

ILLINOIS POLLUTION CONTROL BOARD  
September 27, 1990

IN THE MATTER OF: )

SAFE DRINKING WATER ACT )  
UPDATE (1/1/90 - 6/30/90) ) R90-13  
) (Rulemaking)  
)

PROPOSAL FOR PUBLIC COMMENT

PROPOSED OPINION AND ORDER OF THE BOARD (by J. Anderson):

Pursuant to Section 17.5 of the Environmental Protection Act (Act), the Board is proposing to update regulations which are identical in substance to USEPA regulations implementing the Safe Drinking Water Act (SDWA). The Board rules are contained in Ill. Adm. Code 611. The Board will receive public comment on this Proposal until 45 days after the date of publication in the Illinois Register.

Section 17.5 of the Act provides for quick adoption of regulations which are "identical in substance" to federal regulations; Section 17.5 provides that Title VII of the Act and Section 5 of the Illinois Administrative Procedure Act (APA) shall not apply. Because this rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR).

The SDWA program was drawn from 40 CFR 141 and 143 (1989). Only one amendment occurred during this update batch:

55 Fed. Reg. 25064

June 19, 1990

The amendments are corrections to federal regulations published June 29, 1989, and incorporated into the Board rules in R88-26. Most of the corrections were made by the Board on original adoption.

#### HISTORY OF SDWA PROGRAM

The SDWA rules were recently adopted in Docket R88-26. The Board entered a Proposed Opinion and Order on October 5, 1989. The proposal appeared on December 1, 1989, at 13 Ill. Reg. 18690. Following the public comment period, the Board adopted a "Final" Opinion and Order on May 24, 1990. The Board then allowed a post-adoption comment period. On August 9, 1990, the Board withdrew the May 24 Opinion and Order, and substituted a new Opinion and Order. The final rules will appear in the Illinois Register in the near future.

On September 13, 1990, in R90-21, the Board proposed corrections to R88-26. Those corrections differ from the corrections in this Docket, which arise from USEPA corrections published in the Federal Register. The Board could have proposed the R90-21 corrections in this Docket, but did not do so. Combining the Dockets would have entailed a delay in R90-21 while the Board researched the Federal Register to identify USEPA actions during this update

period. Therefore, R90-21 will proceed in parallel with this Docket.

The actions on the SDWA rules are summarized as follows:

R88-26	August 9, 1990; Original adoption (through June 30, 1989)
R90-4	Dismissed June 21, 1990 (no USEPA amendments July 1 through December 31, 1989)
R90-13	This Docket (January 1, 1990 through June 30, 1990)
R90-21	Proposed September 13, 1990; (Corrections to R88-26)

#### GENERAL DISCUSSION

The amendments derive from a single USEPA action correcting the June 29, 1989, filtration and disinfection rules. (55 Fed. Reg. 25064, June 19, 1990). Most of these are typographical errors which the Board discovered and corrected in adopting R88-26. Only two corrections result in any change to the Board rules.

#### SECTION-BY-SECTION DISCUSSION

##### Section 611.325

This Section is derived from 40 CFR 141.63. Subsection (d)(5) was amended in item 17 at 55 Fed. Reg. 25064.

This amendment concerns the "wellhead protection program" which is defined in Section 611.101, and which was discussed at page 41 in the August 9, 1990, Opinion in R88-26. Illinois is in the process of developing a wellhead protection program which will be submitted to USEPA for approval under Section 1428 of the SDWA. This will include the "groundwater protection needs assessment" under Section 17.1 of the Act, and regulations to be adopted in 35 Ill. Adm. Code 615 through 620.

40 CFR 141.63(d) lists BATs for achieving compliance with the microbiological revised MCLs. As originally adopted, subsection (d)(5) listed "development ... of an approved wellhead protection program" as a BAT by which a PWS could comply with the microbiological MCLs. However, it is the State which "develops" the wellhead protection program, not the PWS. This amendment changes this to "compliance with an approved wellhead protection program", and limits the applicability to PWSs using groundwater.

The USEPA amendment specifies the details of the approval process. However, in R88-26 the Board discovered these, and placed them in the definition in Section 611.101. There is no need to repeat them in this Section. Also, with the Board's formulation, the similar problems in Section 611.212, 611.232 and 611.524, which USEPA hasn't noticed yet, are fixed.

##### Section 611.521

This Section is derived from 40 CFR 141.21(a). Section 141.21(a)(4) was

amended in item 4 at 55 Fed. Reg. 25064. This is subsection (d) in the Board rule. The existing rule sets a special sampling provision for small supplies using groundwater. The amendment limits this to supplies using "only" groundwater.

ORDER

The Board proposes to amend 35 Ill. Adm. Code 611 to read as follows. The Board will receive written public comment for a period of 45 days after the date of publication in the Illinois Register.

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE F: PUBLIC WATER SUPPLIES  
CHAPTER I: POLLUTION CONTROL BOARD

PART 611  
PRIMARY DRINKING WATER STANDARDS

SUBPART 4: GENERAL

- Section 611.100 Purpose, Scope and Applicability
- 611.101 Definitions
- 611.102 Incorporations by Reference
- 611.103 Severability
- 611.108 Delegation to Local Government
- 611.109 Enforcement
- 611.110 Special Exception Permits
- 611.111 Section 1415 Variances
- 611.112 Section 1416 Variances
- 611.113 Alternative Treatment Techniques
- 611.114 Siting requirements
- 611.115 Source Water Quality
- 611.120 Effective dates
- 611.121 Maximum Contaminant Levels
- 611.125 Fluoridation Requirement
- 611.126 Prohibition on Use of Lead

SUBPART 3: FILTRATION AND DISINFECTION

- Section 611.201 Requiring a Demonstration
- 611.202 Procedures for Agency Determinations
- 611.211 Filtration Required
- 611.212 Groundwater under Direct Influence of Surface Water
- 611.213 No Method of HPC Analysis
- 611.220 General Requirements
- 611.230 Filtration Effective Dates
- 611.231 Source Water Quality Conditions
- 611.232 Site-specific Conditions
- 611.233 Treatment Technique Violations
- 611.240 Disinfection
- 611.241 Unfiltered PWSs
- 611.242 Filtered PWSs
- 611.250 Filtration

611.261 Unfiltered PWSs: Reporting and Recordkeeping  
611.262 Filtered PWSs: Reporting and Recordkeeping  
611.271 Protection during Repair Work  
611.272 Disinfection following Repair

SUBPART C: USE OF NON-CENTRALIZED TREATMENT DEVICES

Section  
611.280 Point-of-Entry Devices  
611.290 Use of other Non-centralized Treatment Devices

SUBPART F: MAXIMUM CONTAMINANT LEVELS (MCL's)

Section  
611.300 Inorganic Chemicals  
611.310 Organic Chemicals  
611.311 VOCs  
611.320 Turbidity  
611.325 Microbiological Contaminants  
611.330 Radium and Gross Alpha Particle Activity  
611.331 Beta Particle and Photon Radioactivity

SUBPART K: GENERAL MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.480 Alternative Analytical Techniques  
611.490 Certified Laboratories  
611.491 Laboratory Testing Equipment  
611.500 Consecutive PWSs

SUBPART L: MICROBIOLOGICAL MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.521 Routine Coliform Monitoring  
611.522 Repeat Coliform Monitoring  
611.523 Invalidation of Total Coliform Samples  
611.524 Sanitary Surveys  
611.525 Fecal Coliform and E. Coli Testing  
611.526 Analytical Methodology  
611.527 Response to Violation  
611.531 Analytical Requirements  
611.532 Unfiltered PWSs  
611.533 Filtered PWSs

SUBPART M: TURBIDITY MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.560 Turbidity

SUBPART N: INORGANIC MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.601 Requirements  
611.602 Violation of State MCL  
611.603 Frequency of State Monitoring  
611.606 Analytical Methods  
611.607 Fluoride Monitoring  
611.610 Special Monitoring for Sodium

SUBPART O: ORGANIC MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.641 Sampling and Analytical Requirements  
611.645 Analytical Methods  
611.648 Sampling for VOCs  
611.650 Monitoring for 36 Contaminants  
611.657 Analytical Methods for 36 Contaminants

SUBPART P: THM MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.680 Sampling, Analytical and other Requirements  
611.683 Reduced Monitoring Frequency  
611.684 Averaging  
611.685 Analytical Methods  
611.686 Modification to System

SUBPART Q: RADIOLOGICAL MONITORING AND ANALYTICAL REQUIREMENTS

Section  
611.720 Analytical Methods  
611.731 Gross Alpha  
611.732 Manmade Radioactivity

SUBPART T: REPORTING, PUBLIC NOTIFICATION AND RECORDKEEPING

Section  
611.830 Applicability  
611.831 Monthly Operating Report  
611.832 Notice by Agency  
611.833 Cross Connection Reporting  
611.840 Reporting  
611.851 Reporting MCL and other Violations  
611.852 Reporting other Violations  
611.853 Notice to New Billing Units  
611.854 General Content of Public Notice  
611.855 Mandatory Health Effects Language  
611.856 Fluoride Notice  
611.858 Fluoride Secondary Standard  
611.860 Record Maintenance  
611.870 List of 36 Contaminants

Appendix A Mandatory Health Effects Information  
Appendix B Percent Inactivation of G. Lamblia Cysts  
Appendix C Common Names of Organic Chemicals  
Table A Total Coliform Monitoring Frequency  
Table B Fecal or Total Coliform Density Measurements  
Table C Frequency of RDC Measurement

AUTHORITY: Implementing Sections 17 and 17.5 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1017, 1017.5 and 1027.

SOURCE: Adopted in R88-26 at 14 Ill. Reg. , effective  
; amended in R90-21 at 14 Ill. Reg. , effective  
amended in R90-13 at 14 Ill. Reg. , effective

SUBPART F: MAXIMUM CONTAMINANT LEVELS (MCL'S)

Section 611.325 Microbiological Contaminants

- a) The MCL is based on the presence or absence of total coliforms in a sample, rather than coliform density.
  - 1) For a supplier which collects at least 40 samples per month, if no more than 5.0 percent of the samples collected during a month are total coliform-positive, the supplier is in compliance with the MCL for total coliforms.
  - 2) For a supplier which collects fewer than 40 samples per month, if no more than one sample collected during a month is total coliform-positive, the supplier is in compliance with the MCL for total coliforms.
- b) Any fecal coliform-positive repeat sample or E. coli-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or E. coli-positive routine sample, constitutes a violation of the MCL for total coliforms. For purposes of the public notification requirements in Section 611.851 et seq., this is a violation that may pose an acute risk to health.
- c) A supplier shall determine compliance with the MCL for total coliforms in subsections (a) and (b) for each month in which it is required to monitor for total coliforms.
- d) BATs for achieving compliance with the MCL for total coliforms in subsections (a) and (b):
  - 1) Protection of wells from contamination by coliforms by appropriate placement and construction;
  - 2) Maintenance of RDC throughout the distribution system;
  - 3) Proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs and continual maintenance of positive water pressure in all parts of the distribution system;
  - 4) Filtration and disinfection of surface water, as described in Subpart B, or disinfection of groundwater using strong oxidants such as chlorine, chlorine dioxide or ozone; or
  - 5) -The development and implementation of an approved-for systems using groundwater, compliance with the wellhead protection program, after USEPA approves the program.

BOARD NOTE: Derived from 40 CFR 141.63 (1989), as amended at 54 Fed. Reg. 27562, June 29, 1989.

(Source: Amended at 14 Ill. Reg. , effective )

SUBPART L: MICROBIOLOGICAL MONITORING AND ANALYTICAL REQUIREMENTS

Section 611.521 Routine Coliform Monitoring

- a) Suppliers shall collect total coliform samples at sites which are representative of water throughout the distribution system according to a written sample siting plan, which must be approved by special exception permit.
- b) The monitoring frequency for total coliforms for CWSs is based on the population served by the CWS, as set forth in Table A. If a CWS serving 25 to 1,000 persons has no history of total coliform contamination in its current configuration and a sanitary survey conducted in the past five years shows that the CWS is supplied solely by a protected groundwater source and is free of sanitary defects, the Agency shall reduce the monitoring frequency specified in Table A, except that in no case shall the Agency reduce the monitoring frequency to less than one sample per quarter. The Agency shall approve the reduced monitoring frequency by special exception permit.
- c) The monitoring frequency for total coliforms for non-CWSs is as follows:
  - 1) A non-CWS using only groundwater (except groundwater under the direct influence of surface water, as determined in Section 611.212) and serving 1,000 persons or fewer shall monitor each calendar quarter that the system provides water to the public, except that Public Health shall reduce this monitoring frequency if a sanitary survey shows that the system is free of sanitary defects. Beginning June 29, 1994, Public Health cannot reduce the monitoring frequency for a non-CWS using only groundwater (except groundwater under the direct influence of surface water) and serving 1,000 persons or fewer to less than once per year.
  - 2) A non-CWS using only groundwater (except groundwater under the direct influence of surface water) and serving more than 1,000 persons during any month shall monitor at the same frequency as a like-sized CWS, as specified in subsection (b), except Public Health shall reduce this monitoring frequency for any month the system serves 1,000 persons or fewer. Public Health cannot reduce the monitoring to less than once per year. For systems using groundwater under the direct influence of surface water, subsection (c)(4) applies.
  - 3) A non-CWS using surface water, in total or in part, shall monitor at the same frequency as a like-sized CWS, as specified in subsection (b), regardless of the number of persons it serves.

- 4) A non-CWS using groundwater under the direct influence of surface water, shall monitor at the same frequency as a like-sized CWS, as specified in subsection (b). The supplier shall begin monitoring at this frequency beginning six months after Public Health determines that the groundwater is under the direct influence of surface water.
- d) The supplier shall collect samples at regular time intervals throughout the month, except that a supplier which uses only groundwater (except groundwater under the direct influence of surface water) and serves 4,900 persons or fewer, may collect all required samples on a single day if they are taken from different sites.
- e) A PWS that uses surface water or groundwater under the direct influence of surface water, and does not practice filtration in compliance with Subpart B, shall collect at least one sample near the first service connection each day the turbidity level of the source water, measured as specified in Section 611.532(b), exceeds 1 NTU. This sample must be analyzed for the presence of total coliforms. When one or more turbidity measurements in any day exceed 1 NTU, the supplier shall collect this coliform sample within 24 hours of the first exceedance, unless the Agency has determined, by special exception permit, that the supplier, for logistical reasons outside the supplier's control, cannot have the sample analyzed within 30 hours of collection. Sample results from this coliform monitoring must be included in determining compliance with the MCL for total coliforms in Section 611.325.
- f) Special purpose samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement or repair, must not be used to determine compliance with the MCL for total coliforms in Section 611.325.

BOARD NOTE: Derived from 40 CFR 141.21(a) (1989), as amended at 54 Fed. Reg. 27562, June 29, 1989.

(Source: Amended at 14 Ill. Reg. , effective )

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 5/11 day of                     , 1990, by a vote of                     .

  
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Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board