;

(B) identify, to the maximum extent practicable, the origins of the drinking water contaminants that may be addressed by a petition (including to the maximum extent practicable the specific activities contributing to the presence of the contaminants) in the source water area delineated under subparagraph (A);

(C) identify any deficiencies in information that will impair the development of recommendations by the voluntary local partnership to address drinking water contaminants that may be addressed by a petition;

(D) specify the efforts made to establish the voluntary local partnership and obtain the participation of—

(i) the municipal or local government or other political subdivision of the State with jurisdiction over the source water area delineated under subparagraph (A); and

(ii) each person in the source water area delineated under subparagraph (A)—

(I) who is likely to be affected by recommendations of the voluntary local partnership; and

(II) whose participation is essential to the success of the partnership;

(E) outline how the voluntary local partnership has or will, during development and implementation of recommendations of the voluntary local partnership, identify, recognize and take into account any voluntary or other activities already being undertaken by persons in the source water area delineated under subparagraph (A) under Federal or State law to reduce the likelihood that contaminants will occur in drinking water at levels of public health concern; and

(F) specify the technical, financial, or other assistance that the voluntary local partnership requests of the State to develop the partnership or to implement recommendations of the partnership.

(e) APPROVAL OR DISAPPROVAL OF PETITIONS.—

(1) IN GENERAL.—After providing notice and an opportunity for public comment on a petition submitted under subsection (d), the State shall approve or disapprove the petition, in whole or in part, not later than 120 days after the date of submission of the petition.

(2) APPROVAL.—The State may approve a petition if the petition meets the requirements established under subsection (d). The notice of approval shall, at a minimum, include—

(A) an identification of technical, financial, or other assistance that the State will provide to assist in addressing

the drinking water contaminants that may be addressed by a petition based on—

(i) the relative priority of the public health concern identified in the petition with respect to the other water quality needs identified by the State;

(ii) any necessary coordination that the State will perform of the program established under this section with programs implemented or planned by other States under this section; and

(iii) funds available (including funds available from a State revolving loan fund established under title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.) or part G and the appropriate distribution of the funds to assist in implementing the recommendations of the partnership;

(B) a description of technical or financial assistance pursuant to Federal and State programs that is available to assist in implementing recommendations of the partnership in the petition, including—

(i) any program established under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

(ii) the program established under section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (16 U.S.C. 1455b);

(iii) the agricultural water quality protection program established under chapter 2 of subtitle D of title XII of the Food Security Act of 1985 (16 U.S.C. 3838 et seq.);

(iv) the sole source aquifer protection program established under section 1427;

(v) the community wellhead protection program established under section 1428;

(vi) any pesticide or ground water management plan;

(vii) any voluntary agricultural resource management plan or voluntary whole farm or whole ranch management plan developed and implemented under a process established by the Secretary of Agriculture; and

(viii) any abandoned well closure program; and

(C) a description of activities that will be undertaken to coordinate Federal and State programs to respond to the petition.

(3) DISAPPROVAL.—If the State disapproves a petition submitted under subsection (d), the State shall notify the entity submitting the petition in writing of the reasons for disapproval. A petition may be resubmitted at any time if—

(A) new information becomes available;

(B) conditions affecting the source water that is the subject of the petition change; or

(C) modifications are made in the type of assistance being requested.

(f) ELIGIBILITY FOR WATER QUALITY PROTECTION ASSISTANCE.—A sole source aquifer plan developed under section 1427, a wellhead protection plan developed under section 1428, and a source water quality protection measure assisted in response to a petition submit-

ted under subsection (d) shall be eligible for assistance under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), including assistance provided under section 319 and title VI of such Act (33 U.S.C. 1329 and 1381 et seq.), if the project, measure, or practice would be eligible for assistance under such Act. In the case of funds made available under such section 319 to assist a source water quality protection measure in response to a petition submitted under subsection (d), the funds may be used only for a measure that addresses nonpoint source pollution.

(g) GRANTS TO SUPPORT STATE PROGRAMS.—

(1) IN GENERAL.—The Administrator may make a grant to each State that establishes a program under this section that is approved under paragraph (2). The amount of each grant shall not exceed 50 percent of the cost of administering the program for the year in which the grant is available.

(2) APPROVAL.—In order to receive grant assistance under this subsection, a State shall submit to the Administrator for approval a plan for a source water quality protection partnership program that is consistent with the guidance published under paragraph (3). The Administrator shall approve the plan if the plan is consistent with the guidance published under paragraph (3).

(3) GUIDANCE.—

(A) IN GENERAL.—Not later than 1 year after the date of enactment of this section, the Administrator, in consultation with the States, shall publish guidance to assist—

(i) States in the development of a source water quality protection partnership program; and

(ii) municipal or local governments or political subdivisions of the governments and community water systems in the development of source water quality protection partnerships and in the assessment of source water quality.

(B) CONTENTS OF THE GUIDANCE.—The guidance shall, at a minimum—

(i) recommend procedures for the approval or disapproval by a State of a petition submitted under subsection (d);

(ii) recommend procedures for the submission of petitions developed under subsection (d);

(iii) recommend criteria for the assessment of source water areas within a State;

(iv) describe technical or financial assistance pursuant to Federal and State programs that is available to address the contamination of sources of drinking water and to develop and respond to petitions submitted under subsection (d); and

(v) specify actions taken by the Administrator to ensure the coordination of the programs referred to in clause (iv) with the goals and objectives of this title to the maximum extent practicable.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection such sums as are necessary for fiscal years 1995 through 2003. Each State

with a plan for a program approved under paragraph (2) shall receive an equitable portion of the funds available for any fiscal year.

(h) STATUTORY CONSTRUCTION.—Nothing in this section—

(1)(A) creates or conveys new authority to a State, political subdivision of a State, or community water system for any new regulatory measure; or

(B) limits any authority of a State, political subdivision, or community water system; or

(2) precludes a community water system, municipal or local government, or political subdivision of a government from locally developing and carrying out a voluntary, incentive-based, source water quality protection partnership to address the origins of drinking water contaminants of public health concern.

PART C—PROTECTION OF UNDERGROUND SOURCES OF DRINKING WATER

REGULATIONS FOR STATE PROGRAMS

SEC. 1421. (a)(1) The Administrator shall publish proposed regulations for State underground injection control programs within 180 days after the date of enactment of this title. Within 180 days after publication of such proposed regulations, he shall promulgate such regulations with such modifications as he deems appropriate. Any regulation under this subsection may be amended from time to time.

(2) Any regulation under this section shall be proposed and promulgated in accordance with section 553 of title 5, United States Code (relating to rulemaking), except that the Administrator shall provide opportunity for public hearing prior to promulgation of such regulations. In proposing and promulgating regulations under this section, the Administrator shall consult with the Secretary, the National Drinking Water Advisory Council, and other appropriate Federal entities and with interested State entities.

(b)(1) Regulations under subsection (a) for State underground injection programs shall contain minimum requirements for effective programs to prevent underground injection which endangers drinking water sources within the meaning of subsection (d)(2). Such regulations shall require that a State program, in order to be approved under section 1422—

(A) shall prohibit, effective on the date on which the applicable underground injection control program takes effect, any underground injection in such State which is not authorized by a permit issued by the State (except that the regulations may permit a State to authorize underground injection by rule);

(B) shall require (i) in the case of a program which provides for authorization of underground injection by permit, that the applicant for the permit to inject must satisfy the State that the underground injection will not endanger drinking water sources, and (ii) in the case of a program which provides for such an authorization by rule, that no rule may be promulgated which authorizes any underground injection which endangers drinking water sources;

(C) shall include inspection, monitoring, recordkeeping, and reporting requirements; and

(D) shall apply (i) as prescribed by section 1447(b), to underground injections by Federal agencies, and (ii) to underground injections by any other person whether or not occurring on property owned or leased by the United States.

(2) Regulations of the Administrator under this section for State underground injection control programs may not prescribe requirements which interfere with or impede—

(A) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production or natural gas storage operations, or

(B) any underground injection for the secondary or tertiary recovery of oil or natural gas, unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection.

(3)(A) The regulations of the Administrator under this section shall permit or provide for consideration of varying geologic, hydrological, or historical conditions in different States and in different areas within a State.

(B)(i) In prescribing regulations under this section the Administrator shall, to the extent feasible, avoid promulgation of requirements which would unnecessarily disrupt State underground injection control programs which are in effect and being enforced in a substantial number of States.

(ii) For the purpose of this subparagraph, a regulation prescribed by the Administrator under this section shall be deemed to disrupt a State underground injection control program only if it would be infeasible to comply with both such regulation and the State underground injection control programs.

(iii) For the purpose of this subparagraph, a regulation prescribed by the Administrator under this section shall be deemed unnecessary only if, without such regulation, underground sources of drinking water will not be endangered by any underground injection.

(C) Nothing in this section shall be construed to alter or affect the duty to assure that underground sources of drinking water will not be endangered by any underground injection.

(c)(1) The Administrator may, upon application of the Governor of a State which authorizes underground injection by means of permits, authorize such State to issue (without regard to subsection (b)(1)(B)(i)) temporary permits for underground injection which may be effective until the expiration of four years after the date of enactment of this title, if—

(A) the Administrator finds that the State has demonstrated that it is unable and could not reasonably have been able to process all permit applications within the time available;

(B) the Administrator determines the adverse effect on the environment of such temporary permits is not unwarranted;

(C) such temporary permits will be issued only with respect to injection wells in operation on the date on which such State's permit program approved under this part first takes effect and for which there was inadequate time to process its permit application; and

(D) the Administrator determines the temporary permits require the use of adequate safeguards established by rules adopted by him.

(2) The Administrator may, upon application of the Governor of a State which authorizes underground injection by means of permits, authorize such State to issue (without regard to subsection (b)(i)(B)(i)), but after reasonable notice and hearing, one or more temporary permits each of which is applicable to a particular injection well and to the underground injection of a particular fluid and which may be effective until the expiration of four years after the date of enactment of this title, if the State finds, on the record of such hearing—

(A) that technology (or other means) to permit safe injection of the fluid in accordance with the applicable underground injection control program is not generally available (taking costs into consideration);

(B) that injection of the fluid would be less harmful to health than the use of other available means of disposing of waste or producing the desired product; and

(C) that available technology or other means have been employed (and will be employed) to reduce the volume and toxicity of the fluid and to minimize the potentially adverse effect of the injection on the public health.

(d) For purposes of this part:

(1) The term 'underground injection' means the subsurface emplacement of fluids by well injection. Such term does not include the underground injection of natural gas for purposes of storage.

(2) Underground injection endangers drinking water sources if such injection may result in the presence in underground water which supplies or can reasonably be expected to supply any public water system of any contaminant, and if the presence of such contaminant may result in such system's not complying with any national primary drinking water regulation or may otherwise adversely affect the health of persons.

STATE PRIMARY ENFORCEMENT RESPONSIBILITY

SEC. 1422. (a) Within 180 days after the date of enactment of this title, the Administrator shall list in the Federal Register each State for which in his judgment a State underground injection control program may be necessary to assure that underground injection will not endanger drinking water sources. Such list may be amended from time to time.

(b)(1)(A) Each State listed under subsection (a) shall within 270 days after the date of promulgation of any regulation under section 1421 (or, if later, within 270 days after such State is first listed under subsection (a)) submit to the Administrator an application which contains a showing satisfactory to the Administrator that the State—

(i) has adopted after reasonable notice and public hearings, and will implement, an underground injection control program which meets the requirements of regulations in effect under section 1421; and

(ii) will keep such records and make such reports with respect to its activities under its underground injection control program as the Administrator may require by regulation.

The Administrator may, for good cause, extend the date for submission of an application by any State under this subparagraph for a period not to exceed an additional 270 days.

(B) Within 270 days of any amendment of a regulation under section 1421 revising or adding any requirement respecting State underground injection control programs, each State listed under subsection (a) shall submit (in such form and manner as the Administrator may require) a notice to the Administrator containing a showing satisfactory to him that the State underground injection control program meets the revised or added requirement.

(2) Within ninety days after the State's application under paragraph (1)(A) or notice under paragraph (1)(B) and after reasonable opportunity for presentation of views, the Administrator shall by rule either approve, disapprove, or approve in part and disapprove in part, the State's underground injection control program.

(3) If the Administrator approves the State's program under paragraph (2), the State shall have primary enforcement responsibility for underground water sources until such time as the Administrator determines, by rule, that such State no longer meets the requirements of clause (i) or (ii) of paragraph (1)(A) of this subsection.

(4) Before promulgating any rule under paragraph (2) or (3) of this subsection, the Administrator shall provide opportunity for public hearing respecting such rule.

(c) If the Administrator disapproves a State's program (or part thereof) under subsection (b)(2), if the Administrator determines under subsection (b)(3) that a State no longer meets the requirements of clause (i) or (ii) of subsection (b)(1)(A), or if a State fails to submit an application or notice before the date of expiration of the period specified in subsection (b)(1), the Administrator shall by regulation within 90 days after the date of such disapproval, determination, or expiration (as the case may be) prescribe (and may from time to time by regulation revise) a program applicable to such State meeting the requirements of section 1421(b). Such program may not include requirements which interfere with or impede—

(1) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production or natural gas storage operations, or

(2) an underground injection for the secondary or tertiary recovery of oil or natural gas,

unless such requirements are essential to assure that underground sources of drinking water will not be endangered by such injection. Such program shall apply in such State to the extent that a program adopted by such State which the Administrator determines meets such requirements is not in effect. Before promulgating any regulation under this section, the Administrator shall provide opportunity for public hearing respecting such regulation.

(d) For purposes of this title, the term 'applicable underground injection control program' with respect to a State means the pro-

gram (or most recent amendment thereof) (1) which has been adopted by the State and which has been approved under subsection (b), or (2) which has been prescribed by the Administrator under subsection (c)

(e) An Indian Tribe may assume primary enforcement responsibility for underground injection control under this section consistent with such regulations as the Administrator has prescribed pursuant to Part C and section 1451 of this Act. The area over which such Indian Tribe exercises governmental jurisdiction need not have been listed under subsection (a) of this section, and such Tribe need not submit an application to assume primary enforcement responsibility within the 270-day deadline noted in subsection (b)(1)(A) of this section. Until an Indian Tribe assumes primary enforcement responsibility, the currently applicable underground injection control program shall continue to apply. If an applicable underground injection control program does not exist for an Indian Tribe, the Administrator shall prescribe such a program pursuant to subsection (c) of this section, and consistent with section 1421(b), within 270 days after the enactment of the Safe Drinking Water Act Amendments of 1986, unless an Indian Tribe first obtains approval to assume primary enforcement responsibility for underground injection control.

ENFORCEMENT OF PROGRAM

SEC. 1423. (a)(1) Whenever the Administrator finds during a period during which a State has primary enforcement responsibility for underground water sources (within the meaning of section 1422(b)(3) or section 1425(c)) that any person who is subject to a requirement of an applicable underground injection control program in such State is violating such requirement, he shall so notify the State and the person violating such requirement. If beyond the thirtieth day after the Administrator's notification the State has not commenced appropriate enforcement action, the Administrator shall issue an order under subsection (c) requiring the person to comply with such requirement or the Administrator shall commence a civil action under subsection (b).

(2) Whenever the Administrator finds during a period during which a State does not have primary enforcement responsibility for underground water sources that any person subject to any requirement of any applicable underground injection control program in such State is violating such requirement, the Administrator shall issue an order under subsection (c) requiring the person to comply with such requirement or the Administrator shall commence a civil action under subsection (b).

(b) CIVIL AND CRIMINAL ACTIONS.—Civil actions referred to in paragraphs (1) and (2) of subsection (a) shall be brought in the appropriate United States district court. Such court shall have jurisdiction to require compliance with any requirement of an applicable underground injection program or with an order issued under subsection (c). The court may enter such judgment as protection of public health may require. Any person who violates any requirement of an applicable underground injection control program or an order requiring compliance under subsection (c)—

(1) shall be subject to a civil penalty of not more than $25,000 for each day of such violation, and

(2) if such violation is willful, such person may, in addition to or in lieu of the civil penalty authorized by paragraph (1), be imprisoned for not more than 3 years, or fined in accordance with title 18 of the United States Code, or both.

(c) ADMINISTRATIVE ORDERS.—(1) In any case in which the Administrator is authorized to bring a civil action under this section with respect to any regulation or other requirement of this part other than those relating to—

(A) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production, or

(B) any underground injection for the secondary or tertiary recovery of oil or natural gas,

the Administrator may also issue an order under this subsection either assessing a civil penalty of not more than $10,000 for each day of violation for any past or current violation, up to a maximum administrative penalty of $125,000, or requiring compliance with such regulation or other requirement, or both.

(2) In any case in which the Administrator is authorized to bring a civil action under this section with respect to any regulation, or other requirement of this part relating to—

(A) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production, or

(B) any underground injection for the secondary or tertiary recovery of oil or natural gas,

the Administrator may also issue an order under this subsection either assessing a civil penalty of not more than $5,000 for each day of violation for any past or current violation, up to a maximum administrative penalty of $125,000, or requiring compliance with such regulation or other requirement, or both.

(3)(A) An order under this subsection shall be issued by the Administrator after opportunity (provided in accordance with this subparagraph) for a hearing. Before issuing the order, the Administrator shall give to the person to whom it is directed written notice of the Administrator's proposal to issue such order and the opportunity to request, within 30 days of the date the notice is received by such person, a hearing on the order. Such hearing shall not be subject to section 554 or 556 of title 5, United States Code, but shall provide a reasonable opportunity to be heard and to present evidence.

(B) The Administrator shall provide public notice of, and reasonable opportunity to comment on, any proposed order.

(C) Any citizen who comments on any proposed order under subparagraph (B) shall be given notice of any hearing under this subsection and of any order. In any hearing held under subparagraph (A), such citizen shall have a reasonable opportunity to be heard and to present evidence.

(D) Any order issued under this subsection shall become effective 30 days following its issuance unless an appeal is taken pursuant to paragraph (6).

(4)(A) Any order issued under this subsection shall state with reasonable specificity the nature of the violation and may specify a reasonable time for compliance.

(B) In assessing any civil penalty under this subsection, the Administrator shall take into account appropriate factors, including (i) the seriousness of the violation; (ii) the economic benefit (if any) resulting from the violation; (iii) any history of such violations; (iv) any good-faith efforts to comply with the applicable requirements; (v) the economic impact of the penalty on the violator; and (vi) such other matters as justice may require.

(5) Any violation with respect to which the Administrator has commenced and is diligently prosecuting an action, or has issued an order under this subsection assessing a penalty, shall not be subject to an action under subsection (b) of this section or section 1424(c) or 1449, except that the foregoing limitation on civil actions under section 1449 of this Act shall not apply with respect to any violation for which—

(A) a civil action under section 1449(a)(1) has been filed prior to commencement of an action under this subsection, or

(B) a notice of violation under section 1449(b)(1) has been given before commencement of an action under this subsection and an action under section 1449(a)(1) of this Act is filed before 120 days after such notice is given.

(6) Any person against whom an order is issued or who commented on a proposed order pursuant to paragraph (3) may file an appeal of such order with the United States District Court for the District of Columbia or the district in which the violation is alleged to have occurred. Such an appeal may only be filed within the 30-day period beginning on the date the order is issued. Appellant shall simultaneously send a copy of the appeal by certified mail to the Administrator and to the Attorney General. The Administrator shall promptly file in such court a certified copy of the record on which such order was imposed. The district court shall not set aside or remand such order unless there is not substantial evidence on the record, taken as a whole, to support the finding of a violation or, unless the Administrator's assessment of penalty or requirement for compliance constitutes an abuse of discretion. The district court shall not impose additional civil penalties for the same violation unless the Administrator's assessment of a penalty constitutes an abuse of discretion. Notwithstanding section 1448(a)(2), any order issued under paragraph (3) shall be subject to judicial review exclusively under this paragraph.

(7) If any person fails to pay an assessment of a civil penalty—

(A) after the order becomes effective under paragraph (3), or

(B) after a court, in an action brought under paragraph (6), has entered a final judgment in favor of the Administrator,

the Administrator may request the Attorney General to bring a civil action in an appropriate district court to recover the amount assessed (plus costs, attorneys' fees, and interest at currently prevailing rates from the date the order is effective or the date of such final judgment, as the case may be). In such an action, the validity, amount, and appropriateness of such penalty shall not be subject to review.

(8) The Administrator may, in connection with administrative proceedings under this subsection, issue subpoenas compelling the attendance and testimony of witnesses and subpoenas duces tecum, and may request the Attorney General to bring an action to enforce any subpoena under this section. The district courts shall have jurisdiction to enforce such subpoenas and impose sanction.

(d) Nothing in this title shall diminish any authority of a State or political subdivision to adopt or enforce any law or regulation respecting underground injection but no such law or regulation shall relieve any person of any requirement otherwise applicable under this title.

INTERIM REGULATION OF UNDERGROUND INJECTIONS

SEC. 1424. (a)(1) Any person may petition the Administrator to have an area of a State (or States) designated as an area in which no new underground injection well may be operated during the period beginning on the date of the designation and ending on the date on which the applicable underground injection control program covering such area takes effect unless a permit for the operation of such well has been issued by the Administrator under subsection (b). The Administrator may so designate an area within a State if he finds that the area has one aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health.

(2) Upon receipt of a petition under paragraph (1) of this subsection, the Administrator shall publish it in the Federal Register and shall provide an opportunity to interested persons to submit written data, views, or arguments thereon. Not later than the 30th day following the date of the publication of a petition under this paragraph in the Federal Register, the Administrator shall either make the designation for which the petition is submitted or deny the petition.

(b)(1) During the period beginning on the date an area is designated under subsection (a) and ending on the date the applicable underground injection control program covering such area takes effect, no new underground injection well may be operated in such area unless the Administrator has issued a permit for such operation.

(2) Any person may petition the Administrator for the issuance of a permit for the operation of such a well in such an area. A petition submitted under this paragraph shall be submitted in such manner and contain such information as the Administrator may require by regulation. Upon receipt of such a petition, the Administrator shall publish it in the Federal Register. The Administrator shall give notice of any proceeding on a petition and shall provide opportunity for agency hearing. The Administrator shall act upon such petition on the record of any hearing held pursuant to the preceding sentence respecting such petition. Within 120 days of the publication in the Federal Register of a petition submitted under this paragraph, the Administrator shall either issue the permit for which the petition was submitted or shall deny its issuance.

(3) The Administrator may issue a permit for the operation of a new underground injection well in an area designated under subsection (a) only if he finds that the operation of such well will not

cause contamination of the aquifer of such area so as to create a significant hazard to public health. The Administrator may condition the issuance of such a permit upon the use of such control measures in connection with the operation of such well, for which the permit is to be issued, as he deems necessary to assure that the operation of the well will not contaminate the aquifer of the designated area in which the well is located so as to create a significant hazard to public health.

(c) Any person who operates a new underground injection well in violation of subsection (b), (1) shall be subject to a civil penalty of not more than $5,000 for each day in which such violation occurs, or (2) if such violation is willful, such person may, in lieu of the civil penalty authorized by clause (1), be fined not more than $10,000 for each day in which such violation occurs. If the Administrator has reason to believe that any person is violating or will violate subsection (b), he may petition the United States district court to issue a temporary restraining order or injunction (including a mandatory injunction) to enforce such subsection.

(d) For purposes of this section, the term 'new underground injection well' means an underground injection well whose operation was not approved by appropriate State and Federal agencies before the date of the enactment of this title.

(e) If the Administrator determines, on his own initiative or upon petition, that an area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health, he shall publish notice of that determination in the Federal Register. After the publication of any such notice, no commitment for Federal financial assistance (through a grant, contract, loan guarantee, or otherwise) may be entered into for any project which the Administrator determines may contaminate such aquifer through a recharge zone so as to create a significant hazard to public health, but a commitment for Federal financial assistance may, if authorized under another provision of law, be entered into to plan or design the project to assure that it will not so contaminate the aquifer.

OPTIONAL DEMONSTRATION BY STATES RELATING TO OIL OR NATURAL GAS

SEC. 1425. (a) For purposes of the Administrator's approval or disapproval under section 1422 of that portion of any State underground injection control program which relates to—

(1) the underground injection of brine or other fluids which are brought to the surface in connection with oil or natural gas production or natural gas storage operations, or

(2) any underground injection for the secondary or tertiary recovery of oil or natural gas. in lieu of the showing required under subparagraph (A) of section 1422(b)(1) the State may demonstrate that such portion of the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources.

(b) If the Administrator revises or amends any requirement of a regulation under section 1421 relating to any aspect of the under-

ground injection referred to in subsection (a), in the case of that portion of a State underground injection control program for which the demonstration referred to in subsection (a) has been made, in lieu of the showing required under section 1422(b)(1)(B) the State may demonstrate that, with respect to that aspect of such underground injection, the State program meets the requirements of subparagraphs (A) through (D) of section 1421(b)(1) and represents an effective program (including adequate recordkeeping and reporting) to prevent underground injection which endangers drinking water sources.

(c)(1) Section 1422(b)(3) shall not apply to that portion of any State underground injection control program approved by the Administrator pursuant to a demonstration under subsection (a) of this section (and under subsection (b) of this section where applicable).

(2) If pursuant to such a demonstration, the Administrator approves such portion of the State program, the State shall have primary enforcement responsibility with respect to that portion until such time as the Administrator determines, by rule, that such demonstration is no longer valid. Following such a determination, the Administrator may exercise the authority of subsection (c) of section 1422 in the same manner as provided in such subsection with respect to a determination described in such subsection.

(3) Before promulgating any rule under paragraph (2), the Administrator shall provide opportunity for public hearing respecting such rule.

[SEC. 1426. REGULATION OF STATE PROGRAMS.]

REGULATION OF STATE PROGRAMS

SEC. 1426. (a) MONITORING METHODS.—Not later than 18 months after enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall modify regulations issued under this Act for Class I injection wells to identify monitoring methods, in addition to those in effect on November 1, 1985, including ground water monitoring. In accordance with such regulations, the Administrator, or delegated State authority, shall determine the applicability of such monitoring methods, wherever appropriate, at locations and in such a manner as to provide the earliest possible detection of fluid migration into, or in the direction of underground sources of drinking water from such wells, based on its assessment of the potential for fluid migration from the injection zone that may be harmful to human health or the environment. For purposes of this subsection, a class I injection well is defined in accordance with 40 CFR 146.05 as in effect on November 1, 1985.

(b) REPORT.—The Administrator shall submit a report to Congress, no later than September 1987, summarizing the results of State surveys required by the Administrator under this section. The report shall include each of the following items of information:

(1) The numbers and categories of class V wells which discharge nonhazardous waste into or above an underground source of drinking water.

(2) The primary contamination problems associated with different categories of these disposal wells.

(3) Recommendations for minimum design, construction, installation, and siting requirements that should be applied to protect underground sources of drinking water from such contamination wherever necessary.

[SEC. 1427. SOLE SOURCE AQUIFER DEMONSTRATION PROGRAM.]

SOLE SOURCE AQUIFER DEMONSTRATION PROGRAM

SEC. 1427. (a) PURPOSE.—The purpose of this section is to establish procedures for development, implementation, and assessment of demonstration programs designed to protect critical aquifer protection areas located within areas designated as sole or principal source aquifers under section 1424(e) of this Act.

(b) DEFINITION.—For purposes of this section, the term 'critical aquifer protection area' means either of the following:

(1) All or part of an area located within an area for which an application or designation as a sole or principal source aquifer pursuant to section 1424(e), has been submitted and approved by the Administrator **[not later than 24 months after the enactment of the Safe Drinking Water Act Amendments of 1986]** and which satisfies the criteria established by the Administrator under subsection (d).

(2) All or part of an area which is within an aquifer designated as a sole source aquifer as of the enactment of the Safe Drinking Water Act Amendments of 1986 and for which an areawide ground water quality protection plan has been approved under section 208 of the Clean Water Act prior to such enactment.

(c) APPLICATION.—Any State, municipal or local government or political subdivision thereof or any planning entity (including any interstate regional planning entity) that identifies a critical aquifer protection area over which it has authority or jurisdiction may apply to the Administrator for the selection of such area for a demonstration program under this section. Any applicant shall consult with other government or planning entities with authority or jurisdiction in such area prior to application. Applicants, other than the Governor, shall submit the application for a demonstration program jointly with the Governor.

(d) CRITERIA.—Not later than 1 year after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall, by rule, establish criteria for identifying critical aquifer protection areas under this section. In establishing such criteria, the Administrator shall consider each of the following:

(1) The vulnerability of the aquifer to contamination due to hydrogeologic characteristics.

(2) The number of persons or the proportion of population using the ground water as a drinking water source.

(3) The economic, social and environmental benefits that would result to the area from maintenance of ground water of high quality.

(4) The economic, social and environmental costs that would result from degradation of the quality of the ground water.

(e) CONTENTS OF APPLICATION.—An application submitted to the Administrator by any applicant for a demonstration program under this section shall meet each of the following requirements:

(1) The application shall propose boundaries for the critical aquifer protection area within its jurisdiction.

(2) The application shall designate or, if necessary, establish a planning entity (which shall be a public agency and which shall include representation of elected local and State governmental officials) to develop a comprehensive management plan (hereinafter in this section referred to as the "plan") for the critical protection area. Where a local government planning agency exists with adequate authority to carry out this section with respect to any proposed critical protection area, such agency shall be designated as the planning entity.

(3) The application shall establish procedures for public participation in the development of the plan, for review, approval, and adoption of the plan, and for assistance to municipalities and other public agencies with authority under State law to implement the plan.

(4) The application shall include a hydrogeologic assessment of surface and ground water resources within the critical protection area.

(5) The application shall include a comprehensive management plan for the proposed protection area.

(6) The application shall include the measures and schedule proposed for implementation of such plan.

(f) COMPREHENSIVE PLAN.—

(1) The objective of a comprehensive management plan submitted by an applicant under this section shall be to maintain the quality of the ground water in the critical protection area in a manner reasonably expected to protect human health, the environment and ground water resources. In order to achieve such objective, the plan may be designed to maintain, to the maximum extent possible, the natural vegetative and hydrogeological conditions. Each of the following elements shall be included in such a protection plan:

(A) A map showing the detailed boundary of the critical protection area.

(B) An identification of existing and potential point and nonpoint sources of ground water degradation.

(C) An assessment of the relationship between activities on the land surface and ground water quality.

(D) Specific actions and management practices to be implemented in the critical protection area to prevent adverse impacts on ground water quality.

(E) Identification of authority adequate to implement the plan, estimates of program costs, and sources of State matching funds.

(2) Such plan may also include the following:

(A) A determination of the quality of the existing ground water recharged through the special protection area and the natural recharge capabilities of the special protection area watershed.

(B) Requirements designed to maintain existing underground drinking water quality or improve underground drinking water quality if prevailing conditions fail to meet drinking water standards, pursuant to the Act and State law

(C) Limits on Federal, State, and local government, financially assisted activities and projects which may contribute to degradation of such ground water or any loss of natural surface and subsurface infiltration of purification capability of the special protection watershed.

(D) A comprehensive statement of land use management including emergency contingency planning as it pertains to the maintenance of the quality of underground sources of drinking water or to the improvement of such sources if necessary to meet drinking water standards pursuant to this Act and State law.

(E) Actions in the special protection area which would avoid adverse impacts on water quality, recharge capabilities, or both.

(F) Consideration of specific techniques, which may include clustering, transfer of development rights, and other innovative measures sufficient to achieve the objectives of this section.

(G) Consideration of the establishment of a State institution to facilitate and assist funding a development transfer credit system.

(H) A program for State and local implementation of the plan described in this subsection in a manner that will insure the continued, uniform, consistent protection of the critical protection area in accord with the purposes of this section.

(I) Pollution abatement measures, if appropriate.

(g) PLANS UNDER SECTION 208 OF THE CLEAN WATER ACT.—A plan approved before the enactment of the Safe Drinking Water Act Amendments of 1986 under section 208 of the Clean Water Act to protect a sole source aquifer designated under section 1424(e) of this Act shall be considered a comprehensive management plan for the purposes of this section.

(h) CONSULTATION AND HEARINGS.—During the development of a comprehensive management plan under this section, the planning entity shall consult with, and consider the comments of, appropriate officials of any municipality and State or Federal agency which has jurisdiction over lands and waters within the special protection area, other concerned organizations and technical and citizen advisory committees. The planning entity shall conduct public hearings at places within the special protection area for the purpose of providing the opportunity to comment on any aspect of the plan.

(i) APPROVAL OR DISAPPROVAL.—Within 120 days after receipt of an application under this section, the Administrator shall approve or disapprove the application. The approval or disapproval shall be based on a determination that the critical protection area satisfies the criteria established under subsection (d) and that a demonstration program for the area would provide protection for ground

water quality consistent with the objectives stated in subsection (f). The Administrator shall provide to the Governor a written explanation of the reasons for the disapproval of any such application. Any petitioner may modify and resubmit any application which is not approved. Upon approval of an application, the Administrator may enter into a cooperative agreement with the applicant to establish a demonstration program under this section.

(j) GRANTS AND REIMBURSEMENTS.—Upon entering a cooperative agreement under subsection (i), the Administrator may provide to the applicant, on a matching basis, a grant of 50 per centum of the costs of implementing the plan established under this section. The Administrator may also reimburse the applicant of an approved plan up to 50 per centum of the costs of developing such plan, except for plans approved under section 208 of the Clean Water Act. The total amount of grants under this section for any one aquifer, designated under section 1424(e), shall not exceed $4,000,000 in any one fiscal year.

(k) ACTIVITIES FUNDED UNDER OTHER LAW.—No funds authorized under this subsection may be used to fund activities funded under other sections of this Act or the Clean Water Act, the Solid Waste Disposal Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or other environmental laws.

(l) REPORT.—Not later than December 31, 1989, each State shall submit to the Administrator a report assessing the impact of the program on ground water quality and identifying those measures found to be effective in protecting ground water resources. No later than September 30, 1990, the Administrator shall submit to Congress a report summarizing the State reports, and assessing the accomplishments of the sole source aquifer demonstration program including an identification of protection methods found to be most effective and recommendations for their application to protect ground water resources from contamination whenever necessary.

(m) SAVINGS PROVISION.—Nothing under this section shall be construed to amend, supersede or abrogate rights to quantities of water which have been established by interstate water compacts, Supreme Court decrees, or State water laws, or any requirement imposed or right provided under any Federal or State environmental or public health statute.

(n) AUTHORIZATION.—There are authorized to be appropriated to carry out this section not more than the following amounts:

Fiscal year	*Amount*
1987	$10,000,000
1988	15,000,000
1989	17,500,000
1990	17,500,000
1991	17,500,000
1992—2003	*20,000,000*

Matching grants under this section may also be used to implement or update any water quality management plan for a sole or principal source aquifer approved (before the date of the enactment of this section) by the Administrator under section 208 of the Federal Water Pollution Control Act.

[SEC. 1428. STATE PROGRAMS TO ESTABLISH WELLHEAD PROTECTION AREAS.]

STATE PROGRAMS TO ESTABLISH WELLHEAD PROTECTION AREAS

SEC. 1428. (a) STATE PROGRAMS.—The Governor or Governor's designee of each State shall, within 3 years of the date of enactment of the Safe Drinking Water Act Amendments of 1986, adopt and submit to the Administrator a State program to protect wellhead areas within their jurisdiction from contaminants which may have any adverse effect on the health of persons. Each State program under this section shall, at a minimum—

(1) specify the duties of State agencies, local governmental entities, and public water supply systems with respect to the development and implementation of programs required by this section;

(2) for each wellhead, determine the wellhead protection area as defined in subsection (e) based on all reasonably available hydrogeologic information on ground water flow, recharge and discharge and other information the State deems necessary to adequately determine the wellhead protection area;

(3) identify within each wellhead protection area all potential anthropogenic sources of contaminants which may have any adverse effect on the health of persons;

(4) describe a program that contains, as appropriate, technical assistance, financial assistance, implementation of control measures, education, training, and demonstration projects to protect the water supply within wellhead protection areas from such contaminants;

(5) include contingency plans for the location and provision of alternate drinking water supplies for each public water system in the event of well or wellfield contamination by such contaminants; and

(6) include a requirement that consideration be given to all potential sources of such contaminants within the expected wellhead area of a new water well which serves a public water supply system.

(b) PUBLIC PARTICIPATION.—To the maximum extent possible, each State shall establish procedures, including but not limited to the establishment of technical and citizens' advisory committees, to encourage the public to participate in developing the protection program for wellhead areas. Such procedures shall include notice and opportunity for public hearing on the State program before it is submitted to the Administrator.

(c) DISAPPROVAL.—

(1) IN GENERAL.—If, in the judgment of the Administrator, a State program (or portion thereof, including the definition of a wellhead protection area) is not adequate to protect public water systems as required by this section, the Administrator shall disapprove such program (or portion thereof). A State program developed pursuant to subsection (a) shall be deemed to be adequate unless the Administrator determines, within 9 months of the receipt of a State program, that such program (or portion thereof) is inadequate for the purpose of protecting public water systems as required by this section from contaminants that may have any adverse effect on the health of persons. If the Administrator determines that a proposed State

program (or any portion thereof) is inadequate, the Administrator shall submit a written statement of the reasons for such determination of the Governor of the State.

(2) MODIFICATION AND RESUBMISSION.—Within 6 months after receipt of the Administrator's written notice under paragraph (1) that any proposed State program (or portion thereof) is inadequate, the Governor or Governor's designee, shall modify the program based upon the recommendations of the Administrator and resubmit the modified program to the Administrator.

(d) FEDERAL ASSISTANCE.—After the date 3 years after the enactment of this section, no State shall receive funds authorized to be appropriated under this section except for the purpose of implementing the program and requirements of paragraphs (4) and (6) of subsection (a).

(e) DEFINITION OF WELLHEAD PROTECTION AREA.—As used in this section, the term 'wellhead protection area' means the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. The extent of a wellhead protection area, within a State, necessary to provide protection from contaminants which may have any adverse effect on the health of persons is to be determined by the State in the program submitted under subsection (a). Not later than one year after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall issue technical guidance which States may use in making such determinations. Such guidance may reflect such factors as the radius of influence around a well or wellfield, the depth of drawdown of the water table by such well or wellfield at any given point, the time or rate of travel of various contaminants in various hydrologic conditions, distance from the well or wellfield, or other factors affecting the likelihood of contaminants reaching the well or wellfield, taking into account available engineering pump tests or comparable data, field reconnaissance, topographic information, and the geology of the formation in which the well or wellfield is located.

(f) PROHIBITIONS.—

(1) ACTIVITIES UNDER OTHER LAWS.—No funds authorized to be appropriated under this section may be used to support activities authorized by the Federal Water Pollution Control Act, the Solid Waste Disposal Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, or other sections of this Act.

(2) INDIVIDUAL SOURCES.—No funds authorized to be appropriated under this section may be used to bring individual sources of contamination into compliance.

(g) IMPLEMENTATION.—Each State shall make every reasonable effort to implement the State wellhead area protection program under this section within 2 years of submitting the program to the Administrator. Each State shall submit to the Administrator a biennial status report describing the State's progress in implementing the program. Such report shall include amendments to the State program for water wells sited during the biennial period.

(h) FEDERAL AGENCIES.—Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any potential source of contaminants identified by a State program pursuant to the provisions of subsection (a)(3) shall be subject to and comply with all requirements of the State program developed according to subsection (a)(4) applicable to such potential source of contaminants, both substantive and procedural, in the same manner, and to the same extent, as any other person is subject to such requirements, including payment of reasonable charges and fees. The President may exempt any potential source under the jurisdiction of any department, agency, or instrumentality in the executive branch if the President determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to the lack of an appropriation unless the President shall have specifically requested such appropriation as part of the budgetary process and the Congress shall have failed to make available such requested appropriations.

(i) ADDITIONAL REQUIREMENT.—

(1) IN GENERAL.—In addition to the provisions of subsection (a) of this section, States in which there are more than 2,500 active wells at which annular injection is used as of January 1, 1986, shall include in their State program a certification that a State program exists and is being adequately enforced that provides protection from contaminants which may have any adverse effect on the health of persons and which are associated with the annular injection or surface disposal of brines associated with oil and gas production

(2) DEFINITION.—For purposes of this subsection, the term 'annular injection' means the reinjection of brines associated with the production of oil or gas between the production and surface casings of a conventional oil or gas producing well.

(3) REVIEW.—The Administrator shall conduct a review of each program certified under this subsection.

(4) DISAPPROVAL.—If a State fails to include the certification required by this subsection or if in the judgment of the Administrator the State program certified under this subsection is not being adequately enforced, the Administrator shall disapprove the State program submitted under subsection (a) of this section.

(j) COORDINATION WITH OTHER LAWS.—Nothing in this section shall authorize or require any department, agency, or other instrumentality of the Federal Government or State or local government to apportion, allocate or otherwise regulate the withdrawal or beneficial use of ground or surface waters, so as to abrogate or modify any existing rights to water established pursuant to State or Federal law, including interstate compacts.

(k) AUTHORIZATION OF APPROPRIATIONS.—Unless the State program is disapproved under this section, the Administrator shall make grants to the State for not less than 50 or more than 90 percent of the cost incurred by a State (as determined by the Administrator) in developing and implementing each State program under this section. For purposes of making such

grants there is authorized to be appropriated not more than the following amounts:

Fiscal year	*Amount*
1987	$20,000,000
1988	20,000,000
1989	35,000,000
1990	35,000,000
1991	35,000,000
1992—2003	*35,000,000*

PART D—EMERGENCY POWERS

EMERGENCY POWERS

SEC. 1431. (a) Notwithstanding any other provision of this title, the Administrator, upon receipt of information that a contaminant which is present in or is likely to enter a public water system or an underground source of drinking water may present an imminent and substantial endangerment to the health of persons, and that appropriate State and local authorities have not acted to protect the health of such persons, may take such actions as he may deem necessary in order to protect the health of such persons. To the extent he determines it to be practicable in light of such imminent endangerment, he shall consult with the State and local authorities in order to confirm the correctness of the information on which action proposed to be taken under this subsection is based and to ascertain the action which such authorities are or will be taking. The action which the Administrator may take may include (but shall not be limited to) (1) issuing such orders as may be necessary to protect the health of persons who are or may be users of such system (including travelers), including orders requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment, and (2) commencing a civil action for appropriate relief, including a restraining order or permanent or temporary injunction.

(b) Any person who violates or fails or refuses to comply with any order issued by the Administrator under subsection (a)(l) may, in an action brought in the appropriate United States district court to enforce such order, be subject to a civil penalty of not to exceed $5,000 for each day in which such violation occurs or failure to comply continues.

[SEC. 1432. TAMPERING WITH PUBLIC WATER SYSTEMS.]

TAMPERING WITH PUBLIC WATER SYSTEMS

SEC. 1432. (a) TAMPERING.—Any person who tampers with a public water system shall be imprisoned for not more than 5 years, or fined in accordance with title 18 of the United States Code, or both.

(b) ATTEMPT OR THREAT.—Any person who attempts to tamper, or makes a threat to tamper, with a public drinking water system be imprisoned for not more than 3 years, or fined in accordance with title 18 of the United States Code, or both.

(c) CIVIL PENALTY.—The Administrator may bring a civil action in the appropriate United States district court (as determined

under the provisions of title 28 of the United States Code) against any person who tampers, attempts to tamper, or makes a threat to tamper with a public water system. The court may impose on such person a civil penalty of not more than $50,000 for such tampering or not more than $20,000 for such attempt or threat.

(d) DEFINITION OF 'TAMPER'.—For purposes of this section, the term 'tamper, means—

(1) to introduce a contaminant into a public water system with the intention of harming persons; or

(2) to otherwise interfere with the operation of a public water system with the intention of harming persons.

PART E—GENERAL PROVISIONS

ASSURANCE OF AVAILABILITY OF ADEQUATE SUPPLIES OF CHEMICALS NECESSARY FOR TREATMENT OF WATER

SEC. 1441. (a) If any person who uses chlorine, activated carbon, lime, ammonia, soda ash, potassium permanganate, caustic soda, or other chemical or substance for the purpose of treating water in any public water system or in any public treatment works determines that the amount of such chemical or substance necessary to effectively treat such water is not reasonably available to him or will not be so available to him when required for the effective treatment of such water, such person may apply to the Administrator for a certification (hereinafter in this section referred to as a "certification of need") that the amount of such chemical or substance which such person requires to effectively treat such water is not reasonably available to him or will not be so available when required for the effective treatment of such water.

(b)(1) An application for a certification of need shall be in such form and submitted in such manner as the Administrator may require and shall (A) specify the persons the applicant determines are able to provide the chemical or substance with respect to which the application is submitted, (B) specify the persons from whom the applicant has sought such chemical or substance, and (C) contain such other information as the Administrator may require.

(2) Upon receipt of an application under this section, the Administrator shall (A) publish in the Federal Register a notice of the receipt of the application and a brief summary of it, (B) notify in writing each person whom the President or his delegate (after consultation with the Administrator) determines could be made subject to an order required to be issued upon the issuance of the certification of need applied for in such application, and (C) provide an opportunity for the submission of written comments on such application. The requirements of the preceding sentence of this paragraph shall not apply when the Administrator for good cause finds (and incorporates the finding with a brief statement of reasons therefor in the order issued) that waiver of such requirements is necessary in order to protect the public health.

(3) Within 30 days after—

(A) the date a notice is published under paragraph (2) in the Federal Register with respect to an application submitted under this section for the issuance of a certification of need, or

(B) the date on which such application is received if as authorized by the second sentence of such paragraph no notice is published with respect to such application,

the Administrator shall take action either to issue or deny the issuance of a certification of need.

(c)(1) If the Administrator finds that the amount of a chemical or substance necessary for an applicant under an application submitted under this section to effectively treat water in a public water system or in a public treatment works is not reasonably available to the applicant or will not be so available to him when required for the effective treatment of such water, the Administrator shall issue a certification of need. Not later than seven days following the issuance of such certification, the President or his delegate shall issue an order requiring the provision to such person of such amounts of such chemical or substance as the Administrator deems necessary in the certification of need issued for such person. Such order shall apply to such manufacturers, producers, processors, distributors, and repackagers of such chemical or substance as the President or his delegate deems necessary and appropriate, except that such order may not apply to any manufacturer, producer, or processor of such chemical or substance who manufactures, produces, or processes (as the case may be) such chemical or substance solely for its own use. Persons subject to an order issued under this section shall be given a reasonable opportunity to consult with the President or his delegate with respect to the implementation of the order.

(2) Orders which are to be issued under paragraph (1) to manufacturers, producers, and processors of a chemical or substance shall be equitably apportioned, as far as practicable, among all manufacturers, producers, and processors of such chemical or substance; and orders which are to be issued under paragraph (1) to distributors and repackagers of a chemical or substance shall be equitably apportioned, as far as practicable, among all distributors and repackagers of such chemical or substance. In apportioning orders issued under paragraph (1) to manufacturers, producers, processors, distributors, and repackagers of chlorine, the President or his delegate shall, in carrying out the requirements of the preceding sentence, consider—

(A) the geographical relationship and established commercial relationships between such manufacturers, producers, processors, distributors, and repackagers and the persons for whom the orders are issued;

(B) in the case of orders to be issued to producers of chlorine, the (i) amount of chlorine historically supplied by each such producer to treat water in public water systems and public treatment works, and (ii) share of each such producer of the total annual production of chlorine in the United States; and

(C) such other factors as the President or his delegate may determine are relevant to the apportionment of orders in accordance with the requirements of the preceding sentence.

(3) Subject to subsection (f), any person for whom a certification of need has been issued under this subsection may upon the expiration of the order issued under paragraph (1) upon such certification apply under this section for additional certifications.

(d) There shall be available as a defense to any action brought for breach of contract in a Federal or State court arising out of delay or failure to provide, sell, or offer for sale or exchange a chemical or substance subject to an order issued pursuant to subsection (c)(1), that such delay or failure was caused solely by compliance with such order.

(e)(1) Whoever knowingly fails to comply with any order issued pursuant to subsection (c)(1) shall be fined not more than $5,000 for each such failure to comply.

(2) Whoever fails to comply with any order issued pursuant to subsection (c)(1) shall be subject to a civil penalty of not more than $2,500 for each such failure to comply.

(3) Whenever the Administrator or the President or his delegate has reason to believe that any person is violating or will violate any order issued pursuant to subsection (c)(1), he may petition a United States district court to issue a temporary restraining order or preliminary or permanent injunction (including a mandatory injunction) to enforce the provisions of such order.

(f) No certification of need or order issued under this section may remain in effect more than one year.

RESEARCH, TECHNICAL ASSISTANCE, INFORMATION AND TRAINING OF PERSONNEL

SEC. 1442. (a)(1) The Administrator may conduct research, studies, and demonstrations relating to the causes, diagnosis, treatment, control, and prevention of physical and mental diseases and other impairments of man resulting directly or indirectly from contaminants in water, or to the provision of a dependably safe supply of drinking water, including—

(A) improved methods (i) to identify and measure the existence of contaminants in drinking water (including methods which may be used by State and local health and water officials), and (ii) to identify the source of such contaminants;

(B) improved methods to identify and measure the health effects of contaminants in drinking water;

(C) new methods of treating raw water to prepare it for drinking, so as to improve the efficiency of water treatment and to remove contaminants from water;

(D) improved methods for providing a dependably safe supply of drinking water, including improvements in water purification and distribution, and methods of assessing health related hazards of drinking water; and

(E) improved methods of protecting underground water sources of public water systems from contamination.

[(2)(A) The Administrator shall, to the maximum extent feasible, provide technical assistance to the States and municipalities in the establishment and administration of public water system supervision programs (as defined in section 1443(c)(1)).]

(2) INFORMATION AND RESEARCH FACILITIES.—In carrying out this title, the Administrator is authorized to—

(A) collect and make available information pertaining to research, investigations, and demonstrations with respect to providing a dependably safe supply of drinking water, together

with appropriate recommendations in connection with the information; and

(B) make available research facilities of the Agency to appropriate public authorities, institutions, and individuals engaged in studies and research relating to this title.

[(3)(A) The Administrator shall conduct studies, and make periodic reports to Congress, on the costs of carrying out regulations prescribed under section 1412.

(B) Not later than eighteen months after the date of enactment of this subparagraph, the Administrator shall submit a report to Congress which identifies and analyzes—

(i) the anticipated costs of compliance with interim and revised national primary drinking water regulations and the anticipated costs to States and units of local governments in implementing such regulations;

(ii) alternative methods of (including alternative treatment techniques for) compliance with such regulations;

(iii) methods of paying the costs of compliance by public water systems with national primary drinking water regulations, including user charges, State or local taxes or subsidies, Federal grants (including planning or construction grants, or both), loans, and loan guarantees, and other methods of assisting in paying the costs of such compliance;

(iv) the advantages and disadvantages of each of the methods referred to in clauses (ii) and (iii);

(v) the sources of revenue presently available (and projected to be available) to public water systems to meet current and future expenses; and

(vi) the costs of drinking water paid by residential and industrial consumers in a sample of large, medium, and small public water systems and of individually owned wells, and the reasons for any differences in such costs.

The report required by this subparagraph shall identify and analyze the items required in clauses (i) through (v) separately with respect to public water systems serving small communities. The report required by this subparagraph shall include such recommendations as the Administrator deems appropriate.]

[(11)] *(3)* The Administrator shall carry out a study of polychlorinated biphenyl contamination of actual or potential sources of drinking water, contamination of such sources by other substances known or suspected to be harmful to public health, the effects of such contamination, and means of removing, treating, or otherwise controlling such contamination. To assist in carrying out this paragraph, the Administrator is authorized to make grants to public agencies and private nonprofit institutions.

(4) The Administrator shall conduct a survey and study of—

(A) disposal of waste (including residential waste) which may endanger underground water which supplies, or can reasonably be expected to supply, any public water systems, and

(B) means of control of such waste disposal.

Not later than one year after the date of enactment of this title, he shall transmit to the Congress the results of such survey and

study, together with such recommendations as he deems appropriate.

(5) The Administrator shall carry out a study of methods of underground injection which do not result in the degradation of underground drinking water sources.

(6) The Administrator shall carry out a study of methods of preventing, detecting, and dealing with surface spills of contaminants which may degrade underground water sources for public water systems.

(7) The Administrator shall carry out a study of virus contamination of drinking water sources and means of control of such contamination.

(8) The Administrator shall carry out a study of the nature and extent of the impact on underground water which supplies or can reasonably be expected to supply public water systems of (A) abandoned injection or extraction wells; (B) intensive application of pesticides and fertilizers in underground water recharge areas; and (C) ponds, pools, lagoons, pits, or other surface disposal of contaminants in underground water recharge areas.

(9) The Administrator shall conduct a comprehensive study of public water supplies and drinking water sources to determine the nature, extent, sources of and means of control of contamination by chemicals or other substances suspected of being carcinogenic. Not later than six months after the date of enactment of this title, he shall transmit to the Congress the initial results of such study, together with such recommendations for further review and corrective action as he deems appropriate.

(10) The Administrator shall carry out a study of the reaction of chlorine and humic acids and the effects of the contaminants which result from such reaction on public health and on the safety of drinking water, including any carcinogenic effect.

(11) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Administrator to carry out research authorized by this section $25,000,000 for each of fiscal years 1994 through 2003, of which $4,000,000 shall be available for each fiscal year for research on the health effects of arsenic in drinking water.

[(b) In carrying out this title, the Administrator is authorized to—

(1) collect and make available information pertaining to research, investigations, and demonstrations with respect to providing a dependably safe supply of drinking water together with appropriate recommendations in connection therewith;

(2) make available research facilities of the Agency to appropriate public authorities, institutions, and individuals engaged in studies and research relating to the purposes of this title;]

[(B)] *(b)* The Administrator is authorized to provide technical assistance and to make grants to States, or publicly owned water systems to assist in responding to and alleviating any emergency situation affecting public water systems (including sources of water for such systems) with the Administrator determines to present substantial danger to the public health. Grants provided under this **[subparagraph]** *subsection* shall be used only to support those ac-

tions which (i) are necessary for preventing, limiting or mitigating danger to the public health in such emergency situation and (ii) would not, in the judgment of the Administrator, be taken without such emergency assistance. The Administrator may carry out the program authorized under this **[subparagraph]** *subsection* as part of, and in accordance with the terms and conditions of, any other program of assistance for environmental emergencies which the Administrator is authorized to carry out under any other provision of law. No limitation on appropriations for any such other program shall apply to amounts appropriated under this **[subparagraph]** *subsection. There are authorized to be appropriated to carry out this subsection $8,000,000 for each of fiscal years 1995 through 2003.*

(c) Not later than **[eighteen months after the date of enactment of this subsection]** *2 years after the date of enactment of the Safe Drinking Water Act Amendments of 1995*, and every 5 years thereafter, the Administrator shall submit a report to Congress on the present and projected future availability of an adequate and dependable supply of safe drinking water to meet present and projected future need. Such report shall include an analysis of the future demand for drinking water and other competing uses of water, the availability and use of methods to conserve water or reduce demand, the adequacy of present measures to assure adequate and dependable supplies of safe drinking water, and the problems (financial, legal, or other) which need to be resolved in order to assure the availability of such supplies for the future. Existing information and data compiled by the National Water Commission and others shall be utilized to the extent possible.

(d) The Administrator shall—

(1) provide training for, and make grants for training (including postgraduate training) of (A) personnel of State agencies which have primary enforcement responsibility and of agencies or units of local government to which enforcement responsibilities have been delegated by the State, and (B) personnel who manage or operate public water systems**[, and]**;

(2) make grants for postgraduate training of individuals (including grants to educational institutions for traineeships) for purposes of qualifying such individuals to work as personnel referred to in paragraph (1)**[.]**;

(3) make grants to, and enter into contracts with, any public agency, educational institution, and any other organization, in accordance with procedures prescribed by the Administrator, under which he may pay all or a part of the costs (as may be determined by the Administrator) of any project or activity which is designed—

(A) to develop, expand, or carry out a program (which may combine training education and employment) for training persons for occupations involving the public health aspects of providing safe drinking water;

(B) to train inspectors and supervisory personnel to train or supervise persons in occupations involving the public health aspects of providing safe drinking water; or

(C) to develop and expand the capability of programs of State and municipalities to carry out the purposes of this title (other than by carrying out State programs of public

water system supervision or underground water source protection (as defined in section 1443(c)))**[.]**;

(4) develop and maintain a system for forecasting the supply of, and demand for, various professional occupational categories and other occupational categories needed for the protection and treatment of drinking water in each region of the United States.

Reasonable fees may be charged for training provided under paragraph (1)(B) to persons other than personnel of State or local agencies but such training shall be provided to personnel of State or local agencies without charge. *There are authorized to be appropriated to carry out this subsection $10,000,000 for each of fiscal years 1994 through 2003.*

(e) CERTIFICATION OF OPERATORS AND LABORATORIES.—

(1) REQUIREMENT.—Beginning 3 years after the date of enactment of the Safe Drinking Water Act Amendments of 1995—

(A) no assistance may be provided to a public water system under part G unless the system has entered into an enforceable commitment with the State providing that any person who operates the system will be trained and certified according to requirements established by the Administrator or the State (in the case of a State with primary enforcement responsibility under section 1413) not later than the date of completion of the capital project for which the assistance is provided; and

(B) a public water system that has received assistance under part G may be operated only by a person who has been trained and certified according to requirements established by the Administrator or the State (in the case of a State with primary enforcement responsibility under section 1413).

(2) GUIDELINES.—Not later than 18 months after the date of enactment of the Safe Drinking Water Act Amendments of 1995 and after consultation with the States, the Administrator shall publish information to assist States in carrying out paragraph (1). In the case of a State with primary enforcement responsibility under section 1413 or any other State that has established a training program that is consistent with the guidance issued under this paragraph, the authority to prescribe the appropriate level of training for certification for all systems shall be solely the responsibility of the State. The guidance issued under this paragraph shall also include information to assist States in certifying laboratories engaged in testing for the purpose of compliance with sections 1445 and 1401(1).

(3) NONCOMPLIANCE.—If a public water system in a State is not operated in accordance with paragraph (1), the Administrator is authorized to withhold from funds that would otherwise be allocated to the State under section 1472 or require the repayment of an amount equal to the amount of any assistance under part G provided to the public water system.

(f) There are authorized to be appropriated to carry out the provisions of this section, other than subsection (a)(2)(B) and provisions relating to research, $15,000,000 for the fiscal year ending June 30, 1975;$25,000,000 for the fiscal year ending June 30, 1976;

$35,000,000 for the fiscal year ending June 30, 1977; $17,000,000 for each of the fiscal years 1978 and 1979; $21,405,000 for the fiscal year ending September 30, 1980; $30,000,000 for the fiscal year ending September 30, 1981; and $35,000,000 for the fiscal year ending September 30, 1982. There are authorized to be appropriated to carry out subsection (a)(2)(B) $8,000,000 for each of the fiscal years 1978 through 1982. There are authorized to be appropriated to carry out subsection (a)(2)(B) not more than the following amounts:

Fiscal year:	*Amount*
1987	$7,650,000
1988	7,650,000
1989	8,050,000
1990	8,050,000
1991	8,050,000

There are authorized to be appropriated to carry out the provisions of this section (other than subsection (g), subsection (a)(2)(B), and provisions relating to research), not more than the following amounts:

Fiscal year	*Amount*
1987	$35,600,000
1988	35,600,000
1989	38,020,000
1990	38,020,000
1991	38,020,000

(g) The Administrator is authorized to provide technical assistance to small public water systems to enable such systems to achieve and maintain compliance with national drinking water regulations. Such assistance may include "circuit-rider" *and multi-State regional technical assistance* programs, training, and preliminary engineering studies. **[There are authorized to be appropriated to carry out this subsection $10,000,000 for each of the fiscal years 1987 through 1991.]** *The Administrator shall ensure that funds made available for technical assistance pursuant to this subsection are allocated among the States equally. Each nonprofit organization receiving assistance under this subsection shall consult with the State in which the assistance is to be expended or otherwise made available before using the assistance to undertake activities to carry out this subsection. There are authorized to be appropriated to carry out this subsection $15,000,000 for each of fiscal years 1992 through 2003.* Not less than the greater of—

(1) 3 percent of the amounts appropriated under this subsection, or

(2) $280,000

shall be utilized for technical assistance to public water systems owned or operated by Indian tribes.

(h) SMALL PUBLIC WATER SYSTEMS TECHNOLOGY ASSISTANCE CENTERS.—

(1) GRANT PROGRAM.—The Administrator is authorized to make grants to institutions of higher learning to establish and operate not fewer than 5 small public water system technology assistance centers in the United States.

(2) RESPONSIBILITIES OF THE CENTERS.—The responsibilities of the small public water system technology assistance centers established under this subsection shall include the conduct of research, training, and technical assistance relating to the information, performance, and technical needs of small public water systems or public water systems that serve Indian Tribes.

(3) APPLICATIONS.—Any institution of higher learning interested in receiving a grant under this subsection shall submit to the Administrator an application in such form and containing such information as the Administrator may require by regulation.

(4) SELECTION CRITERIA.—The Administrator shall select recipients of grants under this subsection on the basis of the following criteria:

(A) The small public water system technology assistance center shall be located in a State that is representative of the needs of the region in which the State is located for addressing the drinking water needs of rural small communities or Indian Tribes.

(B) The grant recipient shall be located in a region that has experienced problems with rural water supplies.

(C) There is available to the grant recipient for carrying out this subsection demonstrated expertise in water resources research, technical assistance, and training.

(D) The grant recipient shall have the capability to provide leadership in making national and regional contributions to the solution of both long-range and intermediate-range rural water system technology management problems.

(E) The grant recipient shall have a demonstrated interdisciplinary capability with expertise in small public water system technology management and research.

(F) The grant recipient shall have a demonstrated capability to disseminate the results of small public water system technology research and training programs through an interdisciplinary continuing education program.

(G) The projects that the grant recipient proposes to carry out under the grant are necessary and appropriate.

(H) The grant recipient has regional support beyond the host institution.

(I) The grant recipient shall include the participation of water resources research institutes established under section 104 of the Water Resources Research Act of 1984 (42 U.S.C. 10303).

(5) ALASKA.—For purposes of this subsection, the State of Alaska shall be considered to be a region.

(6) CONSORTIA OF STATES.—At least 2 of the grants under this subsection shall be made to consortia of States with low population densities. In this paragraph, the term 'consortium of States with low population densities' means a consortium of States, each State of which has an average population density of less than 12.3 persons per square mile, based on data for 1993 from the Bureau of the Census.

(7) ADDITIONAL CONSIDERATIONS.—At least one center established under this subsection shall focus primarily on the development and evaluation of new technologies and new combinations of existing technologies that are likely to provide more reliable or lower cost options for providing safe drinking water. This center shall be located in a geographic region of the country with a high density of small systems, at a university with an established record of developing and piloting small treatment technologies in cooperation with industry, States, communities, and water system associations.

(8) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to make grants under this subsection $10,000,000 for each of fiscal years 1995 through 2003.

(i) BIOLOGICAL MECHANISMS.—In carrying out this section, the Administrator shall conduct studies to—

(1) understand the mechanisms by which chemical contaminants are absorbed, distributed, metabolized, and eliminated from the human body, so as to develop more accurate physiologically based models of the phenomena;

(2) understand the effects of contaminants and the mechanisms by which the contaminants cause adverse effects (especially noncancer and infectious effects) and the variations in the effects among humans, especially subpopulations at greater risk of adverse effects, and between test animals and humans; and

(3) develop new approaches to the study of complex mixtures, such as mixtures found in drinking water, especially to determine the prospects for synergistic or antagonistic interactions that may affect the shape of the dose-response relationship of the individual chemicals and microbes, and to examine noncancer endpoints and infectious diseases, and susceptible individuals and subpopulations.

(j) RESEARCH PRIORITIES.—To establish long-term priorities for research under this section, the Administrator shall develop, and periodically update, an integrated risk characterization strategy for drinking water quality. The strategy shall identify unmet needs, priorities for study, and needed improvements in the scientific basis for activities carried out under this title. The initial strategy shall be made available to the public not later than 3 years after the date of enactment of this subsection.

(k) RESEARCH PLAN FOR HARMFUL SUBSTANCES IN DRINKING WATER.—

(1) DEVELOPMENT OF PLAN.—The Administrator shall—

(A) not later than 180 days after the date of enactment of this subsection, after consultation with the Secretary of Health and Human Services, the Secretary of Agriculture, and, as appropriate, the heads of other Federal agencies, develop a research plan to support the development and implementation of the most current version of the—

(i) enhanced surface water treatment rule (59 Fed. Reg. 38832 (July 29, 1994));

(ii) disinfectant and disinfection byproducts rule (Stage 2) (59 Fed. Reg. 38668 (July 29, 1994)); and

(iii) ground water disinfection rule (availability of draft summary announced at 57 Fed. Reg. 33960 (July 31, 1992)); and

(B) carry out the research plan, after consultation and appropriate coordination with the Secretary of Agriculture and the heads of other Federal agencies.

(2) CONTENTS OF PLAN.—

(A) IN GENERAL.—The research plan shall include, at a minimum—

(i) an identification and characterization of new disinfection byproducts associated with the use of different disinfectants;

(ii) toxicological studies and, if warranted, epidemiological studies to determine what levels of exposure from disinfectants and disinfection byproducts, if any, may be associated with developmental and birth defects and other potential toxic end points;

(iii) toxicological studies and, if warranted, epidemiological studies to quantify the carcinogenic potential from exposure to disinfection byproducts resulting from different disinfectants;

(iv) the development of practical analytical methods for detecting and enumerating microbial contaminants, including giardia, cryptosporidium, and viruses;

(v) the development of reliable, efficient, and economical methods to determine the viability of individual cryptosporidium oocysts;

(vi) the development of dose-response curves for pathogens, including cryptosporidium and the Norwalk virus;

(vii) the development of indicators that define treatment effectiveness for pathogens and disinfection byproducts; and

(viii) bench, pilot, and full-scale studies and demonstration projects to evaluate optimized conventional treatment, ozone, granular activated carbon, and membrane technology for controlling pathogens (including cryptosporidium) and disinfection byproducts.

(B) RISK DEFINITION STRATEGY.—The research plan shall include a strategy for determining the risks and estimated extent of disease resulting from pathogens, disinfectants, and disinfection byproducts in drinking water, and the costs and removal efficiencies associated with various control methods for pathogens, disinfectants, and disinfection byproducts.

(3) IMPLEMENTATION OF PLAN.—In carrying out the research plan, the Administrator shall use the most cost-effective mechanisms available, including coordination of research with, and use of matching funds from, institutions and utilities.

(4) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection $12,500,000 for each of fiscal years 1997 through 2003.

(l) SUBPOPULATIONS AT GREATER RISK.—

(1) RESEARCH PLAN.—The Administrator shall conduct a continuing program of peer-reviewed research to identify groups within the general population that may be at greater risk than the general population of adverse health effects from exposure to contaminants in drinking water. Not later than 1 year after the date of enactment of this subsection, the Administrator shall develop and implement a research plan to establish whether and to what degree infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations that can be identified and characterized are likely to experience elevated health risks, including risks of cancer, from contaminants in drinking water.

(2) CONTENTS OF PLAN.—To the extent appropriate, the research shall be—

(A) integrated into the health effects research plan carried out by the Administrator to support the regulation of specific contaminants under this Act; and

(B) designed to identify—

(i) the nature and extent of the elevated health risks, if any;

(ii) the groups likely to experience the elevated health risks;

(iii) biological mechanisms and other factors that may contribute to elevated health risks for groups within the general population;

(iv) the degree of variability of the health risks to the groups from the health risks to the general population;

(v) the threshold, if any, at which the elevated health risks for a specific contaminant occur; and

(vi) the probability of the exposure to the contaminants by the identified group.

(3) REPORT.—Not later than 4 years after the date of enactment of this subsection and periodically thereafter as new and significant information becomes available, the Administrator shall report to Congress on the results of the research.

(4) USE OF RESEARCH.—In characterizing the health effects of drinking water contaminants under this Act, the Administrator shall consider all relevant factors, including the results of research under this subsection, the margin of safety for variability in the general population, and sound scientific practices (including the 1993 and 1994 reports of the National Academy of Sciences) regarding subpopulations at greater risk for adverse health effects.

GRANTS FOR STATE PROGRAMS

SEC. 1443. (a)(1) From allotments made pursuant to paragraph (4), the Administrator may make grants to States to carry out public water system supervision programs.

(2) No grant may be made under paragraph (1) unless an application therefor has been submitted to the Administrator in such form and manner as he may require. The Administrator may not approve an application of a State for its first grant under paragraph (1) unless he determines that the State—

(A) has established or will establish within one year from the date of such grant a public water system supervision program, and

(B) will, within that one year, assume primary enforcement responsibility for public water system within the State.

No grant may be made to a State under paragraph (1) for any period beginning more than one year after the date of the State's first grant unless the State has assumed and maintains primary enforcement responsibility for public water systems within the State. The prohibitions contained in the preceding two sentences shall not apply to such grants when made to Indian Tribes.

[(3) A grant] *(3) AMOUNT OF GRANT.—*

(A) IN GENERAL.—A grant under paragraph (1) shall be made to cover not more than 75 per centum of the grant recipient's costs (as determined under regulations of the Administrator) in carrying out, during the one-year period beginning on the date the grant is made, a public water system supervision program.

(B) DETERMINATION OF COSTS.—To determine the costs of a grant recipient pursuant to this paragraph, the Administrator shall, in cooperation with the States and not later than 180 days after the date of enactment of this subparagraph, establish a resource model for the public water system supervision program and review and revise the model as necessary.

(C) STATE COST ADJUSTMENTS.—The Administrator shall revise cost estimates used in the resource model for any particular State to reflect costs more likely to be experienced in that State, if—

(i) the State requests the modification; and

(ii) the revised estimates ensure full and effective administration of the public water system supervision program in the State and the revised estimates do not overstate the resources needed to administer the program.

(4) In each fiscal year the Administrator shall, in accordance with regulations, allot the sums appropriated for such year under paragraph (5) among the States on the basis of population, geographical area, number of public water systems, and other relevant factors. No State shall receive less than 1 per centum of the annual appropriation for grants under paragraph (1): *Provided,* That the Administrator may, by regulation, reduce such percentage in accordance with the criteria specified in this paragraph: *And provided further,* That such percentage shall not apply to grants allotted to Guam, American Samoa, or the Virgin Islands.

(5) The prohibition contained in the last sentence of paragraph (2) may be waived by the Administrator with respect to a grant to a State through fiscal year 1979 but such prohibition may only be waived if, in the judgment of the Administrator—

(A) the State is making diligent effort to assume and maintain primary enforcement responsibility for public water systems within the State;

(B) the State has made significant progress toward assuming and maintaining such primary enforcement responsibility; and

(C) there is reason to believe the State will assume such primary enforcement responsibility by October 1, 1979.

The amount of any grant awarded for the fiscal years 1978 and 1979 pursuant to a waiver under this paragraph may not exceed 75 per centum of the allotment which the State would have received for such fiscal year if it had assumed and maintained such primary enforcement responsibility. The remaining 25 per centum of the amount allotted to such State for such fiscal year shall be retained by the Administrator, and the Administrator may award such amount to such State at such time as the State assumes such responsibility before the beginning of fiscal year 1980. At the beginning of each fiscal years 1979 and 1980 the amounts retained by the Administrator for any preceding fiscal year and not awarded by the beginning of fiscal year 1979 or 1980 to the States to which such amounts were originally allotted may be removed from the original allotment and reallotted for fiscal year 1979 or 1980 (as the case may be) to States which have assumed primary enforcement responsibility by the beginning of such fiscal year.

(6) The Administrator shall notify the State of the approval or disapproval of any application for a grant under this section—

(A) within ninety days after receipt of such application, or

(B) not later than the first day of the fiscal year for which the grant application is made, whichever is later.

(7) For the purposes of making grants under paragraph (1) there are authorized to be appropriated $15,000,000 for the fiscal year ending June 30, 1976, $ 25,000,000 for the fiscal year ending June 30, 1977, $35,000,000 for fiscal year 1978, $45,000,000 for fiscal year 1979, $29,450,000 for the fiscal year ending September 30, 1980, $32,000,000 for the fiscal yea rending September 30, 1981, and $34,000,000 for the fiscal year ending September 30, 1982. For the purposes of making grants under paragraph (1) there are authorized to be appropriated not more than the following amounts:

Fiscal year	*Amount*
1987	$37,200,000
1988	37,200,000
1989	40,150,000
1990	40,150,000
1991	41,150,000

For the purpose of making grants under paragraph (1), there are authorized to be appropriated such sums as are necessary for each of fiscal years 1992 and 1993 and $100,000,000 for each of fiscal years 1994 through 2003.

(8) RESERVATION OF FUNDS BY THE ADMINISTRATOR.—If the Administrator assumes the primary enforcement responsibility of a State public water system supervision program, the Administrator may reserve from funds made available pursuant to this subsection, an amount equal to the amount that would otherwise have been provided to the State pursuant to this subsection. The Administrator shall use the funds reserved pursuant to this paragraph to ensure the full and effective administration of a public water system supervision program in the State.

(9) STATE LOAN FUNDS.—

(A) RESERVATION OF FUNDS.—For any fiscal year for which the amount made available to the Administrator by appropriations to carry out this subsection is less than the amount that

the Administrator determines is necessary to supplement funds made available pursuant to paragraph (8) to ensure the full and effective administration of a public water system supervision program in a State (based on the resource model developed under paragraph (3)(B)), the Administrator may reserve from the funds made available to the State under section 1472 an amount that is equal to the amount of the shortfall.

(B) DUTY OF ADMINISTRATOR.—If the Administrator reserves funds from the allocation of a State under subparagraph (A), the Administrator shall carry out in the State—

(i) each of the activities that would be required of the State if the State had primary enforcement authority under section 1413; and

(ii) each of the activities required of the State by this title, other than part C, but not made a condition of the authority.

(b)(1) From allotments made pursuant to paragraph (4), the Administrator may make grants to States to carry out underground water source protection programs.

(2) No grant may be made under paragraph (1) unless an application therefor has been submitted to the Administrator in such form and manner as he may require. No grant may be made to any State under paragraph (1) unless the State has assumed primary enforcement responsibility within two years after the date the Administrator promulgates regulations for State underground injection control programs under section 1421. The prohibition contained in the preceding sentence shall not apply to such grants when made to Indian Tribes.

(3) A grant under paragraph (1) shall be made to cover not more than 75 per centum of the grant recipient's costs (as determined under regulations of the Administrator) in carrying out, during the one-year period beginning on the date the grant is made, an underground water source protection program.

(4) In each fiscal year the Administrator shall, in accordance with regulations, allot the sums appropriated for such year under paragraph (5) among the States on the basis of population, geographical area, and other relevant factors.

(5) For purposes of making grants under paragraph (1) there are authorized to be appropriated $5,000,000 for the fiscal year ending June 30, 1976, $7,500,000 for the fiscal year ending June 30, 1977, $10,000,000 for each of the fiscal years 1978 and 1979, $7,795,000 for the fiscal year ending September 30, 1980, $18,000,000 for the fiscal year ending September 30, 1981, and $21,000,000 for the fiscal year ending September 30, 1982. For the purpose of making grants under paragraph (1) there are authorized to be appropriated not more than the following amounts:

Fiscal year	*Amount*
1987	$19,700,000
1988	19,700,000
1989	20,850,000
1990	20,850,000
1991	20,850,000
1992—2003	*20,850,000*

(c) STATE GROUND WATER PROTECTION GRANTS.—

(1) IN GENERAL.—The Administrator may make a grant to a State for the development and implementation of a State program to ensure the coordinated and comprehensive protection of ground water resources within the State.

(2) GUIDANCE.—Not later than 1 year after the date of enactment of the Safe Drinking Water Act Amendments of 1995, and annually thereafter, the Administrator shall publish guidance that establishes procedures for application for State ground water protection program assistance and that identifies key elements of State ground water protection programs.

(3) CONDITIONS OF GRANTS.—

(A) IN GENERAL.—The Administrator shall award grants to States that submit an application that is approved by the Administrator. The Administrator shall determine the amount of a grant awarded pursuant to this paragraph on the basis of an assessment of the extent of ground water resources in the State and the likelihood that awarding the grant will result in sustained and reliable protection of ground water quality.

(B) INNOVATIVE PROGRAM GRANTS.—The Administrator may also award a grant pursuant to this paragraph for innovative programs proposed by a State for the prevention of ground water contamination.

(C) ALLOCATION OF FUNDS.—The Administrator shall, at a minimum, ensure that, for each fiscal year, not less than 1 percent of funds made available to the Administrator by appropriations to carry out this subsection are allocated to each State that submits an application that is approved by the Administrator pursuant to this subsection.

(D) LIMITATION ON GRANTS.—No grant awarded by the Administrator may be used for a project to remediate ground water contamination.

(4) COORDINATION WITH OTHER GRANT PROGRAMS.—The awarding of grants by the Administrator pursuant to this subsection shall be coordinated with the awarding of grants pursuant to section 319(i) of the Federal Water Pollution Control Act (33 U.S.C. 1329(i)) and the awarding of other Federal grant assistance that provides funding for programs related to ground water protection.

(5) AMOUNT OF GRANTS.—The amount of a grant awarded pursuant to paragraph (1) shall not exceed 50 percent of the eligible costs of carrying out the ground water protection program that is the subject of the grant (as determined by the Administrator) for the 1-year period beginning on the date that the grant is awarded. The State shall pay a State share to cover the costs of the ground water protection program from State funds in an amount that is not less than 50 percent of the cost of conducting the program.

(6) EVALUATIONS AND REPORTS.—Not later than 3 years after the date of enactment of the Safe Drinking Water Act Amendments of 1995, and every 3 years thereafter, the Administrator shall evaluate the State ground water protection programs that are the subject of grants awarded pursuant to this subsection

and report to Congress on the status of ground water quality in the United States and the effectiveness of State programs for ground water protection.

(7) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this subsection $20,000,000 for each of fiscal years 1995 through 2003.

[(c)] *(d)* For purposes of this section:

(1) The term 'public water system supervision program' means a program for the adoption and enforcement of drinking water regulations (with such variances and exemptions from such regulations under conditions and in a manner which is not less stringent than the conditions under, and the manner in, which variances and exemptions may be granted under sections 1415 and 1416) which are no less stringent than the national primary drinking water regulations under section 1412, and for keeping records and making reports required by section 1413(a)(3).

(2) The term 'underground water source protection program' means a program for the adoption and enforcement of a program which meets the requirements of regulations under section 1421 and for keeping records and making reports required by section 1422(b)(1)(A)(ii). Such term includes, where applicable, a program which meets the requirements of section 1425.

SPECIAL STUDY AND DEMONSTRATION PROJECT GRANTS; GUARANTEED LOANS

SEC. 1444. (a) The Administrator may make grants to any person for the purposes of—

(1) assisting in the development and demonstration (including construction) of any project which will demonstrate a new or improved method, approach, or technology, for providing a dependable safe supply of drinking water to the public; and

(2) assisting in the development and demonstration (including construction) of any project which will investigate and demonstrate health implications involved in the reclamation, recycling, and reuse of waste waters for drinking and the processes and methods for the preparation of safe and acceptable drinking water.

(b) Grants made by the Administrator under this section shall be subject to the following limitations:

(1) Grants under this section shall not exceed 66 per centum of the total cost of construction of any facility and 75 per centum of any other costs, as determined by the Administrator.

(2) Grants under this section shall not be made for any project involving the construction or modification of any facilities for any public water system in a State unless such project has been approved by the State agency charged with the responsibility for safety of drinking water (or if there is no such agency in a State, by the State health authority).

(3) Grants under this section shall not be made for any project unless the Administrator determines, after consulting the National Drinking Water Advisory Council, that such project will serve a useful purpose relating to the development and demonstration of new or improved techniques, methods, or

technologies for the provision of safe water to the public for drinking.

(4) Priority for grants under this section shall be given where there are known or potential public health hazards which require advanced technology for the removal of particles which are too small to be removed by ordinary treatment technology.

(c) For the purposes of making grants under subsections (a) and (b) of this section there are authorized to be appropriated $7,500,000 for the fiscal year ending June 30, 1975; and $7,500,000 for the fiscal year ending June 30, 1976; and $10,000,000 for the fiscal year ending June 30, 1977.

(d) The Administrator during the fiscal years ending June 30, 1975, and June 30, 1976, shall carry out a program of guaranteeing loans made by private lenders to small public water systems for the purpose of enabling such systems to meet national primary drinking water regulations prescribed under section 1412. No such guarantee may be made with respect to a system unless (1) such system cannot reasonably obtain financial assistance necessary to comply with such regulations from any other source, and (2) the Administrator determines that any facilities constructed with a loan guaranteed under this subsection is not likely to be made obsolete by subsequent changes in primary regulations. The aggregate amount of indebtedness guaranteed with respect to any system may not exceed $50,000. The aggregate amount of indebtedness guaranteed under this subsection may not exceed $50,000,000. The Administrator shall prescribe regulations to carry out this subsection.

RECORDS AND INSPECTIONS

SEC. 1445. (a)(1)*(A)* **[Every person who is a supplier of water, who is or may be otherwise subject to a primary drinking water regulation prescribed under section 1412 or to an applicable underground injection control program (as defined in section 1422(c)), who is or may be subject to the permit requirement of section 1424 or to an order issued under section 1441, or who is a grantee]** *Every person who is subject to any requirement of this title or who is a grantee,* shall establish and maintain such records, make such reports, conduct such monitoring *by accepted methods*, and provide **[such information as the Administrator may reasonably require by regulation to assist him in establishing regulations under this title, in determining whether such person has acted or is acting in compliance with this title, in administering any program of financial assistance under this title, in evaluating the health risks of unregulated contaminants, or in advising the public of such risks.]** *such information as the Administrator may reasonably require—*

(i) to assist the Administrator in establishing regulations under this title or to assist the Administrator in determining, on a case-by-case basis, whether the person has acted or is acting in compliance with this title; and

(ii) by regulation to assist the Administrator in determining compliance with national primary drinking water regulations promulgated under section 1412 or in administering any program of financial assistance under this title.

If the Administrator is requiring monitoring for purposes of testing new or alternative methods, the Administrator may require the use of other than accepted methods.

(B) In requiring a public water system to monitor under this subsection, the Administrator may take into consideration the system size and the contaminants likely to be found in the system's drinking water.

(C) REVIEW.—The Administrator shall not later than 2 years after the date of enactment of this subparagraph, after consultation with public health experts, representatives of the general public, and officials of State and local governments, review the monitoring requirements for not fewer than 12 contaminants identified by the Administrator, and promulgate any necessary modifications.

(D) STATE-ESTABLISHED REQUIREMENTS.—

(i) IN GENERAL.—Each State with primary enforcement responsibility under section 1413 may, by rule, establish alternative monitoring requirements for any national primary drinking water regulation, other than a regulation applicable to a microbial contaminant (or an indicator of a microbial contaminant). The alternative monitoring requirements established by a State under this clause may not take effect for any national primary drinking water regulation until after completion of at least 1 full cycle of monitoring in the State satisfying the requirements of paragraphs (1) and (2) of section 1413(a). The alternative monitoring requirements may be applicable to public water systems or classes of public water systems identified by the State, in lieu of the monitoring requirements that would otherwise be applicable under the regulation, if the alternative monitoring requirements—

(I) are based on use of the best available science conducted in accordance with sound and objective scientific practices and data collected by accepted methods;

(II) are based on the potential for the contaminant to occur in the source water based on use patterns and other relevant characteristics of the contaminant or the systems subject to the requirements;

(III) in the case of a public water system or class of public water systems in which a contaminant has been detected at quantifiable levels that are not reliably and consistently below the maximum contaminant level, include monitoring frequencies that are not less frequent than the frequencies required in the national primary drinking water regulation for the contaminant for a period of 5 years after the detection; and

(IV) in the case of each contaminant formed in the distribution system, are not applicable to public water systems for which treatment is necessary to comply with the national primary drinking water regulation.

(ii) COMPLIANCE AND ENFORCEMENT.—The alternative monitoring requirements established by the State shall be adequate to ensure compliance with, and enforcement of, each national primary drinking water regulation. The State may review and update the alternative monitoring requirements as necessary.

(iii) APPLICATION OF SECTION 1413.—

(I) IN GENERAL.—Each State establishing alternative monitoring requirements under this subparagraph shall submit the rule to the Administrator as provided in section 1413(b)(1). Any requirements for a State to provide information supporting a submission shall be defined only in consultation with the States, and shall address only such information as is necessary to make a decision to approve or disapprove an alternative monitoring rule in accordance with the following sentence. The Administrator shall approve an alternative monitoring rule submitted under this clause for the purposes of section 1413, unless the Administrator determines in writing that the State rule for alternative monitoring does not ensure compliance with, and enforcement of, the national primary drinking water regulation for the contaminant or contaminants to which the rule applies.

(II) EXCEPTIONS.—The requirements of section 1413(a)(1) that a rule be no less stringent than the national primary drinking water regulation for the contaminant or contaminants to which the rule applies shall not apply to the decision of the Administrator to approve or disapprove a rule submitted under this clause. Notwithstanding the requirements of section 1413(b)(2), the Administrator shall approve or disapprove a rule submitted under this clause within 180 days of submission. In the absence of a determination to disapprove a rule made by the Administrator within 180 days, the rule shall be deemed to be approved under section 1413(b)(2).

(III) ADDITIONAL CONSIDERATIONS.—A State shall be considered to have primary enforcement authority with regard to an alternative monitoring rule, and the rule shall be effective, on a date (determined by the State) any time on or after submission of the rule, consistent with section 1413(c). A decision by the Administrator to disapprove an alternative monitoring rule under section 1413 or to withdraw the authority of the State to carry out the rule under clause (iv) may not be the basis for withdrawing primary enforcement responsibility for a national primary drinking water regulation or regulations from the State under section 1413.

(iv) OVERSIGHT BY THE ADMINISTRATOR.—The Administrator shall review, not less often than every 5 years, any alternative monitoring requirements established by a State under clause (i) to determine whether the requirements are adequate to ensure compliance with, and enforcement of, national primary drinking water regulations. If the Administrator determines that the alternative monitoring requirements of a State are inadequate with respect to a contaminant, and after providing the State with an opportunity to respond to the determination of the Administrator and to correct any inadequacies, the Administrator may withdraw the authority of the State to carry out the alternative monitoring requirements with respect to the contaminant. If the Administrator withdraws the authority, the monitoring requirements contained in the national primary drink-

ing water regulation for the contaminant shall apply to public water systems in the State.

(v) NONPRIMACY STATES.—The Governor of any State that does not have primary enforcement responsibility under section 1413 on the date of enactment of this clause may submit to the Administrator a request that the Administrator modify the monitoring requirements established by the Administrator and applicable to public water systems in that State. After consultation with the Governor, the Administrator shall modify the requirements for public water systems in that State if the request of the Governor is in accordance with each of the requirements of this subparagraph that apply to alternative monitoring requirements established by States that have primary enforcement responsibility. A decision by the Administrator to approve a request under this clause shall be for a period of 3 years and may subsequently be extended for periods of 5 years.

(vi) GUIDANCE.—The Administrator shall issue guidance in consultation with the States that States may use to develop State-established requirements pursuant to this subparagraph and subparagraph (E). The guidance shall identify options for alternative monitoring designs that meet the criteria identified in clause (i) and the requirements of clause (ii).

(E) SMALL SYSTEM MONITORING.—The Administrator or a State that has primary enforcement responsibility under section 1413 may modify the monitoring requirements for any contaminant, other than a microbial contaminant or an indicator of a microbial contaminant, a contaminant regulated on the basis of an acute health effect, or a contaminant formed in the treatment process or in the distribution system, to provide that any public water system that serves a population of 10,000 or fewer shall not be required to conduct additional quarterly monitoring during any 3-year period for a specific contaminant if monitoring conducted at the beginning of the period for the contaminant fails to detect the presence of the contaminant in the water supplied by the public water system, and the Administrator or the State determines that the contaminant is unlikely to be detected by further monitoring in the period.

[(2) Not later than 18 months after enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall promulgate regulations requiring every public water system to conduct a monitoring program for unregulated contaminants. The regulations shall require monitoring of drinking water supplied by the system and shall vary the frequency and schedule of monitoring requirements for systems based on the number of persons served by the system, the source of supply, and the contaminants likely to be found. Each system shall be required to monitor at least once every 5 years after the effective date of the Administrator's regulations unless the Administrator requires more frequent monitoring.

(3) Regulations under paragraph (2) shall list unregulated contaminants for which systems may be required to monitor, and shall include criteria by which the primary enforcement authority in each State could show cause for addition or deletion of contaminants from the designated list.

The primary State enforcement authority may delete contaminants for an individual system, in accordance with these criteria, after obtaining approval of assessment of the contaminants potentially to be found in the system. The Administrator shall approve or disapprove such an assessment submitted by a State within 60 days. A State may add contaminants, in accordance with these criteria, without making an assessment, but in no event shall such additions increase Federal expenditures authorized by this section.

(4) Public water systems conducting monitoring of unregulated contaminants pursuant to this section shall provide the results of such monitoring to the primary enforcement authority.

(5) Notification of the availability of the results of the monitoring programs required under paragraph (2), and notification of the availability of the results of the monitoring program referred to in paragraph (6), shall be given to the persons served by the system and the Administrator.

(6) The Administrator may waive the monitoring requirement under paragraph (2) for a system which has conducted a monitoring program after January 1, 1983, if the Administrator determines the program to have been consistent with the regulations promulgated under this section.

(7) Any system supplying less than 150 service connections shall be treated as complying with this subsection if such system provides water samples or the opportunity for sampling according to rules established by the Administrator.

(8) There are authorized to be appropriated $30,000,000 in the fiscal year ending September 30, 1987 to remain available until expended to carry out the provisions of this subsection.]

(2) MONITORING PROGRAM FOR UNREGULATED CONTAMINANTS.—

(A) ESTABLISHMENT.—The Administrator shall promulgate regulations establishing the criteria for a monitoring program for unregulated contaminants. The regulations shall require monitoring of drinking water supplied by public water systems and shall vary the frequency and schedule for monitoring requirements for systems based on the number of persons served by the system, the source of supply, and the contaminants likely to be found.

(B) MONITORING PROGRAM FOR CERTAIN UNREGULATED CONTAMINANTS.—

(i) INITIAL LIST.—Not later than 3 years after the date of enactment of the Safe Drinking Water Amendments of 1995 and every 5 years thereafter, the Administrator shall issue a list pursuant to subparagraph (A) of not more than 20 unregulated contaminants to be monitored by public water systems and to be included in the national drinking water occurrence data base maintained pursuant to paragraph (3).

(ii) GOVERNORS' PETITION.—The Administrator shall include among the list of contaminants for which monitoring is required under this paragraph each contaminant recommended in a petition signed by the Governor of each of

7 or more States, unless the Administrator determines that the action would prevent the listing of other contaminants of a higher public health concern.

(C) MONITORING BY LARGE SYSTEMS.—A public water system that serves a population of more than 10,000 shall conduct monitoring for all contaminants listed under subparagraph (B).

(D) MONITORING PLAN FOR SMALL AND MEDIUM SYSTEMS.—

(i) IN GENERAL.—Based on the regulations promulgated by the Administrator, each State shall develop a representative monitoring plan to assess the occurrence of unregulated contaminants in public water systems that serve a population of 10,000 or fewer. The plan shall require monitoring for systems representative of different sizes, types, and geographic locations in the State.

(ii) GRANTS FOR SMALL SYSTEM COSTS.—From funds reserved under section 1478(c), the Administrator shall pay the reasonable cost of such testing and laboratory analysis as are necessary to carry out monitoring under the plan.

(E) MONITORING RESULTS.—Each public water system that conducts monitoring of unregulated contaminants pursuant to this paragraph shall provide the results of the monitoring to the primary enforcement authority for the system.

(F) WAIVER OF MONITORING REQUIREMENT.—The Administrator shall waive the requirement for monitoring for a contaminant under this paragraph in a State, if the State demonstrates that the criteria for listing the contaminant do not apply in that State.

(G) ANALYTICAL METHODS.—The State may use screening methods approved by the Administrator under subsection (h) in lieu of monitoring for particular contaminants under this paragraph.

(H) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this paragraph $10,000,000 for each of fiscal years 1995 through 2003.

(3) NATIONAL DRINKING WATER OCCURRENCE DATABASE.—

(A) IN GENERAL.—Not later than 3 years after the date of enactment of the Safe Drinking Water Act Amendments of 1995, the Administrator shall assemble and maintain a national drinking water occurrence data base, using information on the occurrence of both regulated and unregulated contaminants in public water systems obtained under paragraph (2) and reliable information from other public and private sources.

(B) USE.—The data shall be used by the Administrator in making determinations under section 1412(b)(1) with respect to the occurrence of a contaminant in drinking water at a level of public health concern.

(C) PUBLIC RECOMMENDATIONS.—The Administrator shall periodically solicit recommendations from the appropriate officials of the National Academy of Sciences and the States, and any person may submit recommendations to the Administrator, with respect to contaminants that should be included in the national drinking water occurrence data base, including recommendations with respect to additional unregulated contaminants that should be listed under paragraph (2). Any recommendation sub-

mitted under this clause shall be accompanied by reasonable documentation that—

(i) the contaminant occurs or is likely to occur in drinking water; and

(ii) the contaminant poses a risk to public health.

(D) PUBLIC AVAILABILITY.—The information from the data base shall be available to the public in readily accessible form.

(E) REGULATED CONTAMINANTS.—With respect to each contaminant for which a national primary drinking water regulation has been established, the data base shall include information on the detection of the contaminant at a quantifiable level in public water systems (including detection of the contaminant at levels not constituting a violation of the maximum contaminant level for the contaminant).

(F) UNREGULATED CONTAMINANTS.—With respect to contaminants for which a national primary drinking water regulation has not been established, the data base shall include—

(i) monitoring information collected by public water systems that serve a population of more than 10,000, as required by the Administrator under paragraph (2);

(ii) monitoring information collected by the States from a representative sampling of public water systems that serve a population of 10,000 or fewer; and

(iii) other reliable and appropriate monitoring information on the occurrence of the contaminants in public water systems that is available to the Administrator.

(b)(1) Except as provided in paragraph (2), the Administrator, or representatives of the Administrator duly designated by him, upon presenting appropriate credentials and a written notice to any supplier of water or other person subject to (A) a national primary drinking water regulation prescribed under section 1412, (B) an applicable underground injection control program, or (C) any requirement to monitor an unregulated contaminant pursuant to subsection (a), or person in charge of any of the property of such supplier or other person referred to in clause (A), (B), or (C), is authorized to enter any establishment, facility, or other property of such supplier or other person in order to determine whether such supplier or other person has acted or is acting in compliance with this title, including for this purpose, inspection, at reasonable times, of records, files, papers, processes, controls, and facilities, or in order to test any feature of a public water system, including its raw water source. The Administrator or the Comptroller General (or any representative designated by either) shall have access for the purpose of audit and examination to any records, reports, or information of a grantee which are required to be maintained under subsection (a) or which are pertinent to any financial assistance under this title.

(2) No entry may be made under the first sentence of paragraph (1) in an establishment, facility, or other property of a supplier of water or other person subject to a national primary drinking water regulation if the establishment, facility, or other property is located in a State which has primary enforcement responsibility for public water systems unless, before written notice of such entry is made, the Administrator (or his representative) notifies the State agency

charged with responsibility for safe drinking water of the reasons for such entry. The Administrator shall, upon a showing by the State agency that such an entry will be detrimental to the administration of the State's program of primary enforcement responsibility, take such showing into consideration in determining whether to make such entry. No State agency which receives notice under this paragraph of an entry proposed to be made under paragraph (1) may use the information contained in the notice to inform the person whose property is proposed to be entered of the proposed entry; and if a State agency so uses such information, notice to the agency under this paragraph is not required until such time as the Administrator determines the agency has provided him satisfactory assurances that it will no longer so use information contained in a notice under this paragraph.

(c) Whoever fails or refuses to comply with any requirement of subsection (a) or to allow the Administrator, the Comptroller General, or representatives of either, to enter and conduct any audit or inspection authorized by subsection (b) shall be subject to a civil penalty of not to exceed $25,000.

(d)(1) Subject to paragraph (2), upon a showing satisfactory to the Administrator by any person that any information required under this section from such person, if made public, would divulge trade secrets or secret processes of such person, the Administrator shall consider such information confidential in accordance with the purposes of section 1905 of title 18 of the United States Code. If the applicant fails to make a showing satisfactory to the Administrator, the Administrator shall give such applicant thirty days' notice before releasing the information to which the application relates (unless the public health or safety requires an earlier release of such information).

(2) Any information required under this section (A) may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this title or to committees of the Congress, or when relevant in any proceeding under this title, and (B) shall be disclosed to the extent it deals with the level of contaminants in drinking water. For purposes of this subsection the term 'information required under this section' means any papers, books, documents, or information, or any particular part thereof, reported to or otherwise obtained by the Administrator under this section.

(e) For purposes of this section, (1) the term 'grantee' means any person who applies for or receives financial assistance, by grant, contract, or loan guarantee under this title, and (2) the term 'person' includes a Federal agency.

(f) INFORMATION REGARDING DRINKING WATER COOLERS.—The Administrator may utilize the authorities of this section for purposes of part F. Any person who manufactures, imports, sells, or distributes drinking water coolers in interstate commerce shall be treated as a supplier of water for purposes of applying the provisions of this section in the case of persons subject to part F.

(g) AVAILABILITY OF INFORMATION ON SMALL SYSTEM TECHNOLOGIES.—For purposes of paragraphs (4)(E) and (15) of section 1412(b), the Administrator may request information on the characteristics of commercially available treatment systems and tech-

nologies, including the effectiveness and performance of the systems and technologies under various operating conditions. The Administrator may specify the form, content, and date by which information shall be submitted by manufacturers, States, and other interested persons for the purpose of considering the systems and technologies in the development of regulations or guidance under paragraph (4)(E) or (15) of section 1412(b).

(h) SCREENING METHODS.—The Administrator shall review new analytical methods to screen for regulated contaminants and may approve such methods as are more accurate or cost-effective than established reference methods for use in compliance monitoring.

NATIONAL DRINKING WATER ADVISORY COUNCIL

SEC. 1446. (a) There is established a National Drinking Water Advisory Council which shall consist of fifteen members appointed by the Administrator after consultation with the Secretary. Five members shall be appointed from the general public; five members shall be appointed from appropriate State and local agencies concerned with water hygiene and public water supply; and five members shall be appointed from representatives of private organizations or groups demonstrating an active interest in the field of water hygiene and public water supply, *of which two such members shall be associated with small, rural public water systems.* Each member of the Council shall hold office for a term of three years, except that—

(1) any member appointed to fill a vacancy occurring prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term; and

(2) the terms of the members first taking office shall expire as follows: Five shall expire three years after the date of enactment of this title, five shall expire two years after such date, and five shall expire one year after such date, as designated by the Administrator at the time of appointment.

The members of the Council shall be eligible for reappointment.

(b) The Council shall advise, consult with, and make recommendations to, the Administrator on matters relating to activities, functions, and policies of the Agency under this title.

(c) Members of the Council appointed under this section shall, while attending meetings or conferences of the Council or otherwise engaged in business of the Council, receive compensation and allowances at a rate to be fixed by the Administrator, but not exceeding the daily equivalent of the annual rate of basic pay in effect for grade GS-18 of the General Schedule for each day (including travel time) during which they are engaged in the actual performance of duties vested in the Council. While away from their homes or regular places of business in the performance of services for the Council, members of the Council shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703(b) of title 5 of the United States Code.

(d) Section 14(a) of the Federal Advisory Committee Act relating to termination, shall not apply to the Council.

FEDERAL AGENCIES

SEC. 1447. **[(a) Each Federal agency (1) having jurisdiction over any federally owned or maintained public water system or (2) engaged in any activity resulting, or which may result in, underground injection which endangers drinking water (within the meaning of section 1421(d)(2)) shall be subject to, and comply with, all Federal, State, and local requirements, administrative authorities, and process and sanctions respecting the provision of safe drinking water and respecting any underground injection program in the same manner, and to the same extent, as any nongovernmental entity. The preceding sentence shall apply (A) to any requirement whether substantive or procedural (including any recordkeeping or reporting requirement, any requirement respecting permits, and any other requirement whatsoever), (B) to the exercise of any Federal, State, or local administrative authority, and (C) to any process or sanction, whether enforced in Federal, State, or local courts or in any other manner. This subsection shall apply, notwithstanding any immunity of such agencies, under any law or rule of law. No officer, agent, or employee of the United States shall be personally liable for any civil penalty under this title with respect to any act or omission within the scope of his official duties.**

(b) The Administrator shall waive compliance with subsection (a) upon request of the Secretary of Defense and upon a determination by the President that the requested waiver is necessary in the interest of national security. The Administrator shall maintain a written record of the basis upon which such waiver was granted and make such record available for in camera examination when relevant in a judicial proceeding under this title. Upon the issuance of such a waiver, the Administrator shall publish in the Federal Register a notice that the waiver was granted for national security purposes, unless, upon the request of the Secretary of Defense, the Administrator determines to omit such publication because the publication itself would be contrary to the interests of national security, in which event the Administrator shall submit notice to the Armed Services Committee of the Senate and House of Representatives.]

(a) COMPLIANCE.—

(1) IN GENERAL.—Each Federal agency shall be subject to, and comply with, all Federal, State, interstate, and local substantive and procedural requirements, administrative authorities, and process and sanctions concerning the provision of safe drinking water or underground injection in the same manner, and to the same extent, as any nongovernmental entity is subject to, and shall comply with, the requirements, authorities, and process and sanctions.

(2) ADMINISTRATIVE ORDERS AND PENALTIES.—The Federal, State, interstate, and local substantive and procedural requirements, administrative authorities, and process and sanctions referred to in paragraph (1) include all administrative orders

and all civil and administrative penalties or fines, regardless of whether the penalties or fines are punitive or coercive in nature or are imposed for isolated, intermittent, or continuing violations.

(3) LIMITED WAIVER OF SOVEREIGN IMMUNITY.—The United States expressly waives any immunity otherwise applicable to the United States with respect to any requirement, administrative authority, or process or sanction referred to in paragraph (2) (including any injunctive relief, administrative order, or civil or administrative penalty or fine referred to in paragraph (2), or reasonable service charge). The reasonable service charge referred to in the preceding sentence includes—

(A) a fee or charge assessed in connection with the processing, issuance, renewal, or amendment of a permit, variance, or exemption, review of a plan, study, or other document, or inspection or monitoring of a facility; and

(B) any other nondiscriminatory charge that is assessed in connection with a Federal, State, interstate, or local safe drinking water regulatory program.

(4) CIVIL PENALTIES.—No agent, employee, or officer of the United States shall be personally liable for any civil penalty under this subsection with respect to any act or omission within the scope of the official duties of the agent, employee, or officer.

(5) CRIMINAL SANCTIONS.—An agent, employee, or officer of the United States may be subject to a criminal sanction under a State, interstate, or local law concerning the provision of drinking water or underground injection. No department, agency, or instrumentality of the executive, legislative, or judicial branch of the Federal Government shall be subject to a sanction referred to in the preceding sentence.

(b) WAIVER OF COMPLIANCE.—

(1) IN GENERAL.—The President may waive compliance with subsection (a) by any department, agency, or instrumentality in the executive branch if the President determines waiving compliance with such subsection to be in the paramount interest of the United States.

(2) WAIVERS DUE TO LACK OF APPROPRIATIONS.—No waiver described in paragraph (1) shall be granted due to the lack of an appropriation unless the President has specifically requested the appropriation as part of the budgetary process and Congress has failed to make available the requested appropriation.

(3) PERIOD OF WAIVER.—A waiver under this subsection shall be for a period of not to exceed 1 year, but an additional waiver may be granted for a period of not to exceed 1 year on the termination of a waiver if the President reviews the waiver and makes a determination that it is in the paramount interest of the United States to grant an additional waiver.

(4) REPORT.—Not later than January 31 of each year, the President shall report to Congress on each waiver granted pursuant to this subsection during the preceding calendar year, together with the reason for granting the waiver.

(c)(1) Nothing in the Safe Drinking Water Amendments of 1977 shall be construed to alter or affect the status of American Indian

lands or water rights nor to waive any sovereignty over Indian lands guaranteed by treaty or statute.

(2) For the purposes of this Act, the term 'Federal agency' shall not be construed to refer to or include any American Indian tribe, nor to the Secretary of the Interior in his capacity as trustee of Indian lands.

(d) ADMINISTRATIVE PENALTY ORDERS.—

(1) In general.—If the Administrator finds that a Federal agency has violated an applicable requirement under this title, the Administrator may issue a penalty order assessing a penalty against the Federal agency.

(2) PENALTIES.—The Administrator may, after notice to the agency, assess a civil penalty against the agency in an amount not to exceed $25,000 per day per violation.

(3) PROCEDURE.—Before an administrative penalty order issued under this subsection becomes final, the Administrator shall provide the agency an opportunity to confer with the Administrator and shall provide the agency notice and an opportunity for a hearing on the record in accordance with chapters 5 and 7 of title 5, United States Code.

(4) PUBLIC REVIEW.—

(A) IN GENERAL.—Any interested person may obtain review of an administrative penalty order issued under this subsection. The review may be obtained in the United States District Court for the District of Columbia or in the United States District Court for the district in which the violation is alleged to have occurred by the filing of a complaint with the court within the 30-day period beginning on the date the penalty order becomes final. The person filing the complaint shall simultaneously send a copy of the complaint by certified mail to the Administrator and the Attorney General.

(B) RECORD.—The Administrator shall promptly file in the court a certified copy of the record on which the order was issued.

(C) STANDARD OF REVIEW.—The court shall not set aside or remand the order unless the court finds that there is not substantial evidence in the record, taken as a whole, to support the finding of a violation or that the assessment of the penalty by the Administrator constitutes an abuse of discretion.

(D) PROHIBITION ON ADDITIONAL PENALTIES.—The court may not impose an additional civil penalty for a violation that is subject to the order unless the court finds that the assessment constitutes an abuse of discretion by the Administrator.

(e) WASHINGTON AQUEDUCT.—The Washington Aqueduct Authority, the Army Corps of Engineers, and the Secretary of the Army shall not pass the cost of any penalty assessed under this title on to any customer, user, or other purchaser of drinking water from the Washington Aqueduct system, including finished water from the Dalecarlia or McMillan treatment plant.

JUDICIAL REVIEW

SEC. 1448. (a) A petition for review of—

(1) actions pertaining to the establishment of national primary drinking water regulations (including maximum contaminant level goals) may be filed only in the United States Court of Appeals for the District of Columbia circuit; and

(2) any other *final* action of the Administrator under this Act may be filed in the circuit in which the petitioner resides or transacts business which is directly affected by the action.

Any such petition shall be filed within the 45-day period beginning on the date of the promulgation of the regulation **[or issuance of the order]** *or any other final Agency action* with respect to which review is sought or on the date of the determination with respect to which review is sought, and may be filed after the expiration of such 45-day period if the petition is based solely on grounds arising after the expiration of such period. Action of the Administrator with respect to which review could have been obtained under this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement or in any civil action to enjoin enforcement. *In any petition concerning the assessment of a civil penalty pursuant to section 1414(g)(3)(B), the petitioner shall simultaneously send a copy of the complaint by certified mail to the Administrator and the Attorney General. The court shall set aside and remand the penalty order if the court finds that there is not substantial evidence in the record to support the finding of a violation or that the assessment of the penalty by the Administrator constitutes an abuse of discretion.*

(b) The United States district courts shall have jurisdiction of actions brought to review (1) the granting of, or the refusing to grant, a variance or exemption under section 1415 or 1416 or (2) the requirements of any schedule prescribed for a variance or exemption under such section or the failure to prescribe such a schedule. Such an action may only be brought upon a petition for review filed with the court within the 45-day period beginning on the date the action sought to be reviewed is taken or, in the case of a petition to review the refusal to grant a variance or exemption or the failure to prescribe a schedule, within the 45-day period beginning on the date action is required to be taken on the variance, exemption, or schedule, as the case may be. A petition for such review may be filed after the expiration of such period if the petition is based solely on grounds arising after the expiration of such period. Action with respect to which review could have been obtained under this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement or in any civil action to enjoin enforcement.

(c) In any judicial proceeding in which review is sought of a determination under this title required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to

be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken, and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

CITIZEN'S CIVIL ACTION

SEC. 1449. (a) Except as provided in subsection (b) of this section, any person may commence a civil action on his own behalf—

(1) against any person (including (A) the United States, and (B) any other governmental instrumentality or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of any requirement prescribed by or under this title**[, or]**;

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this title which is not discretionary with the Administrator**[.]** *; or*

(3) for the collection of a penalty (and associated costs and interest) against any Federal agency that fails, by the date that is 1 year after the effective date of a final order to pay a penalty assessed by the Administrator under section 1447(d), to pay the penalty.

No action may be brought under paragraph (1) against a public water system for a violation of a requirement prescribed by or under this title which occurred within the 27-month period beginning on the first day of the month in which this title is enacted. The United States district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce in an action brought under this subsection any requirement prescribed by or under this title or to order the Administrator to perform an act, or duty described in paragraph (2), as the case may be.

(b) No civil action may be commenced—

(1) under subsection (a)(1) of this section respecting violation of a requirement prescribed by or under this title—

(A) prior to sixty days after the plaintiff has given notice of such violation (i) to the Administrator, (ii) to any alleged violator of such requirement and (iii) to the State in which the violation occurs, or

(B) if the Administrator, the Attorney General, or the State has commenced and is diligently prosecuting a civil action in a court of the United States to require compliance with such requirement, but in any such action in a court of the United States any person may intervene as a matter of right; or

(2) under subsection (a)(2) of this section prior to sixty days after the plaintiff has given notice of such action to the Administrator.

Notice required by this subsection shall be given in such manner as the Administrator shall prescribe by regulation. No person may commence a civil action under subsection (a) to require a State to prescribe a schedule under section 1415 or 1416 for a variance or

exemption, unless such person shows to the satisfaction of the court that the State has in a substantial number of cases failed to prescribe such schedules.

(c) In any action under this section, the Administrator or the Attorney General, if not a party, may intervene as a matter of right.

(d) The court, in issuing any final order in any action brought under subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such an award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any requirement prescribed by or under this title or to seek any other relief. Nothing in this section or in any other law of the United States shall be construed to prohibit, exclude, or restrict any State or local government from—

(1) bringing any action or obtaining any remedy or sanction in any State or local court, or

(2) bringing any administrative action or obtaining any administrative remedy or sanction,

against any agency of the United States under State or local law to enforce any requirement respecting the provision of safe drinking water or respecting any underground injection control program. Nothing in this section shall be construed to authorize judicial review of regulations or orders of the Administrator under this title, except as provided in section 1448. For provisions providing for application of certain requirements to such agencies in the same manner as to nongovernmental entities, see section 1447.

GENERAL PROVISIONS

SEC. 1450. (a)(1) The Administrator is authorized to prescribe such regulations as are necessary or appropriate to carry out his functions under this title.

(2) The Administrator may delegate any of his functions under this title (other than prescribing regulations) to any officer or employee of the Agency.

(b) The Administrator, with the consent of the head of any other agency of the United States, may utilize such officers and employees of such agency as he deems necessary to assist him in carrying out the purposes of this title.

(c) Upon the request of a State or interstate agency, the Administrator may assign personnel of the Agency to such State or interstate agency for the purposes of carrying out the provisions of this title.

(d)(1) The Administrator may make payments of grants under this title (after necessary adjustment on account of previously made underpayments or overpayments) in advance or by way of reimbursement, and in such installments and on such conditions as he may determine.

(2) Financial assistance may be made available in the form of grants only to individuals and nonprofit agencies or institutions. For purposes of this paragraph, the term ‘nonprofit agency or insti-

tution' means an agency or institution no part of the net earnings of which inure, or may lawfully inure, to the benefit of any private shareholder or individual.

(e) The Administrator shall take such action as may be necessary to assure compliance with provisions of the Act of March 3, 1931 (known as the Davis-Bacon Act; 40 U.S.C. 276a-276a(5)). The Secretary of Labor shall have, with respect to the labor standards specified in this subsection, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 64 Stat. 1267) and section 2 of the Act of June 13, 1934 (40 U.S.C. 276c).

(f) The Administrator shall request the Attorney General to appear and represent him in any civil action instituted under this title to which the Administrator is a party. Unless, within a reasonable time, the Attorney General notifies the Administrator that he will appear in such action, attorneys appointed by the Administrator shall appear and represent him.

(g)The provisions of this title shall not be construed as affecting any authority of the Administrator under part G of title III of this Act.

[(h) Not later than April 1 of each year, the Administrator shall submit to the Committee on Commerce of the Senate and the Committee on Interstate and Foreign Commerce of the House of Representatives a report respecting the activities of the Agency under this title and containing such recommendations for legislation as he considers necessary. The report of the Administrator under this subsection which is due not later than April 1, 1975, and each subsequent report of the Administrator under this subsection shall include a statement on the actual and anticipated cost to public water systems in each State of compliance with the requirements of this title. The Office of Management and Budget may review any report required by this subsection before its submission to such committees of Congress, but the Office may not revise any such report, require any revision in any such report, or delay its submission beyond the day prescribed for its submission, and may submit to such committees of Congress its comments respecting any such report.]

(h) REPORT TO CONGRESS ON PRIVATE DRINKING WATER.—The Administrator shall conduct a study to determine the extent and seriousness of contamination of private sources of drinking water that are not regulated under this title. Not later than 3 years after the date of enactment of the Safe Drinking Water Act Amendments of 1995, the Administrator shall submit to Congress a report that includes the findings of the study and recommendations by the Administrator concerning responses to any problems identified under the study. In designing and conducting the study, including consideration of research design, methodology, and conclusions and recommendations, the Administrator shall consult with experts outside the Agency, including scientists, hydrogeologists, well contractors and suppliers, and other individuals knowledgeable in ground water protection and remediation.

(i)(1) No employer may discharge any employee or otherwise discriminate against any employee with respect to his compensation, terms, conditions, or privileges of employment because the em-

ployee (or any person acting pursuant to a request of the employee) has—

(A) commenced, caused to be commenced, or is about to commence or cause to be commenced a proceeding under this title or a proceeding for the administration or enforcement of drinking water regulations or underground injection control programs of a State.

(B) testified or is about to testify in any such proceeding, or

(C) assisted or participated or is about to assist or participate in any manner in such a proceeding or in any other action to carry out the purposes of this title.

(2)(A) Any employee who believes that he has been discharged or otherwise discriminated against by any person in violation of paragraph (1) may, within 30 days after such violation occurs, file (or have any person file on his behalf) a complaint with the Secretary of Labor (hereinafter in this subsection referred to as the "Secretary") alleging such discharge or discrimination. Upon receipt of such a complaint, the Secretary shall notify the person named in the complaint of the filing of the complaint.

(B)(i) Upon receipt of a complaint filed under subparagraph (A), the Secretary shall conduct an investigation of the violation alleged in the complaint. Within 30 days of the receipt of such complaint, the Secretary shall complete such investigation and shall notify in writing the complainant (and any person acting in his behalf) and the person alleged to have committed such violation of the results of the investigation conducted pursuant to this subparagraph. Within 90 days of the receipt of such complaint the Secretary shall, unless the proceeding on the complaint is terminated by the Secretary on the basis of a settlement entered into by the Secretary and the person alleged to have committed such violation, issue an order either providing the relief prescribed by clause (ii) or denying the complaint. An order of the Secretary shall be made on the record after notice and opportunity for agency hearing. The Secretary may not enter into a settlement terminating a proceeding on a complaint without the participation and consent of the complainant.

(ii) If in response to a complaint filed under subparagraph (A) the Secretary determines that a violation of paragraph (1) has occurred, the Secretary shall order (I) the person who committed such violation to take affirmative action to abate the violation, (II) such person to reinstate the complainant to his former position together with the compensation (including back pay), terms, conditions, and privileges of his employment, (III) compensatory damages, and (IV) where appropriate, exemplary damages. If such an order is issued, the Secretary, at the request of the complainant, shall assess against the person against whom the order is issued a sum equal to the aggregate amount of all costs and expenses (including attorneys' fees) reasonably incurred, as determined by the Secretary, by the complainant for, or in connection with, the bringing of the complaint upon which the order was issued.

(3)(A) Any person adversely affected or aggrieved by an order issued under paragraph (2) may obtain review of the order in the United States Court of Appeals for the circuit in which the viola-

tion, with respect to which the order was issued, allegedly occurred. The petition for review must be filed within sixty days from the issuance of the Secretary's order. Review shall conform to chapter 7 of title 5 of the United States Code. The commencement of proceedings under this subparagraph shall not, unless ordered by the court, operate as a stay of the Secretary's order.

(B) An order of the Secretary with respect to which review could have been obtained under subparagraph (A) shall not be subject to judicial review in any criminal or other civil proceeding.

(4) Whenever a person has failed to comply with an order issued under paragraph (2)(B), the Secretary shall file a civil action in the United States District Court for the district in which the violation was found to occur to enforce such order. In actions brought under this paragraph, the district courts shall have jurisdiction to grant all appropriate relief including, but not limited to, injunctive relief, compensatory, and exemplary damages. Civil actions filed under this paragraph shall be heard and decided expeditiously.

(5) Any nondiscretionary duty imposed by this section is enforceable in mandamus proceeding brought under section 1361 of title 28 of the United States Code.

(6) Paragraph (1) shall not apply with respect to any employee who, acting without direction from his employer (or the employer's agent), deliberately causes a violation of any requirement of this title.

[SEC. 1451. INDIAN TRIBES.]

INDIAN TRIBES

SEC. 1451. (a) IN GENERAL.—Subject to the provisions of subsection (b), the Administrator—

(1) is authorized to treat Indian Tribes as States under this title,

(2) may delegate such Tribes primary enforcement responsibility for public water systems and for underground injection control, and

(3) may provide such Tribes grant and contract assistance to carry out functions provided by this title.

(b) EPA REGULATIONS.—

a) SPECIFIC PROVISIONS.—The Administrator shall, within 18 months after the enactment of the Safe Drinking Water Act Amendments of 1986, promulgate final regulations specifying those provisions of this title for which it is appropriate to treat Indian Tribes as States. Such treatment shall be authorized only if:

(A) the Indian Tribe is recognized by the Secretary of the Interior and has a governing body carrying out substantial governmental duties and powers;

(B) the functions to be exercised by the Indian Tribe are within the area of the Tribal Government's jurisdiction; and

(C) the Indian Tribe is reasonably expected to be capable, in the Administrator's judgment, of carrying out the functions to be exercised in a manner consistent with the

terms and purposes of this title and of all applicable regulations.

(2) PROVISIONS WHERE TREATMENT AS STATE INAPPROPRIATE.—For any provision of this title where treatment of Indian Tribes as identical to States is inappropriate, administratively infeasible or otherwise inconsistent with the purposes of this title, the Administrator may include in the regulations promulgated under this section, other means for administering such provision in a manner that will achieve the purpose of the provision. Nothing in this section shall be construed to allow Indian Tribes to assume or maintain primary enforcement responsibility for public water systems or for underground injection control in a manner less protective of the health of persons than such responsibility may be assumed or maintained by a State. An Indian tribe shall not be required to exercise criminal enforcement jurisdiction for purposes of complying with the preceding sentence.

PART F—ADDITIONAL REQUIREMENTS TO REGULATE THE SAFETY OF DRINKING WATER

[SEC. 1461. DEFINITIONS.]

DEFINITIONS

SEC. 1461. As used in this part—

(1) DRINKING WATER COOLER.—The term 'drinking water cooler' means any mechanical device affixed to drinking water supply plumbing which actively cools water for human consumption.

(2) LEAD FREE.—The term 'lead free' means, with respect to a drinking water cooler, that each part or component of the cooler which may come in contact with drinking water contains not more than 8 percent lead, except that no drinking water cooler which contains any solder, flux, or storage tank interior surface which may come in contact with drinking water shall be considered lead free if the solder, flux, or storage tank interior surface contains more than 0.2 percent lead. The Administrator may establish more stringent requirements for treating any part or component of a drinking water cooler as lead free for purposes of this part whenever he determines that any such part may constitute an important source of lead in drinking water.

(3) LOCAL EDUCATIONAL AGENCY.—The term 'local educational agency' means—

(A) any local educational agency as defined in section 198 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 3381),

(B) the owner of any private, nonprofit elementary or secondary school building, and

(C) the governing authority of any school operating under the defense department's education system provided for under the Defense Dependent's Education Act of 1978 (20 U.S.C. 921 and following).

(4) REPAIR.—The term 'repair' means, with respect to a drinking water cooler, to take such corrective action as is necessary to ensure that water cooler is lead free.

(5) REPLACEMENT.—The term 'replacement', when used with respect to a drinking water cooler, means the permanent removal of the water cooler and the installation of a lead free water cooler.

(6) SCHOOL.—The term 'school' means any elementary school or secondary school as defined in section 198 of the Elementary and Secondary Education Act 1965 (20 U.S.C.2854) and any kindergarten or day care facility.

(7) LEAD-LINED TANKS.—The term 'lead-lined tank' means a water reservoir container in a drinking water cooler which container is constructed of lead or which has an interior surface which is not leadfree.

[SEC. 1462. RECALL OF DRINKING WATER COOLERS WITH LEAD-LINED TANKS.]

RECALL OF DRINKING WATER COOLERS WITH LEAD-LINED TANKS

SEC. 1462. For purposes of the Consumer Product Safety Act, all drinking water coolers identified by the Administrator on the list under section 1463 as having a lead-lined tank shall be considered to be imminently hazardous consumer products within the meaning of section 12 of such Act (15 U.S.C. 2061). After notice and opportunity for comment, including a public hearing, the Consumer Product Safety Commission shall issue an order requiring the manufacturers and importers of such coolers to repair, replace, or recall and provide a refund for such coolers within 1 year after the enactment of the Lead Contamination Control Act of 1988. For purposes of enforcement, such order shall be treated as an order under section 15(d) of the Act (15 U.S.C. 2064(d)).

[SEC. 1463. DRINKING WATER COOLERS CONTAINING LEAD.]

DRINKING WATER COOLERS CONTAINING LEAD

SEC. 1463. (a) PUBLICATIONS OF LISTS.—The Administrator shall, after notice and opportunity for public comment, identify each brand and model of drinking water cooler which is not lead free, including each brand and model that has a lead-lined tank. For purposes of identifying the brand and model of drinking water cooler under this subsection, the Administrator shall use the best information available to the Environmental Protection Agency. Within 100 days after the enactment of this section, the Administrator shall publish a list of each brand and model of drinking water cooler identified under this subsection. Such list shall separately identify each brand and model of cooler which has a lead-lined tank. The Administrator shall continue to gather information regarding lead in drinking water coolers and shall revise and republish the list from time to time as may be appropriate as new information or analysis becomes available regarding lead contamination in drinking water coolers.

(b) PROHIBITION.—No person may sell in interstate commerce, or manufacture for sale in interstate commerce, any drinking water cooler listed under subsection (a) or any other drinking water cooler which is not lead free, including a lead-lined drinking water cooler.

(c) CRIMINAL PENALTY.—Any person who knowingly violates the prohibition contained in subsection (b) shall be imprisoned for not more than 5 years, or fined in accordance with title 18 of the United States Code, or both.

(d) Civil Penalty.—The Administrator may bring a civil action in the appropriate United States District Court (as determined under the provisions of title 28 of the United States Code) to impose a civil penalty on any person who violates subsection (b). In any such action the court may impose on such person a civil penalty of not more than $5,000 ($50,000 in the case of a second or subsequent violation).

[SEC. 1464. LEAD CONTAMINATION IN SCHOOL DRINKING WATER.]

LEAD CONTAMINATION IN SCHOOL DRINKING WATER

SEC. 1464. (a) DISTRIBUTION OF DRINKING WATER COOLER LIST.—Within 100 days after the enactment of this section, the Administrator shall distribute to the States a list of each brand and model of drinking water cooler identified and listed by the Administrator under section 1463(a).

(b) GUIDANCE DOCUMENT AND TESTING PROTOCOL.—The Administrator shall publish a guidance document and a testing protocol to assist schools in determining the source and degree of lead contamination in school drinking water supplies and in remedying such contamination. The guidance document shall include guidelines for sample preservation. The guidance document shall also include guidelines for sample preservation. The guidance documents shall also include guidance to assist States, schools, and the general public in ascertaining the levels of lead contamination in drinking water coolers and in taking appropriate action to reduce or eliminate such contamination. The guidance document shall contain a testing protocol for the identification of drinking water coolers which contribute to lead contamination in drinking water. Such document and protocol may be revised, republished and redistributed as the Administrator deems necessary. The Administrator shall distribute the guidance document and testing protocol to the states within 100 days after the enactment of this section.

(c) DISSEMINATION TO SCHOOLS, ETC.—Each State shall provide for the dissemination to local educational agencies, private nonprofit elementary or secondary schools and to day care centers of the guidance document and testing protocol published under subsection (b), together with the list of drinking water coolers published under section 1463(a).

(d) REMEDIAL ACTION PROGRAM.—

(1) TESTING AND REMEDYING LEAD CONTAMINATION.—Within 9 months after the enactment of this section, each State shall establish a program, consistent with this section, to assist local educational agencies in testing for, and remedying, lead contamination in drinking water from coolers and from other sources of lead contamination at schools under the jurisdiction of such agencies.

(2) PUBLIC AVAILABILITY.—A copy of the results of any testing under paragraph (1) shall be available in the administrative offices of the local educational agency for inspection by the

public, including teachers, other school personnel, and parents. The local educational agency shall notify parent, teacher, and employee organizations of the availability of such testing results.

(3) COOLERS.—In the case of drinking water coolers, such program shall include measures for the reduction or elimination of lead contamination from those water coolers which are not lead free and which are not located in schools. Such measures shall be adequate to ensure that within 15 months after the enactment of this subsection all such water coolers in schools under the jurisdiction of such agencies are repaired, replaced, permanently removed, or rendered inoperable unless the cooler is tested and found (within the limits of testing accuracy) not to contribute lead to drinking water.

[SEC. 1465. FEDERAL ASSISTANCE FOR STATE PROGRAMS REGARDING LEAD CONTAMINATION IN SCHOOL DRINKING WATER.]

FEDERAL ASSISTANCE FOR STATE PROGRAMS REGARDING LEAD CONTAMINATION IN SCHOOL DRINKING WATER

SEC. 1465. (a) SCHOOL DRINKING WATER PROGRAMS.—The Administrator shall make grants to States to establish and carry out State programs under section 1464 to assist local educational agencies in testing for, and remedying, lead contamination in drinking water from drinking water coolers and from other sources of lead contamination at schools under the jurisdiction of such agencies. Such grants may be used by States to reimburse local educational agencies for expenses incurred after the enactment of this section for such testing and remedial.

(b) LIMITS.—Each grant under this section shall be used as by the State for testing water coolers in accordance with section 1464, for testing for lead contamination in other drinking water supplies under section 1464, or for remedial action under State programs under this section 1464. Not more than 5 percent of the grant may be used for program administration.

(c) AUTHORIZATION OF APPROPRIATION.—There are authorized to be appropriated to carry out this section not more than $30,000,000 for fiscal year 1989, $30,000,000 for fiscal year 1990, and $30,000,000 for fiscal year 1991.

PART G—STATE REVOLVING LOAN FUNDS

GENERAL AUTHORITY

SEC. 1471. (a) CAPITALIZATION GRANT AGREEMENTS.—The Administrator shall offer to enter into an agreement with each State to make capitalization grants to the State pursuant to section 1472 (referred to in this part as 'capitalization grants') to establish a drinking water treatment State revolving loan fund (referred to in this part as a 'State loan fund').

(b) REQUIREMENTS OF AGREEMENTS.—An agreement entered into pursuant to this section shall establish, to the satisfaction of the Administrator, that—

(1) the State has established a State loan fund that complies with the requirements of this part;

(2) the State loan fund will be administered by an instrumentality of the State that has the powers and authorities that are required to operate the State loan fund in accordance with this part;

(3) the State will deposit the capitalization grants into the State loan fund;

(4) the State will deposit all loan repayments received, and interest earned on the amounts deposited into the State loan fund under this part, into the State loan fund;

(5) the State will deposit into the State loan fund an amount equal to at least 20 percent of the total amount of each payment to be made to the State on or before the date on which the payment is made to the State, except as provided in subsection (c)(4);

(6) the State will use funds in the State loan fund in accordance with an intended use plan prepared pursuant to section 1474(b);

(7) the State and loan recipients that receive funds that the State makes available from the State loan fund will use accounting procedures that conform to generally accepted accounting principles, auditing procedures that conform to chapter 75 of title 31, United States Code (commonly known as the 'Single Audit Act of 1984'), and such fiscal procedures as the Administrator may prescribe; and

(8) the State has adopted policies and procedures to ensure that loan recipients are reasonably likely to be able to repay a loan.

(c) ADMINISTRATION OF STATE LOAN FUNDS.—

(1) IN GENERAL.—The authority to establish assistance priorities for financial assistance provided with amounts deposited into the State loan fund shall reside in the State agency that has primary responsibility for the administration of the State program under section 1413, after consultation with other appropriate State agencies (as determined by the State).

(2) FINANCIAL ADMINISTRATION.—A State may combine the financial administration of the State loan fund pursuant to this part with the financial administration of a State water pollution control revolving fund established by the State pursuant to title VI of the Federal Water Pollution Control Act (33 U.S.C. 1381 et seq.), or other State revolving funds providing financing for similar purposes, if the Administrator determines that the grants to be provided to the State under this part, and the loan repayments and interest deposited into the State loan fund pursuant to this part, will be separately accounted for and used solely for the purposes of and in compliance with the requirements of this part.

(3) TRANSFER OF FUNDS.—

(A) IN GENERAL.—Notwithstanding any other provision of law, a Governor of a State may—

(i) reserve up to 50 percent of a capitalization grant made pursuant to section 1472 and add the funds reserved to any funds provided to the State pursuant to section 601 of the Federal Water Pollution Control Act (33 U.S.C. 1381); and

(ii) reserve in any year a dollar amount up to the dollar amount that may be reserved under clause (i) for that year from capitalization grants made pursuant to section 601 of such Act (33 U.S.C. 1381) and add the reserved funds to any funds provided to the State pursuant to section 1472.

(B) STATE MATCH.—Funds reserved pursuant to this paragraph shall not be considered to be a State match of a capitalization grant required pursuant to this title or the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

(4) EXTENDED PERIOD.—Notwithstanding subsection (b)(5), a State shall not be required to deposit a State matching amount into the fund prior to the date on which each payment is made for payments from funds appropriated for fiscal years 1994, 1995, and 1996, if the matching amounts for the payments are deposited into the State fund prior to September 30, 1998.

CAPITALIZATION GRANTS

SEC. 1472. (a) GENERAL AUTHORITY.—The Administrator may make grants to capitalize State loan funds to a State that has entered into an agreement pursuant to section 1471.

(b) FORMULA FOR ALLOTMENT OF FUNDS.—

(1) IN GENERAL.—Subject to subsection (c) and paragraph (2), funds made available to carry out this part shall be allotted to States that have entered into an agreement pursuant to section 1471 in accordance with—

(A) for each of fiscal years 1995 through 1997, a formula that is the same as the formula used to distribute public water system supervision grant funds under section 1443 in fiscal year 1995, except that the minimum proportionate share established in the formula shall be 1 percent of available funds and the formula shall be adjusted to include a minimum proportionate share for the State of Wyoming; and

(B) for fiscal year 1998 and each subsequent fiscal year, a formula that allocates to each State the proportional share of the State needs identified in the most recent survey conducted pursuant to section 1475(c), except that the minimum proportionate share provided to each State shall be the same as the minimum proportionate share provided under subparagraph (A).

(2) OTHER JURISDICTIONS.—The formula established pursuant to paragraph (1) shall reserve 0.5 percent of the amounts made available to carry out this part for a fiscal year for providing direct grants to the jurisdictions, other than Indian Tribes, referred to in subsection (f).

(c) RESERVATION OF FUNDS FOR INDIAN TRIBES.—

(1) IN GENERAL.—For each fiscal year, prior to the allotment of funds made available to carry out this part, the Administrator shall reserve 1.5 percent of the funds for providing financial assistance to Indian Tribes pursuant to subsection (f).

(2) USE OF FUNDS.—Funds reserved pursuant to paragraph (1) shall be used to address the most significant threats to pub-

lic health associated with public water systems that serve Indian Tribes, as determined by the Administrator in consultation with the Director of the Indian Health Service and Indian Tribes.

(3) NEEDS ASSESSMENT.—The Administrator, in consultation with the Director of the Indian Health Service and Indian Tribes, shall, in accordance with a schedule that is consistent with the needs surveys conducted pursuant to section 1475(c), prepare surveys and assess the needs of drinking water treatment facilities to serve Indian Tribes, including an evaluation of the public water systems that pose the most significant threats to public health.

(d) TECHNICAL ASSISTANCE FOR SMALL SYSTEMS.—

(1) DEFINITIONS.—In this subsection:

(A) SMALL SYSTEM.—The term 'small system' means a public water system that serves a population of 10,000 or fewer.

(B) TECHNICAL ASSISTANCE.—The term 'technical assistance' means assistance provided by a State to a small system, including assistance to potential loan recipients and assistance for planning and design, development and implementation of a source water quality protection partnership program, alternative supplies of drinking water, restructuring or consolidation of a small system, and treatment to comply with a national primary drinking water regulation.

(2) RESERVATION OF FUNDS.—To provide technical assistance pursuant to this subsection, each State may reserve from capitalization grants received in any year an amount that does not exceed the greater of—

(A) an amount equal to 2 percent of the amount of the capitalization grants received by the State pursuant to this section; or

(B) $300,000.

(e) ALLOTMENT PERIOD.—

(1) PERIOD OF AVAILABILITY FOR FINANCIAL ASSISTANCE.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the sums allotted to a State pursuant to subsection (b) for a fiscal year shall be available to the State for obligation during the fiscal year for which the sums are authorized and during the following fiscal year.

(B) FUNDS MADE AVAILABLE FOR FISCAL YEARS 1995 AND 1996.—The sums allotted to a State pursuant to subsection (b) from funds that are made available by appropriations for each of fiscal years 1995 and 1996 shall be available to the State for obligation during each of fiscal years 1995 through 1998.

(2) REALLOTMENT OF UNOBLIGATED FUNDS.—Prior to obligating new allotments made available to the State pursuant to subsection (b), each State shall obligate funds accumulated before a date that is 1 year prior to the date of the obligation of a new allotment from loan repayments and interest earned on amounts deposited into a State loan fund. The amount of any allotment that is not obligated by a State by the last day of the

period of availability established by paragraph (1) shall be immediately reallotted by the Administrator on the basis of the same ratio as is applicable to sums allotted under subsection (b), except that the Administrator may reserve and allocate 10 percent of the remaining amount for financial assistance to Indian Tribes in addition to the amount allotted under subsection (c). None of the funds reallotted by the Administrator shall be reallotted to any State that has not obligated all sums allotted to the State pursuant to this section during the period in which the sums were available for obligation.

(3) ALLOTMENT OF WITHHELD FUNDS.—All funds withheld by the Administrator pursuant to subsection (g) and section 1442(e)(3) shall be allotted by the Administrator on the basis of the same ratio as is applicable to funds allotted under subsection (b). None of the funds allotted by the Administrator pursuant to this paragraph shall be allotted to a State unless the State has met the requirements of section 1418(a).

(f) DIRECT GRANTS.—

(1) IN GENERAL.—The Administrator is authorized to make grants for the improvement of public water systems of Indian Tribes, the District of Columbia, the United States Virgin Islands, the Commonwealth of the Northern Mariana Islands, American Samoa, and Guam and, if funds are appropriated to carry out this part for fiscal year 1995, the Republic of Palau.

(2) ALASKA NATIVE VILLAGES.—In the case of a grant for a project under this subsection in an Alaska Native village, the Administrator is also authorized to make grants to the State of Alaska for the benefit of Native villages. An amount not to exceed 4 percent of the grant amount may be used by the State of Alaska for project management.

(g) NEW SYSTEM CAPACITY.—Beginning in fiscal year 1999, the Administrator shall withhold the percentage prescribed in the following sentence of each capitalization grant made pursuant to this section to a State unless the State has met the requirements of section 1418(a). The percentage withheld shall be 5 percent for fiscal year 1999, 10 percent for fiscal year 2000, and 15 percent for each subsequent fiscal year.

ELIGIBLE ASSISTANCE

SEC. 1473. (a) IN GENERAL.—The amounts deposited into a State loan fund, including any amounts equal to the amounts of loan repayments and interest earned on the amounts deposited, may be used by the State to carry out projects that are consistent with this section.

(b) PROJECTS ELIGIBLE FOR ASSISTANCE.—

(1) IN GENERAL.—The amounts deposited into a State loan fund shall be used only for providing financial assistance for capital expenditures and associated costs (but excluding the cost of land acquisition unless the cost is incurred to acquire land for the construction of a treatment facility or for a consolidation project) for—

(A) a project that will facilitate compliance with national primary drinking water regulations promulgated pursuant to section 1412;

(B) a project that will facilitate the consolidation of public water systems or the use of an alternative source of water supply;

(C) a project that will upgrade a drinking water treatment system; and

(D) the development of a public water system to replace private drinking water supplies if the private water supplies pose a significant threat to human health.

(2) OPERATOR TRAINING.—Associated costs eligible for assistance under this part include the costs of training and certifying the persons who will operate facilities that receive assistance pursuant to paragraph (1).

(3) LIMITATION.—

(A) IN GENERAL.—Except as provided in subparagraph (B), no assistance under this part shall be provided to a public water system that—

(i) does not have the technical, managerial, and financial capability to ensure compliance with the requirements of this title; and

(ii) has a history of—

(I) past violations of any maximum contaminant level or treatment technique established by a regulation or a variance; or

(II) significant noncompliance with monitoring requirements or any other requirement of a national primary drinking water regulation or variance.

(B) RESTRUCTURING.—A public water system described in subparagraph (A) may receive assistance under this part if—

(i) the owner or operator of the system agrees to undertake feasible and appropriate changes in operations (including ownership, management, accounting, rates, maintenance, consolidation, alternative water supply, or other procedures) if the State determines that such measures are necessary to ensure that the system has the technical, managerial, and financial capability to comply with the requirements of this title over the long term; and

(ii) the use of the assistance will ensure compliance.

(c) ELIGIBLE PUBLIC WATER SYSTEMS.—A State loan fund, or the Administrator in the case of direct grants under section 1472(f), may provide financial assistance only to community water systems, publicly owned water systems (other than systems owned by Federal agencies), and nonprofit noncommunity water systems.

(d) TYPES OF ASSISTANCE.—Except as otherwise limited by State law, the amounts deposited into a State loan fund under this section may be used only—

(1) to make loans, on the condition that—

(A) the interest rate for each loan is less than or equal to the market interest rate, including an interest free loan;

(B) principal and interest payments on each loan will commence not later than 1 year after completion of the project for which the loan was made, and each loan will be

fully amortized not later than 20 years after the completion of the project, except that in the case of a disadvantaged community (as defined in subsection (e)(1)), a State may provide an extended term for a loan, if the extended term—

(i) terminates not later than the date that is 30 years after the date of project completion; and

(ii) does not exceed the expected design life of the project;

(C) the recipient of each loan will establish a dedicated source of revenue for the repayment of the loan; and

(D) the State loan fund will be credited with all payments of principal and interest on each loan;

(2) to buy or refinance the debt obligation of a municipality or an intermunicipal or interstate agency within the State at an interest rate that is less than or equal to the market interest rate in any case in which a debt obligation is incurred after October 14, 1993, or to refinance a debt obligation for a project constructed to comply with a regulation established pursuant to an amendment to this title made by the Safe Drinking Water Act Amendments of 1986 (Public Law 99—339; 100 Stat. 642);

(3) to guarantee, or purchase insurance for, a local obligation (all of the proceeds of which finance a project eligible for assistance under subsection (b)) if the guarantee or purchase would improve credit market access or reduce the interest rate applicable to the obligation;

(4) as a source of revenue or security for the payment of principal and interest on revenue or general obligation bonds issued by the State if the proceeds of the sale of the bonds will be deposited into the State loan fund;

(5) as a source of revenue or security for the payment of interest on a local obligation (all of the proceeds of which finance a project eligible for assistance under subsection (b)); and

(6) to earn interest on the amounts deposited into the State loan fund.

(e) ASSISTANCE FOR DISADVANTAGED COMMUNITIES.—

(1) DEFINITION OF DISADVANTAGED COMMUNITY.—In this subsection, the term 'disadvantaged community' means the service area of a public water system that meets affordability criteria established after public review and comment by the State in which the public water system is located. The Administrator may publish information to assist States in establishing affordability criteria.

(2) LOAN SUBSIDY.—Notwithstanding subsection (d), in any case in which the State makes a loan pursuant to subsection (d) to a disadvantaged community or to a community that the State expects to become a disadvantaged community as the result of a proposed project, the State may provide additional subsidization (including forgiveness of principal).

(3) TOTAL AMOUNT OF SUBSIDIES.—For each fiscal year, the total amount of loan subsidies made by a State pursuant to paragraph (2) may not exceed 30 percent of the amount of the capitalization grant received by the State for the year.

(f) SOURCE WATER QUALITY PROTECTION AND CAPACITY DEVELOPMENT.—

(1) IN GENERAL.—Notwithstanding subsection (b)(1), a State may—

(A) provide assistance, only in the form of a loan, to—

(i) any public water system described in subsection (c) to acquire land or a conservation easement from a willing seller or grantor, if the purpose of the acquisition is to protect the source water of the system from contamination; or

(ii) any community water system described in subsection (c) to provide funding in accordance with section 1419(d)(1)(C)(i);

(B) provide assistance, including technical and financial assistance, to any public water system as part of a capacity development strategy developed and implemented in accordance with section 1418(c); and

(C) make expenditures from the capitalization grant of the State for fiscal years 1996 and 1997 to delineate and assess source water protection areas in accordance with section 1419, except that funds set aside for such expenditure shall be obligated within 4 fiscal years.

(2) LIMITATION.—For each fiscal year, the total amount of assistance provided and expenditures made by a State under this subsection may not exceed 15 percent of the amount of the capitalization grant received by the State for that year and may not exceed 10 percent of that amount for any one of the following activities:

(A) To acquire land or conservation easements pursuant to paragraph (1)(A)(i).

(B) To provide funding to implement recommendations of source water quality protection partnerships pursuant to paragraph (1)(A)(ii).

(C) To provide assistance through a capacity development strategy pursuant to paragraph (1)(B).

(D) To make expenditures to delineate or assess source water protection areas pursuant to paragraph (1)(C).

STATE LOAN FUND ADMINISTRATION

SEC. 1474. (a) ADMINISTRATION, TECHNICAL ASSISTANCE, AND MANAGEMENT.—

(1) ADMINISTRATION.—Each State that has a State loan fund is authorized to expend from the annual capitalization grant of the State a reasonable amount, not to exceed 4 percent of the capitalization grant made to the State, for the costs of the administration of the State loan fund.

(2) STATE PROGRAM MANAGEMENT ASSISTANCE.—

(A) IN GENERAL.—Each State that has a loan fund is authorized to expend from the annual capitalization grant of the State an amount, determined pursuant to this paragraph, to carry out the public water system supervision program under section 1443(a) and to—

(i) administer, or provide technical assistance through, source water quality protection programs, including a partnership program under section 1419; and

(ii) develop and implement a capacity development strategy under section 1418(c) in the State.

(B) LIMITATION.—Amounts expended by a State pursuant to this paragraph for any fiscal year may not exceed an amount that is equal to the amount of the grant funds available to the State for that fiscal year under section 1443(a).

(C) STATE FUNDS.—For any fiscal year, funds may not be expended pursuant to this paragraph unless the Administrator determines that the amount of State funds made available to carry out the public water system supervision program under section 1443(a) for the fiscal year is not less than the amount of State funds made available to carry out the program for fiscal year 1993.

(b) INTENDED USE PLANS.—

(1) IN GENERAL.—After providing for public review and comment, each State that has entered into a capitalization agreement pursuant to this part shall annually prepare a plan that identifies the intended uses of the amounts available to the State loan fund of the State.

(2) CONTENTS.—An intended use plan shall include—

(A) a list of the projects to be assisted in the first fiscal year that begins after the date of the plan, including a description of the project, the expected terms of financial assistance, and the size of the community served;

(B) the criteria and methods established for the distribution of funds; and

(C) a description of the financial status of the State loan fund and the short-term and long-term goals of the State loan fund.

(3) USE OF FUNDS.—

(A) IN GENERAL.—An intended use plan shall provide, to the maximum extent practicable, that priority for the use of funds be given to projects that—

(i) address the most serious risk to human health;

(ii) are necessary to ensure compliance with the requirements of this title (including requirements for filtration); and

(iii) assist systems most in need on a per household basis according to State affordability criteria.

(B) LIST OF PROJECTS.—Each State shall, after notice and opportunity for public comment, publish and periodically update a list of projects in the State that are eligible for assistance under this part, including the priority assigned to each project and, to the extent known, the expected funding schedule for each project.

STATE LOAN FUND MANAGEMENT

SEC. 1475. (a) IN GENERAL.—Not later than 1 year after the date of enactment of this part, and annually thereafter, the Administrator shall conduct such reviews and audits as the Administrator considers appropriate, or require each State to have the reviews and audits independently conducted, in accordance with the single audit requirements of chapter 75 of title 31, United States Code.

(b) STATE REPORTS.—Not later than 2 years after the date of enactment of this part, and every 2 years thereafter, each State that administers a State loan fund shall publish and submit to the Administrator a report on the activities of the State under this part, including the findings of the most recent audit of the State loan fund.

(c) DRINKING WATER NEEDS SURVEY AND ASSESSMENT.—Not later than 1 year after the date of enactment of this part, and every 4 years thereafter, the Administrator shall submit to Congress a survey and assessment of the needs for facilities in each State eligible for assistance under this part. The survey and assessment conducted pursuant to this subsection shall—

(1) identify, by State, the needs for projects or facilities owned or controlled by community water systems eligible for assistance under this part on the date of the assessment (other than refinancing for a project pursuant to section 1473(d)(2));

(2) estimate the needs for eligible facilities over the 20-year period following the date of the assessment;

(3) identify, by size category, the population served by public water systems with needs identified pursuant to paragraph (1); and

(4) include such other information as the Administrator determines to be appropriate.

(d) EVALUATION.—The Administrator shall conduct an evaluation of the effectiveness of the State loan funds through fiscal year 1999. The evaluation shall be submitted to Congress at the same time as the President submits to Congress, pursuant to section 1108 of title 31, United States Code, an appropriations request for fiscal year 2001 relating to the budget of the Environmental Protection Agency.

ENFORCEMENT

SEC. 1476. The failure or inability of any public water system to receive funds under this part or any other loan or grant program, or any delay in obtaining the funds, shall not alter the obligation of the system to comply in a timely manner with all applicable drinking water standards and requirements of this title.

REGULATIONS AND GUIDANCE

SEC. 1477. The Administrator shall publish such guidance and promulgate such regulations as are necessary to carry out this part, including guidance and regulations to ensure that—

(1) each State commits and expends funds from the State loan fund in accordance with the requirements of this part and applicable Federal and State laws; and

(2) the States and eligible public water systems that receive funds under this part use accounting procedures that conform to generally accepted accounting principles, auditing procedures that conform to chapter 75 of title 31, United States Code (commonly known as the 'Single Audit Act of 1984'), and such fiscal procedures as the Administrator may prescribe.

AUTHORIZATION OF APPROPRIATIONS

SEC. 1478. (a) GENERAL AUTHORIZATION.—There are authorized to be appropriated to the Environmental Protection Agency to carry out this part $600,000,000 for fiscal year 1994 and $1,000,000,000 for each of fiscal years 1995 through 2003.

(b) HEALTH EFFECTS RESEARCH.—From funds appropriated pursuant to this section for each fiscal year, the Administrator shall reserve $10,000,000 for health effects research on drinking water contaminants authorized by section 1442. In allocating funds made available under this subsection, the Administrator shall give priority to research concerning the health effects of cryptosporidium, disinfection byproducts, and arsenic, and the implementation of a research plan for subpopulations at greater risk of adverse effects pursuant to section 1442(l).

(c) MONITORING FOR UNREGULATED CONTAMINANTS.—From funds appropriated pursuant to this section for each fiscal year beginning with fiscal year 1997, the Administrator shall reserve $2,000,000 to pay the costs of monitoring for unregulated contaminants under section 1445(a)(2)(D).

(d) SMALL SYSTEM TECHNICAL ASSISTANCE.—

(1) IN GENERAL.—Subject to paragraph (2), from funds appropriated pursuant to this section for each fiscal year for which the appropriation made pursuant to subsection (a) exceeds $800,000,000, the Administrator shall reserve to carry out section 1442(g) an amount that is equal to any amount by which the amount made available to carry out section 1442(g) is less than the amount referred to in the third sentence of section 1442(g).

(2) MAXIMUM AMOUNT.—For each fiscal year, the amount reserved under paragraph (1) shall be not greater than an amount equal to the lesser of—

(A) 2 percent of the funds appropriated pursuant to this section for the fiscal year; or

(B) $10,000,000.

Public Law 93–523, 93d Congress

S. 433, December 16, 1974

AN ACT To amend the Public Health Service Act to assure that the public is provided with safe drinking water, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "Safe Drinking Water Act *of 1974*".

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UNITED STATES CODE, TITLE 21, SECTION 301, ET SEQ.

[Changes to section 410 of the Federal, Food, Drug and Cosmetic Act]

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BOTTLED DRINKING WATER STANDARDS

SEC. 410. **[Whenever]** *(a) Except as provided in subsection (b),* whenever the Administrator of the Environmental Protection Agency prescribes interim or revised national primary drinking water regulations under section 1412 of the Public Health Service Act, the Secretary shall consult with the Administrator and within 180 days after the promulgation of such drinking water regulations either promulgate amendments to regulations under this chapter applicable to bottled drinking water or publish in the Federal Register his reasons for not making amendments.

(b)(1) After the Administrator of the Environmental Protection Agency publishes a proposed maximum contaminant level, but not later than 180 days after the Administrator of the Environmental Protection Agency publishes a final maximum contaminant level, for a contaminant under section 1412 of the Public Health Service Act (42 U.S.C. 300g—1), the Secretary, after public notice and comment, shall issue a regulation that establishes a quality level for the contaminant in bottled water or make a finding that a regulation is not necessary to protect the public health because the contaminant is contained in water in the public water systems (as defined under section 1401(4) of such Act (42 U.S.C. 300f(4)) and not in water used for bottled drinking water. In the case of any contaminant for which a national primary drinking water regulation was promulgated before the date of enactment of the Safe Drinking Water Act Amendments of 1995, the Secretary shall issue the regulation or make the finding required by this paragraph not later than 1 year after than date.

(2) The regulation shall include any monitoring requirements that the Secretary determines to be appropriate for bottled water.

(3) The regulation—

(A) shall require that the quality level for the contaminant in bottled water be as stringent as the maximum contaminant level for the contaminant published by the Administrator of the Environmental Protection Agency; and

(B) may require that the quality level be more stringent than the maximum contaminant level if necessary to provide ample public health protection under this Act.

(4)(A) If the Secretary fails to establish a regulation within the 180-day period described in paragraph (1), the regulation with respect to the final maximum contaminant level published by the Administrator of the Environmental Protection Agency (as described in such paragraph) shall be considered, as of the date on which the Secretary is required to establish a regulation under paragraph (1), as the final regulation for the establishment of the quality level for a contaminant required under paragraph (1) for the purpose of es-

tablishing or amending a bottled water quality level standard with respect to the contaminant.

(B) Not later than 30 days after the end of the 180-day period described in paragraph (1), the Secretary shall, with respect to a maximum contaminant level that is considered as a quality level under subparagraph (A), publish a notice in the Federal Register that sets forth the quality level and appropriate monitoring requirements required under paragraphs (1) and (2) and that provides that the quality level standard and requirements shall take effect on the date on which the final regulation of the maximum contaminant level takes effect.

Public Law 102–486, 102d Congress

H.R. 776, October 24, 1992

AN ACT To provide for improved energy efficiency.

* * * * * * *

[SEC. 3013. GEOTHERMAL HEAT PUMPS.

The Secretary shall—

(1) encourage States, municipalities, counties, and townships to consider allowing the installation of geothermal heat pumps, and, where applicable, and consistent with public health and safety, to permit public and private recipients to utilize the flow of water form, and back into, public and private water mains for the purpose of providing sufficient water supply for the operation of residential and commercial geothermal heat pumps; and

(2) not discourage any local authority which allows the use of geothermal heat pumps from—

(A) inspecting, at any reasonable time, geothermal heat pump connections to the water system to ensure the exclusive use of the public or private water supply to the geothermal heat pump system; and

(B) requiring that geothermal heat pumps systems be designed and installed in a manner that eliminates any risk of contamination to the public water supply.]

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