

1-1-1976

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Recommended Citation

Thomas J. Douglas, *Safe Drinking Water Act of 1974 – History and Critique*, 5 B.C. Envtl. Aff. L. Rev. 501 (1976), <http://lawdigitalcommons.bc.edu/ealr/vol5/iss3/5>

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SAFE DRINKING WATER ACT OF 1974—HISTORY AND CRITIQUE

*Thomas J. Douglas**

INTRODUCTION

In recent years the American public has generally assumed that their drinking water was healthy and safe.¹ As one commentator noted, “[o]verconfidence or apathy seems to pervade the public’s attitude with respect to drinking water. Common daily experience plus a current myth about the future, falsely implies that the quality, safety, and adequacy of our municipal water supply systems are above reproach. Perhaps the myth can be stated as follows: ‘[e]veryone knows we have launched a massive water pollution control effort and that waterborne disease outbreaks are a thing of the past.’”² However, by 1974 such assumptions and myths concerning the safety of America’s drinking water were being seriously challenged.

The *Community Water Supply Study*, a comprehensive study undertaken by the Bureau of Water Hygiene of the Public Health Service, reported serious deficiencies in the quality of drinking water being delivered and the ability of treatment plants to effectively purify drinking water.³ A report from the Comptroller General

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¹ UNITED STATES CODE CONG. AND ADMIN. NEWS 6457 (1974). The House Committee on Interstate and Foreign Commerce noted that: “Until relatively recently the fundamental elements of life—clean air to breathe, safe water to drink—have been taken for granted in the United States.”

² SENATE COMM. ON COMMERCE, SAFE DRINKING WATER ACT OF 1973, S. REP. No. 231, 93d Cong., 1st Sess. 2 (1973). Testimony of Jay Lehr of the National Water Wells Association. Expressing a similar but more direct explanation for the public’s attitude, Ralph Nader stated that: “[T]he basic psychological attitude of the public toward drinking water seems to be that if it doesn’t pinch, it doesn’t hurt.” *Hearings on S. 1735 Before the Subcomm. on Environment of the Senate Comm. on Commerce*, 93d Cong., 1st Sess. 89 (1973).

³ BUREAU OF WATER HYGIENE, UNITED STATES PUBLIC HEALTH SERVICE, HEW, COMMUNITY WATER SUPPLY STUDY—ANALYSIS OF NATIONAL SURVEY FINDINGS (1970) (hereinafter cited as the CWSS). The CWSS will be discussed in detail, *infra*, in text at notes 38-47.

in 1973 indicated that a survey of public water systems in six states had uncovered similar water quality and treatment plant deficiencies.⁴ Furthermore, evidence introduced at Congressional hearings indicated that approximately 130 outbreaks of waterborne diseases were reported during the 1960's.⁵ Notwithstanding the general public belief that drinking water was safe, these reports indicated something had to be done to ensure that America's drinking water actually was safe. After four years of hearings and debates, the Congress of the United States decided that major federal involvement was warranted, passing legislation known as the Safe Drinking Water Act (SDWA) which was signed into law by President Ford on December 16, 1974.⁶

During the history of public water systems in America, which spans the period from the colonial era to the present day, communities encountered numerous problems concerning their public drinking water supplies. Historically, state and local governments had taken primary responsibility in dealing with these problems. By the 1930's these governments had overcome the gravest problem: the waterborne diseases which ravaged America during the late nineteenth and early twentieth century. Other problems remained, however, and coupled with new problems which arose during the 1950's and 1960's, the federal government clearly had to assume a leading role in assuring that the drinking water supplied to American consumers would be healthy and safe. This article will examine the problems which provided the incentive for increased federal involvement in public water systems, culminating in the enactment of the SDWA. The new role the Act provides for the Federal government as the assurer of safe drinking water will also be examined.

I. PUBLIC WATER SYSTEMS IN AMERICA

The SDWA defines "a public water system" as "a system for the provision to the public of piped water for human consumption. . . ." Such systems, however, did not provide drinking water

⁴ COMPTROLLER GENERAL'S REPORT TO THE CONGRESS, IMPROVED FEDERAL AND STATE PROGRAMS NEEDED TO INSURE THE PURITY AND SAFETY OF DRINKING WATER IN THE UNITED STATES (1973).

⁵ UNITED STATES CODE CONG. AND ADMIN. NEWS 6457 (1974). In addition Representative Robison noted that, "[m]ost experts agree that other such outbreaks have not been reported because of fear of political or legal liability, or simply because of local pride." 120 CONG. REC. 10,798 (daily ed. Nov. 19, 1974).

⁶ 5 BNA Env. Rep., Current Devs. 1297 (1974).

⁷ 42 U.S.C. § 300f(4) (Supp. IV, 1974). "Public" only refers to who is served by the system, not who owns it. See, *infra* note 12.

to many Colonial Americans: "In the main, shallow wells, surface water and cisterns for rain catchment provided drinking water supplies."⁸ In about 1750, a Pennsylvania village became the first community to receive its water from a public system. Water from a local spring was piped down the main street of the village.⁹ In 1799, a small section of Philadelphia began to receive its water in wooden pipes from the Schuylkill River.¹⁰ Thereafter the number of public water systems grew rapidly. Beginning with fewer than 16 systems in 1800, there were 400 public systems serving the towns and cities of America by 1860.¹¹ There were more than 3,000 systems by 1900 and presently there are more than 40,000 public systems.¹²

When the early water systems were developed, attention was given to the convenient distribution of water. Little concern was expressed for the water system's ability to transmit germs and disease.¹³ Nor was the progress of science in the early nineteenth century of any significant assistance in providing protection from the hazards of drinking water. Even though primitive chemical analysis of drinking water was possible, the health effects of substances in the water supply were unknown.¹⁴ Notwithstanding the paucity of scientific knowledge concerning drinking water safety, communities began to take action. Beginning in the early 1800's cities passed laws to prevent the dumping of foreign matter into their water supplies.¹⁵ This local action, however, was not able to adequately protect Americans from the ravages of waterborne diseases. From 1861 to 1870, the national death rate from typhoid fever averaged close to 120 per 100,000 population.¹⁶ This epidemic, especially in the grow-

⁸ L. DWORSKY, *WATER & AIR POLLUTION* 7 (1971).

⁹ *Id.* at 7.

¹⁰ *Id.* at 8. See also, N. BLAKE, *WATER FOR THE CITIES* (1956), for a history of the development of early public water systems in New York, Boston, and Philadelphia.

¹¹ L. DWORSKY, *supra* note 8, at 8.

¹² Harris and Brecher, *Is the Water Safe To Drink?*, 39 *CONS. REPORTS* 436 (1974). Of the 40,000 public water systems, Henry Patterson of the National Water Works Conference noted that approximately 5,500 are owned by private investors while the rest are run by public authorities. *Hearings on H.R. 1093, H.R. 5454, and H.R. 437 Before the Subcomm. on Public Health and Environment of the House Comm. on Interstate and Foreign Commerce*, 92d Cong., 1st Sess. 62 (1971).

¹³ N. BLAKE, *supra*, note 10 at 248. See also, L. DWORSKY, *supra* note 8, at 8, which notes that piped water provided an "efficient" means of delivering hazardous bacteria.

¹⁴ N. BLAKE, *supra* note 10, at 248. Blake noted that in Boston at that time it was argued that water which had small animal life in it was surely safe, for otherwise the frail creatures would not survive.

¹⁵ *Id.* at 256.

¹⁶ L. DWORSKY, *supra* note 8, at 8-9.

ing cities, combined with bacteriological information from European scientists, led to the formation of state boards of health.¹⁷ Until new water treatment technologies were developed, however, these boards could not effectively combat waterborne diseases.¹⁸ The initial breakthrough in the mid-1870's was the development of slow-sand filtration of water supplies. Rapid-sand filtration followed in the mid-1880's.¹⁹ An indication of how effective these new technologies were is that the national typhoid fever death rate, which from 1861 to 1870 had averaged 120 per 100,000 population, was lowered to under 10 per 100,000 by 1918.²⁰

The initial federal action concerning drinking water was the establishment of the Public Health Service Hygienic Laboratory in 1901.²¹ The laboratory was to investigate infectious and contagious diseases. In 1912, the Public Health Service (PHS) received authority to investigate "the diseases of man and conditions influencing the propagation and spread thereof, including sanitation and sewage. . . ."²² In 1914, the PHS took its first major step with the promulgation of the Drinking Water Standards (DWS). The DWS established criteria to test drinking water which was to be used by interstate carriers. If a water supply did not meet the DWS criteria, it could not be used by interstate carriers.²³ In 1925, the standards were revised after a finding that they were being used to determine the quality of water being distributed by municipalities and that they were also being used in courts "as the legal standard for the purity of water."²⁴ The DWS experienced further revision in 1946 and 1962.²⁵

¹⁷ *Id.* at 9. Massachusetts established the first board of health in 1869. *Hearings on H.R. 1093, supra* note 12, at 607.

¹⁸ *Hearings on H.R. 1093, supra* note 12, at 607.

¹⁹ L. DWORSKY, *supra* note 8, at 8-9.

²⁰ *Id.*

²¹ *Id.* at 11. Act of March 3, 1901, ch. 853, 31 Stat. 1137.

²² L. DWORSKY, *supra* note 8, at 8-9. Act of August 14, 1912, ch. 288, 37 Stat. 309.

²³ The DWS were adopted as an aid to the Public Health Service's administration of the Interstate Quarantine Regulations. *Hearings on H.R. 1093, supra* note 12, at 611. The authority to establish and revise drinking water standards for interstate carriers was vested in the United States Public Health Service until 1970. In 1970 that authority was transferred to the Administrator of the United States Environmental Protection Agency. UNITED STATES CODE CONG. AND ADMIN. NEWS 6456 (1974).

²⁴ L. DWORSKY, *supra* note 8, at 16. Because the DWS were being used in a greater number of important situations than had been anticipated, it was apparently decided that they should be upgraded.

²⁵ *Hearings on H.R. 1093, supra* note 12, at 612.

One commentator has argued that “. . . [l]argely as a result of using these [PHS] standards as guides, the safety of [America's] drinking water supplies is one of the unique public health engineering feats of the world.²⁶ In 1971, prior to the enactment of the SDWA, they had been officially adopted or used by a large number of states as the criteria for determining the safety of their drinking water.²⁷ The DWS have certainly contributed to the safety of American drinking water; however as a policy tool, the DWS had certain limitations. The federal enforcement authority was limited to prohibiting interstate carriers from using water from a system which failed to comply with the DWS.²⁸ The federal government had no authority to take action to correct problems which existed, nor could it restrict the use of the non-complying system by communities being served by it.²⁹ In addition the DWS have been further criticized because of the limited number of contaminants they set criteria for.³⁰ Aspects of these criticisms will be given further consideration in the analysis of the Congressional activity preceding the SDWA.³¹

Through the application of technological developments and the combined efforts of the state and federal governments, the incidence of waterborne disease was virtually eliminated by the 1930's.³² As a result of this successful effort against waterborne diseases, the national concern with drinking water safety apparently decreased. With the inception of the federal water pollution program in 1948, drinking water safety was given even lower priority.³³ As a result of

²⁶ L. DWORSKY, *supra* note 8, at 16.

²⁷ *Hearings on H.R. 1093, supra* note 12, at 340. Testimony of John Vogt of the Conference of State Sanitary Engineers.

²⁸ SENATE COMM. ON COMMERCE, *supra* note 2, at 69. At the same hearings Robert Fri of the EPA noted that the limited enforcement authority only applied to 650 out of approximately 30,000 public water systems. *Id.* at 105.

²⁹ *Id.* at 69.

³⁰ *Hearings on S. 1478 Before the Senate Comm. on Commerce, 92d Cong., 2d Sess. 54 (1972)*. Ralph Nader stated that:

The DWS is now being revised and for good reason. It is incomplete in major areas of known contamination. It does not provide for any standards relating to mercury and other heavy metals, sodium, pesticides, [and] herbicides, . . . to name a few areas. [U]sing the present DWS as the evaluative measure [for water quality] has to represent the most minimum approach.

³¹ *See, infra*, text at notes 58-61.

³² *Hearings on H.R. 1093, supra* note 12, at 61.

³³ The basis for this diminished priority seemed to be what Charles Johnson termed, “. . . the popular misconception that water pollution control efforts are a panacea which will . . . guarantee delivery of healthful quantities of safe drinking water. . . .” *Hearings on H.R. 1093, supra* note 12, at 62.

this increased concern with water pollution and decreased concern with drinking water safety, state programs to ensure safe drinking water suffered.³⁴

While public concern and governmental action were diminishing, the technological change and economic growth following World War II led to the introduction of many new chemical pollutants into the water supplies.³⁵ Water supply treatment technology, however, was not advancing rapidly enough to solve many of these new problems:

[A]s industry developed, we developed more sophisticated chemicals while normal drinking water treatment technologies stayed essentially the same. As a result, our ability to absorb new shocks, to meet new problems affecting the Nation's drinking water supplies, became less.³⁶

When statistics from the 1960's indicated that waterborne diseases still had to be reckoned with in America, national concern with the safety of America's drinking water re-emerged. The statistics indicated that during the 1960's approximately 130 outbreaks of waterborne diseases had been reported.³⁷

In response to the re-emergence of concern with drinking water, the Bureau of Water Hygiene of the PHS in 1969 undertook a study of 969 public water supply systems in order to determine how effective the systems were in providing safe water to the American public. The findings of the PHS were published in the *Community Water Supply Study* (CWSS), which was designed to assess: the status of drinking water quality, water supply systems facilities, and bacteriological surveillance programs in urban and suburban areas.³⁸ The results of the CWSS indicated that deficiencies existed

³⁴ *Hearings on S. 1478, supra* note 30, at 170. Charles Johnson of the American Public Health Association stated that:

Up to the forties we had good water supply programs at the state level. As the water pollution control monies became available, as the pressure became apparent that they [the states] had to do something in this field [water pollution], they took their trained manpower, [and] moved it to where the gold was . . . and they produced a water pollution control effort at the expense of a water supply effort.

³⁵ *Hearings on H.R. 1093, supra* note 12, at 611.

³⁶ *Id.* at 598. Testimony of Leonard Dworsky, Director, Water Resources and Marine Sciences Center, Cornell University.

³⁷ UNITED STATES CODE CONG. AND ADMIN. NEWS 6457 (1974). Among the more noteworthy outbreaks were a gastroenteritis attack affecting 18,000 residents of Riverside, California in 1965; a gastroenteritis attack affecting 30% of the community of Angola, N.Y. in 1968; and hepatitis striking the Holy Cross football team in 1969.

³⁸ BUREAU OF WATER HYGIENE, *supra* note 3, at i. Drinking water quality was measured against the DWS and water was found to have either not violated any standard, violated a recommended constituent limit, or violated a mandatory limit. *Id.* at 12. Plant and facilities

not only in the quality of water being delivered to the American consumer but also in the capacities of the purifying and distribution systems. It also indicated deficiencies in the surveillance of the systems by state and local officials.

Of the 969 systems studied, only 59 per cent were delivering water that satisfied the DWS.³⁹ In 25 per cent of the systems, water was delivered that exceeded at least one of the DWS recommended limits. In 16 percent of the systems, water was delivered that exceeded one or more of the DWS mandatory contaminant limits.⁴⁰ The study also found that 56 per cent of the water treatment facilities had a major physical deficiency.⁴¹ Further, in 54 per cent of the systems no ordinances existed which would prevent cross-connection between drinking water and sewage lines.⁴² Another common deficiency was the lack of training of those responsible for the operation of water treatment facilities. Approximately two thirds of the operators lacked any special water technology training, and were also deficient in microbiological and chemistry training.⁴³ The CWSS also found inadequacies in the administration of water system surveillance programs. An insufficient number of samples had been taken in more than one of the 12 months prior to the study in 85 per cent of the systems surveyed.⁴⁴

As a result of these findings, the PHS made a number of explicit and implicit recommendations in the CWSS. The study noted that many of the DWS had been established with insufficient data on health effects of contaminants in the water. It also noted that many contaminants in drinking water, such as mercury, were not covered

were judged to be free from major deficiency or to be deficient in source protection, disinfection, control of disinfections, clarification capabilities, control of clarification, or having pressure less than 20 pounds per square inch in some areas of the distribution system. *Id.* at 15. Surveillance programs were judged either to meet the criteria or not to meet one or both of the following: (1) Collection of the required number of samples (as specified in the DWS at 42 C.F.R. § 72.203) for no less than 11 out of the prior 12 months. (2) Passing the bacteriological quality standard for at least 11 of those prior 12 months. *Id.* at 15.

³⁹ *Id.* at i. For the DWS see 42 C.F.R. § 72.201, *et seq.* (1975).

⁴⁰ *Id.* at i. See *supra*, note 38.

⁴¹ *Id.* at iv. See *supra*, note 38 for criteria used in determining a treatment plant deficiency.

⁴² A cross-connection is a pipe which connects a clean water line to a waste line, generally occurring in a building's plumbing system. Notwithstanding the use of valves in the cross-connection pipes, the waste water can contaminate the clean water. (Information received from Mr. Taylor of EPA's Water Supply Office in Boston, Mass.)

⁴³ *Id.* at xii, 63-65. 77% of the operators were deficient in microbiological and 72% in chemistry training.

⁴⁴ *Id.* at vii. The standards for determining the sufficiency of sampling were the frequencies specified by the DWS at 42 C.F.R., § 72.203.

by the DWS.⁴⁵ Implicit in these findings was the need to develop standards which had a broader scope to protect the public safety. The study also recommended that state and federal programs to train water system personnel be expanded.⁴⁶ Another recommendation was that someone not employed by the public water system should review operation procedures and the adequacy of the physical facilities on a regular basis.⁴⁷

The CWSS played a key role in focusing attention on the problems in the area of drinking water safety.⁴⁸ In 1970, the year the study was released, legislation was introduced in Congress to establish a national program to contend with the problems of drinking water safety.⁴⁹ In the following year Congressional committees commenced hearings concerning the problems. However, both houses of Congress could not agree on a national program in the area of drinking water safety for four years.

II. THE DELIBERATIONS OF CONGRESS

Testimony before Congressional committees indicated several possible and interrelated reasons for the deficiencies indicated by the CWSS. One problem was the public's lack of awareness concerning both the quality of water they drank and the health hazards related to drinking contaminated waters.⁵⁰ Another problem, on which the CWSS had focused attention, was that "governments at all levels . . . have not developed, applied, and enforced adequate standards and procedures for protection of the public's health."⁵¹ In addition, the hearings indicated a need for expanded research in the field of drinking water safety.⁵²

Once the existence of the problems noted above was recognized, the far more difficult task of assembling a legislative program to contend with them presented itself. While some proposals were ac-

⁴⁵ *Id.* at xi.

⁴⁶ *Id.* at xii.

⁴⁷ *Id.* at 61. The study did not specify who that someone should be. This issue resulted in strong disagreement at the Congressional Hearings.

⁴⁸ *Hearings on H.R. 1093, supra* note 12, at 338. Representative Carter, referring to the CWSS, stated that the potential danger it had indicated was "one of the things that [brought] about this bill [SDWA]."

⁴⁹ *Id.* at 51-52.

⁵⁰ UNITED STATES CODE CONG. AND ADMIN. NEWS 6459 (1974). *See* text at note 84, *infra*, for further discussion of the lack of public awareness.

⁵¹ *Id.* at 6459.

⁵² *See* text at note 54, *infra*.

ceptable to most of the interested parties, others resulted in heated controversy. Involved in much of this controversy was whether any federal involvement in the area of drinking water safety was warranted and if so, how extensive that involvement should be.

An analysis of the Congressional activity indicates that three broad programs were alternatively supported or opposed by the parties represented at the hearings. As the final form of the SDWA indicates, these programs were not mutually exclusive.⁵³ The first program sought expanded federal research on drinking water safety. In conjunction with this research, the federal government would provide technical assistance to state and local drinking water programs and establish standards for contaminant levels in drinking water. The second program suggested was the enforcement of contaminant standards. The third program concentrated on providing federal financial assistance to state water supply programs.

Program I: Federal Research and Drinking Water Standards

Testimony at the Congressional hearings indicated that inadequate knowledge existed concerning which contaminants were entering drinking water supplies, the impact of contaminants on public health, and means to eliminate contaminants from the drinking water supplies. Commenting on these inadequacies, the executive director of the National Water Wells Association stated: “[w]e especially must not lose sight of research and development needs which exist today. In order to safeguard the health of the American public by having the machinery to detect, to analyze, and to remove any hazards in water, many studies must be undertaken.”⁵⁴

Proponents of expanded research at the federal level had two basic arguments. One contention was that federal research would avoid duplication of programs and lead to the most efficient use of skilled personnel.⁵⁵ The other argument was that the federal govern-

⁵³ See text at note 111, *infra*.

⁵⁴ *Hearings on H.R. 1093, supra* note 12, at 120. Testimony of Jay Lehr. At a Senate Hearing Ralph Nader noted:

Even a properly operated conventional treatment plant which handles bacteria, color, and turbidity is not geared to handle the spectrum of new toxic chemicals which have found their way into the water system.

Hearings on S. 1478, supra note 30, at 58.

⁵⁵ *Hearings on H.R. 1093, supra* note 12, at 330. John Vogt, the chairman of the Conference of State Sanitary Engineers, argued that, “[r]esearch can be best pursued at the Federal level, thereby eliminating needless duplication at the State . . . level.”

ment had greater financial and research capabilities.⁵⁶ In conjunction with their general support for expanded federal research, most interested parties favored federal programs for the training of water plant personnel.⁵⁷

Beyond suggesting expanded research, proponents of the first program sought new federal standards. As was noted above, the DWS had been used by a large number of states as criteria for establishing the safety of their drinking water.⁵⁸ The DWS, however, had been criticized by the CWSS.⁵⁹ Testimony at the Congressional hearings reaffirmed these criticisms, indicating that the DWS were “. . . incomplete in major areas of known contamination . . . [They do] not provide for any standards relating to mercury and other heavy metals, . . . pesticides, [and] herbicides. . . to name a few areas. [U]sing the present Drinking Water Standards as the evaluative measure [for water quality] has to represent the most minimum approach.”⁶⁰ Such criticisms indicated a need for new standards to cover a wide range of contaminants. In addition many parties saw a need to create federal minimum standards for water quality which would apply to all public water systems.⁶¹ Similar to reasons for supporting basic federal research, one argument for such standards was the greater scientific and financial resources available to the federal government. Robert Fri, the deputy administrator of the United States Environmental Protection Agency (EPA), argued that the

EPA should be authorized to set national drinking water standards, which would be addressed to all health-related limits [on contaminants]. [This problem] should be a Federal responsibility because . . .

⁵⁶ *Hearings on H.R. 14899 Before the Subcomm. on Public Health and Environment of the House Comm. on Interstate and Foreign Commerce*, 92d Cong., 2d Sess. 103 (1972). An EPA statement noted that, “[f]ederal research, technical assistance, . . . and training should be provided . . . to develop and disseminate the scientific data and methodology that are beyond the capability of the state and local entities involved in the supply and protection of drinking water.”

⁵⁷ *Hearings on H.R. 1093, supra* note 12, at 312; *Hearings on S. 433 and S. 1735, Before the Subcomm. on Environment of the Senate Comm. on Commerce*, 93d Cong., 1st Sess. 180 (1973).

⁵⁸ See text at note 27, *supra*.

⁵⁹ See text at note 45, *supra*.

⁶⁰ *Hearings on S. 1478, supra* note 30, at 54 (testimony of Ralph Nader). Leonard Dworsky called for the “. . . effective development of standards of chemical quality for drinking water as well as standards for biological, physical, radiological, or other contaminants and for other desirable qualities of drinking water.” *Hearings on H.R. 1093, supra* note 12, at 599.

⁶¹ See, *supra*, note 28 indicating the limited application of the DWS.

the Federal Government can bring greater resources to assess the complex health and technical aspects involved.⁶²

A second argument offered was the need for uniform quality standards among all water systems.⁶³

The establishment of federal standards which would apply to all water systems was not favored by all parties.⁶⁴ Other parties saw no need to have a law requiring that all water system comply with the standards. The president of the American Water Works Association, Thurston Larson, argued that if standards were only specified for water used by interstate carriers, public water systems would voluntarily accept them.⁶⁵

Although general support existed for federal standards which specified maximum contaminant levels, water works groups were firmly opposed to standards which would specify operation and maintenance procedures for water treatment plants. The opponents to operation and maintenance standards argued that such standards would be inflexible and if not continually revised, would lead to requiring outdated methods. This position received support from Ralph Nader when he stated that “. . . restrictive design criteria issued by state regulatory agencies [are factors] at the heart of an outmoded strategy for purifying drinking water.”⁶⁶ A related argument was that operation standards would prevent the water systems from doing an adequate job: “[I]nnovation and flexibility have been the secret weapon of the industry . . . [and] the glaciation promised by ‘standards for construction and maintenance’ would hold promise of preventing it from doing its job.”⁶⁷ Another argument was that specific operational standards were impossible to write because of varying conditions across the country.⁶⁸

⁶² *Hearings on H.R. 14899, supra* note 56, at 45.

⁶³ *Hearings on S. 433, supra* note 57, at 107. Supporting this argument, Mr. Fri urged that “. . . the establishment of these primary standards should be a Federal responsibility because standards for health protection do not vary with locality.”

⁶⁴ *Hearings on H.R. 1093, supra* note 12, at 115. Congressman Schmitz of California challenged any presumption that the Federal Government would administer a better safe drinking water program than the states.

⁶⁵ *Id.* at 146 (testimony of Thurston Larson).

⁶⁶ *Hearings on S. 433, supra* note 57, at 89.

⁶⁷ *Hearings on H.R. 1093, supra* note 12, at 146-47 (testimony of Thurston Larson).

⁶⁸ *Hearings on S. 433, supra* note 57, at 118. The main arguments for operational standards were that systems would not adopt modern technology rapidly enough on their own and that certain contaminants cannot be measured in water and thus can only be effectively controlled by specifying the means for control.

Program II: Enforcement of Contaminant Standards

The second proposed program was concerned with ensuring that public water systems would comply with federal standards. Certain parties were opposed to any enforcement procedures, believing that “. . . cooperative teamwork and spirit between water plant operators and regulatory agencies should be . . . encouraged in the interest of producing . . . a safe . . . water supply,” and that this approach would be “. . . more effective than enforcement procedures.”⁶⁹ The more general view, however, was that “. . . it wouldn't make much sense for us to set up national standards without any way to enforce the standards”⁷⁰

The real controversy concerned the allocation of enforcement authority among the various levels of government. Three possibilities were considered. The first would have precluded any federal authority and placed the entire responsibility with the state governments. The second would have given the states primary enforcement authority but allowed the federal government to enforce where state enforcement had broken down. The third would have given the states and federal governments coterminous enforcement authority.

Proponents of exclusive state enforcement authority argued that states already had legislative authority to carry out the necessary inspections and insure compliance with the standards and that the state programs only needed financial support to become effective.⁷¹ Another argument was that the federal government could not practically monitor the 30,000 to 40,000 existing public water systems,⁷² since the personnel requirements and financial demands would be enormous.

The opponents of federal enforcement authority presented additional arguments as to why the federal government should not receive that authority. They made the general argument that although state drinking water programs had experienced problems, no reason existed to “feel that extending Federal surveillance into this area will enhance control.”⁷³ They also argued that

⁶⁹ *Hearings on H.R. 1093, supra* note 12, at 319 (testimony of Stanley Kappe of the American Academy of Environmental Engineers).

⁷⁰ *Id.* at 33.

⁷¹ *Hearings on S. 433, supra* note 57, at 143 (testimony of Wesley Gilbertson).

⁷² *Hearings on H.R. 1093, supra* note 12, at 150 (testimony of Charles Johnson of the American Public Health Association).

⁷³ *Id.* at 670 (statement of Robert Will of the Metropolitan Water District of Southern California).

[e]ach and every state had statutory authority and surveillance and enforcement programs over community water supplies. [Therefore] Federal enforcement would result in a gross duplication of effort which would be costly in dollars and . . . scarce technical manpower.⁷⁴

The opponents also argued that as a result of federal enforcement “[c]onfusion would be compounded with directives to water suppliers from two levels of Government [state and federal].”⁷⁵ Their final argument was that federal enforcement authority would render state programs ineffective, and was based on the proposition that if a state government believes that the federal government would do the job for it, then the state government would not do it themselves. William Ruckelshaus lent some credence to this argument by stating that “. . . where the Federal Government says, ‘We are going to come in and take [an environmental program] over,’ the state and local governments tend to do nothing.”⁷⁶

The proponents of allowing the federal government to take action only where the states had failed, although leaving the states to bear most of the enforcement responsibility, believed that backup authority in the EPA was necessary.⁷⁷ This group, however, was also aware of the problem noted above, that when the federal government steps into a program the state governments tend to back out. Sensitive to this problem was a statement by Representative Nelsen that “if we pass a law it will need to have some teeth. At the same time, we shouldn’t go so far that you discourage local incentive from stepping into the picture.”⁷⁸ The proponents of backup federal enforcement authority believed that it struck a proper balance between the need for federal authority and the need for state and local responsibility and initiative.

The proponents of coterminous state and federal enforcement

⁷⁴ *Id.* at 331. At a Senate Hearing John Vogt noted: “The duplicative aspects of Federal inspections, monitoring, laboratory surveillance, et cetera, now being experienced in . . . [other] environmental program area[s] need to be expressly avoided.” *Hearings on S. 1478*, *supra* note 30, at 70.

⁷⁵ *Hearings on H.R. 1093*, *supra* note 12, at 331 (testimony of John Vogt).

⁷⁶ *Id.* at 519. Ruckelshaus also noted that Federal enforcement may not be necessary in the area of drinking water because “[w]e don’t have precisely the same kind of situation that we have in water pollution . . . where the states traditionally have not been good enforcers because they compete very strongly for the location of industry in their areas.” *Id.* at 359.

⁷⁷ A statement by Representative William Rogers indicated what this group viewed as the proper relationship between the state and federal governments. Rogers stated: “[W]e want the states to do it [enforce], and only after the states will not do it, . . . won’t protect the public, then would we have the Federal Government do it.” *Id.* at 343.

⁷⁸ *Id.* at 335.

authority took the position that showing deference to the states by giving them exclusive enforcement authority until they failed was unnecessary and inappropriate. They felt that the past inadequacies of state enforcement programs required that the federal government be able at any time to enforce compliance with the water standards. Ralph Nader argued that the benefit of this approach was that “[y]ou . . . have two options for enforcement. If the locals are reluctant to enforce or they don’t have enough resources to enforce, then always the Federal Government could come in coterminously.”⁷⁹

Beyond the allocation of control, the enforcement program raised another issue: if the federal government were to receive enforcement authority, of what enforcement powers would such authority consist. One group favored provisions for EPA administrative orders to secure compliance with the standards.⁸⁰ This group apparently believed that the time required to secure compliance would be a crucial factor in protecting the public health and that the delay while awaiting some form of judicial action would be too hazardous. Opposed to this position were those concerned that authorizing EPA administrative orders would give the EPA too much power.⁸¹ While recognizing that “there must be some way that people can be assured of clean, safe, drinking water,” this group believed it was unwarranted to give “. . . a Federal bureau the authority to go in [a state] and with one fell swoop say you must do this or that”⁸² This group apparently felt that the EPA should have to go to court when a system failed to comply with drinking water standards and that the court should decide what was the appropriate remedial action.⁸³

⁷⁹ *Hearings on S. 1478, supra* note 30, at 65. This coterminous approach sought to eliminate any delays incident to giving the states an exclusive first-shot at a problem.

⁸⁰ *Hearings on H.R. 14899, supra* note 56, at 45. Robert Fri, the deputy administrator of the EPA stated: “[T]he Administrator [EPA] should have specific authority to institute administrative orders as appropriate to regulate uses of the water supplies in question, to prohibit new connections, and to regulate the source of contamination or to prohibit delivery of the contaminated water.” This approach would have given the EPA authority similar to that which it has under the Federal Water Pollution Control Act of 1972 (FWPCA). *See*, 33 U.S.C. § 1319 (Supp. IV, 1974).

⁸¹ 5 BNA *Env. Rep.*, Current Devs. 1299 (1974). Attempts to give EPA authority to issue compliance orders received little support because of what was termed EPA’s “high-handed and arbitrary” action under the Air and Water Pollution Acts.

⁸² 120 CONG. REC. 10789 (daily ed. Nov. 19, 1974). Representative Nelsen arguing at a House debate.

⁸³ *Id.* at 10794. Congressman Rogers stated that “. . . to prevent administrative autocracy

A third issue concerning enforcement was the extent to which the general public should be notified when a water system was not complying with the national standards. Supporters of public notification believed that the public was unaware of the dangers in their water supplies and that “[o]verconfidence or apathy seems to pervade the public’s attitude with respect to drinking water.”⁸⁴ They believed that if the public were informed of the hazards in their drinking water they would demand better water treatment facilities. In support of this view, Ralph Nader argued that: “[U]nless we . . . embark on a major education program, the support for the necessary investment and more effective purification processes . . . will not be forthcoming soon.”⁸⁵ The supporters of public notification also argued that notification would lead to more effective enforcement of the water standards. As stated by one commentator: “[I]f the public were notified of . . . their water supplies’ . . . chemical and bacterial quality, then the public certainly would . . . in a case of non-compliance, compel the local agencies, [and] the states . . . to comply.”⁸⁶

Rather than calling for its exclusion, opponents of public notification argued that the extent to which it was used should be limited. The Conference of State Sanitary Engineers cautioned against “the compulsory provisions of public notification . . . and [argued for] the provision of options to enable judgments to be made on the public health needs of such notification.”⁸⁷ The Engineers also argued that “. . . public notices in all instances [of non-compliance] will do more harm than good. [It] can well degenerate into the self-defeating cry of wolf. Public notification should be used sparingly enough so that it has real clout.”⁸⁸

Program III: Federal Financial Assistance

The third program involved federal financial assistance to state drinking water programs. Two possible forms of assistance were

by EPA, the bill requires the EPA to go to courts and justify the actions taken for the public welfare.”

⁸⁴ SENATE COMM. ON COMMERCE, *supra* note 2, at 2.

⁸⁵ *Hearings on S. 433, supra* note 57, at 90. At a House Hearing Charles Johnson argued: “If the state called attention to it [low water quality] and nothing were done, . . . the public would force the local water utility to do its job.” *Hearings on H.R. 1093, supra* note 12, at 160.

⁸⁶ *Hearings on S. 1478, supra* note 30, at 65 (testimony of Wayne Moore).

⁸⁷ *Hearings on S. 433, supra* note 57, at 130.

⁸⁸ *Id.* at 131.

considered at the hearings. The first was federal financial assistance for the construction and maintenance of drinking water treatment facilities; the second, federal financial assistance for state monitoring and surveillance programs. Supporters of construction grants argued that: “[S]tate program grants in adequate amounts are essential to a national water supply program or such a program is doomed to failure. . . . [A]n adequate national water supply program requires substantial commitment of Federal financial resources if it has any chance of success.”⁸⁹ The supporters also argued that making standards for safe water in the Act was senseless, if the federal government did not make financial provisions for the various communities to comply with the standards that EPA set forth.⁹⁰

Those opposed to construction grants argued that they were neither “necessary [n]or desirable.”⁹¹ These opponents believed that the water treatment industry “. . . should be able to program within their revenues the ability to construct and modernize water treatment plants.”⁹² They also argued that “[t]oo many projects [were] likely to be held up awaiting a grant, at the sacrifice of the health and welfare of the public,”⁹³ and that construction grants would lessen state initiative to fund their own projects and thus “. . . serve to help weaken State responsibility.”⁹⁴ A final argument was that considering the financial position of the federal government, it was not the time to authorize substantial expenditure of federal money,⁹⁵ and that a preferable approach would be to afford the States and the public water systems a reasonable time to implement changes necessary to comply with standards.⁹⁶

Proponents of surveillance and monitoring program grants could point to the CWSS which had indicated that:

⁸⁹ *Id.* at 130 (statement of the Conference of State Sanitary Engineers).

⁹⁰ 120 CONG. REC. 10821 (daily ed. Nov. 19, 1974) (argument by Mr. Kazen). Leonard Dworsky favored limiting aid to “the small communities [that] do need help.” *Hearings on H.R. 1093*, *supra* note 12, at 644.

⁹¹ *Hearings on S. 1478*, *supra* note 30, at 33 (testimony of Robert Fri, deputy administrator of the EPA).

⁹² *Hearings on H.R. 1093*, *supra* note 12, at 307 (testimony of Charles Johnson of the American Public Health Association).

⁹³ *Id.* at 321 (testimony of Stanley Kappe of the American Academy of Environmental Engineers).

⁹⁴ *Hearings on H.R. 14899*, *supra* note 56, at 46 (testimony of Robert Fri).

⁹⁵ 120 CONG. REC. 10788 (daily ed. Nov. 19, 1974) (statement by Congressman Rogers).

⁹⁶ *Id.* at 10788.

[e]xpanded State and local surveillance programs would continue to upgrade water supply systems, [and that] [o]n a national basis, an estimated 14-million dollar increase in State programs is needed to conduct the recommended water system inspection, . . . sampling, [and] . . . analyses⁹⁷

Those who favored the use of federal financial assistance to fill the gaps in state monitoring programs considered the grants essential to a successful drinking water program.⁹⁸ They apparently believed the needed funds would not be forthcoming from the state governments. Similar to the opposition voiced to construction grants, opponents of monitoring grants argued that: “[t]he costs of . . . testing and monitoring should be borne by the users of the water supply.”⁹⁹ To opponents of monitoring grants, past experience had “. . . shown that an adequate safe drinking water program can be funded from State and local sources.”¹⁰⁰

The Deliberations End

The Congressional hearings, which had commenced in 1971, continued for four years before the SDWA finally passed. The Senate had approved drinking water legislation on June 22, 1973, but the House of Representatives was unable to approve legislation until more than a year later.¹⁰¹ This delay had various causes. As was noted above, water works groups were adamantly opposed to federal enforcement of drinking water standards and to provisions for operation and maintenance standards.¹⁰² The Administration also opposed federal enforcement and operation and maintenance standards as well as federal financial assistance to state programs.¹⁰³ In addition, the 1974 National Governors Conference opposed the legislation, claiming it would preempt state responsibility for drinking water safety.¹⁰⁴ Finally, the oil industry lobbied heavily against the Act's provisions for underground injection control.¹⁰⁵ In November

⁹⁷ BUREAU OF WATER HYGIENE, *supra* note 3, at xii. The study did not specify how much was already being spent.

⁹⁸ *Hearings on S. 433, supra* note 57, at 180. Ruth Clusen of the League of Women Voters noted the need “. . . for grants to states to strengthen water system supervision programs. . . .”

⁹⁹ *Hearings on S. 433, supra* note 57, at 56.

¹⁰⁰ *Id.* at 56 (statement of Robert Fri).

¹⁰¹ UNITED STATES CODE CONG. AND ADMIN. NEWS 6454, 6456 (1974).

¹⁰² See text at notes 66-76, *supra*.

¹⁰³ 5 BNA Env. Rep., Current Devs. at 847 (1974).

¹⁰⁴ *Id.* at 1167.

¹⁰⁵ *Id.* at 1298.

of 1974, however, the Environmental Defense Fund (EDF) and the EPA published reports that linked certain pollutants found in drinking water with cancer.¹⁰⁶ These reports and the public pressure they produced gave the House the impetus needed to pass legislation on November 19, 1974.¹⁰⁷ By December 3, 1974, both houses of Congress had agreed on legislation. The pressure generated by the carcinogen reports,¹⁰⁸ as well as the overwhelming bi-partisan Congressional support for the legislation¹⁰⁹ apparently convinced President Ford to sign the bill into law, despite the misgivings he had concerning it.¹¹⁰

III. THE SAFE DRINKING WATER ACT OF 1974

The purpose of the Safe Drinking Water Act is to "assure that water supply systems serving the public meet minimum national standards for protection of public health."¹¹¹ As the analysis of the Congressional hearings and debates indicated, however, widespread disagreement developed as to the type of program which would be most appropriate to achieve that purpose. This disagreement was based not only on divergent political interests, but also on a lack of consensus as to what was the most effective means to achieve the objective of safe drinking water. With this background the SDWA predictably resulted from a compromise between the various opposing positions. Rather than indicating a Congressional decision that one program was more effective than the other, the Act represents an accumulation of most of the proposals which were suggested at the Congressional hearings. Notwithstanding the compromises and uncertainties underlying the formation of the Act, and the legal and policy problems which it now presents, a significant step has been

¹⁰⁶ *Id.* at 1128.

¹⁰⁷ *Id.* at 1167.

¹⁰⁸ *Id.* at 1297.

¹⁰⁹ *Id.* at 1234.

¹¹⁰ See text at note 103, *supra*.

¹¹¹ UNITED STATES CODE CONG. AND ADMIN. NEWS 6454 (1974). Congress found a direct relationship between the public health aspects of drinking water and interstate commerce. Relying on this relationship Congress used an interstate commerce rationale as the constitutional basis for their action in the area of drinking water. The Congress had found that waterborne disease outbreaks may well inhibit interstate travel and tourism; that employees becoming ill from unsafe water would curtail activities of industries in interstate commerce; that migrant employees would not travel into states having unsafe water or would be excluded from states if they had contracted a disease from unsafe water; and that contaminants entered the water from industries involved in interstate commerce. UNITED STATES CODE CONG. AND ADMIN. NEWS 6461 (1974).

taken toward the objective of providing safe drinking water to the American public.

The SDWA : Sections 300f through 300g-1

The Act's initial section defines, *inter alia*, the terms "contaminant," "public water system" and "primary drinking water regulation."¹¹² The following section specifies the public water systems which are subject to the national primary drinking water regulations.¹¹³

Section 300g-1 specifies a two-stage procedure for the EPA to follow in establishing national primary drinking water regulations. The initial stage is the development of interim regulations. After proposing interim regulations and providing opportunity for comment,¹¹⁴ the Administrator [of the EPA, hereinafter, unless otherwise specified] was to promulgate interim regulations within 180 days of December 16, 1974.¹¹⁵ The interim regulations are to take effect 18 months after promulgation.¹¹⁶ Their purpose is to ". . . protect health to the extent feasible, using technology, treatment techniques, and other means, which the Administrator determines are generally available (taking costs into consideration) on December 16, 1974."¹¹⁷

¹¹² 42 U.S.C. § 300f (Supp. IV, 1974).

¹¹³ Included in the coverage of § 300g are all "public water systems" as defined in § 300f(4), except those meeting four specific criteria for exclusion. Section 300f(4) defines "public water system" as: "[A] system for the provision to the public of piped water for human consumption, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (A) 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) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Section 300g specifies that the four criteria necessary for exclusion are that it be 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 (emphasis added).

¹¹⁴ 42 U.S.C. § 300g-1(d) (Supp. IV, 1974). The Environmental Protection Agency [EPA] was given the responsibility of administering the SDWA's drinking water program. As was stated *supra*, at note 23, the EPA had had the authority to establish and revise the DWS since 1970. In addition, the EPA was administering the water pollution program under the Federal Water Pollution Control Act of 1972. With this background, EPA was the logical choice to administer the SDWA's drinking water program.

¹¹⁵ 42 U.S.C. § 300 g-1(a)(1) (Supp. IV, 1974). For these regulations, see 40 Fed. Reg. 59566 (1975).

¹¹⁶ 42 U.S.C. § 300 g-1(a)(3) (Supp. IV, 1974).

¹¹⁷ 42 U.S.C. § 300 g-1(a)(2) (Supp. IV, 1974).

The second stage is the development of *revised* national primary drinking water regulations. The Administrator is to arrange for the National Academy of Sciences (NAS) to conduct a study to determine maximum drinking water contaminant levels which would protect the health of persons from any known or anticipated adverse health effects. NAS is also to determine the existence of any contaminants the levels of which cannot be determined in drinking water, but which may have an adverse effect on the health of persons.¹¹⁸ The results of the NAS study are to be reported to Congress within two years of December 16, 1974.¹¹⁹

Within ten days of when Congress receives the NAS report, the Administrator is to publish the study's proposals for recommended maximum contaminant levels and the list of dangerous contaminant whose levels in drinking water cannot be determined.¹²⁰ Within 90 days of publishing the NAS proposals the Administrator is to establish recommended contaminant levels for each contaminant which he determines, on the basis of the NAS study, may have an adverse effect on the health of persons.¹²¹ The Administrator is also to list the contaminants whose level in water cannot be accurately enough determined to establish recommended maximum contaminant levels but which may adversely affect the health of persons.¹²²

When the Administrator publishes the recommended maximum contaminant levels and the list of contaminants, he is also to propose revised national primary drinking water regulations.¹²³ Pursuant to § 300g-1 (d) the Administrator is to provide opportunity to comment on the proposed regulations. After providing the opportunity to comment and within 180 days of the date of the proposal of the regulations, the Administrator is to promulgate revised

¹¹⁸ 42 U.S.C. § 300 g-1(e)(1) (Supp. IV, 1974). The House Committee intended that the NAS study only consider what is required for the protection of the public health, and not what is technologically or economically feasible or reasonable. UNITED STATES CODE CONG. AND ADMIN. NEWS 6471 (1974).

¹¹⁹ 42 U.S.C. § 300 g-1(e)(2) (Supp. IV, 1974).

¹²⁰ 42 U.S.C. § 300 g-1(b)(1)(A) (Supp. IV, 1974).

¹²¹ 42 U.S.C. § 300 g-1(b)(1)(B) (Supp. IV, 1974). The section specifies that:

Each such recommended maximum contaminant level shall be set at a level which, in the Administrator's judgment based on such [NAS] report, no known or anticipated adverse effects on health of persons occur and which allows *an adequate margin of safety* (emphasis added).

¹²² 42 U.S.C. § 300 g-1(b)(1)(B) (Supp. IV, 1974).

¹²³ 42 U.S.C. § 300 g-1(b)(2) (Supp. IV, 1974). The revised regulations will specify how they are to replace the interim regulations. 42 U.S.C. § 300 g-1(b)(5) (Supp. IV, 1974).

primary regulations.¹²⁴ The revised regulations are to take effect 18 months after the date of their promulgation.¹²⁵

The revised regulations are to specify a maximum contaminant level or require the use of a treatment technique for each contaminant for which the Administrator establishes a recommended maximum contaminant level. The regulations are also to specify treatment techniques for contaminants whose levels cannot be accurately enough determined in drinking water. The contaminant levels specified in the revised regulations should be as close to the recommended maximum contaminant level as is "feasible."¹²⁶ Furthermore, when a revised regulation requires a treatment technique for a contaminant with a recommended maximum contaminant level, the contaminant level should be brought as close to the recommended level as is "feasible." When a revised regulation requires a treatment technique for a contaminant which cannot be accurately measured in drinking water, it should prevent known or anticipated adverse health effects to the extent which the Administrator determines is "feasible."¹²⁷

The interim and revised primary regulations represent the backbone of the SDWA. They establish uniform minimum standards for drinking water quality that must be met by all public water systems covered by the Act. The regulations will also act as an incentive for public water systems by establishing an objective they must work toward. Their most significant role, however, will be to indicate whether a local public water system is providing safe water to its customers, and, where it is not, to indicate that something must be done to ensure that safe water will be provided in the future.

The effectiveness of the primary regulations will be enhanced if certain ambiguities in § 300g-1 are clarified or eliminated. The initial problem concerns the development of the interim primary regulations. Although covering certain additional contaminants, the interim regulations actually promulgated by EPA are little more than revisions of the DWS.¹²⁸ In fact, in a statement accompanying

¹²⁴ 42 U.S.C. § 300g-1(b)(2) (Supp. IV, 1974).

¹²⁵ 42 U.S.C. § 300g-1(b)(5) (Supp. IV, 1974). Assuming that each step takes the maximum time allotted, this process could take four years, three months, and ten days.

¹²⁶ 42 U.S.C. § 300g-1(b)(3) (Supp. IV, 1974). See text at notes 137-41, *infra*, for discussion of "feasible."

¹²⁷ 42 U.S.C. § 300g-1(b)(3) (Supp. IV, 1974). Authority also exists for the establishment of national secondary drinking water regulations at 42 U.S.C. § 300g-1(c) (1974).

¹²⁸ For the DWS see 42 C.F.R. § 72.201 (1975). For the interim regulations see 40 Fed. Reg. 59566 (1975). The interim regulations set limits for mercury and certain organic pesticides,

the regulations, the EPA stated that: "Congress anticipated that the initial Interim Primary Drinking Water Regulations would be based on the . . . Standards of 1962 [DWS] and this Congressional intent has been followed."¹²⁹ The report accompanying the Act when it left a house committee stated an intent that the interim regulations be "established quickly" and anticipated that "they would be based largely on a review and updating of the PHS drinking water standards."¹³⁰ If the Congressional language were the standard for determining the sufficiency of the interim regulations, the regulations would present little difficulty. Their failure to include levels or treatment techniques for various contaminants, such as organic chemicals and viruses,¹³¹ could be explained by the failure of the DWS to include such contaminants and the requirement that the interim regulations be "established quickly."¹³² The statutory language, however, makes it clear that the Administrator's objective in formulating the interim regulations should be to "protect health to the extent feasible. . ."¹³³ and should not be limited to simply revising the DWS. If the statutory language, rather than the Congressional language, is the standard for measuring the sufficiency of the interim regulations, the promulgated interim regulations may be subject to challenge if one could establish that ". . . technology, treatment techniques, and other means . . . were generally available to the Administrator, (taking costs into consideration) on December 16, 1974,"¹³⁴ which would have made greater protection of the public health feasible. In fact, the Environmental Defense Fund (EDF) commenced a suit against the Administrator of the EPA on December 17, 1975, based on such a claim.¹³⁵ Resolution of that suit may determine not only which standard determines the sufficiency of the interim regulations, but in addition whether the

which had not been done in the DWS. The interim regulations failed to set limits for radiation whereas such limits had been set by the DWS.

¹²⁹ 40 Fed. Reg. 59567 (1975).

¹³⁰ UNITED STATES CODE CONG. AND ADMIN NEWS 6470 (1974).

¹³¹ 6 BNA Env. Rep., Current Devs. 1412 (1975).

¹³² See, 42 C.F.R. § 72.201 (1975).

¹³³ 42 U.S.C. § 300g-1(a)(2). "To the extent feasible" is defined as ". . . using technology, treatment techniques and other means, which the Administrator determines are generally available (taking costs into consideration) on December 16, 1974." The necessity for effective interim regulations is highlighted by the fact that the revised regulations will not be established for approximately three years and will not go into effect until 18 months after they are promulgated. See text at notes 118-25, *supra*, for outline of time periods involved.

¹³⁴ 42 U.S.C. § 300g-1(a)(2) (Supp. IV, 1974).

¹³⁵ 6 BNA Env. Rep., Current Devs. 1412 (1975).

interim regulations as promulgated satisfy that standard.¹³⁶

The meaning of the term "feasible" in the context of the revised primary regulations presents another problem.¹³⁷ For purposes of the revised regulations, "feasible" means "with the use of the best technology, treatment techniques, and other means, which the Administrator finds are generally available (taking costs into consideration)."¹³⁸ While this recurring term "feasible" leaves the Administrator wide discretion in establishing the revised regulations, a house report indicates that the Administrator's discretion to determine what technologies and treatment techniques are generally available should be limited.¹³⁹ The house committee had concluded that cost-effective systems are necessary to provide safer drinking water and that larger systems are generally more cost-effective than smaller systems.¹⁴⁰ Therefore, the committee intended that the Administrator, when determining what treatment techniques are generally available, consider those generally available to larger and more efficient metropolitan and regional public water systems, rather than those generally available to smaller sized systems.¹⁴¹

Another issue presented by § 300g-1 concerns its provision for primary regulations which specify treatment techniques for certain contaminants.¹⁴² The § 300f(1) definition of "primary drinking water regulations" limited specifications for treatment techniques to those contaminants whose level it is not economically or technologically feasible to ascertain.¹⁴³ This limited use of treatment techniques is supported by the house report which states that ". . . revised primary regulations must specify . . . 'a contaminant level (or treatment methods, [only] if monitoring is infeasible)'"¹⁴⁴ Section 300g-1(b)(3), however, allows treatment techniques to be specified for a contaminant without consideration as to whether its level in water is feasible to ascertain.¹⁴⁵ The EPA

¹³⁶ The Act does permit amendment of the interim regulations. 42 U.S.C. § 300g-1(a)(1), (Supp. IV, 1974).

¹³⁷ See text at notes 126-27, *supra*.

¹³⁸ 42 U.S.C. § 300g-1(b)(3) (Supp. IV, 1974).

¹³⁹ UNITED STATES CODE CONG. AND ADMIN. NEWS 6470 (1974).

¹⁴⁰ *Id.* at 6470-71.

¹⁴¹ *Id.* at 6470-71. The Committee recognized that: "In general, this means larger systems are to be encouraged and smaller systems discouraged."

¹⁴² "Treatment techniques" and "operational and maintenance standards," discussed in the text at notes 66-68, *supra* are synonymous.

¹⁴³ 42 U.S.C. § 300f(1)(c)(ii) (Supp. IV, 1974).

¹⁴⁴ UNITED STATES CODE CONG. AND ADMIN. NEWS 6473 (1974).

¹⁴⁵ 42 U.S.C. § 300 g-1(b)(3) (Supp. IV, 1974).

should accept the limitation on the use of treatment technique requirements found in § 300f(1)(c)(ii). As was noted in the hearings preceding enactment of the SDWA, treatment technique requirements tend to become inflexible and may retard the development of new water treatment technologies.¹⁴⁶ Thus, limited application of treatment technique requirements to contaminants which are immeasurable and cannot be effectively controlled by specifying contaminant levels is desirable, whereas unlimited application of treatment technique requirements to any contaminant, notwithstanding the ability to monitor its level in drinking water and therefore control it by specifying a contaminant level, would be unwarranted.¹⁴⁷ If the EPA should take the latter approach, an amendment might be necessary to limit the use of treatment technique requirements.

The final issue concerning the primary regulations is the requirement that they be continually revised and updated. The revised primary regulations will not in all instances set contaminant levels equivalent to the recommended maximum contaminant level, because the primary regulations are to be set at a level *only as close* to the recommended contaminant level as is feasible.¹⁴⁸ The house report, however, clearly indicates that the Administrator should not be satisfied with regulations which are *only as close* to the recommended contaminant level as is feasible. The report states that "[e]conomic and technological feasibility are to be considered . . . only for the purpose of determining how soon it is possible to reach recommended maximum contaminant levels. . . ."¹⁴⁹ Therefore, the Administrator has an affirmative duty to closely study improvements in technology, treatment techniques, and other means which make it feasible for primary regulation contaminant levels to approach recommended maximum contaminant levels. This duty is affirmed by § 300g-1(b)(4), which requires the Administrator to amend primary regulations whenever ". . . technology, treatment techniques, and other means permit greater protection of the health of persons. . . ."¹⁵⁰

¹⁴⁶ See text at notes 66-68, *supra*.

¹⁴⁷ See text at note 200, *infra*, indicating that variances are allowed from treatment techniques requirements.

¹⁴⁸ 42 U.S.C. § 300g-1(b)(3) (Supp. IV, 1974). For example, if the recommended level is 100 parts of lead per gallon of water while it is only feasible to limit it to 120 parts per gallon, then the primary regulation would specify a level of 120. The objective, however, remains 100.

¹⁴⁹ UNITED STATES CODE CONG. AND ADMIN. NEWS 6472 (1974).

¹⁵⁰ 42 U.S.C. § 300g-1(b)(4) (Supp. IV, 1974). The section also requires the Administrator to review the regulations every three years.

The SDWA: Sections 300g-2 and 300g-3

Responsibility for enforcing the primary regulations, which is shared between state governments and the EPA, is detailed in §§ 300g-2 and 300g-3. The federal government, through the EPA, initially has the authority to enforce the primary regulations in any state.¹⁵¹ A state may secure primary enforcement responsibility, however, by applying for it through the EPA. When the Administrator determines that the state meets criteria specified in the Act, primary enforcement responsibility shifts to the state.¹⁵² Where a state has secured primary enforcement responsibility only four specific circumstances authorize the EPA to enforce the primary regulations.

The first circumstance is where the Administrator orders that a state's primary enforcement responsibility be revoked. Pursuant to § 300g-2(b)(1), the Administrator must specify a procedure by which he will determine whether the specific criteria for state primary enforcement responsibility are no longer satisfied.¹⁵³ Section 300g-2 (a) specifies that a state has primary responsibility only when the Administrator determines that the specific criteria are met. Thus when the Administrator determines that a state no longer

¹⁵¹ 42 U.S.C. § 300g-3(a)(2) (Supp. IV, 1974). The EPA only loses authority to enforce the primary regulations in a state which has primary enforcement responsibility. The state has to apply to the EPA for primary enforcement responsibility. Therefore, prior to the date when a state receives primary enforcement responsibility, such responsibility is held by the EPA.

¹⁵² 42 U.S.C. § 300g-2(a)(1)-(5) (Supp. IV, 1974). The criteria, as set forth in the statute, are that the state:

- 1) has adopted drinking water regulations which (A) in the case of the period beginning on the date the national interim primary drinking water regulations are promulgated under section 300g-1 of this title and ending on the date such regulations take effect are no less stringent than such regulations, and (B) in the case of the period after such effective date are no less stringent than the interim and revised national primary drinking water regulations in effect under such section;
- 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 section 300g-4 and 300g-5 of this title; and
- 5) has adopted and can implement an adequate plan for the provision of safe drinking water under emergency circumstances.

¹⁵³ See, *supra* note 152, for the criteria.

meets the criteria, that state's primary enforcement responsibility is revoked and the EPA regains enforcement authority.

The second circumstance in which the EPA regains the authority to enforce primary regulations in a state with primary responsibility is pursuant to § 300g-3(a). When the Administrator finds that a public water system is not complying with the primary regulations and has not received a variance or exemption, or that a public water system has been granted a variance or exemption but is not complying with a schedule or other requirement imposed pursuant to the variance or exemption,¹⁵⁴ he is required to notify the state of the non-compliance and may also provide technical assistance and advice.¹⁵⁵ If the non-compliance extends beyond 30 days after the state received notice, the Administrator must then give public notice of the non-compliance and request that, within 15 days of the public notice, the state submit a report specifying the steps being taken to bring the water system into compliance.¹⁵⁶ If the non-compliance extends beyond 60 days of the *original* notice given to the state and the state fails to submit the requested report or the state submits the report but the Administrator, after considering the report, determines that the state has abused its discretion, the Administrator may then act to enforce the primary regulations.¹⁵⁷

The third circumstance in which the EPA regains enforcement authority is when such enforcement is requested by the chief executive officer of the state with the non-complying public water system or by the agency in the state with jurisdiction over compliance with the national or state drinking water regulations.¹⁵⁸ The final circumstance is in emergency situations. The criteria to be used in determining whether an emergency exists and other aspects of this provision will be discussed below.¹⁵⁹

The means to enforce primary regulations had been a point of heated controversy at the Congressional hearings concerning the SDWA. As was noted above, certain groups were opposed to any federal enforcement authority while others considered coterminous authority in state and federal governments to be essential.¹⁶⁰ Sec-

¹⁵⁴ See text at notes 197-203, *infra*, for a discussion of variances and exemptions.

¹⁵⁵ 42 U.S.C. § 300g-3(a)(1)(A) (Supp. IV, 1974).

¹⁵⁶ 42 U.S.C. § 300g-3(a)(1)(B) (Supp. IV, 1974). For a discussion of public notice provisions in the SDWA, see text at notes 186-88, *infra*.

¹⁵⁷ 42 U.S.C. § 300g-3(a)(1)(B) (Supp. IV, 1974).

¹⁵⁸ 42 U.S.C. § 300g-3(b)(2) (Supp. IV, 1974).

¹⁵⁹ 42 U.S.C. § 300i (Supp. IV, 1974). See text at notes 211-13, *infra*.

¹⁶⁰ For an analysis of these views see text at notes 69-79, *supra*.

tions 300g-2 and 300g-3 seem to represent an appropriate compromise of these positions. Despite Congressional findings that ineffective state water programs were a primary reason for deficiencies in drinking water quality,¹⁶¹ state governments must still play an essential role in the enforcement of the primary regulations, since the EPA could not effectively monitor 40,000 public water systems. The sections also encourage the states to develop effective programs. By requiring the EPA, except in four specified circumstances, to defer to a state's primary enforcement authority, the sections minimize the possibility that state governments will either depend on the federal government to enforce the regulations or become discouraged by unwarranted federal interference. By permitting the EPA to take action in specific circumstances, however, especially where the state has abused its discretion or in an emergency, the statute not only gives the states notice that if they wish to retain exclusive enforcement authority they must do an effective job, but it also provides a safety mechanism to achieve compliance when a state fails to do its job.¹⁶²

Sections 300g-2 and 300g-3 present other problems. Section 300g-3(e) specifies that the Act does not preempt state or local authority to adopt and enforce their own regulations for public water systems. A positive aspect of this provision is that it enables states to continue administering viable drinking water programs when they are attempting to secure primary enforcement responsibility or when they wish to have a drinking water program but do not wish to secure primary enforcement authority under the SDWA.¹⁶³ The potential confusion it may create, however, is apparent. A state program may specify one treatment technique while a primary regulation may specify another for the same contaminant. A system might face the dilemma in which compliance with one regulation would constitute violation of the other. If this problem were to arise, it may spur an amendment to the Act which precludes states from specifying treatment techniques.

Another issue concerns the scope of "abuse of state discretion"

¹⁶¹ UNITED STATES CODE CONG. AND ADMIN. NEWS 6459 (1974).

¹⁶² If federal enforcement authority had been precluded no governmental agency would be able to take action if the state failed to carry out its responsibilities.

¹⁶³ See, *supra* note 152, for the criteria a state program must meet. Allowing states to retain programs should also insure that the maximum number of inspectors will be checking water systems. It also enables a system to gradually build up its program until the point where it can secure primary enforcement responsibility.

under § 300g-3(a)(1)(B).¹⁶⁴ This section specifies that the Administrator may not determine that a state abused its discretion, before finding, by the sixtieth day following the original notice, that the state *both* failed to implement adequate procedures to bring the system into compliance by the earliest feasible time,¹⁶⁵ and failed to assure, through alternative means, provision of safe drinking water by the earliest feasible time.¹⁶⁶ The house report, however, states the committee's intent that any failure by a state to implement by the sixtieth day adequate procedures to achieve compliance would be an abuse of discretion *per se*,¹⁶⁷ without any requirement that the state also fail to submit a plan concerning alternative provision of drinking water. If the Act is interpreted to require that a state both fail to implement adequate compliance procedures and fail to assure provision of alternative sources of water before the EPA can determine that the state abused its discretion, a state could avoid abusing its discretion by simply submitting a plan for alternative sources of water and thus avoid the requirement that it implement adequate procedures to achieve compliance. By precluding EPA enforcement in circumstances where a state has not implemented adequate compliance procedures, the statute would create a loophole which Congress did not intend.¹⁶⁸

Another issue presented by § 300g-3 is whether enforcement by the EPA, where that enforcement is authorized, should be discretionary or mandatory. In its present form, § 300g-3 permits the Administrator to decide whether a civil enforcement action is warranted.¹⁶⁹ Provisions for mandatory federal enforcement are appealing to the extent that they could limit the impact political pressure may have on preventing enforcement actions.¹⁷⁰ Given the

¹⁶⁴ This circumstance is one in which the EPA may enforce the primary regulations in a state with primary enforcement responsibility. See text at note 157, *supra*.

¹⁶⁵ 42 U.S.C. § 300g-3(a)(1)(B)(ii) (Supp. IV, 1974).

¹⁶⁶ 42 U.S.C. § 300g-3(a)(1)(B)(ii) (Supp. IV, 1974).

¹⁶⁷ UNITED STATES CODE CONG. AND ADMIN. NEWS 6475 (1974).

¹⁶⁸ Congressman Bob Eckhardt criticized the provision requiring a finding of "abuse of discretion." He argued that it would be so difficult to prove that it would make federal enforcement impossible. He wanted a provision which would have allowed the EPA to act on a finding that the state had failed to enforce the primary regulations. 5 BNA Env. Rep., Current Devs. 213 (1974).

¹⁶⁹ This discretion is in contrast to the Federal Water Pollution Control Act of 1972 which mandates that the EPA enforce violations of that Act. 33 U.S.C. § 1319 (Supp. IV, 1974).

¹⁷⁰ David Zwick, a member of the Public Interest Research Group, argued this position, stating that, "[e]xcessive discretion has always invited pressure from private interests to see that it is exercised in their favor, and the administrative agencies have always been less than

limited staff available to the Administrator, however, the need to allow the Administrator to decide which violations warrant utilization of the EPA's limited enforcement capabilities becomes a more important consideration.

The type of enforcement authority the EPA should have is another issue presented by § 300g-3. Except in emergency situations, the EPA's enforcement action is limited to the commencement of a civil suit.¹⁷¹ If the primary regulation being violated involves a contaminant which is not extremely hazardous, the time required by the EPA to commence the civil action, present its evidence to a court, and receive a decision, may not pose a serious danger to the public. If the violation involves an extremely hazardous contaminant, however, but fails to fall within EPA's emergency authority,¹⁷² the time and uncertainty involved in the civil action may pose a serious threat.¹⁷³ Where a violation of the Federal Water Pollution Control Act of 1972 (FWPCA) is found, the EPA is authorized not only to commence a civil suit, but in addition to issue administrative compliance orders.¹⁷⁴ EPA issues these compliance orders directly and therefore avoids the delay involved in a civil suit. The compliance order under the FWPCA must specify the nature of the violation and a time for compliance.¹⁷⁵ Despite the objections which were voiced to granting such authority to the EPA in the area of drinking water, the EPA should be provided with the option of issuing administrative compliance orders where primary regulation violations occur and thus provide the EPA with the flexibility necessary to deal with both situations presented above. Thus, when the primary regulation violation can be effectively eliminated by commencement of a civil suit, the EPA should be limited to that authority. When the violation requires immediate action to protect the public health, however (though not constituting an emergency under § 300i), the EPA should be empowered to issue administrative compliance orders.

diligent in the tradition of non-enforcement." *Hearings on H.R. 14899 Before the Subcomm. on Public Health and the Environment of the House Committee on Interstate and Foreign Commerce*, 92d Cong., 2d Sess. 178 (1972).

¹⁷¹ 42 U.S.C. §§ 300g-3(a)(1), (a)(2), (b) (Supp. IV, 1974).

¹⁷² See text at notes 211-13, *infra*, for discussion of emergency actions.

¹⁷³ This situation is especially true in states with primary enforcement responsibility. Unless the executive officer requests the EPA to act, it is a minimum of 60 days before the EPA will secure enforcement authority.

¹⁷⁴ 33 U.S.C. § 1319 (Supp. IV, 1974).

¹⁷⁵ 33 U.S.C. § 1319 (Supp. IV, 1974).

Where the Administrator brings a civil suit to secure compliance with the primary regulations, the court is to enter “. . . such judgment as protection of public health may require.”¹⁷⁶ The court is also to consider the time necessary to comply and the availability of alternative water supplies.¹⁷⁷ The house committee, however, intended that the court consider almost exclusively the public health aspects of non-compliance. In its report the committee stated that courts hearing an EPA enforcement action of a primary regulation “. . . are not to apply traditional balancing principles used by equity courts. Rather, they are directed to give utmost weight to the Committee’s paramount objective of providing maximum feasible protection of the public health. . . .”¹⁷⁸

The final issue presented by the enforcement sections is the incentive they provide for compliance. A primary objective of the enforcement provisions is to provide incentive for voluntary compliance with the primary regulations prior to the commencement of any enforcement procedures. To achieve this voluntary compliance, individual public water systems must anticipate that they will be inspected, that enforcement action will be taken, and that the penalty for non-compliance will be substantial enough to make voluntary compliance an attractive alternative.¹⁷⁹ The SDWA authorizes inspection and monitoring of public water systems;¹⁸⁰ thus the possibility exists that a system will be inspected and that enforcement action will be commenced.¹⁸¹ The Act’s provisions for penalty, however, may not provide adequate incentive for voluntary compliance. Under § 300g-3 (b) a civil penalty is imposed only if the violation of the primary regulation is wilful.¹⁸² Thus a water system cannot be penalized for negligently failing to comply with a drinking water

¹⁷⁶ 42 U.S.C. § 300g-3(b) (Supp. IV, 1974).

¹⁷⁷ 42 U.S.C. § 300g-3(b) (Supp. IV, 1974).

¹⁷⁸ UNITED STATES CODE CONG. AND ADMIN. NEWS 6476 (1974). In enforcement actions the EPA should not have the burden to establish that a violation of a primary regulation endangers the public health. On the House floor, Congressman Rogers stated: “Nor is it necessary for the Administrator to prove that any violation of the regulation has caused or is likely to cause specific adverse health effects. This is to be presumed by the court. . . .” 120 CONG. REC. 10794 (daily ed. Nov. 19, 1974).

¹⁷⁹ For a discussion of criteria to be used in evaluating enforcement provisions see, Schachter, *Some Criteria for Evaluating State and Local Air Pollution Control Laws*, 14 B.C. IND. & COM. L. REV. 583, 625 (1973) [hereinafter cited as Schachter].

¹⁸⁰ 42 U.S.C. § 300j-4 (Supp. IV, 1974). See text at notes 233-34, *infra*.

¹⁸¹ The likelihood of inspection and enforcement depends on state and Federal appropriations for the drinking water programs, as well as the administration of the respective programs.

¹⁸² 42 U.S.C. § 300g-3(b) (Supp. IV, 1974).

regulation. Furthermore, while the maximum penalty imposed for a wilful violation is \$5,000 for each day the violation occurs,¹⁸³ provision is not made for a minimum penalty.

To provide additional incentive for voluntary compliance, certain changes should be considered. A mandatory penalty for any non-compliance which cannot be explained by good cause might be imposed. In addition, a minimum daily penalty might be effective by ensuring that some substantial penalty will be imposed.¹⁸⁴ One point warrants further emphasis. The objective of the Act is to ensure safe water, not to impose penalties. Thus where a system, which was penalized for non-compliance, is again complying with the primary regulations, providing for the return to that system of part of the penalty imposed would be appropriate.¹⁸⁵

The SDWA: Provisions for Public Notice

Because of their special significance, certain provisions warrant separate consideration. These provisions require public notification in various circumstances. Under § 300g-3(a)(1)(B), in a state with primary enforcement responsibility, the Administrator is to give public notice of a primary regulation violation when a system continues to violate the regulation 30 days after the Administrator notified the state of the violation.¹⁸⁶ Pursuant to § 300g-3(c)(1), the operator of a public water system must give notice to customers of any failure to comply with a primary regulation.¹⁸⁷ Finally, pursuant to § 300g-3(c)(2), the operator must give notice to customers of any variance or exemption applying to the system as well as any failure to comply with a schedule prescribed pursuant to the variance or exemption.¹⁸⁸ At the Congressional hearings preceding the Act, the proponents of these provisions had argued that notifying the public concerning the safety of their drinking water was essential to the success of the Act. They had reasoned that lack of public awareness concerning drinking water quality was a primary factor contributing to the poor condition of water supplies.¹⁸⁹ If the reasoning of this

¹⁸³ 42 U.S.C. § 300g-3(b) (Supp. IV, 1974).

¹⁸⁴ Schachter, *supra* note 179, at 632.

¹⁸⁵ Schachter, *supra* note 179, at 635. If the entire penalty were returned, however, the incentive to comply voluntarily might be limited.

¹⁸⁶ 42 U.S.C. § 300g-3(a)(1)(B) (Supp. IV, 1974).

¹⁸⁷ 42 U.S.C. § 300g-3(c)(1) (Supp. IV, 1974).

¹⁸⁸ 42 U.S.C. § 300g-3(c)(2) (Supp. IV, 1974). See text at notes 198-200, *infra*, for a discussion of variances and exemptions.

¹⁸⁹ See text at notes 84-88, *supra*, for a discussion of their arguments.

group was correct, the requirement for public notification may well be one of the most effective means to achieve the Act's objective. Public demand for safe water may well insure a rapid and effective response to drinking water problems, and at a minimum will serve as a supplement to EPA and state enforcement proceedings.

Two other comments should be made about these provisions. As in the case of violations of the primary regulations, a failure to give notice must be wilful before a penalty can be imposed.¹⁹⁰ Water system operators might have greater incentive to comply with the notification requirements if failure to give notice was penalized absent a showing of good cause for the failure. In addition, a minimum fine would make punishment certain and thus provide additional incentive.¹⁹¹ The other comment concerns the regulations promulgated pursuant to § 300g-3(c).¹⁹² The section specifies that an operator must give public notice of non-compliance at least once every three months.¹⁹³ Pursuant to his authority to prescribe regulations for the form and manner for giving public notice,¹⁹⁴ the Administrator has specified in the interim regulations that upon failure of a water system to comply with a primary regulation contaminant level, the operator must notify the users of the system in the first set of bills or in any event by written notice within three months of the non-compliance.¹⁹⁵ The Administrator has also required the operator to publish the notification for three consecutive days in a daily newspaper within fourteen days of learning of the non-compliance, and to furnish a copy of the notice to television and radio stations serving the area utilizing the water supply within seven days of learning of the non-compliance.¹⁹⁶ While giving the water systems one to two weeks to secure compliance without demands from the public, the latter requirements ensure that public demands will play an active role in securing compliance within two weeks of the non-compliance.

The SDWA: Sections 300g-4 and 300g-5

Section 300g-4 provides for variances from primary drinking

¹⁹⁰ 42 U.S.C. § 300g-3(c) (Supp. IV, 1974).

¹⁹¹ Schachter, *supra* note 179, at 632.

¹⁹² The regulations can be found at 40 Fed. Reg. 59566 (1975).

¹⁹³ 42 U.S.C. § 300g-3(c) (Supp. IV, 1974).

¹⁹⁴ 42 U.S.C. § 300g-3(c) (Supp. IV, 1974).

¹⁹⁵ 40 Fed. Reg. 59566 (1975).

¹⁹⁶ *Id.*

water regulations. A state with primary enforcement responsibility or the EPA in a state without primary enforcement responsibility has authority to permit variances under two circumstances. The first situation is where the characteristics of the reasonably available raw water sources makes compliance impossible, despite the “. . . application of the best technology, treatment techniques, or other means, which the Administrator finds are generally available (taking costs into consideration).”¹⁹⁷ Under this provision, a schedule must be established to bring the system into compliance.¹⁹⁸ The second situation is where a water system is granted a variance from a treatment technique if it can demonstrate that the quality of the raw water source makes the utilization of a required treatment technique unnecessary to protect public health.¹⁹⁹ In one additional circumstance, the EPA alone is authorized to grant a variance. Such a variance from a treatment technique requirement is allowed when the public water system can show that an “. . . alternative treatment technique not included in such requirement [primary regulations] is *at least* as efficient in lowering the level of the contaminant with respect to which such requirement was prescribed” (emphasis added).²⁰⁰

Section 300g-5 provides for “exemptions” from primary regulations. States with primary enforcement responsibility or the EPA in a state without that responsibility may grant an exemption upon a finding that due to compelling factors, which may include economic factors, a public water system is unable to comply with a contaminant level or treatment technique found in a primary regulation.²⁰¹ The EPA or the state, however, must also find that the system was operating prior to the effective date of the regulation and that the exemption will not create an unreasonable risk to health.²⁰² Another requirement is that a schedule be prescribed which will bring the

¹⁹⁷ 42 U.S.C. § 300g-4 (Supp. IV, 1974). The EPA or the state must also find that the variance will not result in an unreasonable risk to health.

¹⁹⁸ 42 U.S.C. § 300g-4(a)(1)(A) (Supp. IV, 1974).

¹⁹⁹ 42 U.S.C. § 300g-4(a)(1)(B) (Supp. IV, 1974).

²⁰⁰ 42 U.S.C. § 300g-4(a)(3) (Supp. IV, 1974).

²⁰¹ 42 U.S.C. § 300g-5(a) (Supp. IV, 1974). In addition to the fact that a state or the EPA will consider different criteria in determining whether to grant an “exemption” or a “variance,” the distinction between them is that § 300g-5 specifies time periods within which a system must comply with a primary regulation that it was exempted from whereas variances are open-ended, even when § 300g-4 requires prescription of schedules within which a system must comply with a primary regulation it received a variance from, it does not specify a time period within which compliance must be achieved.

²⁰² 42 U.S.C. §§ 300g-5(a)(2), (a)(3) (Supp. IV, 1974).

exempted system into compliance with the regulations.²⁰³

The provisions for variance and exemptions may be of substantial merit. They should ease the financial burden on communities which do not have access to the capital necessary to achieve immediate compliance with the primary regulations.²⁰⁴ Allowing certain systems to gradually achieve compliance also limits the need for substantial sums of federal monetary assistance.²⁰⁵ In addition, the provision for variances from treatment techniques will enable systems to utilize and develop techniques which are more efficient than the primary regulation techniques and will therefore avoid the inflexibility which may have retarded the development of new techniques. Unfortunately, the provisions are also of potential harm. Some critics have argued that variances and exemptions for economic reasons are unnecessary and that the expense of complying with primary regulations would not exceed the capabilities of any system.²⁰⁶ Such exceptions present the additional possibility of creating major loopholes in the enforcement of the primary regulations. If the states or the EPA do not wisely exercise their discretion, they will grant variances and exemptions in situations where they are not warranted, allowing violations to go unprosecuted. Avoiding this potential danger will require that the EPA or the states carefully consider original applications for exemptions or variances. In addition, the EPA must carefully exercise its oversight authority over the entire variance and exemption process.²⁰⁷

The SDWA: Sections 300h through 300h-3

Sections 300h through 300h-3 establish a joint federal and state

²⁰³ 42 U.S.C. § 300g-5(b) (Supp. IV, 1974).

²⁰⁴ Senator Hart stated on the Senate floor that:

In order to provide relief for those water supply systems which are less than able to afford treatment technology than the best case situation [See text at notes 137-141, *supra*] which forms the basis for the national primary standards, a variance and exemption schedule is authorized. . . .

120 CONG. REC. 20240 (daily ed. Nov. 26, 1974).

²⁰⁵ Congressman Rogers stated on the House floor that:

[W]e did not think now was the time to authorize substantial sums of money. We thought instead that we should afford the States and the public water systems a reasonable time to implement [primary regulations], taking costs into consideration.

120 CONG. REC. 10788 (daily ed. Nov. 19, 1974).

²⁰⁶ Robert Harris of EDF said the variances and exemption provisions were wholly unnecessary and that all but the smallest systems would be able to finance improvements necessary for compliance. 5 BNA Env. Rep., Current Devs. 1300 (1974).

²⁰⁷ 42 U.S.C. § 300g-4(a)(1)(F)&(G) (Supp. IV, 1974); 42 U.S.C. § 300g-5(d) (Supp. IV, 1974).

program to protect underground sources of drinking water from underground injections²⁰⁸ endangering those sources. While a detailed discussion of these provisions is outside the scope of this article, protection of underground sources of water is an important aspect of the Act's program to ensure provision of safe drinking water to the American public. As was noted at a House Committee hearing by Dr. Jay Lehr of the National Water Wells Association, "[a]s the use of underground water for drinking supplies dramatically increases during this decade, the impact of underground waste disposal has a seriously negative effect [on the quality of the underground supplies]."²⁰⁹ Dr. Lehr also noted that a reason for prompt action to control underground injection is that "[y]ou cannot . . . flush your underground [water supplies]. The [waste] water once introduced will be there for decades, centuries and longer, because underground water moves very slowly, rarely more than a few feet per day."²¹⁰ These statements indicate that provisions to protect underground sources of water are certainly of importance today and will increase in importance in the future. Therefore, the Act's provisions concerning underground injection control warrant careful consideration as to whether they can effectively protect underground sources of water.

The SDWA: Section 300(i)

Section 300(i) of the Act enables the Administrator to take immediate action when he receives information that a contaminant which is in or likely to enter a public water system may present an imminent and substantial danger to the public health²¹¹ and that state and local governments have not acted to protect the health of those persons.²¹² The Administrator is authorized to issue such orders as are necessary to protect the health of people who are or may be users of the system or to commence a civil action for appropriate relief.²¹³

²⁰⁸ 42 U.S.C. § 300h(d) (Supp. IV, 1974) defines "underground injection" as ". . . the subsurface emplacement of fluids by well injection." A Congressional committee found that that increasingly industry and government were disposing of wastes by injecting them into underground wells. UNITED STATES CODE CONG. AND ADMIN. NEWS 6481 (1974).

²⁰⁹ *Hearings on H.R. 14899, supra* note 56, at 136.

²¹⁰ *Hearings on H.R. 14899, supra* note 56, at 137.

²¹¹ In states with primary enforcement responsibility the Administrator must wait a minimum of 60 days in non-emergency situations, unless the chief executive officer of the state requests EPA enforcement.

²¹² 42 U.S.C. § 300i(a) (Supp. IV, 1974).

²¹³ 42 U.S.C. § 300i(a) (Supp. IV, 1974). The House Report specified that the Administrator

Section 300(i) should play an important role in insuring that the American public is protected from dangerous drinking water. By enabling the EPA to take action with regard to contaminants not covered by the primary regulations, it provides for necessary flexibility. Otherwise the EPA could not act against new contaminants until they were included in a primary regulation. In addition, in states with primary enforcement responsibility, the section enables the EPA to take immediate action against contaminants presenting imminent and substantial danger and avoids the delay inherent in an EPA action concerning normal primary regulation violations.²¹⁴ Finally, the section not only permits the EPA to step in immediately, but it also enables the EPA to issue administrative orders and thus avoid the delay required to commence a civil suit.

One unanswered question exists under this section: what constitutes an imminent and substantial danger to the public health? The house report is of some assistance on this point. It states an intent that the "language be construed by the courts and the Administrator so as to give paramount importance to the protection of the public health."²¹⁵ In defining "imminent," the report states that the Administrator and the courts must act early enough to *prevent* the potential hazard from materializing. It also states that only the risk of harm has to be imminent and the harm itself need not be.²¹⁶ Thus imminent danger is presented by contaminants which do not immediately harm the public health but which may do so in the future through an accumulative or latent process. In defining "substantial," the report states that it can be a substantial likelihood that a contaminant capable of causing adverse health effects will be ingested by consumers, a substantial statistical probability that disease will result from the contaminant in the water, or the threat of substantial or serious harm.²¹⁷ The report does not specify how large a group must be affected before a health hazard is substantial, nor does it indicate how serious a disease must be before it is considered substantial.

A sound reason does exist for giving an expansive interpretation

could order the reporting of information relevant to the emergency, the issuance of notices to the public, the treating of hazardous situations, and the provision of alternative sources of water. UNITED STATES CODE CONG. AND ADMIN. NEWS 6487 (1974).

²¹⁴ See text at note 157, *supra*, for indication of the delay involved.

²¹⁵ UNITED STATES CODE CONG. AND ADMIN. NEWS 6488 (1974).

²¹⁶ *Id.* at 6488.

²¹⁷ *Id.* at 6488.

to "imminent and substantial danger." As was noted above, in states with primary enforcement responsibility considerable delay precedes authorization of federal enforcement in non-emergency situations.²¹⁸ As a result, if a violation of a primary regulation is not considered an emergency, the EPA cannot act for 60 days to secure compliance, notwithstanding the seriousness of the health hazard. If "imminent and substantial danger" were given an expansive reading, the EPA would be able to secure immediate compliance in a larger number of hazardous circumstances.²¹⁹

The SDWA: Sections 300j-1 through 300j-3

Sections 300j-1, 300j-2, and 300j-3 enable the EPA to provide research, technical and financial assistance to state and municipal drinking water programs. Pursuant to § 300j-1(a)(1), the EPA has the discretion to conduct research in the area of drinking water safety. This research can range from developing new methods for identifying contaminants in drinking water supplies to developing new and improved methods of water purification and distribution. Section 300j-1(a)(2) *requires* the EPA to provide technical assistance to states and municipalities in the establishment and administration of public water system supervision programs.²²⁰ In addition, §§ 300j-1(a)(3) through 300j-1(a)(9) require the EPA to conduct studies into various aspects of drinking water safety.

Section 300j-1(b) authorizes the EPA to make available the information gained from research pertaining to provision of safe supplies of drinking water. In addition, it authorizes the EPA to permit authorized groups to use EPA research facilities. Finally, it enables the EPA to enter contracts with or make grants to agencies or educational institutions to develop or conduct programs for the training of persons working in the public health aspects of drinking water safety and to train inspectors and supervisors who will train or supervise other persons working in the public health aspects of drinking water safety.²²¹

²¹⁸ See, *supra* note 157.

²¹⁹ One commentator suggests that a test for the effectiveness of an environmental regulatory agency is how swiftly action may be taken in situations presenting serious hazard but which are not considered emergencies. Schachter, *supra* note 179, at 626.

²²⁰ "Public water system supervision programs" will be defined, *infra*, at note 224. The section also specifies that this assistance should be provided to the maximum extent feasible. 42 U.S.C. § 300j-1(a)(2) (Supp. IV, 1974).

²²¹ 42 U.S.C. § 300j-1(b) (Supp. IV, 1974).

Section 300j-1 is another important aspect of the SDWA program to ensure provision of safe drinking water to the American public. The Congressional hearings preceding the Act had indicated that continuous and expanded research concerning drinking water safety is crucial. The point had clearly been made that failure to develop sufficient new methods to contend with drinking water hazards had led to many of the problems which currently exist.²²² Provisions for technical assistance to states are also of great value. As the primary regulations require that the water systems provide higher quality drinking water, the water systems will undoubtedly need assistance in determining which treatment methods and facilities are appropriate for achieving that level of quality. This section enables the EPA to provide that assistance. Finally, by authorizing the EPA to develop programs to train people in the public health aspects of drinking water safety and in supervision and inspection in that area, the section should help to eliminate the shortage of trained personnel.²²³

Section 300j-2 provides for federal grants to state water supervision programs,²²⁴ if the state meets eligibility criteria specified in the section.²²⁵ As was noted above, effective state enforcement programs are essential to the success of the SDWA.²²⁶ By providing financial grants to states which have or will attain primary enforcement responsibility, this section gives the states incentive to develop programs which meet the criteria necessary to achieve that status. This should result in more effective state enforcement programs. The section makes no provision for grants to aid in the construction of new water treatment facilities.²²⁷ The only financial assistance for the construction of treatment facilities is found in § 300j-3.

²²² See, *supra* note 54.

²²³ See text at note 43, *supra*, for a discussion of the CWSS, and see text at note 57, *supra*, for a discussion of the Congressional hearings.

²²⁴ 42 U.S.C. § 300j-2(c)(1) (Supp. IV, 1974). Public water system supervision program is defined as: ". . . a program for the adoption and enforcement of drinking water regulations . . . which are no less stringent than the national primary drinking water regulations . . . and for keeping records and making reports. . . ."

²²⁵ 42 U.S.C. § 300j-2(a)(2) (Supp. IV, 1974). The initial grant is contingent upon the Administrator finding that the State has established or will establish within one year from the date of such grant a public water system supervision program and will within that year assume primary enforcement responsibility for public water systems in the state. In addition, a state cannot receive a grant more than one year after the date of the initial grant unless the state is maintaining primary enforcement responsibility.

²²⁶ See text at note 72, *supra*.

²²⁷ See text at notes 91-96, *supra*, for objections to such provisions voiced at the Congressional hearings.

Section 300j-3 provides for two forms of financial assistance to water supply systems. The initial form is grants for the development and demonstration of new or improved techniques for providing a safe supply of drinking water.²²⁸ The second form of financial assistance is private loan guarantees to small public water systems.²²⁹ The purpose of these loan guarantees is to enable the systems to comply with the primary regulations.²³⁰

While providing for a federal financial commitment this section leaves the primary financial burden on the states and the public water systems. These systems will have to provide the resources to finance the construction and improvements necessary to achieve compliance with the Act's primary regulations. This approach indicates a Congressional decision that large amounts of federal financial assistance are either unnecessary or unwarranted, and that the combination of variances and exemptions, federal technical assistance, and consumer demands for better water quality will enable the public water systems to bear the financial burden incident to achieving compliance with the primary regulations.²³¹

The SDWA: Section 300j-4

Section 300j-4 allows the Administrator, in an exercise of discretion, to require water systems to perform monitoring of their facilities and to provide information and reports which the Administrator considers necessary.²³² The section also authorizes the Administrator to enter facilities and carry out inspections in order to ensure compliance with the Act's provisions.²³³ In states with primary enforcement responsibility, the Administrator must give the states notice of an intended inspection. The Administrator, in determining whether inspection is appropriate, is to consider the state's showing that a federal inspection will be detrimental to the state's primary enforcement program. The state, however, does not have the power to preclude the federal inspection if the EPA should decide it is necessary.²³⁴

²²⁸ 42 U.S.C. § 300j-3(a) (Supp. IV, 1974).

²²⁹ 42 U.S.C. § 300j-3(d) (Supp. IV, 1974). The section specified that such loans cannot be made unless the Administrator finds that the systems cannot secure financial assistance from any other source and that any facilities constructed are not likely to be made obsolete by subsequent changes in primary regulations.

²³⁰ 42 U.S.C. § 300j-3(d) (Supp. IV, 1974).

²³¹ See text at notes 89-96, *supra*, for the conflicting views on this subject.

²³² 42 U.S.C. § 300j-4(a) (Supp. IV, 1974).

²³³ 42 U.S.C. § 300j-4(b) (Supp. IV, 1974).

²³⁴ 42 U.S.C. § 300j-4(b)(2) (Supp. IV, 1974).

To exercise its enforcement authority the EPA certainly requires the means of ascertaining whether systems are complying with the primary regulations. Enabling EPA to require monitoring of and reporting from local systems can be an effective means of securing that information. The EPA's discretion to require monitoring and reporting must be used wisely, however. The EPA should not require the local public water systems to spend large amounts of time and money monitoring and reporting information which will not be utilized by the EPA.²³⁵ The section's provisions for EPA inspection are another effective means to acquire information as to whether systems are complying with the Act. This authority is essential to EPA enforcement in states without primary enforcement responsibility as well as the EPA oversight in states with primary enforcement responsibility. Equally essential to effective EPA oversight is the section's provision which does not allow a state with primary enforcement responsibility to prevent EPA inspection within that state.

The SDWA: Sections 300j-7 and 300j-8

Section 300j-7 provides for judicial review of EPA and state determinations or actions made pursuant to the Act.²³⁶ Section 300j-7(a)(1) permits judicial review of EPA action in promulgating the primary regulations, regulations concerning state application for primary enforcement responsibility, regulations for public notice to be given by operators of non-complying systems, and regulations for state underground injection control programs. Jurisdiction for review of these actions is vested only in the United States Court of Appeals for the District of Columbia. Section 300j-7(a)(2) permits judicial review of other regulations, orders, or determinations made by the EPA pursuant to the Act. Jurisdiction over these actions is in the United States Court of Appeals for the appropriate circuit. Section 300j-7(b) provides for judicial review of decisions to grant or deny variances and exemptions pursuant to §§ 300g-4 and 300g-5. Jurisdiction for these actions is in the United States District Courts.

²³⁵ See, *The Safe Drinking Water Act of 1974: A Management Impact Statement*, THE AMERICAN CITY (1975).

²³⁶ 42 U.S.C. § 300j-5 (Supp. IV, 1974) establishes a National Drinking Water Advisory Council; 42 U.S.C. § 300j-6 (Supp. IV, 1974) requires federal agencies to comply with the primary regulations and underground injection control programs.

Section 300j-8 provides for "citizen suits" by giving "any person" standing to commence a civil action against any party alleged to be in violation of a requirement prescribed by the Act.²³⁷ It also gives "any person" standing to commence a civil action against the Administrator of the EPA where he has failed to perform a non-discretionary duty prescribed by the Act.²³⁸ In conjunction with the requirement that public notice be given where a system fails to comply with the primary regulations, "citizen suits" pursuant to § 300j-8 should provide backup enforcement of the regulations where the states or the EPA have failed to take the necessary action. Enabling citizens to bring an action against the EPA for failure to perform non-discretionary duties should also add to the bureaucratic accountability established under § 300j-7. Section 300j-8, however, does present a policy issue. Under the section, citizens cannot commence a civil action concerning a violation of a requirement prescribed by the Act until 60 days after notifying the Administrator, the violator, and the state involved, of the violation.²³⁹ If the violation were to involve a contaminant which did not pose a serious hazard to the public health, 60 days would be of little consequence. If the contaminant were to pose an immediate hazard to the public health, however, the 60 day wait could have grave consequences. Thus, permitting the 60 day wait to be waived on a showing that the violation of a requirement presents an immediate hazard to the public health would be appropriate.

The SDWA: Section 300j-9

Section 300j-9, the final section of the Act, contains various general provisions. These provisions, *inter alia*, authorize the Ad-

²³⁷ 42 U.S.C. § 300j-8(a)(1) (Supp. IV, 1974).

²³⁸ 42 U.S.C. § 300j-8(a)(2) (Supp. IV, 1974). To secure standing, recent Supreme Court decisions have required a plaintiff to establish that he has incurred "injury in fact" and that the interest he sought to protect is arguably within the "zone of interests" to be protected or regulated by the statute in question. *Association of Data Processing v. Camp*, 397 U.S. 150 (1970); *Sierra Club v. Morton*, 405 U.S. 727 (1972); *United States v. Students Challenging Regulatory Agency Procedures*, 412 U.S. 669 (1973). While not excusing a plaintiff from establishing that he has incurred "injury in fact," the § 300j-8 specification that "any person" can bring a civil action excuses the plaintiff from establishing that his interest arguably falls within the "zone of interest" to be protected by the statute. By using such language, Congress has declared that "any person" falls within the zone of interests to be protected by the SDWA.

²³⁹ 42 U.S.C. § 300j-8(b)(1)(A) (Supp. IV, 1974). The section also precludes citizen action where the Administrator, the Attorney General, or the State has commenced and is diligently prosecuting a civil action. The section allows the citizen, however, to intervene as a matter of right.

ministrator to prescribe regulations that are necessary and appropriate to carry out functions performed under the Act and establish the Administrator's responsibility to submit a report to Congress concerning activities taken pursuant to the Act.

A noteworthy provision of § 300j-9 concerns the protection given to employees of public water systems. Employers are prohibited from discharging or otherwise discriminating against water system employees who either commence a suit for enforcement of a primary regulation, testify in such a proceeding or in any other fashion assist such a proceeding.²⁴⁰ The Act provides for the Secretary of Labor to investigate a claim by an employee that he was discriminated against on the basis of any of the above actions. The Secretary of Labor is authorized to issue orders requiring reinstatement of the employee and payment of backpay.²⁴¹ By encouraging employees to report primary regulation violations by their employers, the provision should create greater water system accountability. The likelihood is small, however, that a significant number of employees will proceed or testify against their employers, and consequently place their jobs in jeopardy, notwithstanding the avowed protection.²⁴²

CONCLUSION

The SDWA represents an accumulation of and compromise between the many opposing positions which were represented at the Congressional hearings. Because consensus was not reached as to which approach would be most successful in achieving the Act's objective, the Congressional response was to assemble a program including features from all of the proposed programs.

Certain provisions of the Act are likely to prove critical to achievement of the Act's objectives. The EPA must carefully administer the development and subsequent revision of the primary regulations. These standards will play the essential role of providing a measuring stick to determine whether a public water system is providing safe water to its consumers. The provisions for public notification of systems failing to comply with primary regulations are also

²⁴⁰ 42 U.S.C. § 300j-9(i) (Supp. IV, 1974).

²⁴¹ 42 U.S.C. § 300j-9(i)(2)(B) (Supp. IV, 1974).

²⁴² Representative Symington did note, however, that:

[S]imilar provisions which now exist elsewhere are indeed being used. Under the Water Pollution Act provision, some 17 cases are now being actively processed. Under the OSHA provision, the Solicitor's office has given the go-ahead to process 24 cases.

120 CONG. REC. 10813 (daily ed. Nov. 19, 1974).

of great significance. They should facilitate a public demand for safe drinking water which will cause drinking water safety to be given higher priority when budgetary decisions must be made, as well as give the states incentive to more effectively administer their drinking water safety programs. The final provision having special significance is EPA oversight of state water supervision programs where the state has primary enforcement responsibility. The states will provide the major part of the leg-work necessary to secure compliance with the primary regulations. The EPA, however, must carefully oversee the state programs and step in and notify states when they are not effectively securing compliance with the regulations. This approach will not only provide a safety mechanism to ensure compliance, but will also provide incentive to those states honestly desiring to independently administer the drinking water program in their jurisdiction. Effective administration of the Act's provisions, giving special consideration to the aspects noted above, together with various changes which have been suggested throughout this article, should make the SDWA a successful step toward ensuring the provision of safe water to the American consumer.