

FILE FOLDER

DESCRIPTION ON TAB:

11331 Operations Report

(Water Flow) (83)

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11331 OPERATIONS REPORT
(WATER FLOW - 1983)

(83)

OPEN

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JAN - 1985 - DESTROY
SECNAVINST 5215.5B, Part II,
Chap. 11, par. 11300(2) 2 years

83



MR. PRICE
83/84

North Carolina Department of Human Resources

Eastern Regional Office • 404 Saint Andrews Drive • Greenville, N. C. 27834

James G. Martin, Governor

Phillip J. Kirk, Jr., Secretary

April 10, 1986

Commanding General
US Marine Corps Base
Camp Lejeune, NC 28542

ATTN: Utilities Director
G. S. Johnson, Jr.

Dear Sir:

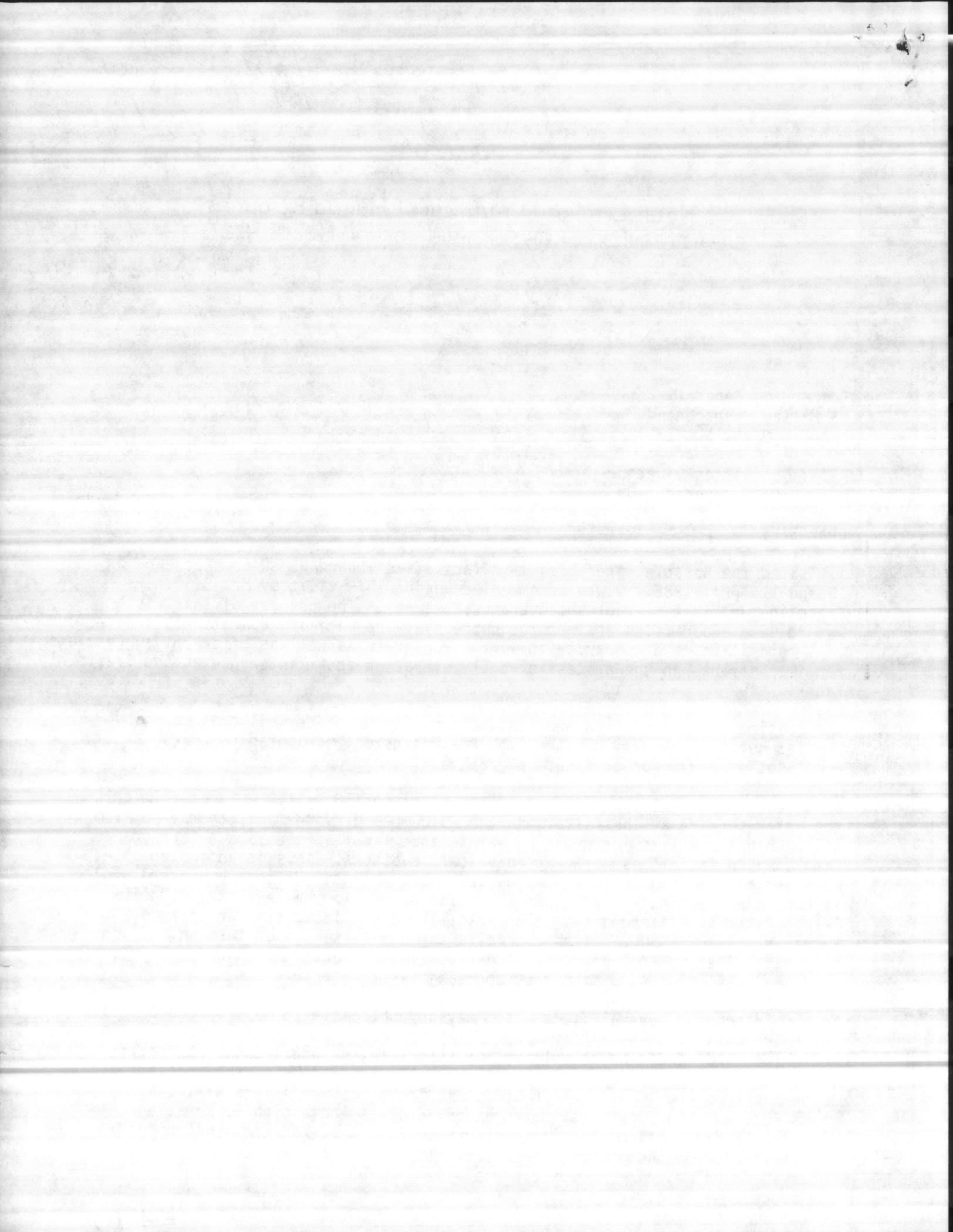
I visited the potable water treatment facilities aboard USMCB Camp Lejeune on 10 and 11 April 1986. I was accompanied during this visit by Mr. B. M. Frazelle, Jr. (Water Treatment Operator Foreman). The purpose of this visit was to update our files and records concerning the facility operations, treatment capacities, and construction work in progress as well as offer any suggestions for improvements in the process or daily operation and maintenance at the treatment facilities.

The routine plant operation and equipment maintenance are well organized and carried out. I was very pleased with the expansion and upgrading work recently completed or now in progress at several facilities.

We discussed several specific plant situations including: (1) A light film on the water surface at the filters in the Holcomb Boulevard facility may be from oil lubricated well pumps. (2) The maintenance level at the Tarawa Terrace and Camp Johnson facilities has dropped below the others. This is understandable, however, considering these are to be abandoned when the Holcomb Boulevard project is completed (estimated late 1986). (3) The water flow pattern at the Onslow Beach system is different from other facilities utilizing similar treatment. Normally, water is pumped from the wells through filters then through the ion exchange softeners, not divided. Additionally, filter backwash water is usually from the treated water system, not untreated well water.

We also discussed several items which may be applicable to more than one facility. These include: (1) The filters and softeners should be inspected annually for media loss and condition as well as any structural or operational abnormalities. (2) Covers for the brine (NaCl) day tanks will reduce some of the problems with surface corrosion. Installation and operation of dehumidifiers will also help the problem. (3) The existing treatment process consisting of aeration, lime addition, sedimentation, filtration (sand media), ion exchange (softening), chlorination, and phosphate (at three plants) may be altered to reduce chemical costs while maintaining acceptable quality. An in-plant or laboratory trial of the process may prove effective, depending on more detailed water quality analysis

Encl (1)



Commanding General

Page 2

April 16, 1986

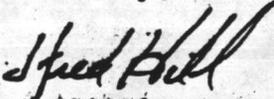
and study. (4) I noticed several open electrical service panels. A standing policy should be established to close or secure these at the end of the work or shift change, especially in the water plant areas. (5) Many water systems utilizing dry feeders for fluoride prefer sodium silicofluoride (due to its cost) instead of sodium fluoride (dissolves only to 4% solution). (6) Records of operations: [REDACTED]

I understand that planning is in progress for the development of private operations contracts for the water treatment facilities. Our office, in cooperation with the NC Attorney General's office, would like to review the final contract proposal to determine the operation's responsibilities as well as the system's liabilities.

As always, I appreciate the cooperation and attitude of the Base towards the State's Water Supply Branch and regulations.

If you have any questions or wish to discuss these comments further, please contact me.

Sincerely,



J. Fred Hill
Water Plant Consultant
Water Supply Branch
Environmental Health Section

bgb

Enclosures

cc: C. E. Rundgren
M. P. Bell

100

Memorandum

15 August 1986

Foreman, Water Treatment

Director, Utilities

Operational Water Reports, Request For; information concerning

(a) Mr. F. Hill's ltr of 16 April 86 to CG, MCB, Camp Lejeune, N. C.

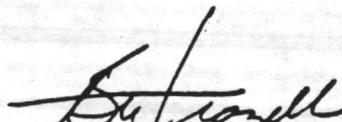
1. On 14 August 1986 a meeting was held between Mr. Fred Hill, Water Plant Consultant, N. C. Department of Human Resources and myself. The purpose of this meeting was to discuss the submission of Water Treatment Reports to the N. C. Department of Natural Resources as requested by the reference. Mr. Hill requested that the following information be sent to the Water Supply Branch, Division of Health Services, Raleigh, N. C. The report will include the below listed information; will be submitted per plant; and be submitted prior to the 10th day of the following month.

DATA TO BE SUBMITTED

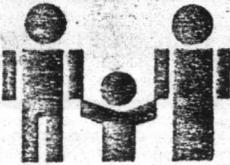
- a. Total Water Pumped in MGD, Daily
- b. Hours Plant Operated, Daily
- c. Backwash Water Used in Gallons, Daily
- d. Turbidity, p.p.m. (Only on Lime Softening Plants) Daily
- e. Chlorine Used in Lbs., Daily
- f. Lime Used in Lbs., Daily
- g. Phosphate Used in Lbs., Daily
- h. Fluoride Used in Lbs., Daily
- i. p.H. of Raw, and Finished Water, Daily
- j. Hardness of Raw, Treated and Delivered Water, p.p.m., Daily
- k. Alkalinity of Raw, Filtered and Delivered Water, p.p.m., Daily
- l. Free Chlorine Residual, Treated and Delivered Water, p.p.m. Daily
- m. Fluoride Residual, p.p.m. (Only on plants adding Fluoride), Daily

NOTE: THOSE READING TAKEN MORE THAN ONCE DAILY WILL REQUIRE AVERAGING FOR THIS REPORT. LIME, FLUORIDE MACHINE ON CONTINUOUS FEED WILL REQUIRE WEIGHING MATERIAL AND CALCULATED DATA SUBMITTED. THIS WILL ALSO REQUIRE WEIGHING MATERIAL EACH TIME FEEDER IS CUT UP OR DOWN AND LENGTH OF TIME RECORDED FOR EACH SETTING.

2. It should be noted that this report will require an extreme amount of manhours to prepare, maintain and submit.


B. M. FRAZZELLE

Encl (2)



Ronald H. Levine, M.D., M.P.H.
STATE HEALTH DIRECTOR

DIVISION OF HEALTH SERVICES
P.O. Box 2091
Raleigh, N.C. 27602-2091

October 25, 1982

Commanding General
USMC Camp Lejeune
Camp Lejeune, North Carolina 28542

ATTN: R. F. Calta, Lieutenant Colonel
USMC Base Maintenance Officer

Sir:

To conform the potable water treatment facilities of USMC Camp Lejeune to the provisions of the North Carolina Safe Drinking Water Act, the following public water supply I.D. numbers have been assigned.

04-67-041	USMC Hadnot Point
04-67-042	USMC New River Air Station
04-67-043	USMC Holcomb Boulevard
04-67-044	USMC Tarawa Terrace
04-67-045	USMC Camp Johnson
04-67-046	USMC Rifle Range
04-67-047	USMC Courthouse Bay
04-67-048	USMC Onslow Beach

These I.D. numbers should be shown on all reports of chemical analysis and operations from the respective treatment facilities and microbiological analyses from representative points within the respective distribution system.

These should be reported to Mr. John McFadyen in this office monthly.

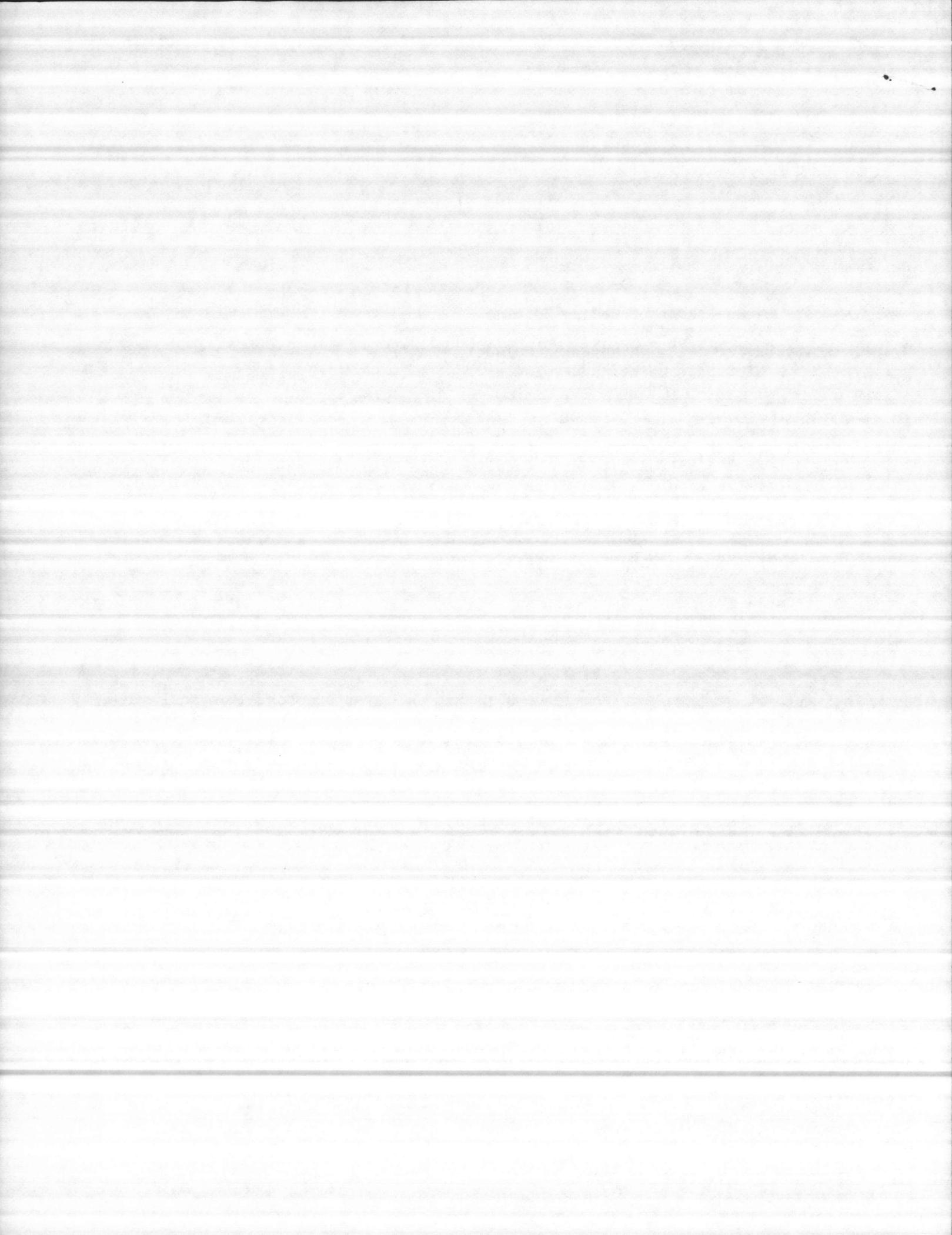
Thank you for your continued cooperation.

Very truly yours,

Charles E. Rundgren, Head
Water Supply Branch
Environmental Health Section

CER: chf

cc: Mr. M. P. Bell



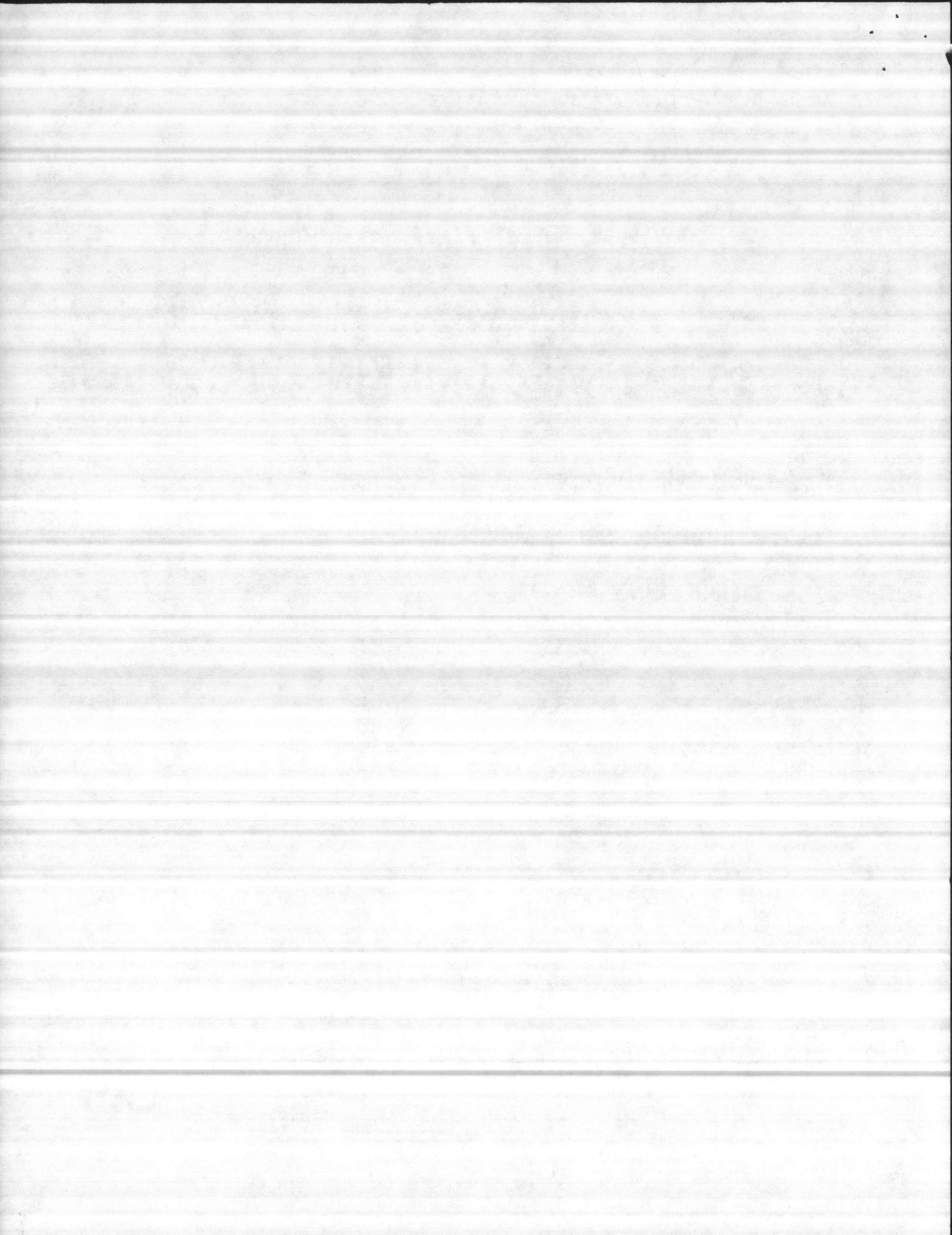
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**SUMMARY OF REVISIONS
OF THE DRINKING WATER
REGULATIONS AND AMENDMENTS
TO THE SAFE DRINKING WATER ACT**

John C. Thompson
Vice President
Camp Dresser & McKee Inc.

JUNE 1986

CDM



Prior to 1970, protection of drinking water was the responsibility of the Public Health Services (PHS) which established standards for the quality of water used in interstate commerce. In 1970, this responsibility was inherited by the Environmental Protection Agency (EPA). A 1970 study indicated that a significant number of water supplies did not meet the PHS standards. As a result of these findings, the EPA and Congress began developing Federal legislation directed towards providing the EPA ultimate authority over all water supplies.

Legislation was embodied in the Safe Drinking Water Act (SDWA) of 1974. The act requires the EPA to set, initially, interim primary drinking water regulations (essentially requiring all water supplies to meet the 1962 USPHS standards). Further requirements of the Act include the establishment of recommended maximum contaminant levels (RMCLs) for each contaminant which may have an adverse effect on the health of persons. Each RMCL is required to be set at a level at

which no known or anticipated adverse effects on health occur allowing an adequate margin of safety. The SDWA also requires that revised National Primary Drinking Water Regulations (NPDWR), establishing a maximum contaminant level (MCL) or treatment technique, and secondary drinking water regulations be established by September 1976 and December 1977, respectively.

To date a number of contaminants have yet to be regulated. Furthermore, only a few revisions of existing regulations have been made, although the SDWA requires a review of the regulations at least every three years. Despite the complexity of setting MCLs for actual or suspected carcinogens, Congress has been placing greater pressure on EPA to regulate more completely.

The result of this is twofold. First, the EPA has increased its standard setting activities. Second, new amendments to the SDWA are anticipated to be signed into law by the president very soon.

REVISIONS TO DRINKING WATER REGULATIONS

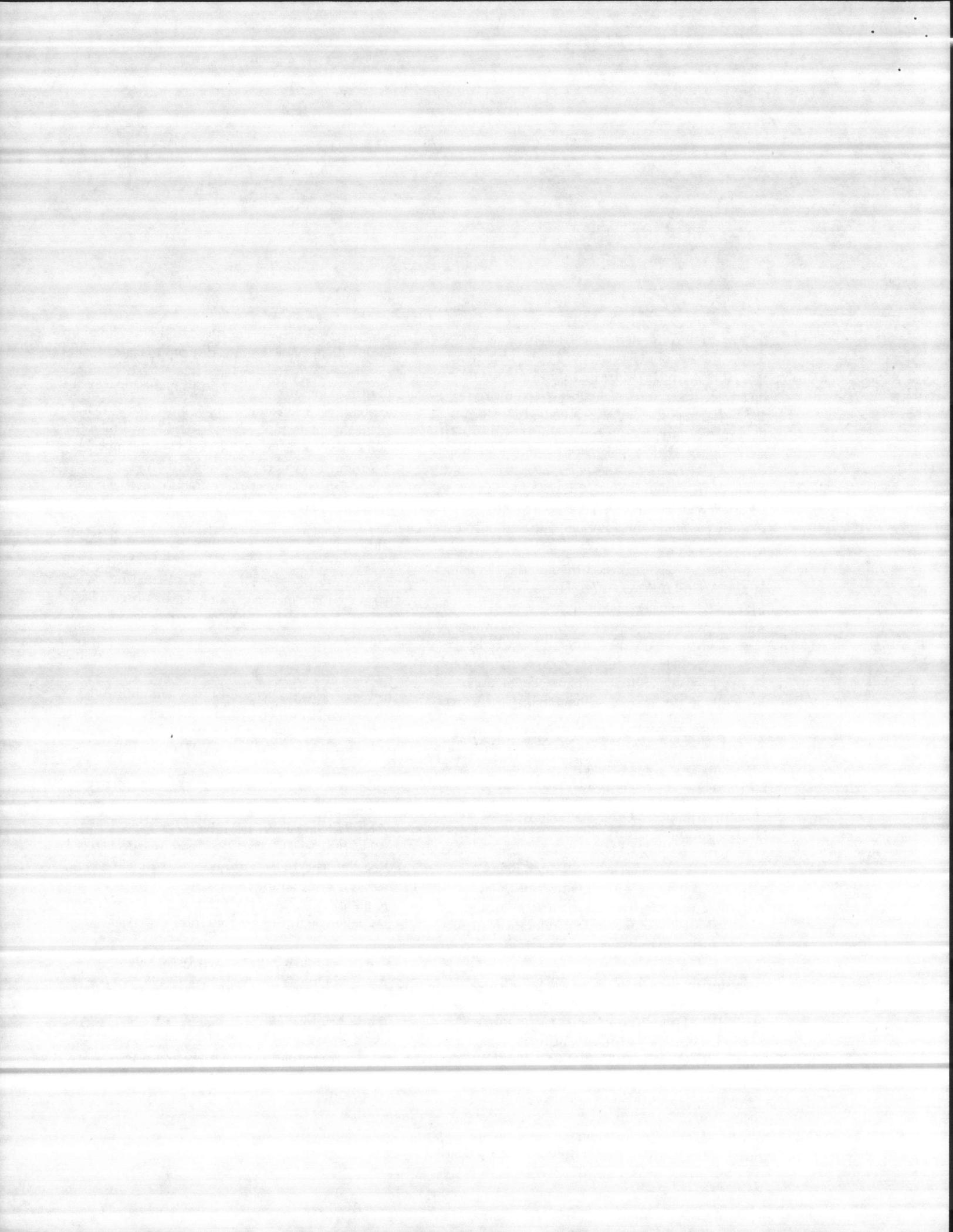
In the March 4, 1982, Federal Register, the EPA announced an advance notice of proposed rulemaking (ANPRM) regarding revised National Primary Drinking Water Regulations (NPDWR) directed to regulation of volatile organic compounds (VOCs). In the announcement, the EPA stated its consideration of proposals for regulation of the VOCs listed in Table 1.

Again in the October 5, 1983, Federal Register, the EPA announced another ANPRM. This announcement was directed toward revisions to Interim Primary Drinking Water Regulations (IPDWR) for all IPDWR contaminants previously regulated as well as toward the consideration of proposals for new regulations of certain synthetic organic chemicals (SOCs), inorganic chemicals (IOCs), microbiological contaminants and radionuclide

contaminants. The contaminants noted in the ANPRM are listed in Tables 2-5.

In the October 5, 1983, issue of the Federal Register, the EPA outlined its approach to revising the National Primary Drinking Water Regulations. The EPA intends to develop these revised regulations in four phases as follows:

- I. Establish volatile synthetic organic chemical (VOCs) regulations.
- II. Establish revised regulations for other synthetic organic chemicals (SOCs), inorganic chemicals (IOCs), and microbiological contaminants.
- III. Establish revised regulations for radionuclides.



IV. Establish revised regulations for disinfectant by-products including trihalomethanes (THMs).

In the same issue of the Federal Register, it was stated that the revisions to the NPDWR will take two forms. First, RMCLs will be established; and second, MCLs will be set. In some cases, these may be established simultaneously. The MCLs are enforceable standards required to be set as near as "feasible" to the RMCLs (treatment goals), taking cost into consideration. The RMCLs are required to be set at levels that would result in no known or anticipated adverse health effects with an adequate margin of safety.

VOCs

RMCLs and proposed MCLs were established and reported in the Federal Register on November 13, 1985, for eight volatile organic compounds. These are summarized in Table 6.

The VOCs for which the RMCLs are set at zero are considered to be probable human carcinogens. The RMCLs for the VOCs were effective December 13, 1985. Tetrachloroethylene was initially proposed to be regulated with a zero RMCL. Although additional comment has been requested regarding the carcinogenicity of this substance, it is anticipated that the RMCL will ultimately be established at zero and the MCL will be in the order of 1-5 mcgm/l.

UNREGULATED VOCS MONITORING

In addition to the regulations noted above, the November 13, 1985, Federal Register also contained a proposed requirement to monitor additional VOCs in drinking water. (See Table 7).

When this rule is promulgated all community water systems will be required to monitor for the contaminants listed in Table 7. The time at which monitoring must be completed, however, is dependent upon the population served according to the schedule below:

<i>Number of Persons Served</i>	<i>Monitoring Completion Date</i>
More than 10,000	Within 1 year of promulgation
3,300 to 10,000	Within 2 years of promulgation
Less than 3,300	Within 4 years of promulgation

As proposed, surface water systems shall sample in the distribution system at entry points representative of each water source. The minimum number of samples is four quarterly samples per water source. Groundwater systems shall sample at points of entry to the distribution system representative of each well. The minimum number of samples is one sample per entry point to the distribution system.

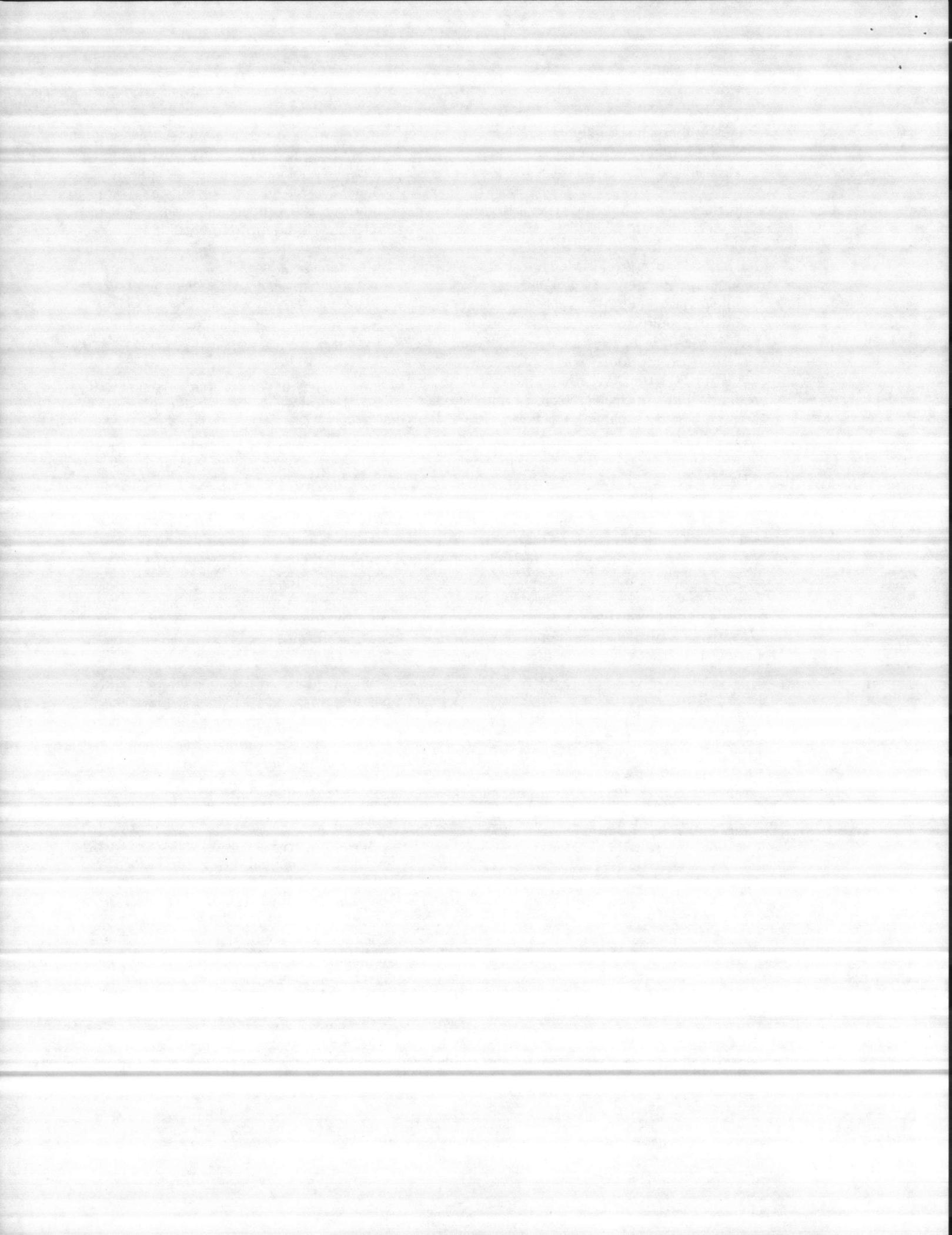
SYNTHETIC ORGANIC CHEMICALS REGULATIONS

The interim primary drinking water regulations contain MCLs for seven synthetic organic chemicals (SOCs) noted in Table 2.

The November 13, 1985, Federal Register contains proposed revisions for SOC's including proposed RMCLs for additional SOC's. These are shown in Table 8.

These RMCLs will likely be promulgated at these same values or close to these values. When promulgated, the MCLs are required to be promulgated as close as is feasible to the RMCLs.

Other SOC's have also been considered for regulation. Potential health effects for these have not yet been established and these will be considered in later phases of the revisions of regulations. These SOC's include: adipates, dalapon, dinoseb, dibromomethane, diquat, endothall glyphosate, hexachlorocyclopentadiene, PAHs, phthalates, picloram, 1,1,2-trichloroethane, and vydate.



MICROBIOLOGICAL PARAMETERS REGULATIONS

The Interim Primary Drinking Water Regulations for microbiological parameters are based primarily on the total coliform count. In essence, the regulation calls for a limit of less than 1 coliform per 100 ml as a monthly average of all treated water samples. Related to this is a monthly average of turbidity of less than 1 NTU.

The new proposed microbiological parameters, November 13, 1985, Federal Register, call for RMCLs for several parameters related to microbiological quality. (See Table 9.)

INORGANIC CHEMICALS REGULATIONS

The existing interim primary drinking water regulations contain MCLs for ten inorganic chemicals (IOCs) noted in Table 3.

The new proposed RMCLs for IOCs are listed in Table 10.

RMCLs have not yet been proposed for: aluminum, cyanide, molybdenum, nickel, silver, sulfate, sodium, antimony, beryllium, thallium, vanadium, and zinc. This is due to limited health effects data and/or limited occurrence in drinking water. Five of these IOCs (antimony, beryllium, thallium, vanadium, and aluminum) will be addressed in the future. Zinc is inappropriate for regulation on the basis of low toxicity even at elevated concentrations in water (up to 40 mg/L) and because it is not carcinogenic, mutagenic, or teratogenic.

FUTURE DRINKING WATER REGULATIONS

Under the EPA's phased approach to revised regulations, MCLs and RMCLs will be proposed and then promulgated for those parameters addressed in the ANPRMs. One should next expect the promulgation of MCLs for VOCs for which RMCLs have already been promulgated.

Coincident with or following the establishment of RMCLs and MCLs for organic substances (VOCs and SOCs), IOCS and microbiological contaminants, the EPA will next concentrate on revisions to radionuclide regulations. This will be followed by revisions to the trihalomethane (THM) regulations.

The latter subject will likely create significant discussion. The current THM standard of 100

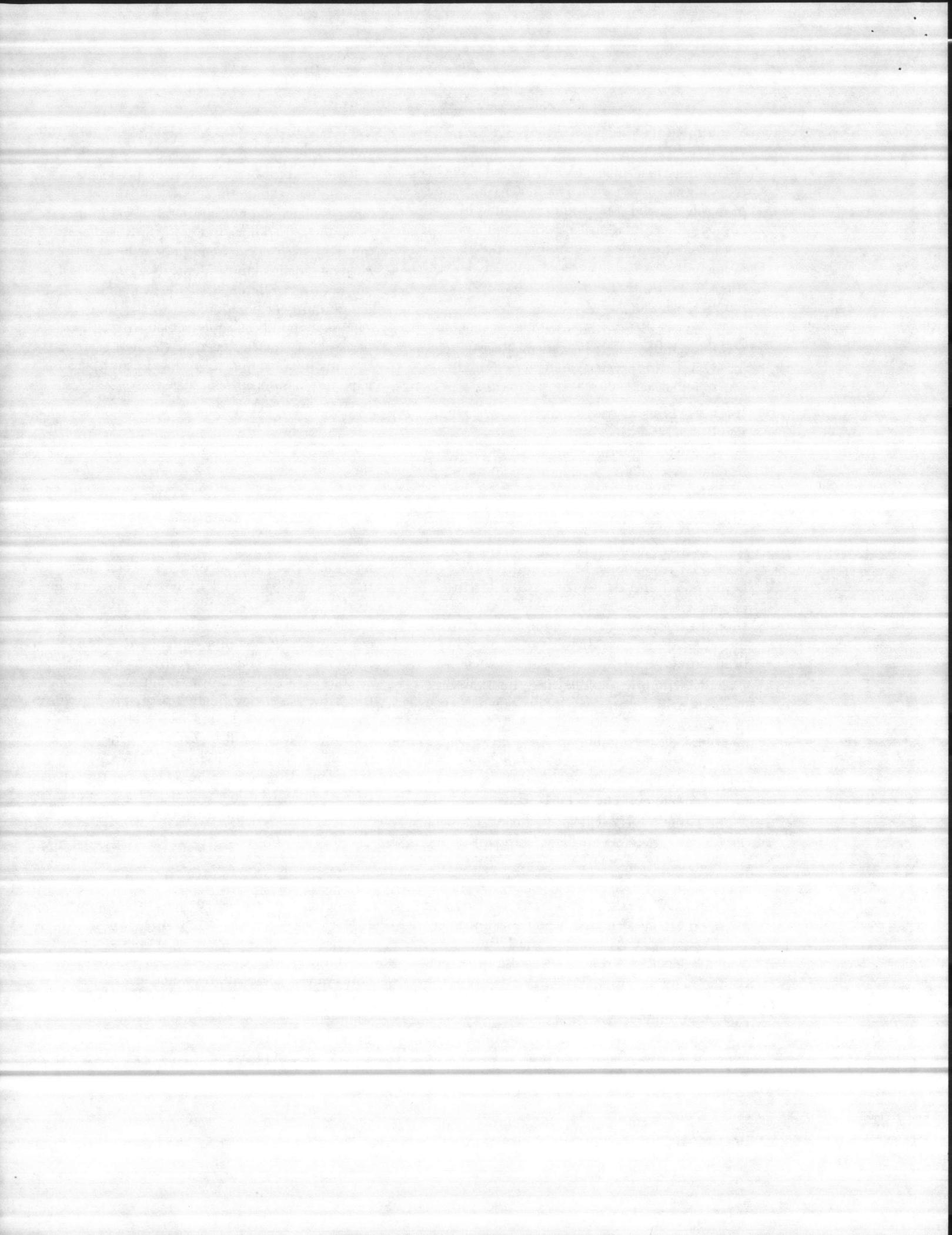
mcgm/L is based on a health risk which recognizes an excess lifetime (70 years) cancer risk of 1 in 10,000 to 1 in 100,000 on exposure to the 100 mcgm/L level. The new proposed regulations assume that any amount of carcinogen in water is unacceptable. It is from this philosophy that values of 0 have been established in RMCLs for certain VOCs. On this same basis, one might reasonably expect that the new RMCLs for each THM (or at least chloroform) will be set at 0. One can further argue that the MCLs for THMs which are required to be as close as feasible to the RMCLs might be in the order of 5 mcgm/L. In fact, current discussion does not preclude this possibility.

1986 SDWA AMENDMENTS

The major aspects of the 1986 Amendments to the Safe Drinking Water Act include:

- Compulsory revisions to the Drinking Water Regulations in a timely fashion for new contaminants.
- Definition of a treatment technique for each contaminant regulated.
- Requirement of a treatment technique where it is infeasible to ascertain the level for those regulated contaminants in water.

- Filtration requirement for surface water supplies with certain exceptions.
- Disinfection of all water supplies.
- Prohibition of use of lead products in all conveyances for drinking water.
- Requirement for protection of ground water sources by states through well head protection regulations.



MAXIMUM CONTAMINANT LEVEL GOALS

The 1986 Amendments to the SDWA have redefined Recommended Maximum Contaminant Levels so that they are now known as Maximum Contaminant Level Goals (MCLGs). In the future MCLs and MCLGs must be proposed simultaneously and promulgated simultaneously.

CONTAMINANTS TO BE REGULATED

The amendments recognize 83 contaminants for which regulations must be developed. Of these 14 are VOCs addressed in the ANPR of March 4, 1982 (see Table 1). The remainder were addressed in the ANPR of October 5, 1983. Of the remainder, 29 are new SOCs (see Table 2), 13 are new VOCs (see Table 3), 4 are new microbiological contaminants (see Table 4), and 2 are new radiological contaminants (see Table 5). Those 21 contaminants contained in the Interim Primary Drinking Water Regulations are included in the total number of contaminants addressed by the amendments and were also addressed in the ANPRMs noted above. The 1986 Amendments have upgraded the previous IPDWR to National Primary Drinking Water Regulations.

In regard to the 83 listed contaminants, the Amendments require the Administrator of the EPA to publish MCLGs and promulgate NPDWR (including MCLs as appropriate) for not less than nine of the listed contaminants (as contained in the two ANPRs) within one year of enactment of the Amendments. The intent of the Congress and the interpretation of the EPA is that these nine contaminants will include the VOCs Benzene, Vinyl Chloride, Carbon Tetrachloride, 1,2-Dichloroethane, Trichloroethylene, 1,1-Dichloroethylene, 1,1,1-Trichloroethane, p-Dichlorobenzene and Tetrachloroethylene.

Another 40 more of the listed contaminants must be similarly regulated within two years of enactment. Of these 40 contaminants undoubtedly some of the 21 contaminants previously listed in the IPDWR will be included with revisions.

The remainder of the listed contaminants must be regulated as those above within three years of enactment of the Amendments. Up to seven different contaminants other than those listed may be substituted if the Ad-

ministrators find these may take precedence as public health concerns.

Each MCLG must be set by the EPA at a level at which no known or anticipated health effects occur allowing an adequate margin of safety. Each MCL promulgated simultaneously with the publishing of the MCLG must be set as close as feasible to the MCLG.

TREATMENT TECHNIQUES

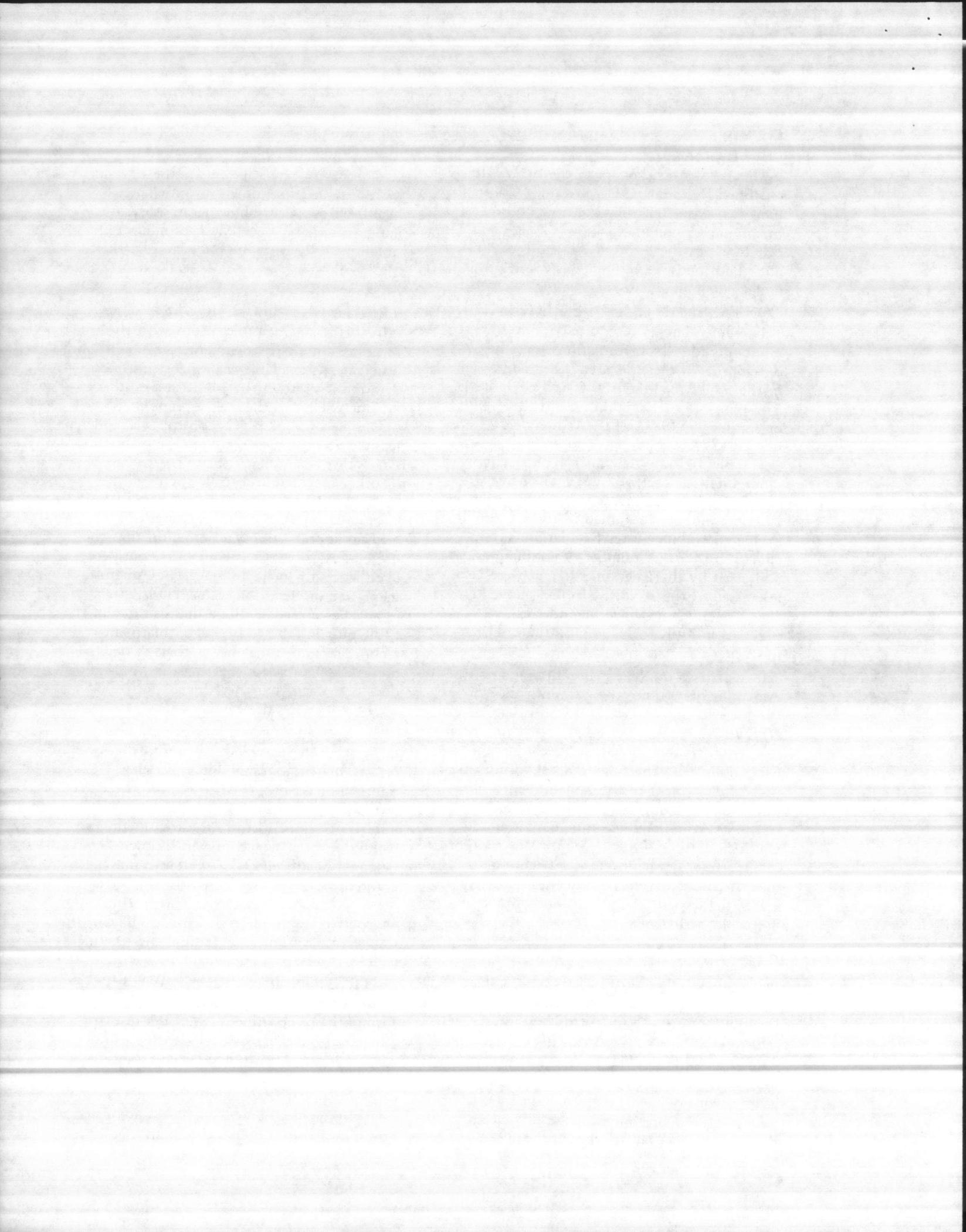
In this regard, feasible means with the use of best technology, treatment techniques, and other means available taking cost into consideration. In setting the MCLs for synthetic organic chemicals the use of granular activated carbon for SOCs control is considered feasible according to the 1986 Amendments. Any other technology, treatment technique, or other means found to be the best available for the control of SOCs must be as effective as GAC for this purpose.

In addition to the determination that the use of GAC for SOCs control is considered a feasible treatment technique. The Amendments require that for each NPDWR that establishes an MCL, the Administrator of the EPA must list the technology, treatment technique, and other means that he determines are feasible for meeting the MCL. This does not mean that these means must be used for meeting the MCL.

In the event that it is not economically or technologically feasible to ascertain the level of a regulated contaminant, the Administrator is authorized to require the use of a treatment in lieu of an MCL. The Administrator must identify the treatment techniques that would prevent known or anticipated health effects. A variance may be granted from the use of the identified treatment techniques if it can be shown that an alternative technique is at least as efficient. In the event a variance is granted, the treatment technique must be implemented.

FILTRATION OF SURFACE WATERS

The 1986 Amendments require that, within 18 months of enactment, the EPA must promulgate regulations specifying criteria under which filtration (including coagulation and sedimentation as appropriate) is required for surface water sources. The EPA must consider the quality of the source water, protection afforded by watershed management,



treatment practices (such as disinfection and length of water storage), and other factors relevant to health. Specific procedures are required to be formulated by the EPA by which States determine which water systems shall adopt filtration. The State may require the water system to provide studies or other information to assist in this determination.

MANDATORY DISINFECTION

Within three years of enactment of the Amendments, the EPA is required to promulgate regulations requiring disinfection as a treatment technique for all public water supplies. At this same time the EPA must also promulgate a rule specifying criteria that will be used to grant variances from the disinfection requirement.

PROHIBITION OF USE OF LEAD MATERIALS

The Amendments forbid the use of pipe, solder, or flux that is not lead free in the installation or repair of any public water system or in any plumbing system providing water for human consumption. This does not, however, apply to leaded joints necessary for the repair of cast iron pipes. The term lead free means that solders and fluxes must contain not more than 0.2 percent lead and pipes and fittings not more than 8 percent lead.

Public notice is required where there is lead content in the construction materials of the public water supply and/or where the water is sufficiently corrosive to cause leaching of lead.

PROTECTION OF GROUNDWATER SOURCES

Monitoring methods in addition to those in place shall be identified by the EPA under the regulations for Class I injection wells within 18 months of enactment of the Amendments. These new monitoring methods will be directed to provide the earliest possible detection of fluid migration

from such injection wells toward underground sources of drinking water. The monitoring responsibility lies with the States who have primacy.

In addition to regulations for the protection against groundwater contamination from injection wells the Amendments require the establishment of wellhead protection areas by the States. Within three years from enactment of the Amendments, States must adopt a program for wellhead protection. The wellhead protection area includes the surface and subsurface surrounding a well or wellfield through which contaminants are reasonably likely to move toward a well.

VARIANCES AND EXEMPTIONS

The 1986 Amendments continue to provide for variances and exemptions as noted above in discussion of particular aspects of the Amendments and as discussed hereafter. While the basic philosophy of variances and exemptions has not been substantially changed, two items stand out. First, at the time of granting a variance or exemption, a schedule of compliance and implementation of additional control measures must be prescribed by the State. Second, the EPA's finding of the best available technology with regard to applications for variances may vary depending on the number of persons served by the system or for other physical conditions related to engineering feasibility and costs of compliance with an MCL.

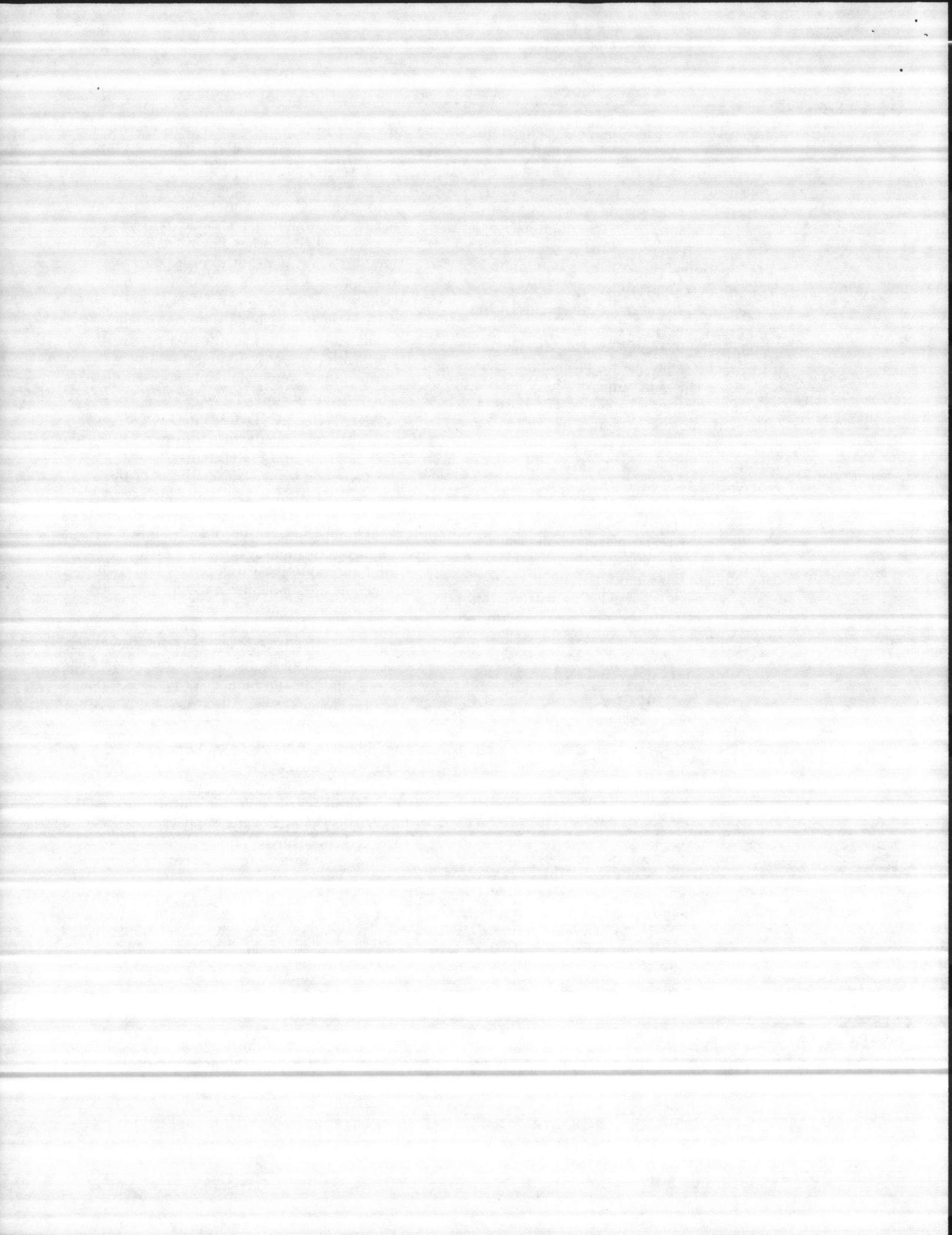
ENFORCEMENT

The 1986 Amendments have significantly strengthened the enforcement action that the EPA may use for water supplies in nonconformance with regulations. The EPA is allowed to enter into enforcement action sooner and the maximum civil penalties that may be applied have been increased from \$5,000 to \$25,000 per day regardless of the fact that failure to comply was willful or not.

The EPA has significantly increased its drinking water standards setting activities with regard to revisions of old standards as well as establishing standards of unregulated contaminants. Part of the impetus of this action was a result of the EPA working with Congress in a discussion of the new Amendments to the Safe Drinking Water Act.

The new Amendments not only update the SDWA but also bring more pressure to bear on the EPA to produce additional drinking water MCLs in a timely fashion.

The next few years will undoubtedly see significant advances in treatment of drinking water to effect a safer product.



Trichloroethylene Tetrachloroethylene Carbon Tetrachloride 1, 1, 1 - Trichloroethane 1, 2 - Dichloroethane	Vinyl Chloride Methylene Chloride Benzene Chlorobenzene Dichlorobenzene(s)	Trichlorobenzene(s) 1, 1 - Dichloroethylene cis - 1, 2 - Dichloroethylene trans - 1, 2 - Dichloroethylene
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SOCs

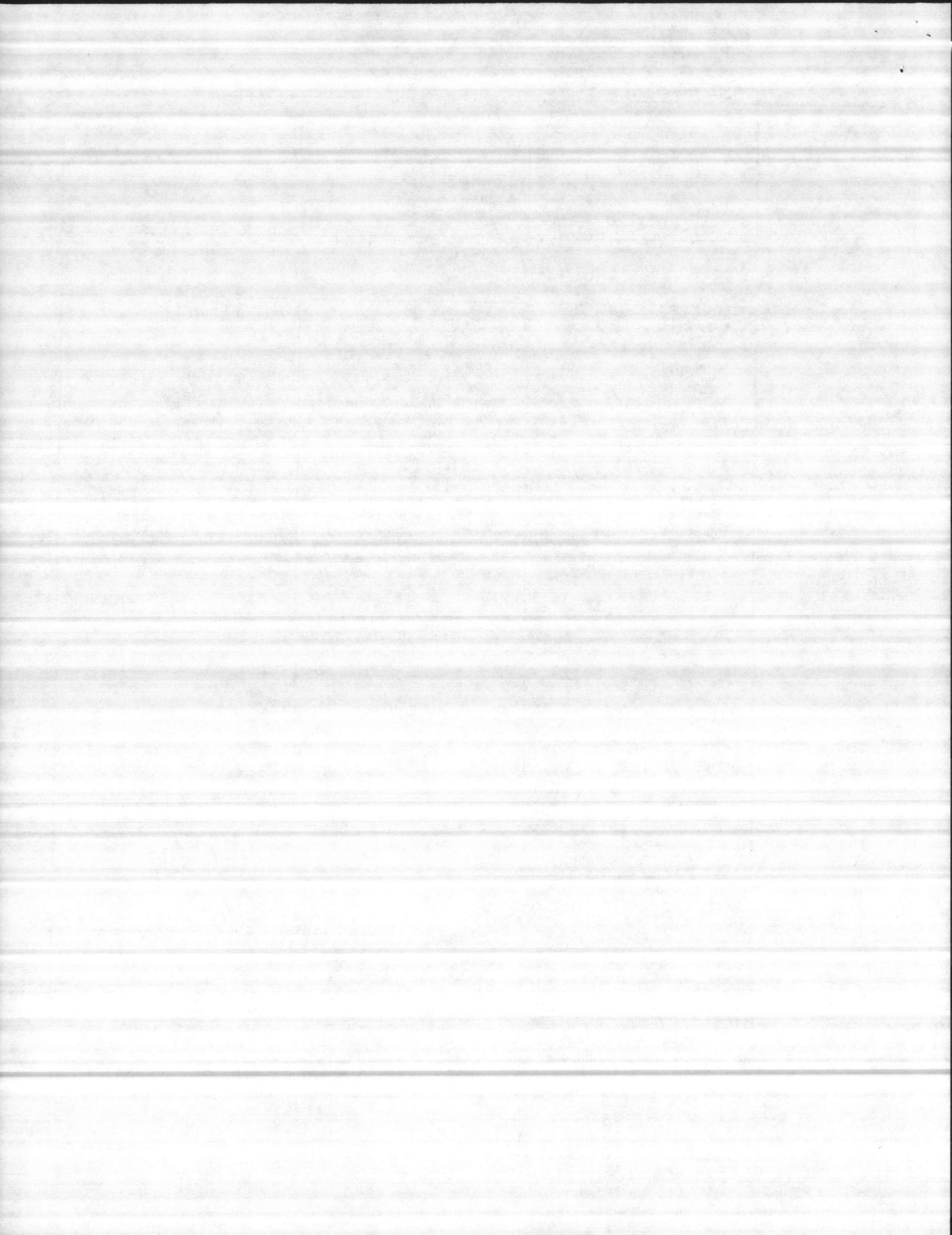
Endrin* Lindane* Methoxychlor* Toxaphene* 2, 4, - D* 2, 4, 5 - TP (Silvex)* Total Trihalomethanes* Aldicarb* Chlordane Dalapon Diquat Endothal Glyphosate	Carbofuran 1, 1, 2 - Trichlorethane Vydate. Simazine PAHs (Polynuclear Aromatic Hydrocarbons) PCBs (Polychlorinated Biphenyls) Atrazine Phthalates Acrylamide DBCP (Dibromochloropropane) 1, 2 - Dichloropropane	Pentachlorophenol Picloram Dinoseb Alachlor EDB (Ethylene Dibromide) Epichlorohydrin Dibromomethane Toluene Xylene Adipates Hexachlorocyclopentadiene 2, 3, 7, 8 - TCDD (Dioxin) <i>*already regulated</i>
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TABLE THREE:
IOCs

Arsenic* Barium* Cadmium* Chromium* Lead* Mercury* Nitrate (as N)* Selenium*	Silver* Fluoride* Aluminum Antimony Molybdenum Asbestos Sulfate Copper	Vanadium Sodium Nickel Zinc Thallium Beryllium Cyanide <i>*already regulated</i>
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Turbidity* Total Coliforms* Giardia Lamblia	Viruses Standard Plate Count	Filtration of Surface Water Disinfection of All Water <i>*already regulated</i>
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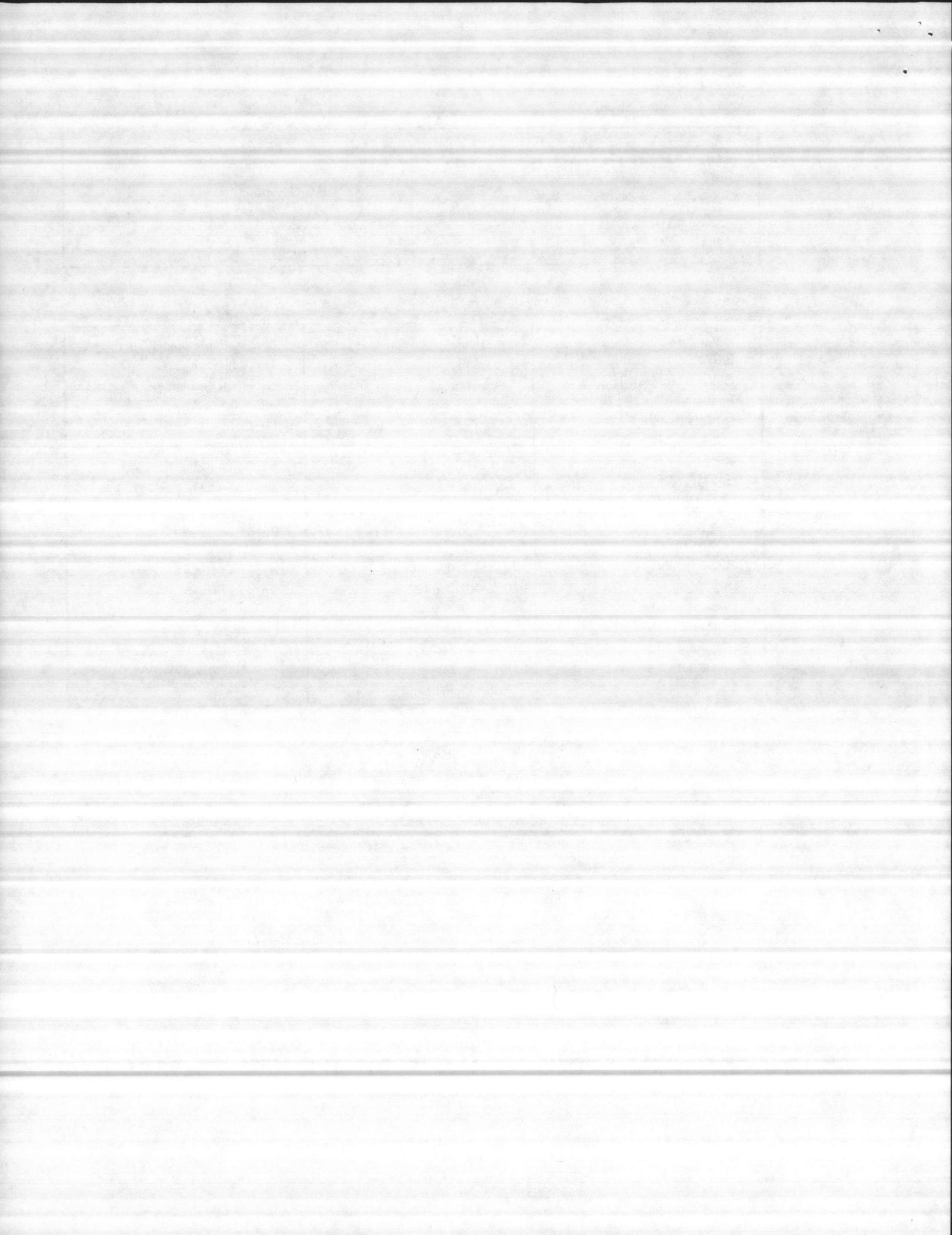
Radium 226 and 228* Gross Alpha Particle Activity*	Beta particle and Photon Radioactivity*	Uranium Radon <i>*already regulated</i>
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VOC	RMCL (mcgm/L)	Proposed MCL (mcgm/L)	VOC	RMCL (mcgm/L)	Proposed MCL (mcgm/L)
Benzene	0	5	Trichloroethylene	0	5
Vinyl Chloride	0	1	1,1-Dichloroethylene	7	7
Carbon Tetrachloride	0	5	1,1,1-Trichloroethane	200	200
1,2-Dichloroethane	0	5	p-Dichlorobenzene	750	750

TABLE SEVEN
Organics to be
Monitored

Chloroform*	p-Xylene	bis-2-Chloroisopropyl ether
Bromodichloromethane*	o-Xylene	2,2-Dichloropropane
Chlorodibromomethane*	m-Xylene	1,2,4-Trimethylbenzene
Bromoform*	1,1-Dichloroethane	n-Butylbenzene
trans-1,2-Dichloroethylene	1,1,2,2-Tetrachloroethane	Napthalene
Chlorobenzene	Ethylbenzene	Hexachlorobutadiene
m-Dichlorobenzene	1,3-Dichloropropane	o-Chlorotoluene
Dichloromethane	Styrene	p-Chlorotoluene
cis-1,2-Dichloroethylene	Chloromethane	1,3,5-Trimethylbenzene
o-Dichlorobenzene	Bromomethane	p-Isopropyltoluene
1,2,4-Trichlorobenzene	Bromochloromethane	1,1-Dichloropropene
Fluorotrichloromethane	1,2,3-Trichloropropane	iso-Propylbenzene
Dichlorodifluoromethane	1,2,3-Trichlorobenzene	tert-Butylbenzene
Dibromomethane	n-Propylbenzene	sec-Butylbenzene
1,2-Dibromoethane (EDB)	1,1,1,2-Tetrachloroethane	Bromobenzene
1,2-Dibromo-3-chloropropane (DBCP)	Chloroethane	
Toluene	1,1,2-Trichloroethane	
	Pentachloroethane	<i>*already regulated</i>



SOC	Proposed RMCL (mg/L)
Acrylamide	0
Alachlor	0
Aldicarb, aldicarb sulfoxide and aldicarb sulfone	0.009
Carbofuran	0.036
Chlordane	0
cis-1,2-Dichloroethylene	0.07
DBCP	0
1,2-Dichloropropane	0.006
o-Dichlorobenzene	0.62
2,4-D	0.07
EDB	0
Epichlorohydrin	0
Ethylbenzene	0.68
Heptachlor	0
Heptachlor epoxide	0
Lindane	0.0002
Methoxychlor	0.34
Monochlorobenzene	0.06
Pentachlorophenol	0.22
Styrene	0.14
Toluene	2.0
2,4,5-TP	0.052
Toxaphene	0
trans-1,2-Dichloroethylene	0.07
Xylene	0.44

TABLE NINE:
Microbiological
Parameters—
Proposed RMCLs

Parameter	Proposed RMCL	Parameter	Proposed RMCL
Total coliforms	0	Giardia	0
Turbidity	0.1 NTU	Viruses	0

TABLE TEN:
Inorganic
Content—
Proposed
RMCLs

IOC	Proposed RMCL (mg/L)
Arsenic	0.05
Asbestos (medium and long fibers)	7.1 million fibers/liter
Barium	1.5
Cadmium	0.005
Chromium	0.12
Copper	1.3
Lead	0.020
Mercury	0.003
Nitrate	10.0
Nitrite	1.0
Selenium	0.045

