ILLINOIS REGISTER

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Primary Drinking Water Standards
- 2) Code citation: 35 Ill. Adm. Code 611

3)	Section numbers:	Proposed action:
	611.102	Amend
	611.105	New Section
	611.111	Amend
	611.212	Amend
	611.359	Amend
	611.380	Amend
	611.609	Amend
	611.646	Amend
	611.APPENDIX D	Amend

- 4) <u>Statutory authority</u>: 415 ILCS 5/7.2, 17, 17.5, and 27.
- 5) <u>A Complete description of the subjects and issues involved</u>: The following briefly describes the subjects and issues involved in the docket R06-15 rulemaking. A comprehensive description is contained in the Board's opinion and order of July 20, 2006, proposing amendments in docket R06-15, which opinion and order is available from the address below.

This proceeding updates the Illinois Safe Drinking Water Act (SDWA) rules to correspond with amendments adopted by the United States Environmental Protection Agency (USEPA) that appeared in the Federal Register during a single update period. The docket and time period that is involved in this proceeding is the following:

R06-15	Federal SDWA amendments that occurred during the period July 1,	
	2005 through December 31, 2005.	

The R06-15 docket only amends rules in Part 611. The following table briefly summarizes the sole federal action in the update period:

October 13, 2005	USEPA adopted new requirements for the filing and
(70 Fed. Reg. 59848)	receipt of required documents as electronic documents.
	The filings included are all documents whose filing is
	provided by the primary drinking water regulations.

 $\frac{1}{06}$

RECEIVE CLERK'S OFFICE

AUG 0 1 2006

STATE OF ILLING Pollution Control Bo

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

The USEPA action of October 13, 2005 (70 Fed. Reg. 59848) established the Cross-Media Electronic Reporting Rule (CROMERR). The CROMERR sets standards for the filing of documents in various federal program areas in an electronic format. While the CROMERR does not require the filing of documents in an electronic format, it does impose minimum requirements on documents that are filed in such a format and on the electronic document receiving systems used to receive them. The CROMERR imposes requirements on electronic filings submitted to USEPA and on USEPA's Central Data Exchange (CDX) that receives them, as well as on any electronic document filings submitted to the states and any systems used by the states to receive those filings.

Tables appear in the Board's opinion and order of July 20, 2006 in docket R06-15 that list numerous corrections and amendments that are not based on current federal amendments. The tables contain deviations from the literal text of the federal amendments underlying these amendments, as well as corrections and clarifications that the Board made in the base text involved. Persons interested in the details of those corrections and amendments should refer to the July 20, 2006 opinion and order in docket R06-15.

Section 17.5 of the Environmental Protection Act [415 ILCS 5/17.5] provides that Section 5-35 of the Administrative Procedure Act [5 ILCS 100/5-35] does not apply to this rulemaking. Because this rulemaking is not subject to Section 5-35 of the APA, it is not subject to First Notice or to Second Notice review by the Joint Committee on Administrative Rules (JCAR).

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) <u>Will this rulemaking replace any emergency amendments currently in effect?</u> No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? Yes. Section 611.102 is the centralized location of all incorporations of documents used for the purposes of compliance with all of Part 611. The amendments update all citations to the Code of Federal Regulations to the latest edition available, although those updates do not necessarily incorporate the cited federal regulations. Second, the amendments add incorporations of segments of the Code of Federal Regulations that embody key elements of the federal CROMERR requirements. Third, the amendments remove the incorporation by reference of appendix C to 40 CFR 136, since this document is not referenced in any substantive segment of the rules. The amendments also update the

<u>2</u> 06

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

version of appendix B to 40 CFR 136 incorporated by reference to the latest edition available. Finally, the amendments add to each incorporation by reference of a segment of the *Code of Federal Regulations* a citation to the segments of the Illinois regulations for which the incorporation is made.

- 10) Are there any other proposed rulemakings pending on this Part? No
- Statement of statewide policy objectives: These proposed amendments do not create or enlarge a state mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805/3(b) (2002)].
- 12) <u>Time, Place and manner in which interested persons may comment on this proposed</u> <u>rulemaking</u>: The Board will accept written public comment on this proposal for a period of 45 days after the date of this publication. Comments should reference docket <u>R06-15</u> and be addressed to:

Ms. Dorothy M. Gunn, Clerk Illinois Pollution Control Board State of Illinois Center, Suite 11-500 100 W. Randolph St. Chicago, IL 60601

Please direct inquiries to the following person and reference docket R06-15:

Michael J. McCambridge Staff Attorney Illinois Pollution Control Board 100 W. Randolph 11-500 Chicago, IL 60601



312-814-6924 E-mail: mccambm@ipcb.state.il.us

Request copies of the Board's opinion and order at 312-814-3620, or download a copy from the Board's Website at http://www.ipcb.state.il.us.

- 13) Initial regulatory flexibility analysis:
 - A) Types of small businesses, small municipalities, and not-for-profit corporations

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

<u>affected</u>: This rulemaking may affect those small businesses, small municipalities, and not-for-profit corporations that own or operate a public water supply.

- B) <u>Reporting, bookkeeping or other procedures required for compliance</u>: The existing rules and proposed amendments require extensive reporting, bookkeeping and other procedures, including the preparation of reports, water analyses, and maintenance of operating records.
- C) <u>Types of professional skills necessary for compliance</u>: Compliance with the existing rules and proposed amendments may require the services of an attorney, certified public accountant, chemist, and registered professional engineer.
- 14) Regulatory agenda on which this rulemaking was summarized: December 2005

The full text of the Proposed Amendments begins on the next page:

RECEIVED TITLE 35: ENVIRONMENTAL PROTECTION CLERK'S OFFICE SUBTITLE F: PUBLIC WATER SUPPLIES CHAPTER I: POLLUTION CONTROL BOARD AUG 0 1 2005 PART 611 STATE OF ILLINOIS PRIMARY DRINKING WATER STANDARDS Pollution Control Board SUBPART A: GENERAL Section Purpose, Scope, and Applicability 611.100 Definitions 611.101 611.101 Definitions
611.102 Incorporations by Reference
611.103 Severability
611.105 Electronic Reporting
611.107 Agency Inspection of PWS Facilities
611.108 Delegation to Local Government
611.109 Enforcement 611.103Enforcement611.110Special Exception Permits611.111Relief Equivalent to SDWA Section 1415(a) Variances611.112Relief Equivalent to SDWA Section 1416 Exemptions611.113Alternative Treatment Techniques611.114Siteine Demonstration 611.114 Siting Requirements 611.115 Source Water Quantity 611.120 Effective Dates 611.121 Maximum Contaminant Levels and Finished Water Quality 611.125 Fluoridation Requirement 611.126 Prohibition on Use of Lead
611.130 Special Requirements for Certain Variances and Adjusted Standards
611.131 Relief Equivalent to SDWA Section 1415(e) Small System Variance 611.160 Composite Correction Program SUBPART B: 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
611.220 Filtration Repuirements 611.230 Filtration Effective Dates 611.231 Source Water Quality Conditions 611.232 Site-Specific Conditions Treatment Technique Violations 611.233 Treatment Ter 611.240 Disinfection 611.241 Unfiltered PWSs 511.242 Filtered PWSs 611.250 Filtration 611.261 Unfiltered PWSs: Reporting and Recordkeeping 611.261 Onlitected Fulls. Reporting and Recordkeeping
611.271 Protection during Repair Work
611.272 Disinfection Following Repair
611.276 Recycle Provisions

SUBPART C: USE OF NON-CENTRALIZED TREATMENT DEVICES

Section 611.280 Point-of-Entry Devices 611.290 Use of Point-of-Use Devices or Bottled Water SUBPART D: TREATMENT TECHNIQUES Section General Requirements 611.295 611.296 Acrylamide and Epichlorohydrin 611.297 Corrosion Control SUBPART F: MAXIMUM CONTAMINANT LEVELS (MCLs) AND MAXIMUM RESIDUAL DISINFECTANT LEVELS (MRDLs) Section 611.300 Old MCLs for Inorganic Chemical Contaminants 611.301 Revised MCLs for Inorganic Chemical Contaminants Old Maximum Contaminant Levels (MCLs) for Organic Chemical 611.310 Revised MCLs for Organic Chemical Contaminants Contaminants 611.311 611.312 Maximum Contaminant Levels (MCLs) for Disinfection Byproducts (DBPs) Maximum Residual Disinfectant Levels (MRDLs) 611.313 Turbidity (Repealed) 611.320 611.325 Microbiological Contaminants 611.330 Maximum Contaminant Levels for Radionuclides 611.331 Beta Particle and Photon Radioactivity (Repealed) SUBPART G: LEAD AND COPPER Section 611.350 General Requirements
611.351 Applicability of Corrosion Control
611.352 Corrosion Control Treatment 611.353 Source Water Treatment 611.354 Lead Service Line Replacement Public Education and Supplemental Monitoring 611.355 Tap Water Monitoring for Lead and Copper 611.356 611.357 Monitoring for Water Quality Parameters Monitoring for Lead and Copper in Source Water 611.358 Analytical Methods 611.359 Reporting 611.360 611.361 Recordkeeping SUBPART I: DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS Section 611.380 General Requirements 611.381 Analytical Requirements 611.382 Monitoring Requirements 611.383 Compliance Requirements Reporting and Recordkeeping Requirements 611.384 611.385 Treatment Technique for Control of Disinfection Byproduct (DBP) Precursors 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 611.510 Special Monitoring for Unregulated Contaminants (Repealed) SUBPART L: MICROBIOLOGICAL MONITORING AND ANALYTICAL REQUIREMENTS Section 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 Turbidity 611.560 SUBPART N: INORGANIC MONITORING AND ANALYTICAL REQUIREMENTS Section 611.591Violation of a State MCL611.592Frequency of State Monitoring611.600Applicability611.601Monitoring Frequency611.602Asbestos Monitoring Frequency611.603Inorganic Monitoring Frequency611.604Nitrate Monitoring611.605Nitrite Monitoring611.606Confirmation Samples611.607More Frequent Monitoring and Confirmation Sampling611.608Additional Optional Monitoring611.609Determining Compliance611.610Inorganic Monitoring Times611.611Inorganic Analysis611.623Special Monitoring for Sodium611.631Special Monitoring for Inorganic Chemicals (Repealed) 611.591 Violation of a State MCL 611.631 Special Monitoring for Inorganic Chemicals (Repealed) SUBPART O: ORGANIC MONITORING AND ANALYTICAL REQUIREMENTS Section Definitions 611.640 611.641 Old MCLs Analytical Methods for Organic Chemical Contaminants 611.645 611.646 Phase I, Phase II, and Phase V Volatile Organic Contaminants
611.647 Sampling for Phase I Volatile Organic Contaminants (Repealed)
611.648 Phase II, Phase IIB, and Phase V Synthetic Organic Contaminants 611.650 Monitoring for 36 Contaminants (Repealed)

Analytical Methods for 36 Contaminants (Repealed) 611.657 Special Monitoring for Organic Chemicals (Repealed) 611.658 SUBPART P: THM MONITORING AND ANALYTICAL REQUIREMENTS Section 611.680 Sampling, Analytical, and other Requirements 611.683 Reduced Monitoring Frequency (Repealed) 611.684 Averaging (Repealed) 611.685 Analytical Methods 611.686 Modification to Syst 611.687 Sampling for THM Pot Modification to System (Repealed) Sampling for THM Potential (Repealed) 611.688 Applicability Dates (Repealed) SUBPART Q: RADIOLOGICAL MONITORING AND ANALYTICAL REQUIREMENTS Section 611.720 Analytical Methods 611.731 Gross Alpha 611.732 Beta Particle and Photon Radioactivity 611.733 General Monitoring and Compliance Requirements SUBPART R: ENHANCED FILTRATION AND DISINFECTION: SYSTEMS THAT SERVE 10,000 OR MORE PEOPLE Section 611.740 611.741 611.742 General Requirements Standards for Avoiding Filtration Disinfection Profiling and Benchmarking 611.743 Filtration Filtration Sampling Requirements 611.744 Reporting and Recordkeeping Requirements 611.745 SUBPART T: REPORTING AND RECORDKEEPING Section 611.830 Applicability 611.831 Monthly Operating Report 611.832 Notice by Agency (Repealed) 611.833 Cross Connection Reporting 611.840 Reporting Reporting MCL, MRDL, and other Violations (Repealed) 611.851 611.851 Reporting MCL, MRDL, and other Violation 611.852 Reporting other Violations (Repealed) 611.853 Notice to New Billing Units (Repealed) 611.854 General Content of Public Notice (Repealed) 611.855 Mandatory Health Effects Language (Repe 611.856 Fluoride Notice (Repealed) 611.858 Fluoride Secondary Standard (Repealed) General Content of Public Notice (Repealed) Mandatory Health Effects Language (Repealed) 611.860 Record Maintenance 611.870 List of 36 Contaminants (Repealed) SUBPART U: CONSUMER CONFIDENCE REPORTS Section 611.881 Purpose and Applicability 611.882 Compliance Dates 611.883 Content of the Reports

611.884 Required Additional Health Information 611.885 Report Delivery and Recordkeeping SUBPART V: PUBLIC NOTIFICATION OF DRINKING WATER VIOLATIONS Section 611.901 General Public Notification Requirements 611.902 Tier 1 Public Notice: Form, Manner, and Frequency of Notice 611.903 Tier 2 Public Notice: Form, Manner, and Frequency of Notice 611.904 Tier 3 Public Notice: Form, Manner, and Frequency of Notice 611.905 Content of the Public Notice Notice to New Billing Units or New Customers 611.906 Special Notice of the Availability of Unregulated Contaminant 611.907 Monitoring Results 611.908 Special Notice for Exceedence of the Fluoride Secondary Standard Special Notice for Nitrate Exceedences above the MCL by a Non-611.909 Community Water System Notice by the Agency on Behalf of a PWS 611.910 SUBPART X: ENHANCED FILTRATION AND DISINFECTION ---SYSTEMS SERVING FEWER THAN 10,000 PEOPLE Section 611.950 General Requirements 611.951 Finished Water Reservoirs 611.952 Additional Watershed Control Requirements for Unfiltered Systems Disinfection Profile 611.953 611,954 Disinfection Benchmark Combined Filter Effluent Turbidity Limits 611.955 611.956 Individual Filter Turbidity Requirements 611,957 Reporting and Recordkeeping Requirements 611. Appendix APPENDIX A Regulated Contaminants 611. Appendix APPENDIX B Percent Inactivation of G. Lamblia Cysts 611. Appendix APPENDIX C Common Names of Organic Chemicals 611. Appendix APPENDIX D Defined Substrate Method for the Simultaneous Detection of Total Coliforms and Eschericia Coli from Drinking Water 611. Appendix APPENDIX E Mandatory Lead Public Education Information for Community Water Systems 611. Appendix APPENDIX F Mandatory Lead Public Education Information for Non-Transient Non-Community Water Systems 611. AppendixAPPENDIX G NPDWR Violations and Situations Requiring Public Notice 611. AppendixAPPENDIX H Standard Health Effects Language for Public Notification 611. Appendix APPENDIX I Acronyms Used in Public Notification Regulation 611. Table TABLE A Total Coliform Monitoring Frequency 611. Table TABLE B Fecal or Total Coliform Density Measurements 611. Table TABLE C Frequency of RDC Measurement 611. Table TABLE D Number of Lead and Copper Monitoring Sites 611. Table TABLE E Lead and Copper Monitoring Start Dates 611. Table TABLE F Number of Water Quality Parameter Sampling Sites 611. Table TABLE G Summary of Section 611.357 Monitoring Requirements for Water Quality Parameters 611. Table TABLE Z Federal Effective Dates

AUTHORITY: Implementing Sections 7.2, 17, and 17.5 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/7.2, 17, 17.5, and 27].

SOURCE: Adopted in R88-26 at 14 Ill. Reg. 16517, effective September 20, 1990; amended in R90-21 at 14 Ill. Reg. 20448, effective December 11, 1990; amended in R90-13 at 15 Ill. Reg. 1562, effective January 22, 1991; amended in R91-3 at 16 Ill. Reg. 19010, effective December 1, 1992; amended in R92-3 at 17 Ill. Reg. 7796, effective May 18, 1993; amended in R93-1 at 17 Ill. Reg. 12650, effective July 23, 1993; amended in R94-4 at 18 Ill. Reg. 12291, effective July 28, 1994; amended in R94-23 at 19 Ill. Reg. 8613, effective June 20, 1995; amended in R95-17 at 20 Ill. Reg. 14493, effective October 22, 1996; amended in R98-2 at 22 Ill. Reg. 5020, effective March 5, 1998; amended in R99-6 at 23 Ill. Reg. 2756, effective February 17, 1999; amended in R99-12 at 23 Ill. Reg. 10348, effective August 11, 1999; amended in ROO-8 at 23 Ill. Reg. 14715, effective December 8, 1999; amended in R00-10 at 24 Ill. Reg. 14226, effective September 11, 2000; amended in R01-7 at 25 Ill. Reg. 1329, effective January 11, 2001; amended in R01-20 at 25 Ill. Reg. 13611, effective October 9, 2001; amended in R02-5 at 26 Ill. Reg. 3522, effective February 22, 2002; amended in R03-4 at 27 Ill. Reg. 1183, effective January 10, 2003; amended in R03-15 at 27 Ill. Reg. 16447, effective October 10, 2003; amended in R04-3 at 28 Ill. Reg. 5269, effective March 10, 2004; amended in R04-13 at 28 Ill. Reg. 12666, effective August 26, 2004; amended in R05-6 at 29 Ill. Reg. 2287, effective January 28, 2005; amended in R06-15 at 30 Ill. Reg. ____, effective _____

SUBPART A: GENERAL

Section 611.102 Incorporations by Reference

a) Abbreviations and short-name listing of references. The following names and abbreviated names, presented in alphabetical order, are used in this Part to refer to materials incorporated by reference:

"Amco-AEPA-1 Polymer" is available from Advanced Polymer Systems.

"ASTM Method" means a method published by and available from the American Society for Testing and Materials (ASTM).

"Colisure Test" means "Colisure Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia Coli in Drinking Water," available from Millipore Corporation, Technical Services Department.

"Colitagâ Test" means "Colitagâ Product as a Test for Detection and Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations," available from CPI International.

"Dioxin and Furan Method 1613" means "Tetra- through Octa- Chlorinated Dioxins and Furans by Isotope-Dilution HRGC/HRMS," available from NTIS.

"GLI Method 2" means GLI Method 2, "Turbidity," Nov. 2, 1992, available from Great Lakes Instruments, Inc.

"Hach FilterTrak Method 10133" means "Determination of Turbidity by Laser Nephelometry," available from Hach Co.

"HASL Procedure Manual" means HASL Procedure Manual, HASL 300, available from ERDA Health and Safety Laboratory.

"Kelada 01" means "Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001, EPA # 821-B-01-009, available from the National Technical Information Service (NTIS).

"Membrane Filter Technique using Chromocult Doliform Agar" means "Chromocult Coliform Agar Presence/Absence Membrane Filter Test Method for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," available from EMD Chemicals Inc.

"NCRP" means "National Council on Radiation Protection."

"NTIS" means "National Technical Information Service."

"New Jersey Radium Method" means "Determination of Radium 228 in Drinking Water," available from the New Jersey Department of Environmental Protection.

"New York Radium Method" means "Determination of Ra-226 and Ra-228 (Ra-02)," available from the New York Department of Public Health.

"ONGP-MUG Test" (meaning "minimal medium ortho-nitrophenyl-beta-dgalactopyranoside-4-methyl-umbelliferyl -beta-d-glucuronide test"), also called the "Autoanalysis Colilert System," is Method 9223, available in "Standard Methods for the Examination of Water and Wastewater," 18th ed., from American Public Health Association.

"Palintest Method 1001" means "Method Number 1001," available from Palintest, Ltd. or the Hach Company.

"QuikChem Method 10-204-00-1-X" means "Digestion and distillation of total cyanide in drinking and wastewaters using MICRO DIST and determination of cyanide by flow injection analysis," available from Lachat Instruments.

"Readycult Coliforms 100 Presence/Absence Test" means "Readycult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," available from EMD Chemicals Inc.

"SimPlate Method" means "IDEXX SimPlate TM HPC Test Method for Heterotrophs in Water," available from IDEXX Laboratories, Inc.

"Radiochemical Methods" means "Interim Radiochemical Methodology for Drinking Water," available from NTIS.

"Standard Methods" means "Standard Methods for the Examination of Water and Wastewater," available from the American Public Health Association or the American Waterworks Association.

"Syngenta AG-625" means "Atrazine in Drinking Water by Immunoassay," February 2001 is available from Syngenta Crop Protection, Inc.

"Technical Bulletin 601" means "Technical Bulletin 601, Standard Method of Testing for Nitrate in Drinking Water," July 1994, available from Analytical Technology, Inc.

"Technicon Methods" means "Fluoride in Water and Wastewater," available from Bran & Luebbe.

"USDOE Manual" means "EML Procedures Manual," available from the United State Department of Energy.

"USEPA Asbestos Methods-100.1" means Method 100.1, "Analytical Method for Determination of Asbestos Fibers in Water," September 1983, available from NTIS.

"USEPA Asbestos Methods-100.2" means Method 100.2, "Determination of Asbestos Structures over 10-mm in Length in Drinking Water," June 1994, available from NTIS.

"USEPA Environmental Inorganics Methods" means "Methods for the Determination of Inorganic Substances in Environmental Samples," August 1993, available from NTIS.

"USEPA Environmental Metals Methods" means "Methods for the Determination of Metals in Environmental Samples," available from NTIS.

"USEPA Inorganic Methods" means "Methods for Chemical Analysis of Water and Wastes," March 1983, available from NTIS.

"USEPA Interim Radiochemical Methods" means "Interim Radiochemical Methodology for Drinking Water," EPA 600/4-75-008 (revised), March 1976. Available from NTIS.

"USEPA Organic Methods" means "Methods for the Determination of Organic Compounds in Drinking Water," July 1991, for Methods 502.2, 505, 507, 508, 508A, 515.1, and 531.1; "Methods for the Determination of Organic Compounds in Drinking Water -- Supplement I," July 1990, for Methods 506, 547, 550, 550.1, and 551; and "Methods for the Determination of Organic Compounds in Drinking Water -- Supplement II," August 1992, for Methods 515.2, 524.2, 548.1, 549.1, 552.1, and 555, available from NTIS. Methods 504.1, 508.1, and 525.2 are available from EPA EMSL; "Methods for the Determination of Organic Compounds" in Drinking Water -- Supplement II, August 1992, for Method 552.1; "Methods for the Determination of Organic Compounds in Drinking Water -- Supplement III, " August 1995, for Methods 502.2, 524.2, 551.1, and 552.2. Method 515.4, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Microextraction, Derivatization and Fast Gas Chromatography with Electron Capture Detection," Revision 1.0, April 2000, EPA 815/B-00/001, and Method 531.2, "Measurement of Nmethylcarbamoyloximes and N-methylcarbamates in Water by Direct Aqueous Injection HPLC with Postcolumn Derivatization," Revision 1.0, September 2001, EPA 815/B/01/002, are both available on-line from USEPA, Office of Ground Water and Drinking Water.

"USEPA Radioactivity Methods" means "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA 600/4-80-032, August 1980. Available from NTIS.

"USEPA Radiochemical Analyses" means "Radiochemical Analytical Procedures for Analysis of Environmental Samples," March 1979. Available from NTIS.

"USEPA Radiochemistry Methods" means "Radiochemistry Procedures Manual," EPA 520/5-84-006, December 1987. Available from NTIS.

"USEPA Technical Notes" means "Technical Notes on Drinking Water Methods," available from NTIS.

"USGS Methods" means "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory -- Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments," available from NTIS and USGS.

"Waters Method B-1011" means "Waters Test Method for the Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography," available from Waters Corporation, Technical Services Division.

b) The Board incorporates the following publications by reference:

Advanced Polymer Systems, 3696 Haven Avenue, Redwood City, CA 94063 415-366-2626.

Amco-AEPA-1 Polymer. See 40 CFR 141.22(a) (2003) (2005). Also, as referenced in ASTM D1889.

American Public Health Association, 1015 Fifteenth Street NW, Washington, DC 20005 800-645-5476.

"Standard Methods for the Examination of Water and Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 17th ed.").

"Standard Methods for the Examination of Water and Wastewater," 18th Edition, 1992, including "Supplement to the 18th Edition of Standard Methods for the Examination of Water and Wastewater," 1994 (collectively referred to as "Standard Methods, 18 th ed."). See the methods listed separately for the same references under American Waterworks Association.

"Standard Methods for the Examination of Water and Wastewater," 19 th Edition, 1995 (referred to as "Standard Methods, 19 th ed.").

"Standard Methods for the Examination of Water and Wastewater," 20th Edition, 1998 (referred to as "Standard Methods, 20th ed.").

American Waterworks Association et al., 6666 West Quincy Ave., Denver, CO 80235 303-794-7711.

"National Field Evaluation of a Defined Substrate Method for the Simultaneous Enumeration of Total Coliforms and Escherichia coli for Drinking Water: Comparison with the Standard Multiple Tube Fermentation Method," S.C. Edberg, M.J. Allen & D.B. Smith, Applied Environmental Microbiology, vol. 54, iss. 6, pp 1595-1601 (1988).

"Standard Methods for the Examination of Water and Wastewater," 13th Edition, 1971 (referred to as "Standard Methods, 13th ed.").

Method 302, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved).

Method 303, Total Radioactive Strontium and Strontium 90 in Water.

Method 304, Radium in Water by Precipitation.

Method 305, Radium 226 by Radon in Water (Soluble, Suspended, and Total).

Method 306, Tritium in Water.

"Standard Methods for the Examination of Water and Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 17th ed.").

Method 7110 B, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved).

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-3H B, Tritium in Water.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium in Water by Precipitation.

Method 7500-Ra C, Radium 226 by Radon in Water (Soluble, Suspended, and Total).

Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed).

Method 7500-Sr B, Total Radioactive Strontium and Strontium 90 in Water.

Method 7500-U B, Uranium, Radiochemical Method (Proposed).

Method 7500-U C, Uranium, Isotopic Method (Proposed).

"Standard Methods for the Examination of Water and Wastewater," 18th Edition, 1992 (referred to as "Standard Methods, 18 th ed.").

Method 2130 B, Turbidity, Nephelometric Method.

Method 2320 B, Alkalinity, Titration Method.

Method 2510 B, Conductivity, Laboratory Method.

Method 2550, Temperature, Laboratory and Field Methods.

Method 3111 B, Metals by Flame Atomic Absorption Spectrometry, Direct Air-Acetylene Flame Method.

Method 3111 D, Metals by Flame Atomic Absorption Spectrometry, Direct Nitrous Oxide-Acetylene Flame Method.

Method 3112 B, Metals by Cold-Vapor Atomic Absorption Spectrometry, Cold-Vapor Atomic Absorption Spectrometric Method.

Method 3113 B, Metals by Electrothermal Atomic Absorption Spectrometry, Electrothermal Atomic Absorption Spectrometric Method.

Method 3114 B, Metals by Hydride Generation/Atomic Absorption Spectrometry, Manual Hydride Generation/Atomic Absorption Spectrometric Method.

Method 3120 B, Metals by Plasma Emission Spectroscopy, Inductively Coupled Plasma (ICP) Method.

Method 3500-Ca D, Calcium, EDTA Titrimetric Method.

Method 3500-Mg E, Magnesium, Calculation Method.

Method 4110 B, Determination of Anions by Ion Chromatography, Ion Chromatography with Chemical Suppression of Eluent Conductivity.

Method 4500-CN- C, Cyanide, Total Cyanide after Distillation.

Method 4500-CN- E, Cyanide, Colorimetric Method.

Method 4500-CN- F, Cyanide, Cyanide-Selective Electrode Method.

Method 4500-CN- G, Cyanide, Cyanides Amenable to Chlorination after Distillation.

Method 4500-Cl D, Chlorine, Amperometric Titration Method. Method 4500-Cl E, Chlorine, Low-Level Amperometric Titration Method. Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric Method. Method 4500-Cl G, Chlorine, DPD Colorimetric Method. Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method. Method 4500-Cl I, Chlorine, Iodometric Electrode Method. Method 4500-ClO2 C, Chlorine Dioxide, Amperometric Method I. Method 4500-ClO2 D, Chlorine Dioxide, DPD Method. Method 4500-ClO2 E, Chlorine Dioxide, Amperometric Method II (Proposed). Method 4500-F- B, Fluoride, Preliminary Distillation Step. Method 4500-F- C, Fluoride, Ion-Selective Electrode Method. Method 4500-F- D, Fluoride, SPADNS Method. Method 4500-F- E, Fluoride, Complexone Method. Method 4500-H+ B, pH Value, Electrometric Method. Method 4500-NO2- B, Nitrogen (Nitrite), Colorimetric Method. Method 4500-NO3- D, Nitrogen (Nitrate), Nitrate Electrode Method. Method 4500-NO3- E, Nitrogen (Nitrate), Cadmium Reduction Method.

Method 4500-NO3- F, Nitrogen (Nitrate), Automated Cadmium Reduction Method.

Method 4500-03 B, Ozone (Residual) (Proposed), Indigo Colorimetric Method. Method 4500-P E, Phosphorus, Ascorbic Acid Method. Method 4500-P F, Phosphorus, Automated Ascorbic Acid Reduction Method.

Method 4500-Si D, Silica, Molybdosilicate Method.

Method 4500-Si E, Silica, Heteropoly Blue Method.

Method 4500-Si F, Silica, Automated Method for Molybdate-Reactive Silica.

Method 6651, Glyphosate Herbicide (Proposed).

Method 7110 B, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Evaporation Method for Gross Alpha-Beta.

Method 7110 C, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water (Proposed).

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-3 H B, Tritium, Liquid Scintillation Spectrometric Method.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium, Precipitation Method.

Method 7500-Ra C, Radium, Emanation Method.

Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed).

Method 7500-Sr B, Total Radioactive Strontium and Strontium 90, Precipitation Method.

Method 7500-U B, Uranium, Radiochemical Method (Proposed).

Method 7500-U C, Uranium, Isotopic Method (Proposed).

Method 9215 B, Heterotrophic Plate Count, Pour Plate Method.

Method 9221 A, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Introduction.

Method 9221 B, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Standard Total Coliform Fermentation Technique.

Method 9221 C, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Estimation of Bacterial Density.

Method 9221 D, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Presence-Absence (P-A) Coliform Test.

Method 9221 E, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Fecal Coliform Procedure.

Method 9222 A, Membrane Filter Technique for Members of the Coliform Group, Introduction.

Method 9222 B, Membrane Filter Technique for Members of the Coliform Group, Standard Total Coliform Membrane Filter Procedure.

Method 9222 C, Membrane Filter Technique for Members of the Coliform Group, Delayed-Incubation Total Coliform Procedure.

Method 9222 D, Membrane Filter Technique for Members of the Coliform Group, Fecal Coliform Membrane Filter Procedure.

Method 9223, Chromogenic Substrate Coliform Test (Proposed).

"Supplement to the 18th Edition of Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 1994.

Method 6610, Carbamate Pesticide Method.

"Standard Methods for the Examination of Water and Wastewater," 19th Edition, 1995 (referred to as "Standard Methods, 19th ed.").

Method 2130 B, Turbidity, Nephelometric Method.

Method 2320 B, Alkalinity, Titration Method.

Method 2510 B, Conductivity, Laboratory Method.

Method 2550, Temperature, Laboratory, and Field Methods.

Method 3111 B, Metals by Flame Atomic Absorption Spectrometry, Direct Air-Acetylene Flame Method.

Method 3111 D, Metals by Flame Atomic Absorption Spectrometry, Direct Nitrous Oxide-Acetylene Flame Method.

Method 3112 B, Metals by Cold-Vapor Atomic Absorption Spectrometry, Cold-Vapor Atomic Absorption Spectrometric Method.

Method 3113 B, Metals by Electrothermal Atomic Absorption Spectrometry, Electrothermal Atomic Absorption Spectrometric Method.

Method 3114 B, Metals by Hydride Generation/Atomic Absorption Spectrometry, Manual Hydride Generation/Atomic Absorption Spectrometric Method.

Method 3120 B, Metals by Plasma Emission Spectroscopy, Inductively Coupled Plasma (ICP) Method.

Method 3500-Ca D, Calcium, EDTA Titrimetric Method.

Method 3500-Mg E, Magnesium, Calculation Method.

Method 4110 B, Determination of Anions by Ion Chromatography, Ion Chromatography with Chemical Suppression of Eluent Conductivity.

Method 4500-Cl D, Chlorine, Amperometric Titration Method.

Method 4500-Cl E, Chlorine, Low-Level Amperometric Titration Method. Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric Method. Method 4500-Cl G, Chlorine, DPD Colorimetric Method. Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method. Method 4500-Cl I, Chlorine, Iodometric Electrode Method. Method 4500-Cl02 C, Chlorine Dioxide, Amperometric Method I. Method 4500-Cl02 D, Chlorine Dioxide, DPD Method. Method 4500-Cl02 E, Chlorine Dioxide, Amperometric Method II (Proposed). Method 4500-CN- C, Cyanide, Total Cyanide after Distillation. Method 4500-CN- E, Cyanide, Colorimetric Method. Method 4500-CN- F, Cyanide, Cyanide-Selective Electrode Method.

Method 4500-CN- G, Cyanide, Cyanides Amenable to Chlorination after Distillation.

Method 4500-F- B, Fluoride, Preliminary Distillation Step.

Method 4500-F- C, Fluoride, Ion-Selective Electrode Method.

Method 4500-F- D, Fluoride, SPADNS Method.

· · · · ·

Method 4500-F- E, Fluoride, Complexone Method.

Method 4500-H+ B, pH Value, Electrometric Method.

Method 4500-NO2- B, Nitrogen (Nitrite), Colorimetric Method.

Method 4500-NO3- D, Nitrogen (Nitrate), Nitrate Electrode Method.

Method 4500-NO3- E, Nitrogen (Nitrate), Cadmium Reduction Method.

Method 4500-NO3- F, Nitrogen (Nitrate), Automated Cadmium Reduction Method.

Method 4500-03 B, Ozone (Residual) (Proposed), Indigo Colorimetric Method. Method 4500-P E, Phosphorus, Ascorbic Acid Method. Method 4500-P F, Phosphorus, Automated Ascorbic Acid Reduction Method. Method 4500-Si D, Silica, Molybdosilicate Method. Method 4500-Si E, Silica, Heteropoly Blue Method. Method 4500-Si F, Silica, Automated Method for Molybdate-Reactive Silica. Method 5910 B, UV Absorbing Organic Constituents, Ultraviolet Absorption Method.

Method 6251 B, Disinfection Byproducts: Haloacetic Acids and Trichlorophenol, Micro Liquid-Liquid Extraction Gas Chromatographic Method.

Method 6651, Glyphosate Herbicide (Proposed).

Method 7110 B, Gross Alpha and Gross Beta Radioactivity, Evaporation Method for Gross Alpha-Beta.

Method 7110 C, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water (Proposed).

Method 7120 B, Gamma-Emitting Radionuclides, Gamma Spectrometric Method.

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-3H B, Tritium, Liquid Scintillation Spectrometric Method.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium, Precipitation Method.

Method 7500-Ra C, Radium, Emanation Method.

Method 7500-Ra D, Radium, Sequential Precipitation Method.

Method 7500-Sr B, Total Radiactive Strontium and Strontium 90, Precipitation Method.

Method 7500-U B, Uranium, Radiochemical Method.

Method 7500-U C, Uranium, Isotopic Method.

Method 9215 B, Heterotrophic Plate Count, Pour Plate Method.

Method 9221 A, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Introduction.

Method 9221 B, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Standard Total Coliform Fermentation Technique.

Method 9221 C, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Estimation of Bacterial Density.

Method 9221 D, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Presence-Absence (P-A) Coliform Test.

Method 9221 E, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Fecal Coliform Procedure.

Method 9222 A, Membrane Filter Technique for Members of the Coliform Group, Introduction.

Method 9222 B, Membrane Filter Technique for Members of the Coliform Group, Standard Total Coliform Membrane Filter Procedure.

Method 9222 C, Membrane Filter Technique for Members of the Coliform Group, Delayed-Incubation Total Coliform Procedure.

Method 9222 D, Membrane Filter Technique for Members of the Coliform Group, Fecal Coliform Membrane Filter Procedure.

Method 9223, Chromogenic Substrate Coliform Test (Proposed).

"Supplement to the 19th Edition of Standard Methods for the Examination of Water and Wastewater," American Public Health Association, 1996.

Method 5310 B, TOC, Combustion-Infrared Method.

Method 5310 C, TOC, Persulfate-Ultraviolet Oxidation Method.

Method 5310 D, TOC, Wet-Oxidation Method.

"Standard Methods for the Examination of Water and Wastewater," 20th Edition, 1998 (referred to as "Standard Methods, 20th ed.").

Method 2130 B, Turbidity, Nephelometric Method.

Method 2320 B, Alkalinity, Titration Method.

Method 2510 B, Conductivity, Laboratory Method.

Method 2550, Temperature, Laboratory, and Field Methods.

Method 3120 B, Metals by Plasma Emission Spectroscopy, Inductively Coupled Plasma (ICP) Method.

Method 3500-Ca B, Calcium, EDTA Titrimetric Method.

Method 3500-Mg B, Magnesium, EDTA Titrimetric Method.

Method 4110 B, Determination of Anions by Ion Chromatography, Ion Chromatography with Chemical Suppression of Eluent Conductivity.

Method 4500-CN- C, Cyanide, Total Cyanide after Distillation.

Method 4500-CN- E, Cyanide, Colorimetric Method.

Method 4500-CN- F, Cyanide, Cyanide-Selective Electrode Method.

Method 4500-CN- G, Cyanide, Cyanides Amenable to Chlorination after Distillation.

Method 4500-Cl D, Chlorine, Amperometric Titration Method.

Method 4500-Cl E, Chlorine, Low-Level Amperometric Titration Method.

Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric Method. Method 4500-Cl G, Chlorine, DPD Colorimetric Method. Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method. Method 4500-Cl I, Chlorine, Iodometric Electrode Method. Method 4500-Clo2 C, Chlorine Dioxide, Amperometric Method I. Method 4500-ClO2 D, Chlorine Dioxide, DPD Method. Method 4500-ClO2 E, Chlorine Dioxide, Amperometric Method II (Proposed). Method 4500-F- B, Fluoride, Preliminary Distillation Step. Method 4500-F- C, Fluoride, Ion-Selective Electrode Method. Method 4500-F- D, Fluoride, SPADNS Method. Method 4500-F- E, Fluoride, Complexone Method. Method 4500-H+ B, pH Value, Electrometric Method. Method 4500-NO2- B, Nitrogen (Nitrite), Colorimetric Method. Method 4500-NO3- D, Nitrogen (Nitrate), Nitrate Electrode Method. Method 4500-NO3- E, Nitrogen (Nitrate), Cadmium Reduction Method. Method 4500-NO3- F, Nitrogen (Nitrate), Automated Cadmium Reduction Method. Method 4500-03 B, Ozone (Residual) (Proposed), Indigo Colorimetric Method. Method 4500-P E, Phosphorus, Ascorbic Acid Method. Method 4500-P F, Phosphorus, Automated Ascorbic Acid Reduction Method. Method 4500-Si C, Silica, Molybdosilicate Method. Method 4500-Si D, Silica, Heteropoly Blue Method. Method 4500-Si E, Silica, Automated Method for Molybdate-Reactive Silica. Method 4500-Cl E, Chlorine (Residual), Low-Level Amperometric Titration Method. Method 4500-Cl F, Chlorine (Residual), DPD Ferrous Titrimetric Method. Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric Method. Method 4500-Cl H, Chlorine (Residual), Syringaldazine (FACTS) Method. Method 4500-C1 I, Chlorine (Residual), Iodometric Electrode Technique. Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.

Method 4500-ClO2 E, Chlorine Dioxide, Amperometric Method II.

Method 6651, Glyphosate Herbicide (Proposed).

Method 7110-B, Gross Alpha and Gross Beta Radioactivity, Evaporation Method for Gross Alpha-Beta.

Method 7110 C, Gross Alpha and Beta Radioactivity (Total, Suspended, and Dissolved), Coprecipitation Method for Gross Alpha Radioactivity in Drinking Water (Proposed).

Method 7120-B, Gamma-Emitting Radionuclides, Gamma Spectrometric Method.

Method 7500-Cs B, Radioactive Cesium, Precipitation Method.

Method 7500-3H B, Tritium, Liquid Scintillation Spectrometric Method.

Method 7500-I B, Radioactive Iodine, Precipitation Method.

Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.

Method 7500-I D, Radioactive Iodine, Distillation Method.

Method 7500-Ra B, Radium, Precipitation Method.

Method 7500-Ra C, Radium, Emanation Method.

Method 7500-Sr B, Total Radiactive Strontium and Strontium 90, Precipitation Method.

Method 7500-U B, Uranium, Radiochemical Method.

Method 7500-U C, Uranium, Isotopic Method.

Method 9215 B, Heterotrophic Plate Count, Pour Plate Method.

Method 9221 A, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Introduction.

Method 9221 B, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Standard Total Coliform Fermentation Technique.

Method 9221 C, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Estimation of Bacterial Density.

Method 9221 D, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Presence-Absence (P-A) Coliform Test.

Method 9221 E, Multiple-Tube Fermentation Technique for Members of the Coliform Group, Fecal Coliform Procedure.

Method 9222 A, Membrane Filter Technique for Members of the Coliform Group, Introduction.

Method 9222 B, Membrane Filter Technique for Members of the Coliform Group, Standard Total Coliform Membrane Filter Procedure.

Method 9222 C, Membrane Filter Technique for Members of the Coliform Group, Delayed-Incubation Total Coliform Procedure.

Method 9222 D, Membrane Filter Technique for Members of the Coliform Group, Fecal Coliform Membrane Filter Procedure.

Method 9223, Chromogenic Substrate Coliform Test (Proposed).

Analytical Technology, Inc. ATI Orion, 529 Main Street, Boston, MA 02129.

Technical Bulletin 601, "Standard Method of Testing for Nitrate in Drinking Water," July, 1994, PN 221890-001 (referred to as "Technical Bulletin 601").

ASTM. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 610-832-9585.

ASTM Method D511-93 A and B, "Standard Test Methods for Calcium and Magnesium in Water," "Test Method A -- Complexometric Titration" & "Test Method B -- Atomic Absorption Spectrophotometric," approved 1993.

ASTM Method D515-88 A, "Standard Test Methods for Phosphorus in Water," "Test Method A -- Colorimetric Ascorbic Acid Reduction," approved August 19, 1988.

ASTM Method D859-88, "Standard Test Method for Silica in Water," approved August 19, 1988.

ASTM Method D1067-92 B, "Standard Test Methods for Acidity or Alkalinity in Water," "Test Method B -- Electrometric or Color-Change Titration," approved May 15, 1992.

ASTM Method D1125-91 A, "Standard Test Methods for Electrical Conductivity and Resistivity of Water," "Test Method A -- Field and Routine Laboratory Measurement of Static (Non-Flowing) Samples," approved June 15, 1991.

ASTM Method D1179-93 B, "Standard Test Methods for Fluoride in Water," "Test Method B -- Ion Selective Electrode," approved 1993.

ASTM Method D1253-86, "Standard Test Method for Residual Chlorine in Water," reapproved 1992.

ASTM Method D1293-84, "Standard Test Methods for pH of Water," "Test Method A -- Precise Laboratory Measurement" & "Test Method B -- Routine or Continuous Measurement," approved October 26, 1984.

ASTM Method D1688-90 A or C, "Standard Test Methods for Copper in Water," "Test Method A -- Atomic Absorption, Direct" & "Test Method C- -Atomic Absorption, Graphite Furnace," approved March 15, 1990.

ASTM Method D2036-91 A or B, "Standard Test Methods for Cyanide in Water," "Test Method A -- Total Cyanides after Distillation" & "Test Method B --Cyanides Amenable to Chlorination by Difference," approved September 15, 1991.

ASTM Method D2459-72, "Standard Test Method for Gamma Spectrometry in Water," approved July 28, 1972, discontinued 1988.

ASTM Method D2460-90, "Standard Test Method for Radionuclides of Radium in Water," approved 1990.

· . · ·

ASTM Method D2907-91, "Standard Test Methods for Microquantities of Uranium in Water by Fluorometry," "Test Method A -- Direct Fluorometric" & "Test Method B - Extraction," approved June 15, 1991.

ASTM Method D2972-93 B or C, "Standard Test Methods for Arsenic in Water," "Test Method B -- Atomic Absorption, Hydride Generation" & "Test Method C --Atomic Absorption, Graphite Furnace," approved 1993.

ASTM Method D3223-91, "Standard Test Method for Total Mercury in Water," approved September 23, 1991.

ASTM Method D3454-91, "Standard Test Method for Radium-226 in Water," approved 1991.

ASTM Method D3559-90 D, "Standard Test Methods for Lead in Water," "Test Method D -- Atomic Absorption, Graphite Furnace," approved August 6, 1990.

ASTM Method D3645-93 B, "Standard Test Methods for Beryllium in Water," "Method B -- Atomic Absorption, Graphite Furnace," approved 1993.

ASTM Method D3649-91, "Standard Test Method for High-Resolution Gamma-Ray Spectrometry of Water," approved 1991.

ASTM Method D3697-92, "Standard Test Method for Antimony in Water," approved June 15, 1992.

ASTM Method D3859-93 A, "Standard Test Methods for Selenium in Water," "Method A -- Atomic Absorption, Hydride Method," approved 1993.

ASTM Method D3867-90 A and B, "Standard Test Methods for Nitrite-Nitrate in Water," "Test Method A -- Automated Cadmium Reduction" & "Test Method B --Manual Cadmium Reduction," approved January 10, 1990.

ASTM Method D3972-90, "Standard Test Method for Isotopic Uranium in Water by Radiochemistry," approved 1990.

ASTM Method D4107-91, "Standard Test Method for Tritium in Drinking Water," approved 1991.

ASTM Method D4327-91, "Standard Test Method for Anions in Water by Ion Chromatography," approved October 15, 1991.

ASTM Method D4785-88, "Standard Test Method for Low-Level Iodine-131 in Water," approved 1988.

ASTM Method D5174-91, "Standard Test Method for Trace Uranium in Water by Pulsed-Laser Phosphorimetry," approved 1991.

ASTM Method D5673-03, "Standard Test Method for Elements in Water by Inductively Coupled Plasma - Mass Spectrometry, " approved 2003.

Bran & Luebbe, 1025 Busch Parkway, Buffalo Grove, IL 60089.

"Fluoride in Water and Wastewater," Industrial Method #129-71W, December 1972 (referred to as "Technicon Methods: Method #129-71W"). See 40 CFR 141.23(k)(1), footnote 11 (2003) (2005).

"Fluoride in Water and Wastewater," #380-75WE, February 1976 (referred to as "Technicon Methods: Method #380-75WE"). See 40 CFR 141.23(k)(1), footnote 11 (2003) (2005).

CPI International, Inc., 5580 Skylane Blvd. Santa Rosa, CA 95403. Telephone: 800-878-7654. Fax: 707-545-7901. Internet address: www.cpiinternational.com.

"Colitagâ Product as a Test for Detection and Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water Regulations," August 2001.

EMD Chemicals Inc. (an affiliate of Merck KGgA, Darmstadt, Germany), 480 S. Democrat Road, Gibbstown, NJ 08027-1297. Telephone: 800-222-0342. E-mail: adellenbusch@emscience.com.

"Chromocult Coliform Agar Presence/Absence Membrane Filter Test Method for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," November 2000, Version 1.0.

"Readycult Coliforms 100 Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia coli in Finished Waters," November 2000, Version 1.0.

ERDA Health and Safety Laboratory, New York, NY.

HASL Procedure Manual, HASL 300, 1973. See 40 CFR 141.25(b)(2) (2003)-(2005).

Great Lakes Instruments, Inc., 8855 North 55th Street, Milwaukee, WI 53223.

GLI Method 2, "Turbidity," Nov. 2, 1992.

The Hach Company, P.O. Box 389, Loveland, CO 80539-0389. Phone: 800-227-4224.

"Lead in Drinking Water by Differential Pulse Anodic Stripping Voltammetry," Method 1001, August 1999.

"Determination of Turbidity by Laser Nephelometry," January 2000, Revision 2.0 (referred to as "Hach FilterTrak Method 10133").

IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092. Telephone: 800-321-0207.

"IDEXX SimPlate TM HPC Test Method for Heterotrophs in Water," November 2000.

Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218. Phone: 414-358-4200.

"Digestion and distillation of total cyanide in drinking and wastewaters using MICRO DIST and determination of cyanide by flow injection analysis," Revision 2.1, November 30, 2000 (referred to as "QuikChem Method 10-204-00-1-X").

Millipore Corporation, Technical Services Department, 80 Ashby Road, Milford, MA 01730 800-654-5476.

Colisure Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia Coli in Drinking Water, February 28, 1994 (referred to as "Colisure Test").

NCRP. National Council on Radiation Protection, 7910 Woodmont Ave., Bethesda, MD 301-657-2652.

"Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NCRP Report Number 22, June 5, 1959.

NSF. National Sanitation Foundation International, 3475 Plymouth Road, PO Box 130140, Ann Arbor, Michigan 48113-0140, 734-769-8010.

NSF Standard 61, section 9, November 1998.

NTIS. National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161, 703-487-4600 or 800-553-6847.

"Interim Radiochemical Methodology for Drinking Water," EPA 600/4-75-008 (revised), March 1976 (referred to as "USEPA Interim Radiochemical Methods"). (Pages 1, 4, 6, 9, 13, 16, 24, 29, 34)

"Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001, EPA # 821-B-01-009 (referred to as "Kelada 01").

"Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," NBS (National Bureau of Standards) Handbook 69, as amended August 1963, U.S. Department of Commerce.

Method 100.1, "Analytical Method for Determination of Asbestos Fibers in Water," EPA-600/4-83-043, September 1983, Doc. No. PB83-260471 (referred to as "USEPA Asbestos Methods-100.1").

Method 100.2, "Determination of Asbestos Structures over 10-mm in Length in Drinking Water," EPA-600/4-83-043, June 1994, Doc. No. PB94-201902 (referred to as "USEPA Asbestos Methods-100.2").

"Methods for Chemical Analysis of Water and Wastes," March 1983, Doc. No. PB84-128677 (referred to as "USEPA Inorganic Methods"). (Methods 150.1, 150.2, and 245.2, which formerly appeared in this reference, are available from USEPA EMSL.)

"Methods for the Determination of Inorganic Substances in Environmental Samples," August 1993, PB94-120821 (referred to as "USEPA Environmental Inorganic Methods").

"Methods for the Determination of Metals in Environmental Samples," June 1991, Doc. No. PB91-231498 and "Methods for the Determination of Metals in

Environmental Samples -- Supplement I, " May 1994, PB95-125472 (referred to as "USEPA Environmental Metals Methods").

ł

"Methods for the Determination of Organic Compounds in Drinking Water," December 1988, revised July 1991, EPA-600/4-88/039 (referred to as "USEPA Organic Methods"). (For methods 502.2, 505, 507, 508, 508A, 515.1, and 531.1.)

"Methods for the Determination of Organic Compounds in Drinking Water --Supplement I," July 1990, EPA/600-4-90-020 (referred to as "USEPA Organic Methods"). (For methods 506, 547, 550, 550.1, and 551.)

"Methods for the Determination of Organic Compounds in Drinking Water --Supplement II," August 1992, EPA-600/R-92-129 (referred to as "USEPA Organic Methods"). (For methods 515.2, 524.2, 548.1, 549.1, 552.1, and 555.)

"Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA 600/4-80-032, August 1980 (document number PB 80-224744) (referred to as "USEPA Radioactivity Methods"). (Methods 900, 901, 901.1, 902, 903, 903.1, 904, 905, 906, 908, 908.1)

"Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions," H.L. Krieger and S. Gold, EPA-R4-73-014, May 1973, Doc. No. PB222-154/7BA.

"Radiochemical Analytical Procedures for Analysis of Environmental Samples," March 1979, Doc. No. EMSL LV 053917 (referred to as "USEPA Radiochemical Analyses"). (Pages 1, 19, 33, 65, 87, 92)

"Radiochemistry Procedures Manual," EPA-520/5-84-006, December 1987, Doc. No. PB-84-215581 (referred to as "USEPA Radiochemistry Methods"). (Methods 00-01, 00-02, 00-07, H-02, Ra-03, Ra-04, Ra-05, Sr-04)

"Technical Notes on Drinking Water Methods," EPA-600/R-94-173, October 1994, Doc. No. PB-104766 (referred to as "USEPA Technical Notes").

BOARD NOTE: USEPA made the following assertion with regard to this reference at 40 CFR 141.23(k)(1) and 141.24(e) and (n)(11) $(\frac{2003}{(2005)})$: "This document contains other analytical test procedures and approved analytical methods that remain available for compliance monitoring until July 1, 1996."

"Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS," October 1994, EPA-821-B-94-005 (referred to as "Dioxin and Furan Method 1613").

New Jersey Department of Environment, Division of Environmental Quality, Bureau of Radiation and Inorganic Analytical Services, 9 Ewing Street, Trenton, NJ 08625.

"Determination of Radium 228 in Drinking Water," August 1990.

New York Department of Health, Radiological Sciences Institute, Center for Laboratories and Research, Empire State Plaza, Albany, NY 12201.

"Determination of Ra-226 and Ra-228 (Ra-02)," January 1980, Revised June 1982.

Palintest, Ltd., 21 Kenton Lands Road, P.O. Box 18395, Erlanger, KY 800-835-9629.

"Lead in Drinking Water by Differential Pulse Anodic Stripping Voltammetry," Method 1001, August 1999.

Syngenta Crop Protection, Inc., 410 Swing Road, Post Office Box 18300, Greensboro, NC 27419. Telephone: 336-632-6000.

"Atrazine in Drinking Water by Immunoassay," February 2001 (referred to as "Syngenta AG-625").

United States Department of Energy, available at the Environmental Measurements Laboratory, U.S. Department of Energy, 376 Hudson Street, New York, NY 10014-3621.

"EML Procedures Manual," 27th Edition, Volume 1, 1990.

United States Environmental Protection Agency, Office of Ground Water and Drinking Water, accessible on-line and available by download from http://www.epa.gov/safewater/methods/.

Method 515.4, "Determination of Chlorinated Acids in Drinking Water by Liquid-Liquid Microextraction, Derivatization and Fast Gas Chromatography with Electron Capture Detection," Revision 1.0, April 2000, EPA 815/B-00/001 (document file name "met515_4.pdf").

Method 531.2, "Measurement of N-methylcarbamoyloximes and N-methylcarbamates in Water by Direct Aqueous Injection HPLC with Postcolumn Derivatization," Revision 1.0, September 2001, EPA 815/B/01/002 (document file name "met531 2.pdf").

United States Environmental Protection Agency, EMSL, Cincinnati, OH 45268 513-569-7586.

"Interim Radiochemical Methodology for Drinking Water," EPA-600/4-75-008 (referred to as "Radiochemical Methods"). (Revised) March 1976.

"Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water" (referred to as "USEPA Organic Methods"). (For methods 504.1, 508.1, and 525.2 only.) See NTIS.

"Procedures for Radiochemical Analysis of Nuclear Reactor Aqueous Solutions." See NTIS.

USEPA, Science and Technology Branch, Criteria and Standards Division, Office of Drinking Water, Washington, D.C. 20460.

"Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources," October 1989.

USGS. Books and Open-File Reports Section, United States Geological Survey, Federal Center, Box 25286, Denver, CO 80225-0425.

Methods available upon request by method number from "Methods for Analysis by the U.S. Geological Survey National Water Quality Laboratory -- Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments," Open File Report 93-125, 1993, or Book 5, Chapter A-1, "Methods for Determination of Inorganic Substances in Water and Fluvial Sediments," 3rd ed., Open-File Report 85-495, 1989, as appropriate (referred to as "USGS Methods").

I-1030-85

I-1062-85

I-1601-85

I-1700-85

I-2598-85

I-2601-90

I-2700-85

I-3300-85

Methods available upon request by method number from "Methods for Determination of Radioactive Substances in Water and Fluvial Sediments," Chapter A5 in Book 5 of "Techniques of Water-Resources Investigations of the United States Geological Survey," 1997.

> R-1110-76 R-1111-76 R-1120-76 R-1140-76 R-1141-76 R-1142-76 R-1160-76 R-1160-76 R-1171-76 R-1180-76 R-1181-76 R-1181-76

Waters Corporation, Technical Services Division, 34 Maple St., Milford, MA 01757 800-252-4752.

"Waters Test Method for Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography," Method B-1011, August 1987 (referred to as "Waters Method B-1011").

c) The Board incorporates the following federal regulations by reference:

40 CFR 3.2, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (How Does This Part Provide for Electronic Reporting?), referenced in Section 611.105.

40 CFR 3.3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What Definitions Are Applicable to This Part?), referenced in Section 611.105.

40 CFR 3.10, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What Are the Requirements for Electronic Reporting to EPA?), referenced in Section 611.105.

40 CFR 3.2000, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What Are the Requirements Authorized State, Tribe, and Local Programs' Reporting Systems Must Meet?), referenced in Section 611.105.

Appendix B to 40 CFR 136, Appendices B and C (2003) 136 (2005), reverencedreferenced in Sections 611.359, 611.609 &611.609, and 611.646.

d) This Part incorporates no later amendments or editions.

(Source: Amended at 30 Ill. Reg. ____, effective ______)

Section 611.105 Electronic Reporting

The filing of any document pursuant to any provision of this Part as an electronic document is subject to this Section.

a) Scope and Applicability.

1) The USEPA, the Board, or the Agency may allow for the filing of electronic documents. This Section does not require submission of electronic documents in lieu of paper documents. This Section sets forth the requirements for the optional electronic filing of any report or document that must be submitted to the appropriate of the following:

A) To USEPA directly under Title 40 of the Code of Federal Regulations; or

B) To the Board or the Agency pursuant to any provision of 35 Ill. Adm. Code 702 through 705, 720 through 728, 730, 733, 738, or 739.

2) Electronic document filing under this Section can begin only after USEPA has first done as follows:

A) As to filing with USEPA, USEPA has published a notice in the Federal Register announcing that USEPA is prepared to receive documents required or permitted by the identified part or subpart of Title 40 of the Code of Federal Regulations in an electronic format; or

B) As to filing with the State, USEPA has granted approval of any electronic document receiving system established by the Board or the Agency that meets the requirements of 40 CFR 3.2000, incorporated by reference in Section 611.102(c).

3) This Section does not apply to any of the following documents, whether or not the document is a document submitted to satisfy the requirements cited in subsection (a) (1) of this Section:

A) Any document submitted via fascimile;

B) Any document submitted via magnetic or optical media, such as diskette, compact disc, digital video disc, or tape; or

C) Any data transfer between USEPA, any state, or any local government and either the Board or the Agency as part of administrative arrangements between the parties to the transfer to share data.

4) Upon USEPA conferring approval for the filing of any types of documents as electronic documents, as described in subsection (a) (2) (B) of this Section, the Agency or the Board, as appropriate, must publish a Notice of Public Information in the Illinois Register that describes the documents approved for submission as electronic documents, the electronic document receiving system approved to receive them, the acceptable formats and procedures for their submission, and the date on which the Board or the Agency will begin to receive those submissions. In the event of cessation of USEPA approval or receiving any type of document as an electronic document, the Board or the Agency must similarly cause publication of a Notice of Public Information in the Illinois Register.

BOARD NOTE: Subsection (a) of this Section is derived from 40 CFR 3.1, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

b) Definitions. For the purposes of this Section, terms will have the meaning attributed them in 40 CFR 3.3, incorporated by reference in 35 Ill. Adm. Code 611.102(c).

c) Procedures for submission of electronic documents to USEPA. Except as provided in subsection (a)(3) of this Section, any person who is required under Title 40 of the Code of Federal Regulations to create and submit or otherwise provide a document to USEPA may satisfy this requirement with an electronic document, in lieu of a paper document, provided the following conditions are met:

1) The person satisfies the requirements of 40 CFR 3.10, incorporated by reference in Section 611.102(c); and

2) USEPA has first published a notice in the Federal Register as described in subsection (a)(2) of this Section.

BOARD NOTE: Subsection (c) of this Section is derived from 40 CFR 3.2(a) and subpart B of 40 CFR 3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

d) Procedures for submission of electronic documents to the Board or the Agency.

1) The Board or the Agency may, but is not required to, establish procedures for the electronic submission of documents that meet the requirements of 40 CFR 3.2 and 3.2000, incorporated by reference in Section 611.102(c). The Board or the Agency must establish any such procedures under the Administrative Procedure Act [5 ILCS 100/<u>Art.</u>5].

2) The Board or the Agency may not accept electronic documents under this Section until after USEPA has approved the procedures in writing, and the Board or the Agency has published a notice of <u>suchthat</u> approval in the Illinois Register. Nothing in this subsection (d) limits the authority of the Board or the Agency under the Illinois Environmental Protection Act [415 ILCS 5] to accept documents filed electronically.

BOARD NOTE: Subsection (d) of this Section is derived from 40 CFR 3.2(b) and subpart D of 40 CFR 3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

e) Effects of submission of an electronic document.

1) If a person who submits a document as an electronic document fails to comply with the requirements <u>of</u> this Section, that person is subject to the penalties prescribed for failure to comply with the requirement that the electronic document was intended to satisfy.

2) Where a document submitted as an electronic document to satisfy a reporting requirement bears an electronic signature, the electronic signature legally binds, obligates, and makes the signer responsible to the same extent as the signer's handwritten signature would on a paper document submitted to satisfy the same reporting requirement.

3) Proof that a particular signature device was used to create an electronic signature will suffice to establish that the individual uniquely entitled to use the device did so with the intent to sign the electronic document and give it effect.

4) Nothing in this Section limits the use of electronic documents or information derived from electronic documents as evidence in enforcement or other proceedings.

BOARD NOTE: Subsection (e) of this Section is derived from 40 CFR 3.4 and 3.2000(c), as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

f) Public document subject to State laws. Any electronic document filed with the Board is a public document. The document, its filing, its retention by the Board, and its availability for public inspection and copying are subject to various State laws, including, but not limited to, the following:

1) The Administrative Procedure Act [5 ILCS 100];

2) The Freedom of Information Act [5 ILCS 140];

3) The State Records Act [5 ILCS 160];

4) The Electronic Commerce Security Act [5 ILCS 175];

5) The Environmental Protection Act [415 ILCS 5];

6) Regulations relating to public access to Board records (2 Ill. Adm. Code 2175); and

7) Board procedural rules relating to protection of trade secrets and confidential information (35 Ill. Adm. Code 130).

g) Nothing in this Section or in any provisions adopted pursuant to subsection (c)(1) of this Section will create any right or privilege to submit any document as an electronic document.

BOARD NOTE: Subsection (g) of this Section is derived from 40 CFR 3.2(c), as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).

BOARD NOTE: Derived from 40 CFR 3, as added, and 40 CFR 142.10(g) (2005), as amended at 70 Fed. Reg. 59848 (Oct. 13, 2005).

(Source: Added at 30 Ill. Reg. ____, effective _____)

Section 611.111 Relief Equivalent to SDWA Section 1415(a) Variances

· · · ,

This Section is intended to describe how the Board grants State relief equivalent to that available from USEPA under section 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) and (a)(1)(B)). SDWA section 1415 variances do not require ultimate compliance within five years in every situation. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do require compliance within five years in every case. Consequently, a PWS may have the option of seeking State regulatory relief equivalent to a SDWA section 1415 variance through one of three procedural mechanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] and Subpart B of 35 Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 ILCS 5/27-28] and 35 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act [415 ILCS 5/28.1] and Subpart D of 35 Ill. Adm. Code 104.

a) The Board will grant a PWS a variance, a site-specific rule, or an adjusted standard from an MCL or a treatment technique pursuant to this Section.

1) The PWS must file a petition pursuant to 35 Ill. Adm. Code 102 or 104, as applicable.

2) If a State requirement does not have a federal counterpart, the Board may grant relief from the State requirements without following this Section.

b) Relief from an MCL.

1) As part of the justification for relief from an MCL under this Section, the PWS must demonstrate the following:

A) Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and

B) The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:

i) The number of persons served by the system;

ii) Physical conditions related to engineering feasibility; and

iii) Costs of compliance; and

C) The variance will not result in an unreasonable risk to health.

2) In any order granting relief under this subsection, the Board will prescribe a schedule for the following:

A) Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and

B) Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.

3) Schedule of compliance for relief from an MCL.

A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.

B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:

i) Document its rationale for the extended compliance schedule;

ii) Discuss the rationale for the extended compliance schedule in the required public notice and opportunity for public hearing; and

iii) Provide the shortest practicable time schedule feasible under the circumstances.

c) Relief from a treatment technique requirement.

1) As part of the justification for relief from a treatment technique requirement under this Section, the PWS must demonstrate that the treatment technique is not necessary to protect the health of persons served because of the nature of the raw water source.

2) The Board may prescribe monitoring and other requirements as a condition for relief from a treatment technique requirement.

d) The Board will hold at least one public hearing. In addition the Board will accept comments as appropriate pursuant to 35 Ill. Adm. Code 102 or 104.

e) The Board will not grant relief from any of the following:

1) From the MCL for total coliforms. However, the Board may grant a variance from the total coliform MCL of Section 611.325 for PWSs that prove that the violation of the total coliform MCL is due to persistent growth of total coliform in the distribution system, rather than from fecal or pathogenic contamination, from a treatment lapse or deficiency, or from a problem in the operation or maintenance of the distribution system.

2) From any of the treatment technique requirements of Subpart B of this Part.

3) From the residual disinfectant concentration (RDC) requirements of Sections 611.241(c) and 611.242(b).

f) The Agency must promptly send USEPA the opinion and order of the Board granting relief pursuant to this Section. The Board may reconsider and modify a grant of relief, or relief conditions, if USEPA notifies the Board of a finding pursuant to section 1415 of the SDWA (42 USC 300g-4).

g) In addition to the requirements of this Section, the provisions of Section 611.130 or 611.131 may apply to relief granted pursuant to this Section.

BOARD NOTE: Derived from 40 CFR 141.4 (2002) (2005), from section 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources₇", incorporated by reference in Section 611.102. USEPA has reserved the discretion to review and modify or nullify Board determinations made pursuant to this Section at 40 CFR 142.23 ($\frac{2002}{42005}$).

(Source: Amended at 30 Ill. Reg. ____, effective _____)

SUBPART B: FILTRATION AND DISINFECTION

. ,

Section 611.212 Groundwater under Direct Influence of Surface Water

The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following:

a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers.

b) Well construction characteristics and geology with field evaluation.

1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.

2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water.

3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:

A) A surface sanitary seal using bentonite clay, concrete, or similar material τ :

B) A well casing that penetrates consolidated (slowly permeable) material; and

C) A well casing that is only perforated or screened below consolidated (slowly permeable) material.

4) A source that is less than 200 feet from any surface water is likely to be under the influence of surface water.

c) Any structural modifications to prevent the direct influence of surface water and eliminate the potential for Giardía lamblía cyst contamination.

d) Source water quality records. The following are indicative that a source is under the influence of surface water:

1) A record of total coliform or fecal coliform contamination in untreated samples collected over the past three years;

2) A history of turbidity problems associated with the source; or

3) A history of known or suspected outbreaks of Giardia lamblia, Cryptosporidium or other pathogenic organisms associated with surface water that has been attributed to that source.

e) Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH.

1) A variation in turbidity of 0.5 NTU or more over one year is indicative of surface influence.

2) A variation in temperature of 9-nine Fahrenheit degrees or more over one year is indicative of surface influence.

f) Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH that closely correlate to climatological or surface water conditions are indicative of surface water influence.

1) Evidence of particulate matter associated with the surface water; or____

2) Turbidity or temperature data that correlates to that of a nearby surface water source.

g) Particulate analysis: Significant occurrence of insects or other macroorganisms, algae, or large diameter pathogens such as Giardia lamblia is indicative of surface influence.

1) "Large diameter" particulates are those over 7-seven micrometers.

2) Particulates must be measured as specified in the "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources, " τ incorporated by reference in Section 611.102.

h) The potential for contamination by small-diameter pathogens, such as bacteria or viruses, does not alone render the source "under the direct influence of surface water."-

BOARD NOTE: Derived from the definition of "groundwater under the direct influence of surface water" in 40 CFR 141.2-(2002) (2005); from the Preamble at 54 Fed. Reg. 27489 (June 29, 1989); and from the USEPA "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems using Surface Water Sources, " $_{7}$ incorporated by reference in Section 611.102.

(Source: Amended at 30 Ill. Reg. ____, effective _____)

SUBPART G: LEAD AND COPPER

Section 611.359 Analytical Methods

Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature must be conducted using the methods set forth in Section 611.611(a).

a) Analyses for lead and copper performed for the purposes of compliance with this Subpart G must only be conducted by laboratories that have been certified
by USEPA or the Agency. To obtain certification to conduct analyses for lead and copper, laboratories must do the following:

1) Analyze performance evaluation samples that include lead and copper provided by USEPA Environmental Monitoring and Support Laboratory or equivalent samples provided by the Agency; and

2) Achieve quantitative acceptance limits as follows:

A) For lead: ± 30 percent of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to 0.005 mg/l (the PQL for lead is 0.005 mg/l);

B) For copper: ± 10 percent of the actual amount in the performance evaluation sample when the actual amount is greater than or equal to 0.050 mg/l (the PQL for copper is 0.050 mg/l);

C) Achieve the method detection limit (MDL) for lead (0.001 mg/l, as defined in Section 611.350(a)) according to the procedures in 35 Ill. Adm. Code 186 and appendix B to 40 CFR 136, Appendix B136: "Definition and Procedure for the Determination of the Method Detection Limit -- Revision 1.11"-(2002) (2005), incorporated by reference in Section 611.102(c). This need only be accomplished if the laboratory will be processing source water composite samples under Section 611.358(a)(1)(C); and

D) Be currently certified by USEPA or the Agency to perform analyses to the specifications described in subsection (a) (2) of this Section.

BOARD NOTE: Subsection (a) is derived from 40 CFR 141.89(a) and (a) (1 - (2002)) (2005).

b) The Agency must, by a SEP issued pursuant to Section 611.110, allow a supplier to use previously collected monitoring data for the purposes of monitoring under this Subpart G if the data were collected and analyzed in accordance with the requirements of this Subpart G.

BOARD NOTE: Subsection (b) is derived from 40 CFR 141.89(a) (2)-(2002) (2005).

c) Reporting lead and copper levels.

1) All lead and copper levels greater than or equal to the lead and copper PQL (Pb 2 ± 0.005 mg/l and Cu 2 ± 0.050 mg/l) must be reported as measured.

2) All lead and copper levels measured less than the PQL and greater than the MDL (0.005 mg/l > Pb > MDL and 0.050 mg/l > Cu > MDL) must be either reported as measured or as one-half the PQL set forth in subsection (a) of this Section (i.e., reported as 0.0025 mg/l for lead or 0.025 mg/l for copper).

3) All lead and copper levels below the lead and copper MDL (MDL > Pb) must be reported as zero.

BOARD NOTE: Subsection (c) is derived from 40 CFR 141.89(a)(3) and (a)(4) (2002) - (2005).

(Source: Amended at 30 Ill. Reg. ____, effective _____)

SUBPART I: DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS, AND DISINFECTION BYPRODUCT PRECURSORS

Section 611.380 General Requirements

a) The requirements of this Subpart I constitute NPDWRs.

1) The regulations in this Subpart I establish standards under which a CWS supplier or an NTNCWS supplier that adds a chemical disinfectant to the water in any part of the drinking water treatment process or which provides water that-contains a chemical disinfectant must modify its practices to meet MCLs and MRDLs in Sections 611.312 and 611.313, respectively, and must meet the treatment technique requirements for DBP precursors in Section 611.385.

2) The regulations in this Subpart I establish standards under which a transient non-CWS supplier that uses chlorine dioxide as a disinfectant or oxidant must modify its practices to meet the MRDL for chlorine dioxide in Section 611.313.

3) The Board has established MCLs for TTHM and HAA5 and treatment technique requirements for DBP precursors to limit the levels of known and unknown DBPs that may have adverse health effects. These DBPs may include chloroform, bromodichloromethane, dibromochloromethane, bromoform, dichloroacetic acid, and trichloroacetic acid.

b) Compliance dates.

1) CWSs and NTNCWSs. Unless otherwise noted, a supplier must comply with the requirements of this Subpart I as follows: A Subpart B system supplier serving 10,000 or more persons must comply with this Subpart I beginning January 1, 2002. A Subpart B system supplier serving fewer than 10,000 persons or a supplier using only groundwater not under the direct influence of surface water must comply with this Subpart I beginning January 1, 2004.

2) Transient non-CWSs. A Subpart B system supplier serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with any requirements for chlorine dioxide in this Subpart I beginning January 1, 2002. A Subpart B system supplier serving fewer than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant or a supplier using only groundwater not under the direct influence of surface water and using that-useschlorine dioxide as a disinfectant or oxidant must comply with any requirements for chlorine dioxide in this Subpart I beginning January 1, 2004.

c) Each CWS or NTNCWS supplier regulated under subsection (a) of this Section must be operated by qualified personnel who meet the requirements specified in 35 Ill. Adm. Code 680.

d) Control of disinfectant residuals. Notwithstanding the MRDLs in Section 611.313, a supplier may increase residual disinfectant levels in the distribution system of chlorine or chloramines (but not chlorine dioxide) to a level and for a time necessary to protect public health, to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm run-off events, source water contamination events, or cross-connection events.

BOARD NOTE: Derived from 40 CFR 141.130 (2002) (2005).

(Source: Amended at 30 Ill. Reg. ____, effective _____)

SUBPART N: INORGANIC MONITORING AND ANALYTICAL REQUIREMENTS

Section 611.609 Determining Compliance

1

Compliance with the MCLs of Section 611.300 or 611.301 (as appropriate) must be determined based on the analytical results obtained at each sampling point.

a) For suppliers that monitor at a frequency greater than annual, compliance with the MCLs for antimony, arsenic (effective January 22, 2004), asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is determined by a running annual average at each sampling point. Effective January 22, 2004, if a system fails to collect the required number of samples, compliance (average concentration) will be based on the total number of samples collected.

1) If the average at any sampling point is greater than the MCL, then the supplier is out of compliance.

2) If any one sample would cause the annual average to be exceeded, then the supplier is out of compliance immediately.

3) Any sample below the method detection limit must be calculated at zero for the purpose of determining the annual average.

BOARD NOTE: The "method detection limit" is different from the "detection limit, " as set forth in Section 611.600. The "method detection limit" is the level of contaminant that can be determined by a particular method with a 95 percent degree of confidence, as determined by the method outlined in appendix B to 40 CFR 136, Appendix B, incorporated by reference at Section 611.102.

b) For suppliers that monitor annually or less frequently, compliance with the MCLs for antimony, arsenic (effective January 22, 2004), asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is determined by the level of the contaminant at any sampling point. If confirmation samples are required by the Agency, the determination of compliance will be based on the average of the annual average of the initial MCL exceedence and any Agency-required confirmation samples. Effective January 22, 2004, if a supplier fails to collect the required number of samples, compliance (average concentration) will be based on the total number of samples collected.

c) Compliance with the MCLs for nitrate and nitrite is determined based on one sample if the levels of these contaminants are below the MCLs. If the levels of nitrate or nitrite in the initial sample exceed the MCLs, Section 611.606 requires confirmation sampling, and compliance is determined based on the average of the initial and confirmation samples.

d) Arsenic sampling results must be reported to the nearest 0.001 mg/l.

BOARD NOTE: Derived from 40 CFR 141.23(i) (2002) (2005).

(Source: Amended at 30 Ill. Reg. ____, effective _____)

SUBPART O: ORGANIC MONITORING AND ANALYTICAL REQUIREMENTS

Section 611.646 Phase I, Phase II, and Phase V Volatile Organic Contaminants

Monitoring of the Phase I, Phase II, and Phase V VOCs for the purpose of determining compliance with the MCL must be conducted as follows:

a) Definitions. As used in this Section the following have the given meanings:

"Detect" and "detection" mean that the contaminant of interest is present at a level greater than or equal to the "detection limit."

"Detection limit" means 0.0005 mg/l.

BOARD NOTE: Derived from 40 CFR 141.24(f)(7), (f)(11), (f)(14)(i), and (f)(20) (2003) (2005). This is a "trigger level" for Phase I, Phase II, and Phase V VOCs inasmuch as it prompts further action. The use of the term "detect" in this Section is not intended to include any analytical capability of quantifying lower levels of any contaminant, or the "method detection limit." Note, however, that certain language at the end of federal paragraph (f)(20) is capable of meaning that the "method detection limit" is used to derive the "detection limit." The Board has chosen to disregard that language at the end of paragraph (f)(20) in favor of the more direct language of paragraphs (f)(7) and (f)(11).

"Method detection limit," as used in subsections (q) and (t) of this Section means the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

BOARD NOTE: Derived from appendix B to 40 CFR $\frac{136}{-Appendix B} \cdot \frac{2003}{-136}$. (2005). The method detection limit is determined by the procedure set forth in appendix B to 40 CFR 136, -Appendix B incorporated by reference in Section 611.102(c). See subsection (t) of this Section.

b) Required sampling. Each supplier must take a minimum of one sample at each sampling point at the times required in subsection (u) of this Section.

c) Sampling points.

1) Sampling points for a GWS. Unless otherwise provided by a SEP granted by the Agency pursuant to Section 611.110, a GWS supplier must take at least one sample from each of the following points: each entry point that is representative of each well after treatment.

2) Sampling points for an SWS or mixed system supplier. Unless otherwise provided by a SEP granted by the Agency pursuant to Section 611.110, an SWS or mixed system supplier must sample from each of the following points:

A) Each entry point after treatment; or

B) Points in the distribution system that are representative of each source.

3) The supplier must take each sample at the same sampling point unless the Agency has granted a SEP pursuant to Section 611.110 that designates another location as more representative of each source, treatment plant, or within the distribution system. 4) If a system draws water from more than one source, and the sources are combined before distribution, the supplier must sample at an entry point during periods of normal operating conditions when water is representative of all sources being used.

BOARD NOTE: Subsections (b) and (c) of this Section derived from 40 CFR 141.24(f)(1) through (f)(3) ($\frac{2003}{-(2005)}$.

d) Each CWS and NTNCWS supplier must take four consecutive quarterly samples for each of the Phase I VOCs, excluding vinyl chloride, and Phase II VOCs during each compliance period, beginning in the compliance period starting in the initial compliance period.

e) Reduction to annual monitoring frequency. If the initial monitoring for the Phase I, Phase II, and Phase V VOCs, as allowed in subsection (r)(1) of this Section, was completed by December 31, 1992, and the supplier did not detect any of the Phase I VOCs, including vinyl chloride; Phase II VOCs; or Phase V VOCs, then the supplier must take one sample annually beginning in the initial compliance period.

f) GWS reduction to triennial monitoring frequency. After a minimum of three years of annual sampling, GWS suppliers that have not previously detected any of the Phase I VOCs, including vinyl chloride; Phase II VOCs; or Phase V VOCs must take one sample during each three-year compliance period.

g) A CWS or NTNCWS supplier that has completed the initial round of monitoring required by subsection (d) of this Section and which did not detect any of the Phase I VOCs, including vinyl chloride; Phase II VOCs; and Phase V VOCs may apply to the Agency for a SEP pursuant to Section 611.110 that releases it from the requirements of subsection (e) or (f) of this Section. A supplier that serves fewer than 3300 service connections may apply to the Agency for a SEP that releases it from the requirements of subsection (d) of this Section as to 1,2,4-trichlorobenzene.

BOARD NOTE: Derived from 40 CFR 141.24(f)(7) and (f)(10)-(2003) (2005), and the discussion at 57 Fed. Reg. 31825 (July 17, 1992). Provisions concerning the term of the waiver appear in subsections (i) and (j) of this Section. The definition of "detect," parenthetically added to the federal counterpart paragraph, is in subsection (a) of this Section.

h) Vulnerability assessment. The Agency must consider the factors of Section 611.110(e) in granting a SEP from the requirements of subsection (d), (e), or
(f) of this Section sought pursuant to subsection (g) of this Section.

i) A SEP issued to a GWS pursuant to subsection (g) of this Section is for a maximum of six years, except that a SEP as to the subsection (d) of this Section monitoring for 1,2,4-trichlorobenzene must apply only to the initial round of monitoring. As a condition of a SEP, except as to a SEP from the initial round of subsection (d) of this Section monitoring for 1,2,4- trichlorobenzene, the supplier shall, within 30 months after the beginning of the period for which the waiver was issued, reconfirm its vulnerability assessment required by subsection (h) of this Section and submitted pursuant to subsection (g) of this Section, by taking one sample at each sampling point and reapplying for a SEP pursuant to subsection (g) of this Section. Based on this application, the Agency must do either of the following:

1) If it determines that the PWS meets the standard of Section 611.610(e), issue a SEP that reconfirms the prior SEP for the remaining three-year compliance period of the six-year maximum term; or

2) Issue a new SEP requiring the supplier to sample annually.

BOARD NOTE: Subsection (i) of this Section does not apply to an SWS or mixed system supplier.

j) Special considerations for a SEP for an SWS or mixed-system supplier.

1) The Agency must determine that an SWS is not vulnerable before issuing a SEP pursuant to Section 611.110 to an SWS supplier. A SEP issued to an SWS or mixed system supplier pursuant to subsection (g) of this Section is for a maximum of one compliance period; and

2) The Agency may require, as a condition to a SEP issued to an SWS or mixed supplier, that the supplier take such samples for Phase I, Phase II, and Phase V VOCs at such a frequency as the Agency determines are necessary, based on the vulnerability assessment.

BOARD NOTE: There is a great degree of similarity between 40 CFR 141.24(f)(7) ($\frac{2003}{(2003)}$ (2005), the provision applicable to GWSs, and 40 CFR 141.24(f)(10)-($\frac{2003}{(2003)}$) (2005), the provision for SWSs. The Board has consolidated the common requirements of both paragraphs into subsection (g) of this Section. Subsection (j) of this Section represents the elements unique to an SWSs or mixed system, and subsection (i) of this Section relates to a GWS supplier. Although 40 CFR 141.24(f)(7) and (f)(10) are silent as to a mixed system supplier, the Board has included a mixed system supplier with an SWS supplier because this best follows the federal scheme for all other contaminants.

k) If one of the Phase I VOCs, excluding vinyl chloride; a Phase II VOC; or a Phase V VOC is detected in any sample, then the following must occur:

1) The supplier must monitor quarterly for that contaminant at each sampling point that resulted in a detection.

2) Annual monitoring.

A) The Agency must grant a SEP pursuant to Section 611.110 that allows a supplier to reduce the monitoring frequency to annual at a sampling point if it determines that the sampling point is reliably and consistently below the MCL.

B) A request for a SEP must include the following minimal information:

i) For a GWS, two guarterly samples.

ii) For an SWS or mixed system supplier, four quarterly samples.

C) In issuing a SEP, the Agency must specify the level of the contaminant upon which the "reliably and consistently" determination was based. Any SEP that allows less frequent monitoring based on an Agency "reliably and consistently" determination must include a condition requiring the supplier to resume guarterly monitoring pursuant to subsection (k) (1) of this Section if it violates the MCL specified by Section 611.311. 3) Suppliers that monitor annually must monitor during the quarters that previously yielded the highest analytical result.

4) Suppliers that do not detect a contaminant at a sampling point in three consecutive annual samples may apply to the Agency for a SEP pursuant to Section 611.110 that allows it to discontinue monitoring for that contaminant at that point, as specified in subsection (g) of this Section.

5) A GWS supplier that has detected one or more of the two-carbon contaminants listed in subsection (k) (5) (A) of this Section must monitor quarterly for vinyl chloride as described in subsection (k) (5) (B) of this Section, subject to the limitation of subsection (k) (5) (C) of this Section.

A) "Two-carbon contaminants" (Phase I or II VOC) are the following:

1,2-Dichloroethane (Phase I)

1,1-Dichloroethylene (Phase I)

cis-1,2-Dichloroethylene (Phase II)

trans-1,2-Dichloroethylene (Phase II)

Tetrachloroethylene (Phase II)

1,1,1-Trichloroethylene (Phase I)

Trichloroethylene (Phase I)

B) The supplier must sample quarterly for vinyl chloride at each sampling point at which it detected one or more of the two-carbon contaminants listed in subsection (k) (5) (A) of this Section.

C) The Agency must grant a SEP pursuant to Section 611.110 that allows the supplier to reduce the monitoring frequency for vinyl chloride at any sampling point to once in each three-year compliance period if it determines that the supplier has not detected vinyl chloride in the first sample required by subsection (k) (5) (B) of this Section.

1) Quarterly monitoring following MCL violations.

1) Suppliers that violate an MCL for one of the Phase I VOCs, including vinyl chloride; Phase II VOCs; or Phase V VOCs, as determined by subsection (o) of this Section, must monitor quarterly for that contaminant, at the sampling point where the violation occurred, beginning the next quarter after the violation.

2) Annual monitoring.

A) The Agency must grant a SEP pursuant to Section 611.110 that allows a supplier to reduce the monitoring frequency to annually if it determines that the sampling point is reliably and consistently below the MCL.

B) A request for a SEP must include the following minimal information: four quarterly samples.

C) In issuing a SEP, the Agency must specify the level of the contaminant upon which the "reliably and consistently" determination was based. Any SEP

that allows less frequent monitoring based on an Agency "reliably and consistently" determination must include a condition requiring the supplier to resume quarterly monitoring pursuant to subsection (1)(1) of this Section if it violates the MCL specified by Section 611.311.

D) The supplier must monitor during the quarters that previously yielded the highest analytical result.

m) Confirmation samples. The Agency may issue a SEP pursuant to Section 610.110 to require a supplier to use a confirmation sample for results that it finds dubious for whatever reason. The Agency must state its reasons for issuing the SEP if the SEP is Agency-initiated.

1) If a supplier detects any of the Phase I, Phase II, or Phase V VOCs in a sample, the supplier must take a confirmation sample as soon as possible, but no later than 14 days after the supplier receives notice of the detection.

2) Averaging is as specified in subsection (o) of this Section.

3) The Agency must delete the original or confirmation sample if it determines that a sampling error occurred, in which case the confirmation sample will replace the original or confirmation sample.

n) This subsection (n) corresponds with 40 CFR 141.24(f)(14), an optional USEPA provision relating to compositing of samples that USEPA does not require for state programs. This statement maintains structural consistency with USEPA rules.

c) Compliance with the MCLs for the Phase I, Phase II, and Phase V VOCs must be determined based on the analytical results obtained at each sampling point. Effective January 22, 2004, if one sampling point is in violation of an MCL, the system is in violation of the MCL.

1) Effective January 22, 2004, for a supplier that monitors more than once per year, compliance with the MCL is determined by a running annual average at each sampling point.

2) Effective January 22, 2004, a supplier that monitors annually or less frequently whose sample result exceeds the MCL must begin quarterly sampling. The system will not be considered in violation of the MCL until it has completed one year of quarterly sampling.

3) Effective January 22, 2004, if any sample result will cause the running annual average to exceed the MCL at any sampling point, the supplier is out of compliance with the MCL immediately.

4) Effective January 22, 2004, if a supplier fails to collect the required number of samples, compliance will be based on the total number of samples collected.

5) Effective January 22, 2004, if a sample result is less than the detection limit, zero will be used to calculate the annual average.

6) Until January 22, 2004, for a supplier that conducts monitoring at a frequency greater than annual, compliance is determined by a running annual average of all samples taken at each sampling point.

A) If the annual average of any sampling point is greater than the MCL, then the supplier is out of compliance.

B) If the initial sample or a subsequent sample would cause the annual average to exceed the MCL, then the supplier is out of compliance immediately.

C) Any samples below the detection limit must be deemed as zero for purposes of determining the annual average.

7) Until January 22, 2004, if monitoring is conducted annually, or less frequently, the supplier is out of compliance if the level of a contaminant at any sampling point is greater than the MCL. Until January 22, 2004, if a confirmation sample is taken, the determination of compliance is based on the average of two samples.

p) This subsection (p) corresponds with 40 CFR 141.24(f)(16), which USEPA removed and reserved. This statement maintains structural consistency with the federal regulations.

q) Analysis under this Section must only be conducted by laboratories that have received certification by USEPA or the Agency according to the following conditions:

1) To receive certification to conduct analyses for the Phase I VOCs, excluding vinyl chloride; Phase II VOCs; and Phase V VOCs, the laboratory must do the following:

A) It must analyze performance evaluation (PE) samples that include these substances provided by the Agency pursuant to 35 Ill. Adm. Code 186.170;

B) It must achieve the quantitative acceptance limits under subsections (q)(1)(C) and (q)(1)(D) of this Section for at least 80 percent of the regulated organic contaminants in the PE sample;

C) It must achieve quantitative results on the analyses performed under subsection (q)(1)(A) of this Section that are within \pm 20 percent of the actual amount of the substances in the PE sample when the actual amount is greater than or equal to 0.010 mg/l;

D) It must achieve quantitative results on the analyses performed under subsection (q)(1)(A) of this Section that are within \pm 40 percent of the actual amount of the substances in the PE sample when the actual amount is less than 0.010 mg/l; and

E) It must achieve a method detection limit of 0.0005 mg/l, according to the procedures in appendix B to 40 CFR 136, Appendix B, incorporated by reference in Section 611.102.

2) To receive certification to conduct analyses for vinyl chloride the laboratory must do the following:

A) It must analyze PE samples provided by the Agency pursuant to 35 Ill. Adm.
 Code 186.170;

B) It must achieve quantitative results on the analyses performed under subsection (q) (2) (A) of this Section that are within \pm 40 percent of the actual amount of vinyl chloride in the PE sample;

C) It must achieve a method detection limit of 0.0005 mg/l, according to the procedures in appendix B to 40 CFR 136, Appendix B, incorporated by reference in Section 611.102; and

D) It must obtain certification pursuant to subsection (q)(1) of this Section for Phase I VOCs, excluding vinyl chloride; Phase II VOCs; and Phase V VOCs.

r) This subsection (r) corresponds with 40 CFR 141.24(f)(18), an obsolete provision that relates to the initial compliance period from 1993 through 1995. This statement maintains consistency with the federal regulations.

s) The Agency shall, by a SEP issued pursuant to Section 611.110, increase the number of sampling points or the frequency of monitoring if it determines that it is necessary to detect variations within the PWS.

t) Each laboratory certified for the analysis of Phase I, Phase II, or Phase V VOCs pursuant to subsection (q)(1) or (q)(2) of this Section shall do the following:

1) Determine the method detection limit (MDL), as defined in appendix B to 40 CFR 136, Appendix B, incorporated by reference in Section 611.102, at which it is capable of detecting the Phase I, Phase II, and Phase V VOCs; and,

2) Achieve an MDL for each Phase I, Phase II, and Phase V VOC that is less than or equal to 0.0005 mg/l.

u) Each supplier must monitor, within each compliance period, at the time designated by the Agency by SEP pursuant to Section 611.110.

v) A new system supplier or a supplier that uses a new source of water that begins operation after January 22, 2004 must demonstrate compliance with the MCL within a period of time specified by a permit issued by the Agency. The supplier must also comply with the initial sampling frequencies specified by the Agency to ensure the supplier can demonstrate compliance with the MCL. Routine and increased monitoring frequencies must be conducted in accordance with the requirements in this Section.

BOARD NOTE: Derived from 40 CFR 141.24(f) (2003) (2005).

(Source: Amended at 30 Ill. Reg. ____, effective _____)

Section 611.AppendixAPPENDIX D Defined Substrate Method for the Simultaneous Detection of Total Coliforms and Escherichia Coli from Drinking Water

Autoanalysis Colilert Presence-Absence (AC P-A) Method.

The AC P-A test format must be either a 100 <u>-</u>ml 10-tube most probable number test (one tube positive denoting the presence of total coliforms in that sample) or a single vessel containing sufficient reagent to receive 100 ml of sample. The reagent is available from Access Medical Systems, Branford Connecticut.

The AC P-A method must be performed as follows:

1. For the 10-tube method, add 10 ml of water sample to each test tube. For the single-vessel method, add 100 ml of water sample to the vessel.

2. Dissolve the reagent powder by agitation. (This should produce a colorless solution.)

3. Incubate the test tubes or vessel at 35^{a} C for 24 hours.

4. Development of yellow during incubation denotes the presence of total coliforms in either the test tube or the vessel.

5. Expose each positive (yellow) test tube or vessel to a fluorescent (366 nm) light source. Fluorescence specifically demonstrates the presence of Escherichia coli.

BOARD NOTE: Derived from S. Edberg, M. Allen & D. Smith, "National Field Evaluation of a Defined Substrate Method for the Simultaneous Detection of Total Coliforms and Escherichia coli from Drinking Water: Comparison with Presence-Absence Techniques, " $_{7}$ Applied and Environmental Microbiology, vol. 55, pp. 1003-1008, as incorporated by reference at 40 CFR 141.21(f)(6)(iii) (2002)-(2005). This method is for use in conjunction with the requirements of Section 611.526.

(Source: Amended at 30 Ill. Reg. ____, effective _____)

JCAR350611-0613054r01

POLLUTION-CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Document comparison done by DeltaView on Thursday, July 27, 2006 11:30:01 AM

A DI CATE OF A DESCRIPTION OF A DESCRIPR	
Document 1	file://l:/Input/35-611-Agency(issue31).doc
Document 2	file://l:/Input/35-611-r01(issue 31).doc
Rendering set	Standard

Legenne-	
Insertion	
Deletion-	
Moved from	
Moved to	
Style change	
Format change	
Moved deletion-	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Satalas	
	Count
Insertions	34
Deletions	118
Moved from	0
Moved to	0
Style change	0
Format changed	0
Total changes	152

1ST NOTICE VERSION

1 2		TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE F: PUBLIC WATER SUPPLIES CHAPTER I: POLILITION CONTROL BOARD	VED
3 A		CHAPTERT. TOLLOTION CONTROL DOLLO	FICE
4		PART 611 AUG 0 1 2	006
5		PRIMARY DRINKING WATER STANDARDS STATE OF U.	
7		Pollution Contra	LINUIS NI NUUS
8		SUBPART A: GENERAL	CHARDA
9			
10	Section		
11	611.100	Purpose, Scope, and Applicability	
12	611.101	Definitions	
13	611.102	Incorporations by Reference	
14	611.103	Severability	
15	611.105	Electronic Reporting	
16	611.107	Agency Inspection of PWS Facilities	
17	611.108	Delegation to Local Government	
18	611.109	Enforcement	
19	611.110	Special Exception Permits	
20	611.111	Relief Equivalent to SDWA Section 1415(a) Variances	
21	611.112	Relief Equivalent to SDWA Section 1416 Exemptions	
22	611.113	Alternative Treatment Techniques	
23	611.114	Siting Requirements	
24	611.115	Source Water Quantity	
25	611.120	Effective Dates	
26	611.121	Maximum Contaminant Levels and Finished Water Quality	
27	611.125	Fluoridation Requirement	
28	611.126	Prohibition on Use of Lead	
29	611.130	Special Requirements for Certain Variances and Adjusted Standards	
30	611.131	Relief Equivalent to SDWA Section 1415(e) Small System Variance	
31	611.160	Composite Correction Program	
32			
33		SUBPART B: FILTRATION AND DISINFECTION	
34			
35	Section		
36	611.201	Requiring a Demonstration	
37	611.202	Procedures for Agency Determinations	
38	611.211	Filtration Required	
39	611.212	Groundwater under Direct Influence of Surface Water	
40	611.213	No method of HPC Analysis	
41	611.220	General Requirements	
42	611.230	Futration Effective Dates	
43	611.231	Source Water Quality Conditions	

......

.....

44	611.232	Site-Specific Conditions
45	611.233	Treatment Technique Violations
46	611.240	Disinfection
47	611.241	Unfiltered PWSs
48	611.242	Filtered PWSs
49	611.250	Filtration
50	611.261	Unfiltered PWSs: Reporting and Recordkeeping
51	611.262	Filtered PWSs: Reporting and Recordkeeping
52	611.271	Protection during Repair Work
53	611.272	Disinfection Following Repair
54	611.276	Recycle Provisions
55		
56		SUBPART C: USE OF NON-CENTRALIZED TREATMENT DEVICES
57		
58	Section	
59	611 280	Point-of-Entry Devices
60	611 290	Use of Point-of-Use Devices or Bottled Water
61	011.270	
62		SUBPART D' TREATMENT TECHNIQUES
63		
64	Section	
65	611 295	General Requirements
66	611 296	Acrylamide and Enichlorohydrin
67	611.290	Corrosion Control
68	011.277	Contrainin Control
60		SUBPART F: MAXIMUM CONTAMINANT LEVELS (MCLS) AND
70		MAXIMIM RESIDUAL DISINFECTANT LEVELS (MRDLS)
71		WIAMINIONI REDIDIONE DIDIAT DE TRIAT DE TEED (MICDES)
72	Section	
72	611 300	Old MCLs for Inorganic Chemical Contaminants
71	611 301	Revised MCLs for Inorganic Chemical Contaminants
75	611 310	Old Maximum Contaminant Levels (MCLs) for Organic Chemical Contaminants
76	611 311	Revised MCLs for Organic Chemical Contaminants
70	611 312	Maximum Contaminant Levels (MCLs) for Disinfection Byproducts (DBPs)
70 70	611 313	Maximum Containmant Levels (MCLS) for Disinfection Dyproducts (DDI s)
70	611.220	Turbidity (Denceled)
19	611.320	Microhiological Conteminanta
80	011.323	Microbiological Contaminants Maximum Contaminant Learne for Dedianualides
81	611.330	Maximum Contaminant Levels for Radionuclides
82	011.331	Beta Particle and Photon Radioactivity (Repealed)
83		
84		SUBPART G: LEAD AND COPPER
85	0	
86	Section	

87	611.350	General Requirements		
88	611.351	Applicability of Corrosion Control		
89	611.352	Corrosion Control Treatment		
90	611.353	Source Water Treatment		
91	611.354 Lead Service Line Replacement			
92	611.355 Public Education and Supplemental Monitoring			
93	611.356	Tap Water Monitoring for Lead and Copper		
94	611.357	Monitoring for Water Quality Parameters		
95	611.358	Monitoring for Lead and Copper in Source Water		
96	611.359	Analytical Methods		
97	611.360	Reporting		
98	611.361	Recordkeeping		
99				
100	SUE	SPART I: DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS,		
101		AND DISINFECTION BYPRODUCT PRECURSORS		
102				
103	Section			
104	611.380	General Requirements		
105	611.381	Analytical Requirements		
106	611.382	Monitoring Requirements		
107	611.383	Compliance Requirements		
108	611.384	Reporting and Recordkeeping Requirements		
109	611.385	Treatment Technique for Control of Disinfection Byproduct (DBP) Precursors		
110				
111	SUBI	PART K: GENERAL MONITORING AND ANALYTICAL REQUIREMENTS		
112				
113	Section			
114	611.480	Alternative Analytical Techniques		
115	611.490	Certified Laboratories		
116	611.491	Laboratory Testing Equipment		
117	611.500	Consecutive PWSs		
118	611.510	Special Monitoring for Unregulated Contaminants (Repealed)		
119				
120		SUBPART L: MICROBIOLOGICAL MONITORING		
121		AND ANALYTICAL REQUIREMENTS		
122				
123	Section			
124	611.521	Routine Coliform Monitoring		
125	611.522	Repeat Coliform Monitoring		
126	611.523	Invalidation of Total Coliform Samples		
127	611.524	Sanitary Surveys		
128	611.525	Fecal Coliform and E. Coli Testing		
129	611.526	Analytical Methodology		

130	611.527	Response to Violation
131	611.531	Analytical Requirements
132	611.532	Unfiltered PWSs
133	611.533	Filtered PWSs
134		
135	SUBPA	ART M: TURBIDITY MONITORING AND ANALYTICAL REQUIREMENTS
136		
137	Section	
138	611.560	Turbidity
139		
140	SUBPA	ART N: INORGANIC MONITORING AND ANALYTICAL REQUIREMENTS
141		
142	Section	
143	611.591	Violation of a State MCL
144	611.592	Frequency of State Monitoring
145	611.600	Applicability
146	611.601	Monitoring Frequency
147	611.602	Asbestos Monitoring Frequency
148	611.603	Inorganic Monitoring Frequency
149	611.604	Nitrate Monitoring
150	611.605	Nitrite Monitoring
151	611.606	Confirmation Samples
152	611.607	More Frequent Monitoring and Confirmation Sampling
153	611.608	Additional Optional Monitoring
154	611.609	Determining Compliance
155	611.610	Inorganic Monitoring Times
156	611.611	Inorganic Analysis
157	611.612	Monitoring Requirements for Old Inorganic MCLs
158	611.630	Special Monitoring for Sodium
159	611.631	Special Monitoring for Inorganic Chemicals (Repealed)
160		
161	SUBI	PART O: ORGANIC MONITORING AND ANALYTICAL REQUIREMENTS
162		
163	Section	
164	611.640	Definitions
165	611.641	Old MCLs
166	611.645	Analytical Methods for Organic Chemical Contaminants
167	611.646	Phase I, Phase II, and Phase V Volatile Organic Contaminants
168	611.647	Sampling for Phase I Volatile Organic Contaminants (Repealed)
169	611.648	Phase II, Phase IIB, and Phase V Synthetic Organic Contaminants
170	611.650	Monitoring for 36 Contaminants (Repealed)
171	611.657	Analytical Methods for 36 Contaminants (Repealed)
172	611.658	Special Monitoring for Organic Chemicals (Repealed)

173					
174	SUBPART P: THM MONITORING AND ANALYTICAL REQUIREMENTS				
175					
176	Section				
177	611.680	Sampling, Analytical, and other Requirements			
178	611.683	Reduced Monitoring Frequency (Repealed)			
179	611.684	Averaging (Repealed)			
180	611.685	Analytical Methods			
181	611.686	Modification to System (Repealed)			
182	611.687	Sampling for THM Potential (Repealed)			
183	611.688	Applicability Dates (Repealed)			
184					
185	SUBPA	ART O: RADIOLOGICAL MONITORING AND ANALYTICAL REQUIREMENTS			
186					
187	Section				
188	611.720	Analytical Methods			
189	611.731	Gross Alpha			
190	611.732	Beta Particle and Photon Radioactivity			
191	611.733	General Monitoring and Compliance Requirements			
192					
193		SUBPART R: ENHANCED FILTRATION AND DISINFECTION:			
194		SYSTEMS THAT SERVE 10,000 OR MORE PEOPLE			
195					
196	Section				
197	611.740	General Requirements			
198	611.741	Standards for Avoiding Filtration			
199	611.742	Disinfection Profiling and Benchmarking			
200	611.743	Filtration			
201	611.744	Filtration Sampling Requirements			
202	611.745	Reporting and Recordkeeping Requirements			
203					
204		SUBPART T: REPORTING AND RECORDKEEPING			
205					
206	Section				
207	611.830	Applicability			
208	611.831	Monthly Operating Report			
209	611.832	Notice by Agency (Repealed)			
210	611.833	Cross Connection Reporting			
211	611.840	Reporting			
212	611.851	Reporting MCL, MRDL, and other Violations (Repealed)			
213	611.852	Reporting other Violations (Repealed)			
214	611.853	Notice to New Billing Units (Repealed)			
215	611.854	General Content of Public Notice (Repealed)			

216	611.855	Mandatory Health Effects Language (Repealed)		
217	611.856	Fluoride Notice (Repealed)		
218	611.858	Fluoride Secondary Standard (Repealed)		
219	611.860	Record Maintenance		
220	611.870 List of 36 Contaminants (Repealed)			
221				
222		SUBPART U: CONSUMER CONFIDENCE REPORTS		
223				
224	Section			
225	611.881	Purpose and Applicability		
226	611.882	Compliance Dates		
227	611.883	Content of the Reports		
228	611.884	Required Additional Health Information		
229	611.885	Report Delivery and Recordkeeping		
230				
231	SUB	PART V: PUBLIC NOTIFICATION OF DRINKING WATER VIOLATIONS		
232				
233	Section			
234	611.901	General Public Notification Requirements		
235	611.902	Tier 1 Public Notice: Form, Manner, and Frequency of Notice		
236	611.903	Tier 2 Public Notice: Form, Manner, and Frequency of Notice		
237	611.904	Tier 3 Public Notice: Form, Manner, and Frequency of Notice		
238	611.905	Content of the Public Notice		
239	611.906	Notice to New Billing Units or New Customers		
240	611.907	Special Notice of the Availability of Unregulated Contaminant Monitoring		
241		Results		
242	611.908	Special Notice for Exceedence of the Fluoride Secondary Standard		
243	611.909	Special Notice for Nitrate Exceedences above the MCL by a Non-Community		
244		Water System		
245	611.910	Notice by the Agency on Behalf of a PWS		
246				
247		SUBPART X: ENHANCED FILTRATION AND DISINFECTION –		
248		SYSTEMS SERVING FEWER THAN 10,000 PEOPLE		
249	Section			
250	611.950	General Requirements		
251	611.951	Finished Water Reservoirs		
252	611.952	Additional Watershed Control Requirements for Unfiltered Systems		
253	611.953	Disinfection Profile		
254	611.954	Disinfection Benchmark		
255	611.955	Combined Filter Effluent Turbidity Limits		
256	611.956	Individual Filter Turbidity Requirements		
257	611.957	Reporting and Recordkeeping Requirements		
258				

259	611.APPENDIX A	Regulated Contaminants
260	611.APPENDIX B	Percent Inactivation of G. Lamblia Cysts
261	611.APPENDIX C	Common Names of Organic Chemicals
262	611.APPENDIX D	Defined Substrate Method for the Simultaneous Detection of Total
263		Coliforms and Eschericia Coli from Drinking Water
264	611.APPENDIX E	Mandatory Lead Public Education Information for Community Water
265		Systems
266	611.APPENDIX F	Mandatory Lead Public Education Information for Non-Transient Non-
267		Community Water Systems
268	611.APPENDIX G	NPDWR Violations and Situations Requiring Public Notice
269	611.APPENDIX H	Standard Health Effects Language for Public Notification
270	611.APPENDIX I	Acronyms Used in Public Notification Regulation
271	611.TABLE A	Total Coliform Monitoring Frequency
272	611.TABLE B	Fecal or Total Coliform Density Measurements
273	611.TABLE C	Frequency of RDC Measurement
274	611.TABLE D	Number of Lead and Copper Monitoring Sites
275	611.TABLE E	Lead and Copper Monitoring Start Dates
276	611.TABLE F	Number of Water Quality Parameter Sampling Sites
277	611.TABLE G	Summary of Section 611.357 Monitoring Requirements for Water Quality
278		Parameters
279	611.TABLE Z	Federal Effective Dates
280		
281	AUTHORITY: Impl	ementing Sections 7.2, 17, and 17.5 and authorized by Section 27 of the
282	Environmental Protect	ction Act [415 ILCS 5/7.2, 17, 17.5, and 27].
283		
284	SOURCE: Adopted	in R88-26 at 14 Ill. Reg. 16517, effective September 20, 1990; amended in
285	R90-21 at 14 Ill. Reg	. 20448, effective December 11, 1990; amended in R90-13 at 15 Ill. Reg.
286	1562, effective Janua	ry 22, 1991; amended in R91-3 at 16 Ill. Reg. 19010, effective December 1,
287	1992; amended in R9	2-3 at 17 Ill. Reg. 7796, effective May 18, 1993; amended in R93-1 at 17
288	Ill. Reg. 12650, effec	tive July 23, 1993; amended in R94-4 at 18 Ill. Reg. 12291, effective July
289	28, 1994; amended in	n R94-23 at 19 Ill. Reg. 8613, effective June 20, 1995; amended in R95-17
290	at 20 Ill. Reg. 14493,	effective October 22, 1996; amended in R98-2 at 22 Ill. Reg. 5020,
291	effective March 5, 19	98; amended in R99-6 at 23 Ill. Reg. 2756, effective February 17, 1999;
292	amended in R99-12 a	t 23 Ill. Reg. 10348, effective August 11, 1999; amended in R00-8 at 23 Ill.
293	Reg. 14715, effective	December 8, 1999; amended in R00-10 at 24 Ill. Reg. 14226, effective
294	September 11, 2000;	amended in R01-7 at 25 Ill. Reg. 1329, effective January 11, 2001;
295	amended in R01-20 a	at 25 Ill. Reg. 13611, effective October 9, 2001; amended in R02-5 at 26 Ill.
296	Reg. 3522, effective]	February 22, 2002; amended in R03-4 at 27 Ill. Reg. 1183, effective January
297	10, 2003; amended in	R03-15 at 27 Ill. Reg. 16447, effective October 10, 2003; amended in
298	R04-3 at 28 Ill. Reg.	5269, effective March 10, 2004; amended in R04-13 at 28 Ill. Reg. 12666,
299	effective August 26, 2	2004; amended in R05-6 at 29 Ill. Reg. 2287, effective January 28, 2005;
300	amended in R06-15 a	t 30 Ill. Reg, effective
301		

302 303		SUBPART A: GENERAL
304 205	Section 611.1	102 Incorporations by Reference
305 306 307 308 309	a)	Abbreviations and short-name listing of references. The following names and abbreviated names, presented in alphabetical order, are used in this Part to refer to materials incorporated by reference:
310 311		"Amco-AEPA-1 Polymer" is available from Advanced Polymer Systems.
312 313		"ASTM Method" means a method published by and available from the American Society for Testing and Materials (ASTM).
314 315 316 317 318		"Colisure Test" means "Colisure Presence/Absence Test for Detection and Identification of Coliform Bacteria and Escherichia Coli in Drinking Water," available from Millipore Corporation, Technical Services Department.
319 320 321 322		"Colitag® Test" means "Colitag® Product as a Test for Detection and Identification of Coliforms and E. coli Bacteria in Drinking Water and Source Water as Required in National Primary Drinking Water
323 324 325		Regulations," available from CPI International. "Dioxin and Furan Method 1613" means "Tetra- through Octa-Chlorinated
326 327 328		Dioxins and Furans by Isotope-Dilution HRGC/HRMS," available from NTIS.
329 330		"GLI Method 2" means GLI Method 2, "Turbidity," Nov. 2, 1992, available from Great Lakes Instruments, Inc.
332 333		"Hach FilterTrak Method 10133" means "Determination of Turbidity by Laser Nephelometry," available from Hach Co.
334 335 336 337		"HASL Procedure Manual" means HASL Procedure Manual, HASL 300, available from ERDA Health and Safety Laboratory.
338 339		"Kelada 01" means "Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001,
340 341 342		EPA #821-B-01-009, available from the National Technical Information Service (NTIS).
343 344		"Membrane Filter Technique using Chromocult Doliform Agar" means "Chromocult Coliform Agar Presence/Absence Membrane Filter Test

345	Method for Detection and Identification of Coliform Bacteria and
346	Escherichia coli in Finished Waters " available from FMD Chemicals Inc.
340	Escherichild con hir i mistica (radis, arandole nom Emp chemicals no.
348	"NCRP" means "National Council on Radiation Protection "
349	
350	"NTIS" means "National Technical Information Service."
351	
352	"New Jersey Radium Method" means "Determination of Radium 228 in
353	Drinking Water " available from the New Jersey Department of
354	Environmental Protection
355	
356	"New York Radium Method" means "Determination of Ra-226 and Ra-
357	278 (Ra-02) " available from the New York Department of Public Health
358	$\sum (((a \circ b)), a vanable nom merten von bepartment of value nomentation.$
359	"ONGP-MUG Test" (meaning "minimal medium ortho-nitronhenyl-beta-
360	d-galactopyranoside-4-methyl-umbelliferyl-beta-d-glucuronide test")
361	also called the "Autoanalysis Colilert System" is Method 9223 available
367	in "Standard Methods for the Examination of Water and Wastewater" 18 th
363	ed from American Public Health Association
364	
365	"Palintest Method 1001" means "Method Number 1001 " available from
366	Palintest Ltd or the Hach Company
367	Tannesi, E.u. of the Hach Company.
368	"Ouil Chem Method 10.204.00.1.X" means "Digestion and distillation of
260	total eventide in drinking and wastewaters using MICPO DIST and
309	determination of evanide by flow injection analysis " available from
271	L schot Instruments
272	Lachat mistruments.
372	"Readyoult Coliforms 100 Presence/Absence Test" means "Readyoult
373	Coliforms 100 Presence/Absence Test for Detection and Identification of
275	Coliform Basteria and Escherichia cali in Finished Waters " available
275	from FMD Chemicals Inc.
370 277	HOIR END CHEMICAIS INC.
278	"Simplote Method" means "IDEVY Simplote TM HPC Test Method for
270	Ustorotrophe in Water " available from IDEXX I aboratorise. Inc.
390	Helefoliophis in water, available from iDEXX Eaboratories, inc.
300	"Padiachemical Methods" means "Interim Radiachemical Methodology
201	for Drinking Water " quailable from NTIS
202	for Dinking water, available noin 10115.
JOJ 204	"Standard Mathada" means "Standard Mathada for the Examination of
204 205	Blaintain Montennous inclains Standard Methods for the Examination of
30J 202	Water and Wastewater, available non internation
380 207	Association of the American waterworks Association.
381	

-

388	"Syngenta AG-625" means "Atrazine in Drinking Water by
389	Immunoassay," February 2001 is available from Syngenta Crop
390	Protection, Inc.
391	
392	"Technical Bulletin 601" means "Technical Bulletin 601 Standard
393	Method of Testing for Nitrate in Drinking Water " July 1994 available
394	from Analytical Technology Inc
395	nom i marjubar i comorogy, me.
396	"Technicon Methods" means "Fluoride in Water and Wastewater "
397	available from Bran & Luebbe
398	
399	"USDOF Manual" means "EMI Procedures Manual " evoluble from the
400	United State Department of Energy
401	Onited State Department of Energy.
402	"USEDA Ashestes Methods 100.1" means Method 100.1. "As at at a
403	Mothod for Determination of Anhanton Eilans in Weter "Contact Incore
404	available from NTTS
405	avanable from NTIS.
405	ITISEDA Ashartan Matheda 100 Ollar and Matheda 1100 Ollar
400	OSEPA Asbestos Methods-100.2" means Method 100.2, "Determination
407	of Asbestos Structures over 10-mm in Length in Drinking Water," June
408	1994, available from NTIS.
409	
410	"USEPA Environmental Inorganics Methods" means "Methods for the
411	Determination of Inorganic Substances in Environmental Samples,"
412	August 1993, available from NTIS.
413	
414	"USEPA Environmental Metals Methods" means "Methods for the
415	Determination of Metals in Environmental Samples," available from
416	NTIS.
417	
418	"USEPA Inorganic Methods" means "Methods for Chemical Analysis of
419	Water and Wastes," March 1983, available from NTIS.
420	
421	"USEPA Interim Radiochemical Methods" means "Interim Radiochemical
422	Methodology for Drinking Water," EPA 600/4-75-008 (revised), March
423	1976. Available from NTIS.
424	
425	"USEPA Organic Methods" means "Methods for the Determination of
426	Organic Compounds in Drinking Water," July 1991, for Methods 502.2,
427	505, 507, 508, 508A, 515.1, and 531.1; "Methods for the Determination of
428	Organic Compounds in Drinking Water – Supplement I," July 1990, for
429	Methods 506, 547, 550, 550.1, and 551; and "Methods for the
430	Determination of Organic Compounds in Drinking Water – Supplement

431		II," August 1992, for Methods 515.2, 524.2, 548.1, 549.1, 552.1, and 555,
432		available from NTIS. Methods 504.1, 508.1, and 525.2 are available from
433		EPA EMSL; "Methods for the Determination of Organic Compounds" in
434		Drinking Water - Supplement II, August 1992, for Method 552.1;
435		"Methods for the Determination of Organic Compounds in Drinking
436		Water – Supplement III." August 1995, for Methods 502.2, 524.2, 551.1.
437		and 552.2. Method 515.4. "Determination of Chlorinated Acids in
438		Drinking Water by Liquid-Liquid Microextraction. Derivatization and Fast
439		Gas Chromatography with Electron Capture Detection " Revision 1.0
440		April 2000, EPA 815/B-00/001, and Method 531.2. "Measurement of N-
441		methylcarbamovloximes and N-methylcarbamates in Water by Direct
442		Aqueous Injection HPLC with Postcolumn Derivatization "Revision 1.0
443		September 2001, EPA 815/B/01/002 are both available on-line from
444		USEPA. Office of Ground Water and Drinking Water.
445		
446		"USEPA Radioactivity Methods" means "Prescribed Procedures for
447		Measurement of Radioactivity in Drinking Water "FPA 600/4-80-032
448		August 1980. Available from NTIS
449		
450		"USEPA Radiochemical Analyses" means "Radiochemical Analytical
451		Procedures for Analysis of Environmental Samples "March 1979
452		Available from NTIS
452		
453		"USEPA Radiochemistry Methods" means "Radiochemistry Procedures
455		Manual " EPA 520/5-84-006 December 1987 Available from NTIS
456		Manual, LIA 520/5-04-000, December 1967. Available from 14115.
457		"USEPA Technical Notes" means "Technical Notes on Drinking Water
458		Methods " available from NTIS
450		
457		"USGS Methods" means "Methods of Analysis by the U.S. Geological
461		Survey National Water Quality Laboratory - Determination of Inorganic
462		and Organic Constituents in Water and Fluxial Sediments " available from
462		NTIS and USGS
464		1115 and 0505.
465		"Waters Method B 1011" means "Waters Test Method for the
403		Waters Method B-1011 Inteals Waters Test Method for the
400		Chromatography " available from Waters Corneration, Technical Services
407		Division
400		
407	b)	The Deard incomposites the following publications have foreness
470	0)	The board incorporates the following publications by reference:
4/1		Advanced Delemen Sectores 2606 Harris Assessed Other OA
4/2		Advanced Polymer Systems, 3696 Haven Avenue, Redwood City, CA
4/3		94003 415-306-2626.

474	
475	Amco-AEPA-1 Polymer. See 40 CFR 141.22(a) (2005)(2003).
476	Also, as referenced in ASTM D1889.
477	
478	American Public Health Association, 1015 Fifteenth Street NW,
479	Washington, DC 20005 800-645-5476.
480	
481	"Standard Methods for the Examination of Water and
482	Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods,
483	17^{th} ed.").
484	,
485	"Standard Methods for the Examination of Water and
486	Wastewater," 18 th Edition, 1992, including "Supplement to the 18 th
487	Edition of Standard Methods for the Examination of Water and
488	Wastewater," 1994 (collectively referred to as "Standard Methods,
489	18 th ed."). See the methods listed separately for the same
490	references under American Waterworks Association.
491	
492	"Standard Methods for the Examination of Water and
493	Wastewater," 19 th Edition, 1995 (referred to as "Standard
494	Methods, 19 th ed.").
495	
496	"Standard Methods for the Examination of Water and
497	Wastewater," 20 th Edition, 1998 (referred to as "Standard Methods,
498	20^{th} ed.").
499	
500	American Waterworks Association et al., 6666 West Quincy Ave.,
501	Denver, CO 80235 303-794-7711.
502	
503	"National Field Evaluation of a Defined Substrate Method for the
504	Simultaneous Enumeration of Total Coliforms and Escherichia coli
505	for Drinking Water: Comparison with the Standard Multiple Tube
506	Fermentation Method," S.C. Edberg, M.J. Allen & D.B. Smith,
507	Applied Environmental Microbiology, vol. 54, iss. 6, pp 1595-
508	1601 (1988).
509	
510	"Standard Methods for the Examination of Water and
511	Wastewater," 13 th Edition, 1971 (referred to as "Standard Methods,
512	13^{m} ed.").
513	
514	Method 302, Gross Alpha and Gross Beta Radioactivity in
515	Water (Total, Suspended, and Dissolved).
516	

519 520 Method 304, Radium in Water by Precipitation. 521 Suspended, and Total). 523 Suspended, and Total). 524 Suspended, and Total). 525 Method 306, Tritium in Water. 526 "Standard Methods for the Examination of Water and 528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 529 17 th ed."). 531 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 532 in Water (Total, Suspended, and Dissolved). 533 Method 7500-Cs B, Radioactive Cesium, Precipitation 534 Method 7500-I B, Radioactive Cesium, Precipitation 535 Method 7500-I B, Radioactive Iodine, Precipitation 540 Method 7500-I C, Radioactive Iodine, Ion-Exchange 541 Method 7500-I D, Radioactive Iodine, Distillation Method. 542 Method 7500-I D, Radioactive Iodine, Distillation Method. 543 Method 7500-Ra B, Radium in Water ty Precipitation. 544 Method 7500-Ra C, Radium 26 by Radon in Water 545 Method 7500-Ra D, Radium, Sequential Precipitation. 546 Method 7500-Sr B, Total Radioactive Strontium and 555 <td< th=""><th>517 518</th><th>Method 303, Total Radioactive Strontium and Strontium 90 in Water.</th></td<>	517 518	Method 303, Total Radioactive Strontium and Strontium 90 in Water.
520 Method 304, Radium in Water by Precipitation. 521 Method 305, Radium 226 by Radon in Water (Soluble, 523 Suspended, and Total). 524 Method 306, Tritium in Water. 525 Method 306, Tritium in Water. 526 "Standard Methods for the Examination of Water and 527 "Standard Methods for the Examination of Water and 528 Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 529 17th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 533 Method 7500-I S, Radioactive Cesium, Precipitation 534 Method 7500-I B, Radioactive Iodine, Precipitation 535 Method 7500-I C, Radioactive Iodine, Ion-Exchange 541 Method 7500-I D, Radioactive Iodine, Distillation Method. 542 Method 7500-I D, Radioactive Iodine, Distillation Method. 543 Method 7500-I D, Radioactive Iodine, Distillation Method. 544 Standard Method 7500-I D, Radioactive Iodine, Distillation Method. 545 Method 7500-Ra B, Radium in Water by Precipitation. 546 Method 7500-Ra D, Radium 226 by Radon in Water	519	
521 522 Method 305, Radium 226 by Radon in Water (Soluble, 523 Suspended, and Total). 524 Method 306, Tritium in Water. 525 Method 306, Tritium in Water. 526 "Standard Methods for the Examination of Water and 527 "Standard Methods for the Examination of Water and 528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 529 17 th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 532 Method 7500-B, Radioactive Cesium, Precipitation 533 Method 7500-B, Radioactive Iodine, Precipitation 540 Method 7500-I B, Radioactive Iodine, Ion-Exchange 541 Method 7500-I D, Radioactive Iodine, Ion-Exchange 542 Method 7500-I D, Radioactive Iodine, Distillation Method. 543 Method 7500-Ra B, Radium in Water by Precipitation. 544 Method 7500-Ra D, Radium, Sequential Precipitation. 545 Method 7500-Ra D, Radium, Sequential Precipitation 546 Method 7500-Sr B, Total Radioactive Strontium and 555 Method 7500-U B, Uranium, Radiochemical Method	520	Method 304, Radium in Water by Precipitation.
522 Method 305, Radium 226 by Radon in Water (Soluble, 523 Suspended, and Total). 524 Suspended, and Total). 525 Method 306, Tritium in Water. 526 "Standard Methods for the Examination of Water and 528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 529 17 th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 533 Method 7500-3 ^T H B, Tritium in Water. 536 Method 7500-1 B, Radioactive Iodine, Precipitation 540 Method 7500-1 C, Radioactive Iodine, Ion-Exchange 541 Method 7500-1 D, Radioactive Iodine, Ion-Exchange 542 Method 7500-I D, Radioactive Iodine, Ion-Exchange 543 Method 7500-Ra B, Radium in Water by Precipitation. 544 Method 7500-Ra D, Radium in Water by Precipitation. 545 Method 7500-Ra D, Radium, Sequential Precipitation. 546 Method 7500-Ra D, Radium, Sequential Precipitation. 547 Method 7500-Ra D, Radium, Sequential Precipitation. 548 Method 7500-VB B, Urailum, Radioactive Strontium and 555 Method 7500-UB	521	
523 Suspended, and Total). 524 Method 306, Tritium in Water. 526 "Standard Methods for the Examination of Water and 527 "Standard Methods for the Examination of Water and 528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 529 17 th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 533 Method 7500-3H B, Tritium in Water. 536 Method 7500-1B, Radioactive Iodine, Precipitation 539 Method 7500-1 C, Radioactive Iodine, Ion-Exchange 541 Method 7500-1 D, Radioactive Iodine, Distillation Method. 542 Method 7500-1 D, Radioactive Iodine, Distillation Method. 543 Method 7500-8 B, Radium in Water by Precipitation. 544 Method 7500-8 B, Radium in Water by Precipitation. 545 Method 7500-8 B, Radium in Water by Precipitation. 546 Standard 7500-8 B, Radium, Sequential Precipitation. 547 Method 7500-8 D, Radium, Sequential Precipitation. 548 Standard 7500-8 D, Radium, Sequential Precipitation. 551 Method 7500-8 B, Total Radioactive Strontium and <t< td=""><td>522</td><td>Method 305, Radium 226 by Radon in Water (Soluble,</td></t<>	522	Method 305, Radium 226 by Radon in Water (Soluble,
524 525 Method 306, Tritium in Water. 526 527 "Standard Methods for the Examination of Water and 528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 529 17 th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 533 Method 7500-Cs B, Radioactive Cesium, Precipitation 534 Method 7500- ³ H B, Tritium in Water. 535 Method 7500-I B, Radioactive Iodine, Precipitation 540 Method 7500-I C, Radioactive Iodine, Ion-Exchange 541 Method 7500-I D, Radioactive Iodine, Ion-Exchange 542 Method 7500-I D, Radioactive Iodine, Distillation Method. 544 Method 7500-Ra B, Radium in Water by Precipitation. 545 Method 7500-Ra C, Radium 226 by Radon in Water 546 (Soluble, Suspended, and Total). 551 Method 7500-Sr B, Total Radioactive Strontium and 552 Method 7500-Sr B, Total Radioactive Strontium and 553 Method 7500-U B, Uranium, Radiochemical Method 553 Method 7500-U B, Uranium, Radiochemical Method	523	Suspended, and Total).
525 Method 306, Tritium in Water. 526 "Standard Methods for the Examination of Water and 528 Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 529 17th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 533 Method 7500-Cs B, Radioactive Cesium, Precipitation 534 Method 7500-I B, Radioactive Iodine, Precipitation 535 Method 7500-I B, Radioactive Iodine, Ion-Exchange 541 Method 7500-I D, Radioactive Iodine, Ion-Exchange 542 Method 7500-I D, Radioactive Iodine, Distillation Method. 543 Method 7500-I D, Radioactive Iodine, Distillation Method. 544 Method 7500-I D, Radioactive Iodine, Distillation Method. 545 Method 7500-I D, Radioactive Iodine, Distillation Method. 546 Method 7500-Ra B, Radium in Water by Precipitation. 547 Method 7500-Ra C, Radium 226 by Radon in Water 550 (Soluble, Suspended, and Total). 551 Method 7500-Sr B, Total Radioactive Strontium and 552 Method 7500-Sr B, Total Radioactive Strontium and 556 Strontium 90 in Water. <	524	
526 "Standard Methods for the Examination of Water and 527 "Standard Methods for the Examination of Water and 528 Wastewater," 17th Edition, 1989 (referred to as "Standard Methods, 17th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved). 531 Method 7500-Cs B, Radioactive Cesium, Precipitation Method. 535 Method 7500-I B, Radioactive Cesium, Precipitation Method. 536 Method 7500-I B, Radioactive Iodine, Precipitation Method. 541 Method 7500-I C, Radioactive Iodine, Ion-Exchange Method. 542 Method 7500-I D, Radioactive Iodine, Ion-Exchange Method. 544 Method 7500-I D, Radioactive Iodine, Distillation Method. 545 Method 7500-I D, Radioactive Iodine, Distillation Method. 546 Method 7500-Ra B, Radium in Water by Precipitation. 547 Method 7500-Ra C, Radium 226 by Radon in Water (Soluble, Suspended, and Total). 551 Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed). 552 Method 7500-Sr B, Total Radioactive Strontium and Strontium 90 in Water. 553 Method 7500-U B, Uranium, Radiochemical Method 7500-U B, Uranium, Radiochemical Method 7509-U B, Uranium Radiochemi	525	Method 306, Tritium in Water.
527 "Standard Methods for the Examination of Water and 528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 529 17 th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity 531 Method 7500-Cs B, Radioactive Cesium, Precipitation 535 Method. 536 Method 7500-Cs B, Radioactive Cesium, Precipitation 537 Method 7500-JH B, Tritium in Water. 538 1000 539 Method 7500-JH B, Radioactive Iodine, Precipitation 540 Method. 541 1000 542 Method 7500-I D, Radioactive Iodine, Ion-Exchange 543 Method. 544 1000 545 Method 7500-I D, Radioactive Iodine, Distillation Method. 546 1000 547 Method 7500-I D, Radioactive Iodine, Distillation. 548 1000 549 Method 7500-Ra C, Radium in Water by Precipitation. 548 1000 550 (Soluble, Suspended, and Total). 551 1000 552 Method 7500-Sr B, Total Radioactive Strontium and 556	526	
528 Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods, 17 th ed."). 530 17 th ed."). 530 Method 7110 B, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved). 533 Method 7500-Cs B, Radioactive Cesium, Precipitation Method. 536 Method 7500-I B, Radioactive Cesium, Precipitation Method. 537 Method 7500-I B, Radioactive Iodine, Precipitation Method. 540 Method 7500-I D, Radioactive Iodine, Ion-Exchange Method. 541 Method 7500-I D, Radioactive Iodine, Ion-Exchange Method. 542 Method 7500-I D, Radioactive Iodine, Distillation Method. 543 Method 7500-I D, Radioactive Iodine, Distillation Method. 544 Method 7500-Ra B, Radium in Water by Precipitation. 545 Method 7500-Ra C, Radium 226 by Radon in Water 550 (Soluble, Suspended, and Total). 551 Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed). 554 Method 7500-Sr B, Total Radioactive Strontium and S56 555 Method 7500-U B, Uranium, Radiochemical Method (Proposed).	527	"Standard Methods for the Examination of Water and
52917 th ed.").530Method 7110 B, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved).533in Water (Total, Suspended, and Dissolved).534Method 7500-Cs B, Radioactive Cesium, Precipitation Method.535Method 7500-3 ¹ H B, Tritium in Water.5381000-3 ¹ H B, Tritium in Water.539Method 7500-1 B, Radioactive Iodine, Precipitation Method.5411000000000000000000000000000000000000	528	Wastewater," 17 th Edition, 1989 (referred to as "Standard Methods,
530531Method 7110 B, Gross Alpha and Gross Beta Radioactivity532in Water (Total, Suspended, and Dissolved).533State (Total, Suspended, and Dissolved).534Method 7500-Cs B, Radioactive Cesium, Precipitation535Method 7500-3H B, Tritium in Water.536State (Total, Suspended, and Dissolved).537Method 7500-1 B, Radioactive Cesium, Precipitation548Method 7500-1 B, Radioactive Iodine, Precipitation549Method 7500-1 C, Radioactive Iodine, Ion-Exchange544Method544Method 7500-1 D, Radioactive Iodine, Distillation Method.545Method 7500-1 D, Radioactive Iodine, Distillation Method.546State (Soluble, Suspended, and Total).551Method 7500-Ra D, Radium, Sequential Precipitation.554Method 7500-Sr B, Total Radioactive Strontium and556Method 7500-Sr B, Total Radioactive Strontium and556Method 7500-U B, Uranium, Radiochemical Method559Method 7500-U B, Uranium, Radiochemical Method	529	17 th ed.").
531Method 7110 B, Gross Alpha and Gross Beta Radioactivity in Water (Total, Suspended, and Dissolved).533in Water (Total, Suspended, and Dissolved).534Method 7500-Cs B, Radioactive Cesium, Precipitation Method.536Method 7500- ³ H B, Tritium in Water.538Method 7500-I B, Radioactive Iodine, Precipitation Method.540Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.541Method 7500-I C, Radioactive Iodine, Ion-Exchange Method.542Method 7500-I D, Radioactive Iodine, Distillation Method.544Method 7500-Ra B, Radium in Water by Precipitation.545Method 7500-Ra B, Radium in Water by Precipitation.546Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551Method 7500-Ra D, Radium, Sequential Precipitation553Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557Method 7500-U B, Uranium, Radiochemical Method559Method 7500-U B, Uranium, Radiochemical Method	530	
 in Water (Total, Suspended, and Dissolved). in Water (Total, Suspended, and Dissolved). Method 7500-Cs B, Radioactive Cesium, Precipitation Method. Method 7500-³H B, Tritium in Water. Method 7500-I B, Radioactive Iodine, Precipitation Method. Method. Method. Method 7500-I C, Radioactive Iodine, Ion-Exchange Method. Meth	531	Method 7110 B, Gross Alpha and Gross Beta Radioactivity
533Method 7500-Cs B, Radioactive Cesium, Precipitation535Method.536	532	in Water (Total, Suspended, and Dissolved).
534Method 7500-Cs B, Radioactive Cesium, Precipitation535Method.536	533	
535Method.536Method 7500- ³ H B, Tritium in Water.538Method 7500-I B, Radioactive Iodine, Precipitation540Method.541Method 7500-I C, Radioactive Iodine, Ion-Exchange543Method.544Method 7500-I D, Radioactive Iodine, Distillation Method.545Method 7500-I D, Radioactive Iodine, Distillation Method.546Method 7500-Ra B, Radium in Water by Precipitation.547Method 7500-Ra B, Radium in Water by Precipitation.548Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551Method 7500-Sr B, Total Radioactive Strontium and556Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557Method 7500-U B, Uranium, Radiochemical Method559Method 7500-U B, Uranium, Radiochemical Method	534	Method 7500-Cs B, Radioactive Cesium, Precipitation
536Method 7500-3H B, Tritium in Water.5389539Method 7500-I B, Radioactive Iodine, Precipitation540Method.5419542Method 7500-I C, Radioactive Iodine, Ion-Exchange543Method.5449545Method 7500-I D, Radioactive Iodine, Distillation Method.5469547Method 7500-Ra B, Radium in Water by Precipitation.5489550955195529553955495559556955795589559969559955995509550955195519552955395549555956957958959955995509550955095509551955195529553955495559569579589599559559559559559559 <td< td=""><td>535</td><td>Method.</td></td<>	535	Method.
 Method 7500-³H B, Tritium in Water. Method 7500-I B, Radioactive Iodine, Precipitation Method 7500-I B, Radioactive Iodine, Ion-Exchange Method 7500-I C, Radioactive Iodine, Ion-Exchange Method. Method 7500-I D, Radioactive Iodine, Distillation Method. Method 7500-I D, Radioactive Iodine, Distillation Method. Method 7500-Ra B, Radium in Water by Precipitation. Method 7500-Ra C, Radium 226 by Radon in Water (Soluble, Suspended, and Total). Method 7500-Ra D, Radium, Sequential Precipitation Method 7500-Sr B, Total Radioactive Strontium and Strontium 90 in Water. Method 7500-U B, Uranium, Radiochemical Method (Proposed). 	536	
538539Method 7500-I B, Radioactive Iodine, Precipitation540Method.541	537	Method 7500- ³ H B, Tritium in Water.
539Method 7500-I B, Radioactive Iodine, Precipitation540Method.541542542Method 7500-I C, Radioactive Iodine, Ion-Exchange543Method.544545545Method 7500-I D, Radioactive Iodine, Distillation Method.546547547Method 7500-Ra B, Radium in Water by Precipitation.548549549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551552553Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558559Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	538	
540Method.541542Method 7500-I C, Radioactive Iodine, Ion-Exchange543Method.544545Method 7500-I D, Radioactive Iodine, Distillation Method.546547Method 7500-Ra B, Radium in Water by Precipitation.548549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551552Method 7500-Ra D, Radium, Sequential Precipitation553Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557Strontium 90 in Water.558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	539	Method 7500-I B, Radioactive Iodine, Precipitation
541542Method 7500-I C, Radioactive Iodine, Ion-Exchange543Method.544545545Method 7500-I D, Radioactive Iodine, Distillation Method.546547547Method 7500-Ra B, Radium in Water by Precipitation.548549549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551551552Method 7500-Ra D, Radium, Sequential Precipitation553Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	540	Method.
542Method 7500-I C, Radioactive Iodine, Ion-Exchange543Method.544545545Method 7500-I D, Radioactive Iodine, Distillation Method.546	541	
543Method.544545545546547548549549550551552553554555556557558558Method 7500-U B, Uranium, Radiochemical Method559	542	Method 7500-I C, Radioactive Iodine, Ion-Exchange
 544 545 Method 7500-I D, Radioactive Iodine, Distillation Method. 546 547 Method 7500-Ra B, Radium in Water by Precipitation. 548 549 Method 7500-Ra C, Radium 226 by Radon in Water 550 (Soluble, Suspended, and Total). 551 552 Method 7500-Ra D, Radium, Sequential Precipitation 553 Method 7500-Sr B, Total Radioactive Strontium and 556 Strontium 90 in Water. 557 558 Method 7500-U B, Uranium, Radiochemical Method 559 (Proposed). 	543	Method.
545Method 7500-I D, Radioactive Iodine, Distillation Method.546547Method 7500-Ra B, Radium in Water by Precipitation.548549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551552Method 7500-Ra D, Radium, Sequential Precipitation553Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	544	
546547Method 7500-Ra B, Radium in Water by Precipitation.548549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551552Method 7500-Ra D, Radium, Sequential Precipitation553Method (Proposed).554555Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	545	Method 7500-I D, Radioactive Iodine, Distillation Method.
547Method 7500-Ra B, Radium in Water by Precipitation.548549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551552Method 7500-Ra D, Radium, Sequential Precipitation553Method (Proposed).554555Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	546	
548549549550550551552552553554555556556557558558Method 7500-U B, Uranium, Radiochemical Method559	547	Method 7500-Ra B, Radium in Water by Precipitation.
549Method 7500-Ra C, Radium 226 by Radon in Water550(Soluble, Suspended, and Total).551552552Method 7500-Ra D, Radium, Sequential Precipitation553Method (Proposed).554555555Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	548	
 (Soluble, Suspended, and Total). Method 7500-Ra D, Radium, Sequential Precipitation Method (Proposed). Method 7500-Sr B, Total Radioactive Strontium and Strontium 90 in Water. Method 7500-U B, Uranium, Radiochemical Method (Proposed). 	549	Method 7500-Ra C, Radium 226 by Radon in Water
 551 552 Method 7500-Ra D, Radium, Sequential Precipitation 553 Method (Proposed). 554 555 Method 7500-Sr B, Total Radioactive Strontium and 556 Strontium 90 in Water. 557 558 Method 7500-U B, Uranium, Radiochemical Method 559 (Proposed). 	550	(Soluble, Suspended, and Total).
552Method 7500-Ra D, Radium, Sequential Precipitation553Method (Proposed).554555555Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	551	
553Method (Proposed).554555555556557558558559Method 7500-U B, Uranium, Radiochemical Method559	552	Method 7500-Ra D, Radium, Sequential Precipitation
554555556557558559Method 7500-U B, Uranium, Radiochemical Method559	553	Method (Proposed).
555Method 7500-Sr B, Total Radioactive Strontium and556Strontium 90 in Water.557558558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	554	
556Strontium 90 in Water.557558558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	555	Method 7500-Sr B, Total Radioactive Strontium and
557558559Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	556	Strontium 90 in Water.
558Method 7500-U B, Uranium, Radiochemical Method559(Proposed).	557	
559 (Proposed).	558	Method 7500-U B, Uranium, Radiochemical Method
	559	(Proposed).

560	
561	Method 7500-U C, Uranium, Isotopic Method (Proposed).
562	
563	"Standard Methods for the Examination of Water and
564	Wastewater," 18 th Edition, 1992 (referred to as "Standard Methods,
565	18 th ed.").
566	
567	Method 2130 B, Turbidity, Nephelometric Method.
568	
569	Method 2320 B, Alkalinity, Titration Method.
570	
571	Method 2510 B, Conductivity, Laboratory Method.
572	
573	Method 2550, Temperature, Laboratory and Field Methods.
574	
575	Method 3111 B, Metals by Flame Atomic Absorption
576	Spectrometry, Direct Air-Acetylene Flame Method.
577	
578	Method 3111 D, Metals by Flame Atomic Absorption
579	Spectrometry, Direct Nitrous Oxide-Acetylene Flame
580	Method.
581	
582	Method 3112 B, Metals by Cold-Vapor Atomic Absorption
583	Spectrometry, Cold-Vapor Atomic Absorption
584	Spectrometric Method.
585	
586	Method 3113 B, Metals by Electrothermal Atomic
587	Absorption Spectrometry, Electrothermal Atomic
588	Absorption Spectrometric Method.
589	
590	Method 3114 B, Metals by Hydride Generation/Atomic
591	Absorption Spectrometry, Manual Hydride
592	Generation/Atomic Absorption Spectrometric Method.
593	
594	Method 3120 B, Metals by Plasma Emission Spectroscopy,
595	Inductively Coupled Plasma (ICP) Method.
596	
597	Method 3500-Ca D, Calcium, EDTA Titrimetric Method.
598	
5 9 9	Method 3500-Mg E, Magnesium, Calculation Method.
60U	
601	Method 4110 B, Determination of Anions by Ion
602	Chromatography, Ion Unromatography with Chemical

~ ~ ~

603 604	Suppression of Eluent Conductivity.
605	Mathad 4500 CN C. Cuanide Total Cuanide after
606	Distillation
607	Distination.
608	Method 4500-CN ⁻ E. Cyanide, Colorimetric Method
609	Weinder 4500-erv E, Cyande, Colormiente Method.
610	Method 4500-CN [•] F Cyanide Cyanide-Selective Electrode
611	Method
612	14101104.
613	Method 4500-CN ⁻ G. Cvanide, Cvanides Amenable to
614	Chlorination after Distillation
615	
616	Method 4500-Cl D. Chlorine, Amperometric Titration
617	Method.
618	
619	Method 4500-Cl E, Chlorine, Low-Level Amperometric
620	Titration Method.
621	
622	Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric
623	Method.
624	
625	Method 4500-Cl G, Chlorine, DPD Colorimetric Method.
626	
627	Method 4500-Cl H, Chlorine, Syringaldazine (FACTS)
628	Method.
629	
630	Method 4500-Cl I, Chlorine, Iodometric Electrode Method.
631	
632	Method 4500-ClO ₂ C, Chlorine Dioxide, Amperometric
633	Method I.
634	
635	Method 4500 -ClO ₂ D, Chlorine Dioxide, DPD Method.
636	
637	Method 4500 -ClO ₂ E, Chlorine Dioxide, Amperometric
638	Method II (Proposed).
639	
640	Method 4500-F B, Fluoride, Preliminary Distillation Step.
641	
642	Method 4500-F C, Fluoride, Ion-Selective Electrode
643	Method.
644	
645	Method 4500-F D, Fluoride, SPADNS Method.

646	
647	Method 4500-F E, Fluoride, Complexone Method.
648	
649	Method 4500-H ⁺ B, pH Value, Electrometric Method.
650	
651	Method 4500 -NO ₂ B, Nitrogen (Nitrite), Colorimetric
652	Method.
653	
654	Method 4500-NO ₃ ⁻ D, Nitrogen (Nitrate), Nitrate Electrode
655	Method.
656	
657	Method 4500-NO ₃ E, Nitrogen (Nitrate), Cadmium
658	Reduction Method.
659	
660	Method 4500-NO ₃ F, Nitrogen (Nitrate), Automated
661	Cadmium Reduction Method.
662	Mathed 4500 O. D. Orana (Desidual) (Dranaged) Indige
663	Method $4500-O_3$ B, Ozone (Residual) (Proposed), Indigo
665	Colonmetric Method.
666	Mothed 4500 B.E. Bheenhorus, Assorbia Asid Method
000 667	Method 4500-F E, Fliosphorus, Ascorote Acta Method.
669	Method 4500 P.F. Phoenhorus, Automated Ascorbic Acid
660	Reduction Method
670	Reduction Method.
671	Method 4500-Si D. Silica, Molybdosilicate Method
672	Memod 4500-51 D, Shiea, Morybuoshieate Memod.
673	Method 4500-Si E. Silica, Heteropoly Blue Method.
674	Method 4500 Bi E, Bhieu, Heteropoly Elde Method.
675	Method 4500-Si F. Silica, Automated Method for
676	Molybdate-Reactive Silica.
677	
678	Method 6651, Glyphosate Herbicide (Proposed).
679	
680	Method 7110 B, Gross Alpha and Beta Radioactivity
681	(Total, Suspended, and Dissolved), Evaporation Method for
682	Gross Alpha-Beta.
683	•
684	Method 7110 C, Gross Alpha and Beta Radioactivity
685	(Total, Suspended, and Dissolved), Coprecipitation Method
686	for Gross Alpha Radioactivity in Drinking Water
687	(Proposed).
688	
687 688	(Proposed).

-

689 690	Method 7500-Cs B, Radioactive Cesium, Precipitation Method.
691	
692	Method 7500-3 H B, Tritium, Liquid Scintillation
693	Spectrometric Method.
694	
695	Method 7500-I B, Radioactive Iodine, Precipitation
696	Method.
697	
698	Method 7500-I C, Radioactive Iodine, Ion-Exchange
699	Method.
700	
701	Method 7500-I D, Radioactive Iodine, Distillation Method.
702	
703	Method 7500-Ra B, Radium, Precipitation Method.
704	
705	Method 7500-Ra C, Radium, Emanation Method.
706	
707	Method 7500-Ra D, Radium, Sequential Precipitation
708	Method (Proposed).
709	
710	Method 7500-Sr B, Total Radioactive Strontium and
711	Strontium 90, Precipitation Method.
712	
713	Method 7500-U B, Uranium, Radiochemical Method
714	(Proposed).
715	
716	Method 7500-U C, Uranium, Isotopic Method (Proposed).
717	
718	Method 9215 B, Heterotrophic Plate Count, Pour Plate
719	Method.
720	
721	Method 9221 A. Multiple-Tube Fermentation Technique
722	for Members of the Coliform Group, Introduction.
723	[,
724	Method 9221 B. Multiple-Tube Fermentation Technique
725	for Members of the Coliform Group, Standard Total
726	Coliform Fermentation Technique.
727	
728	Method 9221 C. Multiple-Tube Fermentation Technique
729	for Members of the Coliform Group. Estimation of
730	Bacterial Density
731	Lutter L Mairy,
1 w A	

732	Method 9221 D, Multiple-Tube Fermentation Technique
733	for Members of the Coliform Group, Presence-Absence (P-
734	A) Coliform Test.
735	
736	Method 9221 E, Multiple-Tube Fermentation Technique
737	for Members of the Coliform Group, Fecal Coliform
738	Procedure.
739	
740	Method 9222 A, Membrane Filter Technique for Members
741	of the Coliform Group, Introduction.
742	
743	Method 9222 B, Membrane Filter Technique for Members
744	of the Coliform Group, Standard Total Coliform Membrane
745	Filter Procedure.
746	
747	Method 9222 C, Membrane Filter Technique for Members
748	of the Coliform Group, Delayed-Incubation Total Coliform
749	Procedure.
750	
751	Method 9222 D, Membrane Filter Technique for Members
752	of the Coliform Group, Fecal Coliform Membrane Filter
753	Procedure.
754	
755	Method 9223, Chromogenic Substrate Coliform Test
756	(Proposed).
757	
758	"Supplement to the 18 th Edition of Standard Methods for the
759	Examination of Water and Wastewater," American Public Health
760	Association, 1994.
761	
762	Method 6610, Carbamate Pesticide Method.
763	
764	"Standard Methods for the Examination of Water and
765	Wastewater," 19 th Edition, 1995 (referred to as "Standard Methods,
766	19^{th} ed.").
767	
768	Method 2130 B, Turbidity, Nephelometric Method.
769	
770	Method 2320 B, Alkalinity, Titration Method.
771	
772	Method 2510 B, Conductivity, Laboratory Method.
773	
774	Method 2550, Temperature, Laboratory, and Field

775	Methods.
776	
777	Method 3111 B, Metals by Flame Atomic Absorption
778	Spectrometry, Direct Air-Acetylene Flame Method.
779	
780	Method 3111 D, Metals by Flame Atomic Absorption
781	Spectrometry, Direct Nitrous Oxide-Acetylene Flame
782	Method.
783	
784	Method 3112 B, Metals by Cold-Vapor Atomic Absorption
785	Spectrometry, Cold-Vapor Atomic Absorption
786	Spectrometric Method.
787	
788	Method 3113 B, Metals by Electrothermal Atomic
789	Absorption Spectrometry, Electrothermal Atomic
790	Absorption Spectrometric Method.
791	
792	Method 3114 B, Metals by Hydride Generation/Atomic
793	Absorption Spectrometry, Manual Hydride
794	Generation/Atomic Absorption Spectrometric Method.
795	
796	Method 3120 B, Metals by Plasma Emission Spectroscopy,
797	Inductively Coupled Plasma (ICP) Method.
798	
799	Method 3500-Ca D, Calcium, EDTA Titrimetric Method.
800	
801	Method 3500-Mg E, Magnesium, Calculation Method.
802	
803	Method 4110 B, Determination of Anions by Ion
804	Chromatography, Ion Chromatography with Chemical
805	Suppression of Eluent Conductivity.
806	
807	Method 4500-Cl D, Chlorine, Amperometric Titration
808	Method.
809	
810	Method 4500-Cl E, Chlorine, Low-Level Amperometric
811	Titration Method.
812	
813	Method 4500-Cl F, Chlorine, DPD Ferrous Titrimetric
814	Method.
815	
816	Method 4500-Cl G. Chlorine, DPD Colorimetric Method
817	

818 819	Method 4500-Cl H, Chlorine, Syringaldazine (FACTS) Method.
820 821	Method 4500-Cl I, Chlorine, Iodometric Electrode Method.
822	
823	Method 4500 -ClO ₂ C, Chlorine Dioxide, Amperometric
824	Method I.
825	
826	Method 4500 -ClO ₂ D, Chlorine Dioxide, DPD Method.
827	
828	Method 4500 -ClO ₂ E, Chlorine Dioxide, Amperometric
829	Method II (Proposed).
830	
831	Method 4500-CN ⁻ C, Cyanide, Total Cyanide after
832	Distillation.
833	
834	Method 4500-CN ⁻ E, Cyanide, Colorimetric Method.
835	
836	Method 4500-CN ⁻ F, Cyanide, Cyanide-Selective Electrode
837	Method.
838	
839	Method 4500-CN ⁻ G, Cyanide, Cyanides Amenable to
840	Chlorination after Distillation.
841	
842	Method 4500-F B, Fluoride, Preliminary Distillation Step.
843	
844	Method 4500-F ⁻ C, Fluoride, Ion-Selective Electrode
845	Method.
846	
847	Method 4500-F D, Fluoride, SPADNS Method.
848	
849	Method 4500-F E, Fluoride, Complexone Method.
850	
851	Method 4500-H ⁺ B, pH Value, Electrometric Method.
852	
853	Method 4500-NO ₂ B, Nitrogen (Nitrite), Colorimetric
854	Method.
855	
856	Method 4500-NO ₃ ⁻ D, Nitrogen (Nitrate), Nitrate Electrode
857	Method.
858	
859	Method 4500-NO ₃ ⁻ E, Nitrogen (Nitrate), Cadmium
860	Reduction Method.

861	
862	Method 4500-NO ₃ ⁻ F, Nitrogen (Nitrate), Automated
863	Cadmium Reduction Method.
864	
865	Method 4500-O ₃ B, Ozone (Residual) (Proposed), Indigo
866	Colorimetric Method.
867	
868	Method 4500-P E, Phosphorus, Ascorbic Acid Method.
869	
870	Method 4500-P F, Phosphorus, Automated Ascorbic Acid
871	Reduction Method.
872	
873	Method 4500-Si D, Silica, Molybdosilicate Method.
874	
875	Method 4500-Si E, Silica, Heteropoly Blue Method.
876	
877	Method 4500-Si F, Silica, Automated Method for
878	Molybdate-Reactive Silica.
879	
880	Method 5910 B, UV Absorbing Organic Constituents,
881	Ultraviolet Absorption Method.
882	
883	Method 6251 B, Disinfection Byproducts: Haloacetic
884	Acids and Trichlorophenol, Micro Liquid-Liquid
885	Extraction Gas Chromatographic Method.
886	
887	Method 6651, Glyphosate Herbicide (Proposed).
888	
889	Method 7110 B, Gross Alpha and Gross Beta
890	Radioactivity, Evaporation Method for Gross Alpha-Beta.
891	
892	Method 7110 C, Gross Alpha and Beta Radioactivity
893	(Total, Suspended, and Dissolved), Coprecipitation Method
894	for Gross Alpha Radioactivity in Drinking Water
895	(Proposed).
896	
897	Method 7120 B, Gamma-Emitting Radionuclides, Gamma
898	Spectrometric Method.
899	
900	Method 7500-Cs B, Radioactive Cesium, Precipitation
901	Method.
902	
903	Method 7500-3H B, Tritium, Liquid Scintillation

904	Spectrometric Method.
905	
906	Method 7500-1 B, Radioactive lodine, Precipitation
907	Method.
908	
909	Method 7500-I C, Radioactive Iodine, Ion-Exchange
910	Method.
911	
912	Method 7500-I D, Radioactive Iodine, Distillation Method.
913	
914	Method 7500-Ra B, Radium, Precipitation Method.
915	
916	Method 7500-Ra C, Radium, Emanation Method.
917	
918	Method 7500-Ra D, Radium, Sequential Precipitation
919	Method.
920	
921	Method 7500-Sr B. Total Radiactive Strontium and
922	Strontium 90, Precipitation Method.
923	· · · · · · · · · · · · · · · · · · ·
924	Method 7500-U B. Uranium, Radiochemical Method
925	
926	Method 7500-U C. Uranium, Isotopic Method.
927	
928	Method 9215 B. Heterotrophic Plate Count. Pour Plate
929	Method
930	menou.
931	Method 9721 A Multiple-Tube Fermentation Technique
032	for Members of the Coliform Group Introduction
033	for members of the Comorni Group, introduction.
034	Method 0721 B. Multiple, Tube Fermentation Technique
025	for Mombers of the Californ Group Standard Total
7JJ 074	California Economication Technique
950 027	Comorni reimentation rechnique.
957	Mathed 0001 C Matheda Tales Form antation Technique
938	See March and State Onliferer Crear Estimation of Control of State
939	for Members of the Conform Group, Estimation of
940	Bacterial Density.
941	
942	Method 9221 D, Multiple-Tube Fermentation Technique
943	tor Members of the Coliform Group, Presence-Absence (P-
944	A) Coliform Test.
945	

946	Method 9221 E, Multiple-Tube Fermentation Technique
947	for Members of the Coliform Group, Fecal Coliform
948	Procedure.
949	
950	Method 9222 A, Membrane Filter Technique for Members
951	of the Coliform Group, Introduction.
952	
953	Method 9222 B, Membrane Filter Technique for Members
954	of the Coliform Group, Standard Total Coliform Membrane
955	Filter Procedure.
956	
957	Method 9222 C, Membrane Filter Technique for Members
958	of the Coliform Group, Delayed-Incubation Total Coliform
959	Procedure.
960	
961	Method 9222 D, Membrane Filter Technique for Members
962	of the Coliform Group, Fecal Coliform Membrane Filter
963	Procedure.
964	
965	Method 9223, Chromogenic Substrate Coliform Test
966	(Proposed).
967	
968	"Supplement to the 19 th Edition of Standard Methods for the
969	Examination of Water and Wastewater," American Public Health
970	Association, 1996.
971	
972	Method 5310 B, TOC, Combustion-Infrared Method.
973	
974	Method 5310 C, TOC, Persulfate-Ultraviolet Oxidation
975	Method.
976	
977	Method 5310 D, TOC, Wet-Oxidation Method.
978	
979	"Standard Methods for the Examination of Water and
980	Wastewater," 20 th Edition, 1998 (referred to as "Standard Methods,
981	20^{th} ed.").
982	
983	Method 2130 B, Turbidity, Nephelometric Method.
984	
985	Method 2320 B, Alkalinity, Titration Method.
986	
987	Method 2510 B, Conductivity, Laboratory Method.
988	

989	Method 2550, Temperature, Laboratory, and Field
990	Methods.
991	
992	Method 3120 B, Metals by Plasma Emission Spectroscopy,
993	Inductively Coupled Plasma (ICP) Method.
994	
995	Method 3500-Ca B, Calcium, EDTA Titrimetric Method.
996	
997	Method 3500-Mg B, Magnesium, EDTA Titrimetric
998	Method.
999	
1000	Method 4110 B, Determination of Anions by Ion
1001	Chromatography, Ion Chromatography with Chemical
1002	Suppression of Eluent Conductivity.
1003	
1004	Method 4500-CN ⁻ C, Cyanide, Total Cyanide after
1005	Distillation.
1006	
1007	Method 4500-CN ⁻ E, Cyanide, Colorimetric Method.
1008	
1009	Method 4500-CN F. Cyanide, Cyanide-Selective Electrode
1010	Method.
1011	
1012	Method 4500-CN G. Cvanide, Cvanides Amenable to
1013	Chlorination after Distillation.
1014	
1015	Method 4500-Cl D. Chlorine, Amperometric Titration
1016	Method
1017	
1018	Method 4500-Cl E. Chlorine Low-Level Amperometric
1019	Titration Method
1020	
1020	Method 4500-CLF Chlorine DPD Ferrous Titrimetric
1022	Method
1022	Moniou.
1025	Method 4500-Cl G. Chlorine, DPD Colorimetric Method
1024	Method 4500-Ci C, Chlorine, Di D Colomineure Method.
1025	Method 4500 CLH Chlorine Suringaldazine (FACTS)
1020	Method
1027	
1020	Mathad 1500 CHI Chlaring Indometric Electrode Mathad
1029	Memoa 4500-U 1, Unionne, Iodometric Electrode Method.
1030	
1031	Method 4500-ClO2 C, Chlorine Dioxide, Amperometric
------	---
1032	Meniod I.
1035	Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.
1035	· · · · · · · · · · · · · · · · · · ·
1036	Method 4500-ClO2 E, Chlorine Dioxide, Amperometric
1037	Method II (Proposed).
1038	
1039	Method 4500-F [°] B, Fluoride, Preliminary Distillation Step.
1040	, , , , ,
1041	Method 4500-F C, Fluoride, Ion-Selective Electrode
1042	Method.
1043	
1044	Method 4500-F ⁻ D, Fluoride, SPADNS Method.
1045	
1046	Method 4500-F E, Fluoride, Complexone Method.
1047	
1048	Method 4500-H ⁺ B, pH Value, Electrometric Method.
1049	
1050	Method 4500-NO ₂ B, Nitrogen (Nitrite), Colorimetric
1051	Method.
1052	
1053	Method 4500-NO ₃ ⁻ D, Nitrogen (Nitrate), Nitrate Electrode
1054	Method.
1055	
1056	Method 4500-NO ₃ ⁻ E, Nitrogen (Nitrate), Cadmium
1057	Reduction Method.
1058	
1059	Method 4500 -NO ₃ F, Nitrogen (Nitrate), Automated
1060	Cadmium Reduction Method.
1061	
1062	Method 4500-O ₃ B, Ozone (Residual) (Proposed), Indigo
1063	Colorimetric Method.
1064	
1065	Method 4500-P E, Phosphorus, Ascorbic Acid Method.
1066	
1067	Method 4500-P F, Phosphorus, Automated Ascorbic Acid
1068	Reduction Method.
1069	
1070	Method 4500-Si C, Silica, Molybdosilicate Method.
10/1	
1072	Method 4500-Si D, Silica, Heteropoly Blue Method.
1073	

.

1075 Molybdate-Reactive Silica. 1076 Method 4500-Cl E, Chlorine (Residual), Low-Level 1078 Amperometric Titration Method. 1079 Method 4500-Cl F, Chlorine (Residual), DPD Ferrous 1081 Titrimetric Method. 1082 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1084 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1086 Method 4500-Cl I, Chlorine (Residual), Iodometric 1088 Method 4500-Cl Q, D, Chlorine Dioxide, DPD Method. 1089 Method 4500-Cl Q, D, Chlorine Dioxide, Amperometric 1090 Electrode Technique. 1091 Method 4500-Cl Q, D, Chlorine Dioxide, Amperometric 1092 Method 4500-Cl Q, E, Chlorine Dioxide, Amperometric 1093 Method 4500-Cl Q, E, Chlorine Dioxide, Amperometric 1094 Method 651, Glyphosate Herbicide (Proposed). 1095 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 Tors Alpha Radioactivity in Drinking Water 1103 (Proposed). 1104 Tors Alpha Radioactivity in Drinking Kadion	1074	Method 4500-Si E, Silica, Automated Method for
1076 1077 Method 4500-Cl E, Chlorine (Residual), Low-Level 1078 Amperometric Titration Method. 1079 Method 4500-Cl F, Chlorine (Residual), DPD Ferrous 1080 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1082 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1083 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1084 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1085 Method 4500-Cl J, Chlorine (Residual), Iodometric 1088 Electrode Technique. 1090 Electrode Technique. 1091 Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method. 1092 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1094 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1095 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 Method 7110 C, Gross Alpha and Beta Radioactivity 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Proposed). 1104 for Gross Alpha Radioactivity 11	1075	Molybdate-Reactive Silica.
1077 Method 4500-Cl E, Chlorine (Residual), Low-Level 1078 Amperometric Titration Method. 1079 Method 4500-Cl F, Chlorine (Residual), DPD Ferrous 1081 Titrimetric Method. 1082 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1084 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1085 Method 4500-Cl I, Chlorine (Residual), Iodometric 1088 Method 4500-Cl D ₂ D, Chlorine Dioxide, DPD Method. 1089 Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method. 1090 Electrode Technique. 1091 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1092 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1094 Method 7110-B, Gross Alpha and Gross Beta 1095 Method 7110 C, Gross Alpha and Gross Alpha-Beta. 1091 Method 7110 C, Gross Alpha and Beta Radioactivity 1010 Method 7110 C, Gross Alpha and Beta Radioactivity 1011 Itotal, Suspended, and Dissolved), Coprecipitation Method 1010 Method 7120-B, Gamma-Emitting Radionuclides, Gamma Bitting	1076	
1078 Amperometric Titration Method. 1079 Method 4500-Cl F, Chlorine (Residual), DPD Ferrous 1081 Titrimetric Method. 1082 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1083 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1084 Method. 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1086 Method 4500-Cl I, Chlorine (Residual), Iodometric 1087 (FACTS) Method. 1088 Method 4500-Cl Q D, Chlorine Dioxide, DPD Method. 1090 Electrode Technique. 1091 Method 4500-Cl Q D, Chlorine Dioxide, Method. 1092 Method 4500-Cl Q D, Chlorine Dioxide, Method. 1093 Method 4500-Cl D Q, Chlorine Dioxide, Method. 1094 Method 4500-Cl D Q, Chlorine Dioxide, Method. 1095 Method 7110-B, Gross Alpha and Gross Beta 1096 Method 7110-B, Gross Alpha and Gross Beta. 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 Method 7110 C, Gross Alpha and Beta Radioactivity 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Proposed). 1104 for Gross A	1077	Method 4500-Cl E, Chlorine (Residual), Low-Level
1079 1080 Method 4500-C1 F, Chlorine (Residual), DPD Ferrous 1081 Titrimetric Method. 1082 Method 4500-C1 G, Chlorine (Residual), DPD Colorimetric 1084 Method 4500-C1 H, Chlorine (Residual), Syringaldazine 1085 (FACTS) Method. 1088 Method 4500-C1 H, Chlorine (Residual), Syringaldazine 1087 (FACTS) Method. 1088 Method 4500-C1 I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-C1O2 D, Chlorine Dioxide, DPD Method. 1092 Method 4500-C1O2 E, Chlorine Dioxide, Amperometric 1093 Method 4500-C1O2 E, Chlorine Dioxide, Amperometric 1094 Method 651, Glyphosate Herbicide (Proposed). 1095 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 Method 7120-B, Gamma-Emitting Radionuclides, Gamma 1106 Method 7500-Cs B, Radioactive Cesium, Precipitation 1110 Method 7500-3H B, Trit	1078	Amperometric Titration Method.
1080 Method 4500-C1 F, Chlorine (Residual), DPD Ferrous 1081 Titrimetric Method. 1082 Method 4500-C1 G, Chlorine (Residual), DPD Colorimetric 1084 Method. 1085 Method 4500-C1 H, Chlorine (Residual), Syringaldazine 1086 Method 4500-C1 H, Chlorine (Residual), Syringaldazine 1087 (FACTS) Method. 1088 Method 4500-C1 I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-C1O ₂ D, Chlorine Dioxide, DPD Method. 1092 Method 4500-C1O ₂ E, Chlorine Dioxide, Amperometric 1093 Method 651, Glyphosate Herbicide (Proposed). 1094 Method 6651, Glyphosate Herbicide (Proposed). 1098 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 Method 7120-B, Gamma-Emitting Radioactivity 1103 (Proposed). 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 1101 1107 Method 7120-B, Gamma-Emitting Radionuclides, Gamma 108 1108 Spectrometric Method. 1109<	1079	
1081 Titrimetric Method. 1082 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1084 Method. 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1086 Method 4500-Cl I, Chlorine (Residual), Syringaldazine 1087 (FACTS) Method. 1088 Electrode Technique. 1090 Electrode Technique. 1091 Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method. 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1094 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1095 Method 6651, Glyphosate Herbicide (Proposed). 1096 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 1102 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 1104 1107 Method 7500-Cs B, Radioactive Cesium, Precipitation 1110 Method 7500-St B, Radioactive Cesium, Precipitation	1080	Method 4500-Cl F, Chlorine (Residual), DPD Ferrous
1082 1083 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1084 Method. 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1086 Method 4500-Cl I, Chlorine (Residual), Iodometric 1089 Method 4500-Cl I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method. 1092 Method 4500-ClO ₂ D, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1093 Method 7110-B, Gross Alpha and Gross Beta 1096 Method 7110-B, Gross Alpha and Gross Alpha-Beta. 1101 Method 7110 C, Gross Alpha and Beta Radioactivity 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 Method 7120-B, Gamma-Emitting Radionuclides, Gamma 1108 Spectrometric Method. 1109 Method 7500-C's B, Radioactive Cesium, Precipitation 1111	1081	Titrimetric Method.
1083 Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric 1084 Method. 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1087 (FACTS) Method. 1088 Method 4500-Cl I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method. 1092 Method 4500-ClO ₂ D, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1094 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1095 Method 651, Glyphosate Herbicide (Proposed). 1096 100 1097 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 111 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 1104 1107 Method 7500-Cs B, Radioactive Cesium, Precipitation 1110 Method 7500-Sth B, Tritium, Liquid Scintillation <	1082	
1084 Method. 1085 Method 4500-Cl H, Chlorine (Residual), Syringaldazine (FACTS) Method. 1087 (FACTS) Method. 1088 Method 4500-Cl I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method. 1093 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1094 Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric 1095 Method 651, Glyphosate Herbicide (Proposed). 1096 10 1097 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 1102 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 1106 1107 Method 7120-B, Gamma-Emitting Radionuclides, Gamma 1108 Spectrometric Method. 1109 111 1110 Method 7500-S B, Radioactive Cesium, Precipitation 1111 Method.	1083	Method 4500-Cl G, Chlorine (Residual), DPD Colorimetric
1085 1086 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1087 (FACTS) Method. 1088 Method 4500-Cl I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-ClO2 D, Chlorine Dioxide, DPD Method. 1092 Method 4500-ClO2 D, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO2 E, Chlorine Dioxide, Amperometric 1094 Method 6651, Glyphosate Herbicide (Proposed). 1096 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 Method 7110 C, Gross Alpha and Beta Radioactivity 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 Method 7120-B, Gamma-Emitting Radionuclides, Gamma 1108 Spectrometric Method. 1109 Method 7500-Cs B, Radioactive Cesium, Precipitation 1111 Method 7500-3H B, Tritium, Liquid Scintillation 1112 Spectrometric Method.	1084	Method.
1086 Method 4500-Cl H, Chlorine (Residual), Syringaldazine 1087 (FACTS) Method. 1088 Method 4500-Cl I, Chlorine (Residual), Iodometric 1090 Electrode Technique. 1091 Method 4500-ClO2 D, Chlorine Dioxide, DPD Method. 1093 Method 4500-ClO2 D, Chlorine Dioxide, Amperometric 1094 Method 4500-ClO2 E, Chlorine Dioxide, Amperometric 1095 Method 651, Glyphosate Herbicide (Proposed). 1096 1097 1098 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 1102 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 1106 1107 Method 7500-Cs B, Radioactive Cesium, Precipitation 1111 Method 7500-3H B, Tritium, Liquid Scintillation 1112 1113 1114 Spectrometric Method.	1085	
1087 (FACTS) Method. 1088 Method 4500-Cl I, Chlorine (Residual), Iodornetric 1090 Electrode Technique. 1091 Method 4500-ClO2 D, Chlorine Dioxide, DPD Method. 1092 Method 4500-ClO2 D, Chlorine Dioxide, Amperometric 1093 Method 4500-ClO2 E, Chlorine Dioxide, Amperometric 1094 Method 4500-ClO2 E, Chlorine Dioxide, Amperometric 1095 Method 11. 1096 1097 1097 Method 6651, Glyphosate Herbicide (Proposed). 1098 1099 1099 Method 7110-B, Gross Alpha and Gross Beta 1100 Radioactivity, Evaporation Method for Gross Alpha-Beta. 1101 1102 1102 Method 7110 C, Gross Alpha and Beta Radioactivity 1103 (Total, Suspended, and Dissolved), Coprecipitation Method 1104 for Gross Alpha Radioactivity in Drinking Water 1105 (Proposed). 1106 1107 1108 Spectrometric Method. 1109 111 1110 Method 7500-Cs B, Radioactive Cesium, Precipitation 1111 Method 7500-3H B, Tritium, Liquid Scintillation 1114	1086	Method 4500-Cl H, Chlorine (Residual), Syringaldazine
10881089Method 4500-Cl I, Chlorine (Residual), Iodometric1090Electrode Technique.109110921092Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.109310941094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method 651, Glyphosate Herbicide (Proposed).10961097109810991099Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1087	(FACTS) Method.
1089Method 4500-Cl I, Chlorine (Residual), Iodometric1090Electrode Technique.109110921092Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.109310941094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method 11.109610971097Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.1110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1088	
1090Electrode Technique.109110921092Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.109310941094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method II.109610971097Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1089	Method 4500-Cl I, Chlorine (Residual), Iodometric
10911092Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.1093Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method II.109610971097Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110110121102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1090	Electrode Technique.
1092Method 4500-ClO2 D, Chlorine Dioxide, DPD Method.1093Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method II.1096Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.11011011102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).11061106110911101110Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.111211131114Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1091	1
10931094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method II.109610971097Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1092	Method 4500-ClO ₂ D, Chlorine Dioxide, DPD Method.
1094Method 4500-ClO2 E, Chlorine Dioxide, Amperometric1095Method II.109610971097Method 6651, Glyphosate Herbicide (Proposed).109810991099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1093	~ , , ,
1095Method II.10961097109810991099100010101021031031041051061071081081091091011021031041051051061071081081091101101110111111131113114115115116117118119111311141114111511151116111711181114111511141115111511161117111811191110111111121113114115116<	1094	Method 4500-ClO ₂ E, Chlorine Dioxide, Amperometric
10961097Method 6651, Glyphosate Herbicide (Proposed).10981099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.11011102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation111211131114Spectrometric Method.	1095	Method II.
1097Method 6651, Glyphosate Herbicide (Proposed).10981099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101111Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1096	
10981099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.1101Method 7110 C, Gross Alpha and Beta Radioactivity1102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).1106Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.1109Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1097	Method 6651, Glyphosate Herbicide (Proposed).
1099Method 7110-B, Gross Alpha and Gross Beta1100Radioactivity, Evaporation Method for Gross Alpha-Beta.1101Method 7110 C, Gross Alpha and Beta Radioactivity1102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1098	
1100Radioactivity, Evaporation Method for Gross Alpha-Beta.110111021102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071108Spectrometric Method.110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1099	Method 7110-B, Gross Alpha and Gross Beta
11011102110311041104110511051106110711081109111011101111111211131114111411151116	1100	Radioactivity, Evaporation Method for Gross Alpha-Beta.
1102Method 7110 C, Gross Alpha and Beta Radioactivity1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071107Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1101	
1103(Total, Suspended, and Dissolved), Coprecipitation Method1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071107Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation111211131114Spectrometric Method.	1102	Method 7110 C, Gross Alpha and Beta Radioactivity
1104for Gross Alpha Radioactivity in Drinking Water1105(Proposed).110611071107Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method 7500-3H B, Tritium, Liquid Scintillation1113Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1103	(Total, Suspended, and Dissolved), Coprecipitation Method
1105(Proposed).1106110711081108110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111111211131114Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1104	for Gross Alpha Radioactivity in Drinking Water
11061107Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.1109Method 7500-Cs B, Radioactive Cesium, Precipitation1110Method.1112Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1105	(Proposed).
1107Method 7120-B, Gamma-Emitting Radionuclides, Gamma1108Spectrometric Method.1109Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method.1112Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1106	$(\cdot - \cdot \mathbf{r})$
1108Spectrometric Method.110911101110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method.111211131113Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1107	Method 7120-B. Gamma-Emitting Radionuclides. Gamma
11091110111011111111111211131114Spectrometric Method.	1108	Spectrometric Method.
1110Method 7500-Cs B, Radioactive Cesium, Precipitation1111Method.111211131113Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1109	
1111Method.1112Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1110	Method 7500-Cs B. Radioactive Cesium, Precipitation
11121113114Spectrometric Method.	1111	Method.
1113Method 7500-3H B, Tritium, Liquid Scintillation1114Spectrometric Method.	1112	
1114 Spectrometric Method.	1113	Method 7500-3H B. Tritium Liquid Scintillation
	1114	Spectrometric Method
	1115	

1116 1117	Method 7500-I B, Radioactive Iodine, Precipitation Method.
1118	
1119	Method 7500-I C, Radioactive Iodine, Ion-Exchange
1120	Method.
1121	
1122	Method 7500-I D, Radioactive Iodine, Distillation Method.
1123	
1124	Method 7500-Ra B, Radium, Precipitation Method.
1125	
1126	Method 7500-Ra C, Radium, Emanation Method.
1127	
1128	Method 7500-Sr B, Total Radiactive Strontium and
1129	Strontium 90, Precipitation Method.
1130	
1131	Method 7500-U B, Uranium, Radiochemical Method.
1132	
1133	Method 7500-U C, Uranium, Isotopic Method.
1134	
1135	Method 9215 B, Heterotrophic Plate Count, Pour Plate
1136	Method.
1137	
1138	Method 9221 A, Multiple-Tube Fermentation Technique
1139	for Members of the Coliform Group, Introduction.
1140	• *
1141	Method 9221 B, Multiple-Tube Fermentation Technique
1142	for Members of the Coliform Group, Standard Total
1143	Coliform Fermentation Technique.
1144	•
1145	Method 9221 C, Multiple-Tube Fermentation Technique
1146	for Members of the Coliform Group, Estimation of
1147	Bacterial Density.
1148	
1149	Method 9221 D, Multiple-Tube Fermentation Technique
1150	for Members of the Coliform Group, Presence-Absence (P-
1151	A) Coliform Test.
1152	
1153	Method 9221 E, Multiple-Tube Fermentation Technique
1154	for Members of the Coliform Group, Fecal Coliform
1155	Procedure.
1156	
1157	Method 9222 A, Membrane Filter Technique for Members
1158	of the Coliform Group, Introduction.

1159	
1160	Method 9222 B, Membrane Filter Technique for Members
1161	of the Coliform Group, Standard Total Coliform Membrane
1162	Filter Procedure.
1163	
1164	Method 9222 C, Membrane Filter Technique for Members
1165	of the Coliform Group, Delayed-Incubation Total Coliform
1166	Procedure.
1167	
1168	Method 9222 D, Membrane Filter Technique for Members
1169	of the Coliform Group, Fecal Coliform Membrane Filter
1170	Procedure.
1171	
1172	Method 9223, Chromogenic Substrate Coliform Test
1173	(Proposed).
1174	
1175	Analytical Technology, Inc. ATI Orion, 529 Main Street, Boston, MA
1176	02129.
1177	
1178	Technical Bulletin 601, "Standard Method of Testing for Nitrate in
1179	Drinking Water," July, 1994, PN 221890-001 (referred to as
1180	"Technical Bulletin 601").
1181	
1182	ASTM. American Society for Testing and Materials, 100 Barr Harbor
1183	Drive, West Conshohocken, PA 19428-2959 610-832-9585.
1184	
1185	ASTM Method D511-93 A and B, "Standard Test Methods for
1186	Calcium and Magnesium in Water," "Test Method A –
1187	Complexometric Titration" & "Test Method B – Atomic
1188	Absorption Spectrophotometric," approved 1993.
1189	
1190	ASTM Method D515-88 A, "Standard Test Methods for
1191	Phosphorus in Water," "Test Method A – Colorimetric Ascorbic
1192	Acid Reduction," approved August 19, 1988.
1193	
1194	ASTM Method D859-88, "Standard Test Method for Silica in
1195	Water," approved August 19, 1988.
1196	
1197	ASTM Method D1067-92 B, "Standard Test Methods for Acidity
1198	or Alkalinity in Water," "Test Method B – Electrometric or Color-
1199	Change Titration," approved May 15, 1992.
1200	
1201	ASTM Method D1125-91 A, "Standard Test Methods for

1202	Electrical Conductivity and Resistivity of Water," "Test Method A
1203	- Field and Routine Laboratory Measurement of Static (Non-
1204	Flowing) Samples," approved June 15, 1991.
1205	
1206	ASTM Method D1179-93 B, "Standard Test Methods for Fluoride
1207	in Water," "Test Method B – Ion Selective Electrode," approved
1208	1993.
1209	
1210	ASTM Method D1253-86, "Standard Test Method for Residual
1211	Chlorine in Water," reapproved 1992.
1212	
1213	ASTM Method D1293-84, "Standard Test Methods for pH of
1214	Water," "Test Method A - Precise Laboratory Measurement" &
1215	"Test Method B – Routine or Continuous Measurement," approved
1216	October 26, 1984.
1217	
1218	ASTM Method D1688-90 A or C, "Standard Test Methods for
1219	Copper in Water," "Test Method A - Atomic Absorption, Direct"
1220	& "Test Method C - Atomic Absorption, Graphite Furnace,"
1221	approved March 15, 1990.
1222	
1223	ASTM Method D2036-91 A or B, "Standard Test Methods for
1224	Cyanide in Water," "Test Method A – Total Cyanides after
1225	Distillation" & "Test Method B – Cvanides Amenable to
1226	Chlorination by Difference," approved September 15, 1991.
1227	
1228	ASTM Method D2459-72, "Standard Test Method for Gamma
1229	Spectrometry in Water." approved July 28, 1972, discontinued
1230	1988.
1231	
1232	ASTM Method D2460-90, "Standard Test Method for
1233	Radionuclides of Radium in Water," approved 1990.
1234	
1235	ASTM Method D2907-91, "Standard Test Methods for
1236	Microquantities of Uranium in Water by Fluorometry " "Test
1237	Method A – Direct Fluorometric" & "Test Method B –
1238	Extraction " approved June 15, 1991.
1239	
1240	ASTM Method D2972-93 B or C. "Standard Test Methods for
1241	Arsenic in Water " "Test Method R - Atomic Absorption Hydride
1242	Generation" & "Test Method C - Atomic Absorption, Tryande
1243	Furnace " annroved 1003
1244	rumuoo, upprovou 1993.
1. Au' F'T	

· · · · - ------

1245	ASTM Method D3223-91, "Standard Test Method for Total
1246	Mercury in Water," approved September 23, 1991.
1247	
1248	ASTM Method D3454-91, "Standard Test Method for Radium-226
1249	in Water," approved 1991.
1250	
1251	ASTM Method D3559-90 D, "Standard Test Methods for Lead in
1252	Water," "Test Method D – Atomic Absorption, Graphite Furnace,"
1253	approved August 6, 1990.
1254	
1255	ASTM Method D3645-93 B, "Standard Test Methods for
1256	Beryllium in Water," "Method B – Atomic Absorption, Graphite
1257	Furnace," approved 1993.
1258	
1259	ASTM Method D3649-91, "Standard Test Method for High-
1260	Resolution Gamma-Ray Spectrometry of Water," approved 1991.
1261	
1262	ASTM Method D3697-92, "Standard Test Method for Antimony in
1263	Water," approved June 15, 1992.
1264	
1265	ASTM Method D3859-93 A, "Standard Test Methods for
1266	Selenium in Water," "Method A - Atomic Absorption, Hydride
1267	Method," approved 1993.
1268	
1269	ASTM Method D3867-90 A and B, "Standard Test Methods for
1270	Nitrite-Nitrate in Water," "Test Method A – Automated Cadmium
1271	Reduction" & "Test Method B – Manual Cadmium Reduction,"
1272	approved January 10, 1990.
1273	
1274	ASTM Method D3972-90, "Standard Test Method for Isotopic
1275	Uranium in Water by Radiochemistry," approved 1990.
1276	
1277	ASTM Method D4107-91, "Standard Test Method for Tritium in
1278	Drinking Water," approved 1991.
1279	
1280	ASTM Method D4327-91, "Standard Test Method for Anions in
1281	Water by Ion Chromatography," approved October 15, 1991.
1282	
1283	ASTM Method D4785-88, "Standard Test Method for Low-Level
1284	Iodine-131 in Water," approved 1988.
1285	
1286	ASTM Method D5174-91, "Standard Test Method for Trace
1287	Uranium in Water by Pulsed-Laser Phosphorimetry," approved

1288	1991.
1207	ASTM Method D5672 03 "Standard Test Method for Elements in
1290	Water by Inductively Counled Plasma – Mass Spectrometry "
1291	approved 2003
1292	approved 2005:
1293	
1294 1205 Braz	& Luchhe 1025 Pusch Parkway, Buffalo Grove II 60080
1295 Diai	a Lucobe, 1025 Busch Farkway, Bullato Orove, 12 00009.
1290	"Fluorido in Water and Wagtowater" Industrial Mathad #120
1297	71W December 1072 (referred to as "Technicon Methods: Method
1290	#120, 71W'' See 40 CEB 141 22(1)(1) facture 11 (2005)(2002)
1299	#129-71 W). See 40 CFK 141.25(K)(1), 1001101e 11 (2005)(2005).
1201	"Elucride in Water and Westewater" #280.75WE Echnory 1076
1202	(referred to as "Technicon Methods: Method #380.75WE") See
1302	40 CEP 141.22(k)(1) footnote 11 (2005)(2002)
1303	40 CFR 141.23(K)(1), 10011010 F1 (2003)(2003).
1304 1205 CDI	International Inc. 5580 Stations Divid. Sonta Daga, CA 05402
1305 CP1	nhemational, mc., 5560 Skylane Divd., Salita Kosa, CA 95405.
1300 100	phone: 800-878-7034. Fax. 707-343-7901. Internet address.
1307 WW	v.cpiinternational.com.
1308	"Coliters Descharters Test for Detection and Identification of
1309	Contage Product as a Test for Detection and Identification of
1310	Collions and E. coll Bacteria in Drinking water and Source
1311	water as Required in National Primary Drinking water
1312	Regulations," August 2001.
1313	
1314 EM	D Chemicals Inc. (an affiliate of Merck KGgA, Darmstadt, Germany),
1315 480	S. Democrat Road, Gibbstown, NJ 08027–1297. Telephone: 800-
1310 222	-0342. E-mail: adellendusch@emscience.com.
1317	"Channes and California A and Brassman A harmon Mombrana Filter
1318	The Maked for Detection and Identification of Coliform Posterio
1319	Lest Method for Detection and Identification of Comorni Bacteria
1320	and Escherichia coli in Finished Waters," November 2000, Version
1321	1.0.
1322	ID. 1. If O. I'C
1323	"Readycult Conforms 100 Presence/Absence Test for Detection
1324	and Identification of Colliform Bacteria and Escherichia coll in
1325	Finished Waters," November 2000, Version 1.0.
1326	
1327 ERI	JA Health and Safety Laboratory, New York, NY.
1328	
1329	HASL Procedure Manual, HASL 300, 1973. See 40 CFR
1330	141.25(b)(2) (2005)(2003).

1331	
1332	Great Lakes Instruments, Inc., 8855 North 55 th Street, Milwaukee, WI
1333	53223.
1334	
1335	GLI Method 2, "Turbidity," Nov. 2, 1992.
1336	
1337	The Hach Company, P.O. Box 389, Loveland, CO 80539-0389. Phone:
1338	800-227-4224.
1339	
1340	"Lead in Drinking Water by Differential Pulse Anodic Stripping
1341	Voltammetry," Method 1001, August 1999.
1342	
1343	"Determination of Turbidity by Laser Nephelometry," January
1344	2000, Revision 2.0 (referred to as "Hach FilterTrak Method
1345	10133").
1346	
1347	IDEXX Laboratories, Inc., One IDEXX Drive, Westbrook, Maine 04092.
1348	Telephone: 800-321-0207.
1349	•
1350	"IDEXX SimPlate TM HPC Test Method for Heterotrophs in
1351	Water," November 2000.
1352	
1353	Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218. Phone:
1354	414-358-4200.
1355	
1356	"Digestion and distillation of total cyanide in drinking and
1357	wastewaters using MICRO DIST and determination of cyanide by
1358	flow injection analysis," Revision 2.1, November 30, 2000
1359	(referred to as "QuikChem Method 10-204-00-1-X").
1360	
1361	Millipore Corporation, Technical Services Department, 80 Ashby Road,
1362	Milford, MA 01730 800-654-5476.
1363	
1364	Colisure Presence/Absence Test for Detection and Identification of
1365	Coliform Bacteria and Escherichia Coli in Drinking Water,
1366	February 28, 1994 (referred to as "Colisure Test").
1367	
1368	NCRP. National Council on Radiation Protection, 7910 Woodmont Ave.,
1369	Bethesda, MD 301-657-2652.
1370	
1371	"Maximum Permissible Body Burdens and Maximum Permissible
1372	Concentrations of Radionuclides in Air and in Water for
1373	Occupational Exposure," NCRP Report Number 22, June 5, 1959.

1374	
1375	NSF. National Sanitation Foundation International, 3475 Plymouth Road,
1376	PO Box 130140, Ann Arbor, Michigan 48113-0140, 734-769-8010.
1377	
1378	NSF Standard 61, section 9, November 1998.
1379	
1380	NTIS. National Technical Information Service, U.S. Department of
1381	Commerce, 5285 Port Royal Road, Springfield, VA 22161, 703-487-4600
1382	or 800-553-6847.
1383	
1384	"Interim Radiochemical Methodology for Drinking Water," EPA
1385	600/4-75-008 (revised). March 1976 (referred to as "USEPA
1386	Interim Radiochemical Methods"). (Pages 1, 4, 6, 9, 13, 16, 24, 29,
1387	34)
1388	, ,
1389	"Kelada Automated Test Methods for Total Cyanide, Acid
1390	Dissociable Cyanide, And Thiocyanate," Revision 1.2, August
1391	2001, EPA # 821-B-01-009 (referred to as "Kelada 01").
1392	
1393	"Maximum Permissible Body Burdens and Maximum Permissible
1394	Concentrations of Radionuclides in Air and in Water for
1395	Occupational Exposure," NBS (National Bureau of Standards)
1396	Handbook 69, as amended August 1963, U.S. Department of
1397	Commerce.
1398	
1399	Method 100.1, "Analytical Method for Determination of Asbestos
1400	Fibers in Water," EPA-600/4-83-043, September 1983, Doc. No.
1401	PB83-260471 (referred to as "USEPA Asbestos Methods-100.1").
1402	
1403	Method 100.2, "Determination of Asbestos Structures over 10-mm
1404	in Length in Drinking Water," EPA-600/4-83-043, June 1994,
1405	Doc. No. PB94-201902 (referred to as "USEPA Asbestos
1406	Methods-100.2").
1407	
1408	"Methods for Chemical Analysis of Water and Wastes," March
1409	1983, Doc. No. PB84-128677 (referred to as "USEPA Inorganic
1410	Methods"). (Methods 150.1, 150.2, and 245.2, which formerly
1411	appeared in this reference, are available from USEPA EMSL.)
1412	
1413	"Methods for the Determination of Inorganic Substances in
1414	Environmental Samples," August 1993, PB94-120821 (referred to
1415	as "USEPA Environmental Inorganic Methods").
1416	

1417	"Methods for the Determination of Metals in Environmental
1418	Samples," June 1991, Doc. No. PB91-231498 and "Methods for
1419	the Determination of Metals in Environmental Samples –
1420	Supplement I," May 1994, PB95-125472 (referred to as "USEPA
1421	Environmental Metals Methods").
1422	
1423	"Methods for the Determination of Organic Compounds in
1424	Drinking Water," December 1988, revised July 1991, EPA-600/4-
1425	88/039 (referred to as "USEPA Organic Methods"). (For methods
1426	502.2, 505, 507, 508, 508A, 515.1, and 531.1.)
1427	
1428	"Methods for the Determination of Organic Compounds in
1429	Drinking Water - Supplement I," July 1990, EPA/600-4-90-020
1430	(referred to as "USEPA Organic Methods"). (For methods 506,
1431	547, 550, 550.1, and 551.)
1432	
1433	"Methods for the Determination of Organic Compounds in
1434	Drinking Water – Supplement II," August 1992, EPA-600/R-92-
1435	129 (referred to as "USEPA Organic Methods"). (For methods
1436	515.2, 524.2, 548.1, 549.1, 552.1, and 555.)
1437	
1438	"Prescribed Procedures for Measurement of Radioactivity in
1439	Drinking Water," EPA 600/4-80-032, August 1980 (document
1440	number PB 80-224744) (referred to as "USEPA Radioactivity
1441	Methods"). (Methods 900, 901, 901.1, 902, 903, 903.1, 904, 905,
1442	906, 908, 908.1)
1443	
1444	"Procedures for Radiochemical Analysis of Nuclear Reactor
1445	Aqueous Solutions," H.L. Krieger and S. Gold, EPA-R4-73-014,
1446	May 1973, Doc. No. PB222-154/7BA.
1447	
1448	"Radiochemical Analytical Procedures for Analysis of
1449	Environmental Samples," March 1979, Doc. No. EMSL LV
1450	053917 (referred to as "USEPA Radiochemical Analyses").
1451	(Pages 1, 19, 33, 65, 87, 92)
1452	
1453	"Radiochemistry Procedures Manual," EPA-520/5-84-006,
1454	December 1987, Doc. No. PB-84-215581 (referred to as "USEPA
1455	Radiochemistry Methods"). (Methods 00-01, 00-02, 00-07, H-02,
1456	Ra-03, Ra-04, Ra-05, Sr-04)
1457	
1458	"Technical Notes on Drinking Water Methods," EPA-600/R-94-
1459	173, October 1994, Doc. No. PB-104766 (referred to as "USEPA

1460	Technical Notes").
1461	BOARD NOTE: USEPA made the following assertion with
1462	regard to this reference at 40 CFR 141.23(k)(1) and 141.24(e) and
1463	(n)(11) (2005)(2003): "This document contains other analytical
1464	test procedures and approved analytical methods that remain
1465	available for compliance monitoring until July 1, 1996."
1466	" – – – – –
1467	"Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope
1468	Dilution HRGC/HRMS," October 1994, EPA-821-B-94-005
1469	(referred to as "Dioxin and Furan Method 1613").
1470	
1471	New Jersey Department of Environment, Division of Environmental
1472	Quality, Bureau of Radiation and Inorganic Analytical Services, 9 Ewing
1473	Street, Trenton, NJ 08625.
1474	
1475	"Determination of Radium 228 in Drinking Water," August 1990.
1476	
1477	New York Department of Health, Radiological Sciences Institute, Center
1478	for Laboratories and Research, Empire State Plaza, Albany, NY 12201.
1479	
1480	"Determination of Ra-226 and Ra-228 (Ra-02)," January 1980,
1481	Revised June 1982.
1482	
1483	Palintest, Ltd., 21 Kenton Lands Road, P.O. Box 18395, Erlanger, KY
1484	800-835-9629.
1485	
1486	"Lead in Drinking Water by Differential Pulse Anodic Stripping
1487	Voltammetry," Method 1001, August 1999.
1488	
1489	Syngenta Crop Protection, Inc., 410 Swing Road, Post Office Box 18300,
1490	Greensboro, NC 27419. Telephone: 336-632-6000.
1491	
1492	"Atrazine in Drinking Water by Immunoassay," February 2001
1493	(referred to as "Syngenta AG-625").
1494	
1495	United States Department of Energy, available at the Environmental
1496	Measurements Laboratory, U.S. Department of Energy, 376 Hudson
1497	Street, New York, NY 10014-3621.
1498	
1499	"EML Procedures Manual," 27 th Edition, Volume 1, 1990.
1500	
1501	United States Environmental Protection Agency, Office of Ground Water
1502	and Drinking Water, accessible on-line and available by download from

.

1503	http://www.epa.gov/safewater/methods/.
1504	
1505	Method 515.4, "Determination of Chlorinated Acids in Drinking
1506	Water by Liquid-Liquid Microextraction, Derivatization and Fast
1507	Gas Chromatography with Electron Capture Detection," Revision
1508	1.0, April 2000, EPA 815/B-00/001 (document file name
1509	"met515_4.pdf").
1510	
1511	Method 531.2, "Measurement of N-methylcarbamoyloximes and
1512	N-methylcarbamates in Water by Direct Aqueous Injection HPLC
1513	with Postcolumn Derivatization," Revision 1.0, September 2001,
1514	EPA 815/B/01/002 (document file name "met531 2.pdf").
1515	
1516	United States Environmental Protection Agency, EMSL, Cincinnati, OH
1517	45268 513-569-7586.
1518	
1519	"Interim Radiochemical Methodology for Drinking Water," EPA-
1520	600/4-75-008 (referred to as "Radiochemical Methods").
1521	(Revised) March 1976.
1522	
1523	"Methods for the Determination of Organic Compounds in
1524	Finished Drinking Water and Raw Source Water" (referred to as
1525	"USEPA Organic Methods"). (For methods 504.1, 508.1, and
1526	525.2 only.) See NTIS.
1527	
1528	"Procedures for Radiochemical Analysis of Nuclear Reactor
1529	Aqueous Solutions." See NTIS.
1530	•
1531	USEPA, Science and Technology Branch, Criteria and Standards
1532	Division, Office of Drinking Water, Washington, D.C. 20460.
1533	
1534	"Guidance Manual for Compliance with the Filtration and
1535	Disinfection Requirements for Public Water Systems using Surface
1536	Water Sources," October 1989.
1537	
1538	USGS. Books and Open-File Reports Section, United States Geological
1539	Survey, Federal Center, Box 25286, Denver, CO 80225-0425.
1540	
1541	Methods available upon request by method number from "Methods
1542	for Analysis by the U.S. Geological Survey National Water
1543	Quality Laboratory – Determination of Inorganic and Organic
1544	Constituents in Water and Fluvial Sediments," Open File Report
1545	93-125, 1993, or Book 5, Chapter A-1, "Methods for

1546	Determination of Inorganic Substances in Water and Fluvial
1547	Sediments," 3rd ed., Open-File Report 85-495, 1989, as
1548	appropriate (referred to as "USGS Methods").
1549	
1550	I-1030-85
1551	
1552	I-1062-85
1553	
1554	I-1601-85
1555	
1556	I-1700-85
1557	
1558	I-2598-85
1559	
1560	I-2601-90
1561	
1562	I-2700-85
1563	
1564	I-3300-85
1565	
1566	Methods available upon request by method number from "Methods
1567	for Determination of Radioactive Substances in Water and Fluvial
1568	Sediments," Chapter A5 in Book 5 of "Techniques of Water-
1569	Resources Investigations of the United States Geological Survey,"
1570	1997.
1571	
1572	R-1110-76
1573	
1574	R-1111-76
1575	
1576	R-1120-76
1577	
1578	R-1140-76
1579	
1580	R-1141-76
1581	
1582	R-1142-76
1583	
1584	R-1160-76
1585	
1586	R-1171-76
1587	
1588	R-1180-76

1589	
1590	R-1181-76
1591	
1592	R-1182-76
1593	
1594	Waters Corporation, Technical Services Division, 34 Maple St., Milford,
1595	MA 01757 800-252-4752.
1596	
1597	"Waters Test Method for Determination of Nitrite/Nitrate in Water
1598	Using Single Column Ion Chromatography," Method B-1011,
1599	August 1987 (referred to as "Waters Method B-1011").
1600	
1601	c) The Board incorporates the following federal regulations by reference:
1602	
1603	40 CFR 3.2, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (How Does
1604	This Part Provide for Electronic Reporting?), referenced in Section
1605	<u>611.105.</u>
1606	
1607	40 CFR 3.3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What
1608	Definitions Are Applicable to This Part?), referenced in Section 611.105.
1609	
1610	40 CFR 3.10, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What Are
1611	the Requirements for Electronic Reporting to EPA?), referenced in Section
1612	<u>611.105.</u>
1613	
1614	<u>40 CFR 3.2000, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005) (What</u>
1615	Are the Requirements Authorized State, Tribe, and Local Programs'
1616	Reporting Systems Must Meet?), referenced in Section 611.105.
1617	
1618	Appendix B to 40 CFR 136 (2005), referenced in Sections 611.359,
1619	611.609, and 611.646 ., Appendix B and C (2003)
1620	and the state of t
1621	d) This Part incorporates no later amendments or editions.
1622	(Compared and at 20 11) Decomposition
1623	(Source: Amended at 30 III. Reg, effective)
1624	Section 611 105 Floatnonic Deporting
1625	Section 011.105 Electronic Reporting
1627	The filing of any document nursuant to any provision of this Part as an electronic document is
1628	subject to this Section
1629	
1630	a) Scope and Applicability.
1631	at washe was the same the same the

1632	<u>1)</u>	The US	SEPA, the Board, or the Agency may allow for the filing of
1633		electro	nic documents. This Section does not require submission of
1634		electro	nic documents in lieu of paper documents. This Section sets forth
1635		the req	uirements for the optional electronic filing of any report or
1636		<u>docum</u>	ent that must be submitted to the appropriate of the following:
1637			
1638		<u>A)</u>	To USEPA directly under Title 40 of the Code of Federal
1639			Regulations; or
1640			
1641		<u>B)</u>	To the Board or the Agency pursuant to any provision of 35 Ill.
1642			Adm. Code 702 through 705, 720 through 728, 730, 733, 738, or
1643			<u>739.</u>
1644			
1645	<u>2)</u>	Electro	mic document filing under this Section can begin only after USEPA
1646		has firs	st done as follows:
1647		-	
1648		<u>A)</u>	As to filing with USEPA, USEPA has published a notice in the
1649			Federal Register announcing that USEPA is prepared to receive
1650			documents required or permitted by the identified part or subpart
1651			of Title 40 of the Code of Federal Regulations in an electronic
1652			format; or
1653			
1654		<u>B)</u>	As to filing with the State, USEPA has granted approval of any
1655			electronic document receiving system established by the Board or
1656			the Agency that meets the requirements of 40 CFR 3.2000,
1657			incorporated by reference in Section 611.102(c).
1658			
1659	<u>3)</u>	<u>This S</u>	ection does not apply to any of the following documents, whether or
1660		not the	document is a document submitted to satisfy the requirements cited
1661		<u>in subs</u>	section (a)(1) of this Section:
1662			
1663		<u>A)</u>	Any document submitted via fascimile;
1664			
1665		<u>B)</u>	Any document submitted via magnetic or optical media, such as
1666			diskette, compact disc, digital video disc, or tape; or
1667			
1668		<u>C)</u>	Any data transfer between USEPA, any state, or any local
1669			government and either the Board or the Agency as part of
1670			administrative arrangements between the parties to the transfer to
1671			share data.
1672			
1673	<u>4)</u>	<u>Upon</u>	USEPA conferring approval for the filing of any types of documents
1674		<u>as elec</u>	tronic documents, as described in subsection (a)(2)(B) of this

1675		Section, the Agency or the Board, as appropriate, must publish a Notice of
1676		Public Information in the Illinois Register that describes the documents
1677		approved for submission as electronic documents, the electronic document
1678		receiving system approved to receive them, the acceptable formats and
1679		procedures for their submission, and the date on which the Board or the
1680		Agency will begin to receive those submissions. In the event of cessation
1681		of USEPA approval or receiving any type of document as an electronic
1682		document, the Board or the Agency must similarly cause publication of a
1683		Notice of Public Information in the Illinois Register.
1684		
1685		BOARD NOTE: Subsection (a) of this Section is derived from 40 CFR 3.1, as
1686		added at 70 Fed. Reg. 59848 (Oct. 13, 2005).
1687		
1688	<u>b)</u>	Definitions. For the purposes of this Section, terms will have the meaning
1689		attributed them in 40 CFR 3.3, incorporated by reference in 35 Ill. Adm. Code
1690		<u>611.102(c).</u>
1691		
1692	<u>c)</u>	Procedures for submission of electronic documents to USEPA. Except as
1693		provided in subsection (a)(3) of this Section, any person who is required under
1694		Title 40 of the Code of Federal Regulations to create and submit or otherwise
1695		provide a document to USEPA may satisfy this requirement with an electronic
1696		document, in lieu of a paper document, provided the following conditions are met:
1697		
1698		1) The person satisfies the requirements of 40 CFR 3.10, incorporated by
1699		reference in Section 611.102(c); and
1700		
1701		2) USEPA has first published a notice in the Federal Register as described in
1702		subsection (a)(2) of this Section.
1703		
1704		BOARD NOTE: Subsection (c) of this Section is derived from 40 CFR 3.2(a)
1705		and subpart B of 40 CFR 3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).
1706		
1707	<u>d)</u>	Procedures for submission of electronic documents to the Board or the Agency.
1708		
1709		1) The Board or the Agency may, but is not required to, establish procedures
1710		for the electronic submission of documents that meet the requirements of
1711		40 CFR 3.2 and 3.2000, incorporated by reference in Section 611.102(c).
1712		The Board or the Agency must establish any such procedures under the
1713		Administrative Procedure Act [5 ILCS 100/Art. 5].
1714		
1715		2) The Board or the Agency may not accept electronic documents under this
1716		Section until after USEPA has approved the procedures in writing, and the
1717		Board or the Agency has published a notice of that approval in the Illinois

1718		Register. Nothing in this subsection (d) limits the authority of the Board
1719		or the Agency under the Illinois Environmental Protection Act [415 ILCS
1720		5] to accept documents filed electronically.
1721		
1722		BOARD NOTE: Subsection (d) of this Section is derived from 40 CFR 3.2(b)
1723		and subpart D of 40 CFR 3, as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).
1724		
1725	<u>e)</u>	Effects of submission of an electronic document.
1726		
1727		1) If a person who submits a document as an electronic document fails to
1728		comply with the requirements of this Section, that person is subject to the
1729		penalties prescribed for failure to comply with the requirement that the
1730		electronic document was intended to satisfy.
1731		
1732		2) Where a document submitted as an electronic document to satisfy a
1733		reporting requirement bears an electronic signature, the electronic
1734		signature legally binds, obligates, and makes the signer responsible to the
1735		same extent as the signer's handwritten signature would on a paper
1736		document submitted to satisfy the same reporting requirement.
1737		
1738		3) Proof that a particular signature device was used to create an electronic
1739		signature will suffice to establish that the individual uniquely entitled to
1740		use the device did so with the intent to sign the electronic document and
1741		give it effect.
1742		
1743		4) Nothing in this Section limits the use of electronic documents or
1744		information derived from electronic documents as evidence in
1745		enforcement or other proceedings.
1746		
1747		BOARD NOTE: Subsection (e) of this Section is derived from 40 CFR 3.4 and
1748		3.2000(c), as added at 70 Fed. Reg. 59848 (Oct. 13, 2005).
1749		
1750	Ð	Public document subject to State laws. Any electronic document filed with the
1751		Board is a public document. The document, its filing, its retention by the Board,
1752		and its availability for public inspection and copying are subject to various State
1753		laws, including, but not limited to, the following:
1754		
1755		1) The Administrative Procedure Act [5 ILCS 100];
1756		
1757		2) The Freedom of Information Act [5 ILCS 140];
1758		
1759		3) The State Records Act [5 ILCS 160];
1760		

1761		<u>4)</u>	The Electronic Commerce Security Act [5 ILCS 175];
1763		5)	The Environmental Protection Act [415 ILCS 5]:
1764		<u>-</u> 7	The Environmental Protection Net [415 H565 5],
1765		6)	Regulations relating to public access to Board records (2 III. Adm. Code
1766		<u> </u>	2175): and
1767			
1768		7)	Board procedural rules relating to protection of trade secrets and
1769			confidential information (35 Ill. Adm. Code 130).
1770			
1771	<u>g)</u>	<u>Nothir</u>	ng in this Section or in any provisions adopted pursuant to subsection (c)(1)
1772		<u>of this</u>	Section will create any right or privilege to submit any document as an
1773		electro	onic document.
1774			
1775		BOAR	DNOTE: Subsection (g) of this Section is derived from 40 CFR 3.2(c), as
1776		added	at 70 Fed. Reg. 59848 (Oct. 13, 2005).
1777			
1778	BOARD NO	<u>TE:</u> Der	<u>ived from 40 CFR 3, as added, and 40 CFR 142.10(g) (2005), as amended</u>
1779	at 70 Fed. Re	<u>g. 59848</u>	<u>3 (Oct. 13, 2005).</u>
1780			· · · · · · · · · · · · · · · · · · ·
1781	(Sourc	ce: Add	ed at 30 Ill. Reg, effective)
1782			
1783	Section 611.1	11 Rel	ief Equivalent to SDWA Section 1415(a) Variances
1783 1784	Section 611.1	11 Rel	ief Equivalent to SDWA Section 1415(a) Variances
1783 1784 1785	Section 611.1 This Section i	is intend	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available
1783 1784 1785 1786	Section 611.1 This Section i from USEPA	is intend under s	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A)
1783 1784 1785 1786 1787	Section 611.1 This Section i from USEPA and (a)(1)(B)	is intend under s). SDW	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five
1783 1784 1785 1786 1787 1788	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every	11 Rel is intend under s). SDW. v situatio	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do
1783 1784 1785 1786 1787 1788 1788	Section 611.1 This Section if from USEPA and (a)(1)(B) years in every require compl	11 Rel is intend under s). SDW. v situation liance w	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option
1783 1784 1785 1786 1787 1788 1788 1789 1790	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require comp of seeking Sta	is intend under s). SDW. v situation liance wate regul	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of thereing a variance under Sections 25, 27 of the Act [415 ILCS 5/25, 27]
1783 1784 1785 1786 1787 1788 1789 1790 1791	Section 611.1 This Section if from USEPA and (a)(1)(B) years in every require compl of seeking Sta three procedu	11 Rel is intend under s). SDW. v situation liance w ate regular ral med	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37]
1783 1784 1785 1786 1787 1788 1788 1789 1790 1791 1792	Section 611.1 This Section if from USEPA and $(a)(1)(B)$ years in every require comp of seeking Sta three procedu and Subpart H	11 Rel is intend under s). SDW. v situation liance w ate regular ate regular ate regular ate ate ate ate ate ate ate ate ate ate ate at ate ate ate ate ate ate at ate ate at ate ate ate ate ate at ate at ate at ate ate ate ate at at att at	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do vithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 S III Adm. Code 102; or on adjusted standard under Section 28 1 of the Act
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793	Section 611.1 This Section if from USEPA and (a)(1)(B) years in every require compl of seeking Sta three procedu and Subpart F ILCS 5/27-28	11 Rel is intend under s). SDW. y situation liance w ate regular ate regular ate regular ate and 32 3 of 35 1 3 and 32 3 and 32	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subnet D of 35 Ill. Adm. Code 104
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794	Section 611.1 This Section if from USEPA and (a)(1)(B) years in every require compl of seeking Sta three procedu and Subpart F ILCS 5/27-28 [415 ILCS 5/2	11 Rel is intend under s). SDW. y situation liance we ate regular ate regular and as of 35 1 3] and 3: 28.1] an	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do vithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796	Section 611.1 This Section if from USEPA and (a)(1)(B) years in every require comp of seeking Sta three procedu and Subpart H ILCS 5/27-28 [415 ILCS 5/2	11 Rel is intender under s). SDW. v situation liance we ate regular and as a of 35 1 3 and 3 28.1] an The P	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do vithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require compl of seeking Sta three procedu and Subpart H ILCS 5/27-28 [415 ILCS 5/2 a)	11 Rel is intend under s). SDW. y situation liance w ate regular and med of 35 1 30 and 32 28.1] an The B	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798	Section 611.1 This Section if from USEPA and (a)(1)(B) years in every require compl of seeking Sta three procedu and Subpart H ILCS 5/27-28 [415 ILCS 5/2 a)	 11 Rel is intender s under s SDW. situation situation liance wate regular real mecion and 31 and 32 28.1] and The B standa 	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require comp of seeking Sta three procedu and Subpart F ILCS 5/27-28 [415 ILCS 5/2 a)	11 Rel is intend under s). SDW. v situation liance w ate regular and regular of 35 1 3 and 3 28.1] and The B standa	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do ithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require compl of seeking Sta three procedu and Subpart H ILCS 5/27-28 [415 ILCS 5/2 a)	 11 Relation is intendential intendentia	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do vithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require comp of seeking Sta three procedu and Subpart H ILCS 5/27-28 [415 ILCS 5/2 a)	 11 Relation is intended under solution is SDW. is ituation is ituatio	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do vithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] Ill. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 Ill. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 Ill. Adm. Code 104.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801 1802	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require comp of seeking Sta three procedu and Subpart F ILCS 5/27-28 [415 ILCS 5/2 a)	 11 Rel is intendiunder s is SDW. is stuation is stuation is stuation is standa 1) 	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do within five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] III. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 III. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 III. Adm. Code 104. oard will grant a PWS a variance, a site-specific rule, or an adjusted ard from an MCL or a treatment technique pursuant to this Section. The PWS must file a petition pursuant to 35 III. Adm. Code 102 or 104, as applicable.
1783 1784 1785 1786 1787 1788 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801 1802 1803	Section 611.1 This Section i from USEPA and (a)(1)(B) years in every require compi of seeking Sta three procedu and Subpart H ILCS 5/27-28 [415 ILCS 5/2 a)	 11 Relation is intending under solution is SDW. is stuated is standa is of 35 1 is and 32 is and 32 is and 33 is and 34 is and 35 is and 34 is	ief Equivalent to SDWA Section 1415(a) Variances led to describe how the Board grants State relief equivalent to that available ection 1415(a)(1)(A) and (a)(1)(B) of the SDWA (42 USC 300g-4(a)(1)(A) A section 1415 variances do not require ultimate compliance within five on. Variances under Sections 35-37 of the Act [415 ILCS 5/35-37] do rithin five years in every case. Consequently, a PWS may have the option latory relief equivalent to a SDWA section 1415 variance through one of hanisms: a variance under Sections 35-37 of the Act [415 ILCS 5/35-37] III. Adm. Code 104; a site-specific rule under Sections 27-28 of the Act [415 5 III. Adm. Code 102; or an adjusted standard under Section 28.1 of the Act d Subpart D of 35 III. Adm. Code 104. oard will grant a PWS a variance, a site-specific rule, or an adjusted rd from an MCL or a treatment technique pursuant to this Section. The PWS must file a petition pursuant to 35 III. Adm. Code 102 or 104, as applicable. If a State requirement does not have a federal counterpart, the Board may grant relief from the State requirements without following this Section

1805 1806b)Relief from an MCL.1806 1807 18081)As part of the justification for relief from an MCL under this Section, the PWS must demonstrate the following:1809 1810 1811A)Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and1811 1812 1813 1814 1814 1814B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1817 1817 1818 1820 1821 1821 1821 1822 1823 1823 1823 1824 1825 1825 1826 1825 1826 1827 1830 1831 1826 1833 1831D) 17 The number of persons served by the system; 1820 1822 1821 1821 1822 1823 1824 1825 1825 1830 1831 1832 1830 1831 1832 1830 1831 1832 1830 1831 1832 1830 1831 1833 1831 1833 1833 1831 1833 1833 1834 1833 1834 1835 1836 1833 1834 <br< th=""><th>1804</th><th></th><th></th><th></th><th></th></br<>	1804				
18061)As part of the justification for relief from an MCL under this Section, the PWS must demonstrate the following:1809A)Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and1811B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1818B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1819i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1821iii)Costs of compliance; and1825C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1833B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.1836 <t< td=""><td>1805</td><td>b)</td><td>Relief</td><td>from an</td><td>MCL.</td></t<>	1805	b)	Relief	from an	MCL.
18071)As part of the justification for relief from an MCL under this Section, the PWS must demonstrate the following:1809A)Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and1813B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1816B)The number of persons served by the system;1820ii)The number of persons served by the system;1821iii)Physical conditions related to engineering feasibility; and1822iii)Costs of compliance; and1823C)The variance will not result in an unreasonable risk to health.1826C)The variance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1841B)It the spect to which the relief was granted as expeditiously as period ending on the date compliance with each MCL with respect to which the relief is granted, during the period ending on the date compliance with each MCL with respect to which the relief is granted as expeditiously as practicable.1841B)If the Board prescribes a schedule requiring c	1806	,			
1808PWS must demonstrate the following:1809A)Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and1811B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1818B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1818i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and 18231821ii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1833B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief was granted, and1834B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1841B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted as expeditiously as practicable. <t< td=""><td>1807</td><td></td><td>1)</td><td>As part</td><td>t of the justification for relief from an MCL under this Section, the</td></t<>	1807		1)	As part	t of the justification for relief from an MCL under this Section, the
1809A)Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and1811B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1813B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1816i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1821ii)Costs of compliance; and1822C)The variance will not result in an unreasonable risk to health.1826C)The variance will not result in an unreasonable risk to health.18272)In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with cach MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18333)Schedule of compliance for relief from an MCL.1836A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as ex	1808		,	PWS n	nust demonstrate the following:
1810A)Because of characteristics of the raw water sources and alternative sources that are reasonably available to the system, the PWS cannot meet the MCL; and1811Cannot meet the MCL; and1813B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1815i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1821iii)Costs of compliance; and1822Iiii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1830A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief is granted, during the apracticable.1844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted as expeditiously as practicable.1855B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted date of lowing:	1809				Ū
111sources that are reasonably available to the system, the PWS1811sources that are reasonably available to the system, the PWS1812cannot meet the MCL; and1813B)The PWS will install or has installed the best available technology1814B)The PWS will install or has installed the best available technology1815(BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1818i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1821iii)Costs of compliance; and1822iii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.18261a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1832B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1842B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance o	1810			A)	Because of characteristics of the raw water sources and alternative
1811Description1812cannot meet the MCL; and1813B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1816i)The number of persons served by the system;1817ii)Physical conditions related to engineering feasibility; and1820iii)Costs of compliance; and1821iii)Costs of compliance; and1825C)The variance will not result in an unreasonable risk to health.18261In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1830A)Compliance, including increments of progress, by the PWS, with cach MCL with respect to which the relief was granted; and1832B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1810			,	sources that are reasonably available to the system, the PWS
1812Cannot meet write, and1813B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1816or other means that the Agency finds available. BAT may vary depending on the following:1817depending on the following:1818i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1822iii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1830A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.1837131840A)1841A schedule of compliance for relief from an MCL.1839A)1841B)1842B)1843B)1844B)1845If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1812				cannot meet the MCL: and
1813 1814B)The PWS will install or has installed the best available technology (BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1816 1817 1817 1818 1818 1819i)The number of persons served by the system;1820 1821 1821 1822 1823 1824 1825 1825 1825 1826 1827 1826 1827 1826 1827 1830 1830 1831 1831 1831 1833 1833 1833 1833 1833 1834O The variance will not result in an unreasonable risk to health.1826 1827 1830 1831 1833 1833 1834 1835 1836 1835 1836In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1833 1834 1835 1836 1837 1838 1836B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.1837 1838 1834 1844A)Schedule of compliance for relief from an MCL.1839 1844 1844 1844A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1844 1844 1844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1812				
1815D)(BAT) (as identified in Subpart F of this Part), treatment technique, or other means that the Agency finds available. BAT may vary depending on the following:1816i)The number of persons served by the system;1817ii)Physical conditions related to engineering feasibility; and1820iii)Physical conditions related to engineering feasibility; and1821iii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.1826iii)Costs of compliance; and18272)In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1830A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1833B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1840A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1815			R)	The PWS will install or has installed the best available technology
1815Circle (Circle) (the standard of the relief is granted as expeditional compliance with each MCL with respect to which the relief was granted as expeditional set of the relief is granted as expeditional set of the relief.181711111118281111182912121830131418311414183213141833141418341514183715141838131518401414184115184216184416184616184616 <t< td=""><td>1014</td><td></td><td></td><td>D)</td><td>(BAT) (as identified in Subpart F of this Part), treatment technique.</td></t<>	1014			D)	(BAT) (as identified in Subpart F of this Part), treatment technique.
1810181718181817depending on the following:1818i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1821ii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.1825C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe1828a schedule for the following:1830A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1832B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1840A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1015				or other means that the Agency finds available BAT may vary
1817a capending on the following:1818i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1822iii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.18261In any order granting relief under this subsection, the Board will prescribe18272)In any order granting relief under this subsection, the Board will prescribe1828a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1832B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1841A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1010				depending on the following:
1819i)The number of persons served by the system;1820ii)Physical conditions related to engineering feasibility; and1821iii)Costs of compliance; and1824iii)Costs of compliance; and1825C)The variance will not result in an unreasonable risk to health.1826iiii)In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1832B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1841A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1017				depending on the following.
18191)The humber of persons served by the system,1820ii)Physical conditions related to engineering feasibility; and1821iii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe1828a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1833B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18383)Schedule of compliance for relief from an MCL.1840A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1010				i) The number of persons served by the system.
 ii) Physical conditions related to engineering feasibility; and iii) Costs of compliance; and iiii) Costs of compliance; and iiiiiiii Costs of compliance; and iiiiiii Costs of compliance; and iiiiii Costs of compliance; and iiiiiii Costs of compliance; and iiiiii Costs of compliance; and iiiiiii Costs of compliance is a schedule of compliance with such requirement is required. iiiiiiii Costs of compliance is a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following: 	1819				1) The number of persons served by the system,
182111)11 Hystel conditions related to dightering relationly and1822iii)Costs of compliance; and1824C)The variance will not result in an unreasonable risk to health.182618272)In any order granting relief under this subsection, the Board will prescribe1828a schedule for the following:18291830A)1831compliance, including increments of progress, by the PWS, with1832each MCL with respect to which the relief was granted; and1832B)Implementation by the PWS of each additional control measure for1834each MCL with respect to which the relief is granted, during the1835period ending on the date compliance with such requirement is1837required.18383)Schedule of compliance for relief from an MCL.1840A)A schedule of compliance will require compliance with each MCL1841with respect to which the relief was granted as expeditiously as1842practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1020				ii) Physical conditions related to engineering feasibility and
1822iii)Costs of compliance; and1824iii)Costs of compliance; and1825C)The variance will not result in an unreasonable risk to health.1826iii)In any order granting relief under this subsection, the Board will prescribe18272)In any order granting relief under this subsection, the Board will prescribe1828a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1021				ii) I hysical conditions related to engineering reasoning, and
1823Inf)Costs of compliance, and1824C)The variance will not result in an unreasonable risk to health.1825C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe1828a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.1835Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1822				iii) Costs of compliance: and
1824C)The variance will not result in an unreasonable risk to health.1825C)The variance will not result in an unreasonable risk to health.1826In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1840A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1823				iii) Costs of compnance, and
 1825 1826 1827 2) In any order granting relief under this subsection, the Board will prescribe a schedule for the following: 1829 1830 A) Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and 1832 1833 1834 1835 1836 1836 1837 1838 3) Schedule of compliance for relief from an MCL. 1839 A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable. 1844 1844 1845 1846 	1024			C	The variance will not result in an unreasonable risk to health.
1820 18272)In any order granting relief under this subsection, the Board will prescribe a schedule for the following:1828 1829a schedule for the following:1829 1830A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1832 1833 1834B)Implementation by the PWS of each additional control measure for cach MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.1837 1838 18403)Schedule of compliance for relief from an MCL.1841 1844A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1844 1846B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1023			0)	The variance will not result in an ameasenable risk to neuring
 1827 1828 a schedule for the following: 1829 1830 A) Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and 1832 B) Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required. 1837 1838 3) Schedule of compliance for relief from an MCL. 1839 1840 A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable. 1843 1844 B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following: 	1820		2)	In any	order granting relief under this subsection the Board will prescribe
1828a schedule for the following.1829A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1827		2)	n sche	dule for the following:
18291830A)Compliance, including increments of progress, by the PWS, with each MCL with respect to which the relief was granted; and1831B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18373)Schedule of compliance for relief from an MCL.1839A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1843B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1020			a sene	duie for the following.
 A) Compliance, including increments of progress, of and twoly minimised MCL with respect to which the relief was granted; and B) Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required. Schedule of compliance for relief from an MCL. A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable. B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following: 	1829			A)	Compliance including increments of progress by the PWS, with
 B) Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required. 3) Schedule of compliance for relief from an MCL. A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable. B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following: 	1830			A)	each MCL with respect to which the relief was granted; and
1832B)Implementation by the PWS of each additional control measure for each MCL with respect to which the relief is granted, during the period ending on the date compliance with such requirement is required.18353)Schedule of compliance for relief from an MCL.18394)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1841B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1031				cach wer whit respect to which the rener was granted, and
1833B)Implementation by the 1 we of each additional content additional con	1032			B)	Implementation by the PWS of each additional control measure for
18341835period ending on the date compliance with such requirement is required.183518363)Schedule of compliance for relief from an MCL.18391840A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1841B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1033			D)	each MCL with respect to which the relief is granted, during the
183518351844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1034				period ending on the date compliance with such requirement is
1836required.183718381839184018411841184218421843184418451846	1033				required
 3) Schedule of compliance for relief from an MCL. 3) Schedule of compliance for relief from an MCL. A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable. B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following: 	1830				Tequited.
 1838 3) Schedule of compliance for refier from an MCL. 1839 1840 A) A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable. 1843 1844 B) If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following: 	1837		2)	Schod	ula of compliance for relief from an MCI
18391840A)A schedule of compliance will require compliance with each MCL with respect to which the relief was granted as expeditiously as practicable.1842B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1838		5)	Sched	ule of compliance for rener from an week.
1840A)A schedule of compliance will require compliance will each model1841with respect to which the relief was granted as expeditiously as1842practicable.1843If the Board prescribes a schedule requiring compliance with an1845MCL for which the relief is granted later than five years from the1846date of issuance of the relief, the Board will do the following:	1839			A)	A schodule of compliance will require compliance with each MCL.
1841with respect to which the relief was granted as expeditionally de1842practicable.18431844B)1845MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1840			A)	with respect to which the relief was granted as expeditionally as
1842practicable.18431844B)If the Board prescribes a schedule requiring compliance with an MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1841				with respect to which the rener was granted as expeditionally us
1843B)If the Board prescribes a schedule requiring compliance with an1844B)If the Board prescribes a schedule requiring compliance with an1845MCL for which the relief is granted later than five years from the date of issuance of the relief, the Board will do the following:	1842				practicable.
1844B)If the Board prescribes a schedule requiring compliance with an1845MCL for which the relief is granted later than five years from the1846date of issuance of the relief, the Board will do the following:	1843			D)	If the Board prescribes a schedule requiring compliance with an
1845MCL for which the relief is granted fater than five years from the1846date of issuance of the relief, the Board will do the following:	1844			в)	If the board presences a schedule requiring comphanee with an
1846 date of issuance of the relief, the Board will do the following.	1845				MUL for which the relief is granted later than five years from the
	1846				uate of issuance of the rener, the board will do the following.

1047				
1047			a	Degument its rationals for the extended compliance
1840			1)	askedule.
1049				schedule,
1050			::)	Discuss the rationals for the outended compliance schedule
1051			n)	in the required multic notice and emperturity for multic
1852				In the required public notice and opportunity for public
1823				nearing; and
1854				Description of a standard second in the first sector bed the fact it is
1855			111)	Provide the shortest practicable time schedule feasible
1856				under the circumstances.
1857	``	D 1'	C C	
1858	c)	Relie	i from a treatm	ent technique requirement.
1859		1		
1860		1)	As part of th	e justification for relief from a treatment technique
1861			requirement	under this Section, the PWS must demonstrate that the
1862			treatment tec	inique is not necessary to protect the health of persons served
1863			because of th	he nature of the raw water source.
1864		•		na na na na na a
1865		2)	The Board m	ay prescribe monitoring and other requirements as a
1866			condition for	relief from a treatment technique requirement.
1867	•`			
1868	d)	The I	Board will hold	at least one public hearing. In addition the Board will accept
1869		comr	nents as approp	briate pursuant to 35 III. Adm. Code 102 or 104.
1870	,		~ 1 /11	
1871	e)	The	Board will not g	grant relief from any of the following:
1872				
1873		1)	From the MO	CL for total coliforms. However, the Board may grant a
1874			variance from	n the total coliform MCL of Section 611.325 for PWSs that
1875			prove that th	e violation of the total coliform MCL is due to persistent
1876			growth of to	tal coliform in the distribution system, rather than from fecal
1877			or pathogeni	c contamination, from a treatment lapse or deficiency, or from
1878			a problem in	the operation or maintenance of the distribution system.
1879				
1880		2)	From any of	the treatment technique requirements of Subpart B of this
1881			Part.	
1882				
1883		3)	From the res	idual disinfectant concentration (RDC) requirements of
1884			Sections 611	1.241(c) and $611.242(b)$.
1885	-			
1886	f)	The .	Agency must p	romptly send USEPA the opinion and order of the Board
1887		grant	ting relief pursu	iant to this Section. The Board may reconsider and modify a
1888		grant	t of relief, or re	lief conditions, if USEPA notifies the Board of a finding
1889		pursi	uant to section	1415 of the SDWA (42 USC 300g-4).

1891 g) In addition to the requirements of this Section, the provisions of Section 611.130 1892 or 611.131 may apply to relief granted pursuant to this Section. 1893 BOARD NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section 1894 BOARD NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section 1895 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for 1896 Compliance with the Filtration and Disinfection Requirements for Public Water 1897 Systems using Surface Water Sources", incorporated by reference in Section 1898 611.102. USEPA has reserved the discretion to review and modify or nullify 1899 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (2005)(2002). 1901 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1906 Section 611.212 Groundwater under the direct influence of surface water,". The Agency must determine that a groundwater under the direct influence of surface water,", an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from s	1890			
1892 or 611.131 may apply to relief granted pursuant to this Section. 1893 BOARD NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section 1895 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for 1896 Compliance with the Filtration and Disinfection Requirements for Public Water 1897 Systems using Surface Water Sources", incorporated by reference in Section 1898 611.102. USEPA has reserved the discretion to review and modify or nullify 1909 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (2005)(2002). 1901 SuBPART B: FILTRATION AND DISINFECTION 1902 (Source: Amended at 30 III. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART B: FILTRATION AND DISINFECTION 1905 Bection 611.212 Groundwater under birect influence of surface water.". The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water.". The Agency must determine that a groundwater source is under the direct influence of surface water suce as a lake or stream. Other sources that may be subject to influence fors unsubsurface aquifers. 1914 a) Physical characteristics of the source: whether the source is obviously a surface water sources, usus as a lake or stream. Other sources that may be subject to influe	1891	g)	In addi	tion to the requirements of this Section, the provisions of Section 611.130
1893 BOARD NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section 1894 BOARD NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section 1895 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for 1896 Compliance with the Filtration and Disinfection Requirements for Public Water 1897 Systems using Surface Water Sources", incorporated by reference in Section 1898 611.102 USEPA has reserved the discriction to review and modify or nullify 1899 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (Source: Amended at 30 III. Reg, effective) 1901 (Source: Amended at 30 III. Reg, effective) 1902 (Source: Amended at 30 III. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART be supplier whether a PWS uses "groundwater under 1905 the direct influence of surface water." The Agency must 1907 the direct influence of surface water must determine that a 1908 the direct influence of surface water based upon the following: 1919 the direct influence of surface water based upon the following: 1914 a) Physical characteristics of the source: whether a PWS uses "groundwater under	1892	U/	or 611	131 may apply to relief granted pursuant to this Section.
1894 BOARD NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section 1895 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for 1896 Compliance with the Filtration and Disinfection Requirements for Public Water 1897 Systems using Surface Water Sources", incorporated by reference in Section 1898 611.102. USEPA has reserved the discretion to review and modify or nullify 1899 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (2005)(2002). 1901 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water,". The Agency must determine that a groundwater source is under the direct influence of surface water, and a source supplier whether a PWS uses "groundwater under the direct influence of surface water based upon the following: 1919 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface water sinclude: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1919 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection pr	1893			
1895 1415(a)(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for 1896 Compliance with the Filtration and Disinfection Requirements for Public Water 1897 Systems using Surface Water Sources", incorporated by reference in Section 1898 611.102. USEPA has reserved the discretion to review and modify or nullify 1900 (2005)(2002). 1901 (Source: Amended at 30 III. Reg, effective) 1902 (Source: Amended at 30 III. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water based upon the following: 1914 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1919 b) Well construction characteristics and geology with field evaluation. 1920 <	1894		BOAR	D NOTE: Derived from 40 CFR 141.4 (2005)(2002), from section
1896 Compliance with the Filtration and Disinfection Requirements for Public Water 1897 Systems using Surface Water Sources", incorporated by reference in Section 1898 611.102. USEPA has reserved the discretion to review and modify or nullify 1899 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (2005)(2002). 1901 (Source: Amended at 30 Ill. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water,". The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water uses dupon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1919 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection program's requirements, which include delineation of	1895		1415(a	(1)(A) and (a)(1)(B) of the SDWA and from the "Guidance Manual for
1897 Systems using Surface Water Sources", incorporated by reference in Section 611.102. USEPA has reserved the discretion to review and modify or nullify Board determinations made pursuant to this Section at 40 CFR 142.23 (2005)(2002). 1900 (Source: Amended at 30 Ill. Reg, effective) 1901 (Source: Amended at 30 Ill. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART B: FILTRATION and DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1906 Section 611.212 Groundwater under Direct influence of surface water.". The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: 1913 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1919 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 19	1896		Compl	iance with the Filtration and Disinfection Requirements for Public Water
1898 611.102. USEPA has reserved the discretion to review and modify or nullify 1899 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (2005)(2002). 1901 (Source: Amended at 30 Ill. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water agroundwater under the direct influence of surface water based upon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1918 1) The Agency may use the wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1921 1) The Agency may use they	1897		System	ns using Surface Water Sources", incorporated by reference in Section
1899 Board determinations made pursuant to this Section at 40 CFR 142.23 1900 (2005)(2002). 1901 (Source: Amended at 30 Ill. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water based upon the following: 1913 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1914 a) Physical characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1921 1)	1898		611.10	2. USEPA has reserved the discretion to review and modify or nullify
1900 (2005)(2002). 1901 (Source: Amended at 30 Ill. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water." The Agency must determine that a groundwater source is under the direct influence of surface water used upon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1912 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1924 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1925 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1899		Board	determinations made pursuant to this Section at 40 CFR 142.23
1901 (Source: Amended at 30 III. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1905 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water,". The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water based upon the following: 1910 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1919 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1927 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1928 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1900		(2005)	(2002) .
1902 (Source: Amended at 30 Ill. Reg, effective) 1903 SUBPART B: FILTRATION AND DISINFECTION 1904 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water.": The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water.": The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1918 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1927 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1928 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1901		· · · · · · · · · · · · · · · · · · ·	
1903 SUBPART B: FILTRATION AND DISINFECTION 1906 Section 611.212 Groundwater under Direct Influence of Surface Water 1907 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water."- The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1918 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1927 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1929 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1902	(Sour	ce: Ame	ended at 30 Ill. Reg., effective)
1904SUBPART B: FILTRATION AND DISINFECTION1905Section 611.212 Groundwater under Direct Influence of Surface Water1907The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water."- The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following:1911a)Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers.19181)The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.19272)Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water.19283)Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1903	χ-		
 Section 611.212 Groundwater under Direct Influence of Surface Water The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water." The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water." The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1904			SUBPART B: FILTRATION AND DISINFECTION
Section 611.212 Groundwater under Direct Influence of Surface Water 1907 1908 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water_"- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: 1911 a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. 1913 b) Well construction characteristics and geology with field evaluation. 1920 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1926 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1927 2) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1905			
 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water a provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water applies." The Agency must determine with a groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. c) the Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. c) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. d) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1906	Section 611.2	212 Gro	oundwater under Direct Influence of Surface Water
 The Agency shall, pursuant to Section 611.201, require all CWSs to demonstrate whether they are using "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water."- The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1907			
 are using "groundwater under the direct influence of surface water."- The Agency must determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1908	The Agency s	shall, pu	rsuant to Section 611.201, require all CWSs to demonstrate whether they
 determine with information provided by the supplier whether a PWS uses "groundwater under the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. Well construction characteristics and geology with field evaluation. The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1909	are using "gro	oundwat	er under the direct influence of surface water."- The Agency must
 the direct influence of surface water" on an individual basis. The Agency must determine that a groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1910	determine wi	th inforn	nation provided by the supplier whether a PWS uses "groundwater under
 groundwater source is under the direct influence of surface water based upon the following: a) Physical characteristics of the source: whether the source is obviously a surface water source, such as a lake or stream. Other sources that may be subject to influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1911	the direct infl	luence of	f surface water" on an individual basis. The Agency must determine that a
19131914a)Physical characteristics of the source: whether the source is obviously a surface1915water source, such as a lake or stream. Other sources that may be subject to1916influence from surface waters include: springs, infiltration galleries, wells, or1917other collectors in subsurface aquifers.191819191919b)Well construction characteristics and geology with field evaluation.1920101921111922Which include delineation of wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of1923sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.19262)Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water.19293)Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1912	groundwater	source is	s under the direct influence of surface water based upon the following:
1914a)Physical characteristics of the source: whether the source is obviously a surface1915water source, such as a lake or stream. Other sources that may be subject to1916influence from surface waters include: springs, infiltration galleries, wells, or1917other collectors in subsurface aquifers.1918b)Well construction characteristics and geology with field evaluation.19201)The Agency may use the wellhead protection program's requirements,19211)The Agency may use the wellhead protection areas, assessment of1923sources of contamination and implementation of management control1924systems, to determine if the wellhead is under the influence of surface1926water.19272)Wells less than or equal to 50 feet in depth are likely to be under the1929influence of surface water.19293)Wells greater than 50 feet in depth are likely to be under the influence of1931surface water, unless they include the following:	1913	2		
1915water source, such as a lake or stream. Other sources that may be subject to1916influence from surface waters include: springs, infiltration galleries, wells, or1917other collectors in subsurface aquifers.1918101919b)Well construction characteristics and geology with field evaluation.1920101921111922The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.19262)Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water.19293)Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1914	a)	Physic	al characteristics of the source: whether the source is obviously a surface
 influence from surface waters include: springs, infiltration galleries, wells, or other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1915	-	water	source, such as a lake or stream. Other sources that may be subject to
 other collectors in subsurface aquifers. b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1916		influer	nce from surface waters include: springs, infiltration galleries, wells, or
 b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1929 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1917		other o	collectors in subsurface aquifers.
 b) Well construction characteristics and geology with field evaluation. b) Well construction characteristics and geology with field evaluation. 1) The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water. 1) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1929 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 	1918			
192019211)The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.19261000000000000000000000000000000000000	1919	b)	Well c	onstruction characteristics and geology with field evaluation.
19211)The Agency may use the wellhead protection program's requirements, which include delineation of wellhead protection areas, assessment of sources of contamination and implementation of management control systems, to determine if the wellhead is under the influence of surface water.1925water.1926192719282)1929Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water.19293)19303)1931Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following:	1920			
1922which include delineation of wellhead protection areas, assessment of1923sources of contamination and implementation of management control1924systems, to determine if the wellhead is under the influence of surface1925water.192619271928Wells less than or equal to 50 feet in depth are likely to be under the192919301931Wells greater than 50 feet in depth are likely to be under the influence of1931surface water, unless they include the following:	1921		1)	The Agency may use the wellhead protection program's requirements,
1923sources of contamination and implementation of management control1924systems, to determine if the wellhead is under the influence of surface1925water.1926	1922			which include delineation of wellhead protection areas, assessment of
1924systems, to determine if the wellhead is under the influence of surface1925water.1926	1923			sources of contamination and implementation of management control
1925water.1926	1924			systems, to determine if the wellhead is under the influence of surface
 1926 1927 2) Wells less than or equal to 50 feet in depth are likely to be under the influence of surface water. 1929 1930 3) Wells greater than 50 feet in depth are likely to be under the influence of surface water, unless they include the following: 1932 	1925			water.
19272)Wells less than or equal to 50 feet in depth are likely to be under the1928influence of surface water.1929	1926			
1928influence of surface water.1929	1927		2)	Wells less than or equal to 50 feet in depth are likely to be under the
192919303)Wells greater than 50 feet in depth are likely to be under the influence of19311932	1928			influence of surface water.
19303)Wells greater than 50 feet in depth are likely to be under the influence of1931surface water, unless they include the following:1932	1929			
1931surface water, unless they include the following:1932	1930		3)	Wells greater than 50 feet in depth are likely to be under the influence of
1932	1931			surface water, unless they include the following:
	1932			

1933 1934			A)	A surface sanitary seal using bentonite clay, concrete, or similar material:-
1935				
1936			B)	A well casing that penetrates consolidated (slowly permeable)
1937			D)	material and
1038				material, and
1030			C	A well casing that is only perforated or screened below
1939			0)	consolidated (slowly permeable) material
10/1				consondated (slowly permeable) material.
1042		4)	A cou	the that is less than 200 feet from any surface water is likely to be
10/3		,	under	the influence of surface water
1945			under	The influence of surface water.
1944		Anve	trator	al modifications to prevent the direct influence of surface water and
1945	()	alimir	anto the	ar moundations to prevent the direct influence of surface water and
1940		CHIIII	late the	potential for Olardia famolia cyst containmation.
1048	d)	Sourc	e water	quality records. The following are indicative that a course is under
10/0	u)	the in	fluence	of surface water:
1050			muchec	of Sufface water.
1051		1)	A rec	and of total caliform or feast caliform contamination in untrasted
1052		1)	Alte	les sollested over the post three vegre
1952			samp	tes confected over the past three years,
1955		2)	A his	tory of turbidity problems appointed with the sources or
1954		2)	AIIIS	tory of turbidity problems associated with the source, of
1955		2)	A his	tory of known or suggested outbreaks of Giardia Jamblia
1950		5)	Crim	topporidium or other nothegonic organisms accopited with surface
1957			Cryp	that has been attributed to that source
1938			water	t that has been altributed to that source.
1939	2)	Ciami	ficanta	nd volotivolo vonid chifte in coston chomostanistics avals og touhiditer
1900	ej	Signi	ncant a	no relatively rapid smits in water characteristics such as turbidity,
1901		tempe	erature,	conductivity, or pri.
1902		1)	A 1/0	riction in turbidity of 0.5 NTU or more over one year is indicative of
1905		1)	A va	nation in furbidity of 0.5 NTO of more over one year is indicative of
1904			surra	ce influence.
1903		2)	A	viction in termerature of nine(). Echromhait degrees or more over one
1900		2)	A va	indicative of surface in flyence
1907			year	is indicative of surface influence.
1908	A	Cimi	ficant	nd valativaly ward chiffs in water abarratoristics such as tyrhidity
1909	1)	Sigin	ncant a	and relatively rapid shifts in water characteristics such as furbidity,
1970		wator	crature,	conductivity, of pri that closely correlate to chinatological of surface
19/1		water	conult	tons are indicative of sufface water influence.
1772		1)	D	ana of particulate matter accorded with the surface water or
1973		IJ	EV10	ence of particulate matter associated with the surface water, or,
1974		a >		
1975		2)	Turb	idity or temperature data that correlates to that of a nearby surface

1976			water source.
1977			
1978	g)	Particu	ilate analysis: Significant occurrence of insects or other macroorganisms,
1979		algae,	or large diameter pathogens such as Giardia lamblia is indicative of surface
1980		influer	ice.
1981			
1982		1)	"Large diameter" particulates are those over <u>seven</u> 7 micrometers.
1983			
1984		2)	Particulates must be measured as specified in the "Guidance Manual for
1985			Compliance with the Filtration and Disinfection Requirements for Public
1986			Water Systems using Surface Water Sources,", incorporated by reference
1987			in Section 611.102.
1988			
1989	h)	The po	ptential for contamination by small-diameter pathogens, such as bacteria or
1990		viruse	s, does not alone render the source "under the direct influence of surface
1991		water.	," .
1992			
1993	BOARD NO	TE: Der	rived from the definition of "groundwater under the direct influence of
1994	surface water	" in 40 (CFR 141.2 (2005)(2002); from the Preamble at 54 Fed. Reg. 27489 (June
1995	29, 1989); an	d from t	he USEPA "Guidance Manual for Compliance with the Filtration and
1996	Disinfection 1	Require	ments for Public Water Systems using Surface Water Sources,",
1997	incorporated	by refer	ence in Section 611.102.
1998			
1999	(Sour	ce: Am	ended at 30 Ill. Reg, effective)
2000			
2001			SUBPART G: LEAD AND COPPER
2002			
2003	Section 611.	359 An	alytical Methods
2004	_		and the second
2005	Analyses for	lead, co	pper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and
2006	temperature 1	nust be	conducted using the methods set forth in Section 611.611(a).
2007			
2008	a)	Analy	ses for lead and copper performed for the purposes of compliance with this
2009		Subpa	Int G must only be conducted by laboratories that have been certified by
2010		USEP	A or the Agency. To obtain certification to conduct analyses for lead and
2011		coppe	r, laboratories must do the following:
2012			
2013		1)	Analyze performance evaluation samples that include lead and copper
2014			provided by USEPA Environmental Monitoring and Support Laboratory
2015			or equivalent samples provided by the Agency; and
2016			
2017		2)	Achieve quantitative acceptance limits as follows:
2018			

2019 2020		A)	For lead: ± 30 percent of the actual amount in the performance evaluation sample when the actual amount is greater than or equal
2020			to 0.005 mg/l (the DOL for lead is 0.005 mg/l):
2021			to 0.005 mg/t (the PQL for lead is 0.005 mg/t);
2023		B)	For copper: ± 10 percent of the actual amount in the performance
2024		2)	evaluation sample when the actual amount is greater than or equal
2025			to 0.050 mg/ ℓ (the POL for copper is 0.050 mg/ ℓ);
2026			
2027		C)	Achieve the method detection limit (MDL) for lead (0.001 mg/ ℓ .
2028		-)	as defined in Section 611.350(a)) according to the procedures in 35
2029			Ill. Adm. Code 186 and appendix B to 40 CFR 136-Appendix B:
2030			"Definition and Procedure for the Determination of the Method
2031			Detection Limit – Revision 1.11" (2005), incorporated by
2032			reference in Section $611.102(c)$ (2002). This need only be
2033			accomplished if the laboratory will be processing source water
2034			composite samples under Section 611.358(a)(1)(C); and
2035			
2036		D)	Be currently certified by USEPA or the Agency to perform
2037		,	analyses to the specifications described in subsection $(a)(2)$ of this
2038			Section.
2039			
2040		BOARD NO	TE: Subsection (a) is derived from 40 CFR 141.89(a) and (a)(1)
2041		(2005)(2002)	
2042		, ,	
2043	b)	The Agency	must, by a SEP issued pursuant to Section 611.110, allow a supplier
2044		to use previo	usly collected monitoring data for the purposes of monitoring under
2045		this Subpart	G if the data were collected and analyzed in accordance with the
2046		requirements	of this Subpart G.
2047			
2048		BOARD NO	TE: Subsection (b) is derived from 40 CFR 141.89(a)(2)
2049		(2005)(2002)) .
2050			
2051	c)	Reporting lea	ad and copper levels.
2052			
2053		1) All le	ad and copper levels greater than or equal to the lead and copper
2054		PQL	(Pb $\geq 0.005 \text{ mg}/\ell$ and Cu $\geq 0.050 \text{ mg}/\ell$) must be reported as
2055		meas	ured.
2056			
2057		2) All le	ead and copper levels measured less than the PQL and greater than
2058		the M	IDL (0.005 mg/ ℓ > Pb> MDL and 0.050 mg/ ℓ > Cu > MDL) must be
2059		either	r reported as measured or as one-half the PQL set forth in subsection
2060		(a) of	T this Section (i.e., reported as 0.0025 mg/ ℓ for lead or 0.025 mg/ ℓ for
2061		coppe	er).

- -..

2062			
2063		3)	All lead and copper levels below the lead and copper MDL (MDL $>$ Pb)
2064			must be reported as zero.
2065	.	_	
2066 2067	BOARD NO	TE: Su	bsection (c) is derived from 40 CFR 141.89(a)(3) and (a)(4) (2005)(2002).
2068	(Sour	rce: An	nended at 30 Ill. Reg, effective)
2069			
2070	SUBI	PART I:	DISINFECTANT RESIDUALS, DISINFECTION BYPRODUCTS,
2071			AND DISINFECTION BYPRODUCT PRECURSORS
2072	~		
2073	Section 611.	380 Ge	eneral Requirements
2074	-)	T 1	
2075	a)	I he r	equirements of this Subpart I constitute NPDWRs.
2076		1)	The month time in this Ostan (I set this do that the list of OWO
2077		1)	The regulations in this Subpart I establish standards under which a UWS
2078			supplier of an NTNC wS supplier that adds a chemical disinfectant to the
2079			water in any part of the drinking water treatment process or which
2000			provides water that contains a chemical disinfectant must modify its
2081			respectively, and must meet the treatment technique requirements for DPP
2082			respectively, and must meet the treatment technique requirements for DBF
2085			precursors in Section 011.385.
2084		2)	The regulations in this Subpart Lestablish standards under which a
2085		2)	transient non CWS supplier that uses chloring diovide as a disinfectant or
2000			ovident must modify its practices to meet the MRDL for chloring diovide
2087			in Section 611 313
2080			
2090		3)	The Board has established MCLs for TTHM and HAA5 and treatment
2091		2)	technique requirements for DBP precursors to limit the levels of known
2092			and unknown DBPs that may have adverse health effects. These DBPs
2093			may include chloroform, bromodichloromethane, dibromochloromethane.
2094			bromoform, dichloroacetic acid, and trichloroacetic acid.
2095			
2096	b)	Com	oliance dates.
2097	,	-	
2098		1)	CWSs and NTNCWSs. Unless otherwise noted, a supplier must comply
2099		,	with the requirements of this Subpart I as follows: A Subpart B system
2100			supplier serving 10,000 or more persons must comply with this Subpart I
2101			beginning January 1, 2002. A Subpart B system supplier serving fewer
2102			than 10,000 persons or a supplier using only groundwater not under the
2103			direct influence of surface water must comply with this Subpart I
2104			beginning January 1, 2004.

2105		
2106		2) Transient non-CWSs. A Subpart B system supplier serving 10,000 or
2107		more persons and using chlorine dioxide as a disinfectant or oxidant must
2108		comply with any requirements for chlorine dioxide in this Subpart I
2109		beginning January 1, 2002. A Subpart B system supplier serving fewer
2110		than 10,000 persons and using chlorine dioxide as a disinfectant or oxidant
2111		or a supplier using only groundwater not under the direct influence of
2112		surface water and using chlorine dioxide as a disinfectant or oxidant must
2113		comply with any requirements for chlorine dioxide in this Subpart I
2114		beginning January 1, 2004.
2115		
2116	c)	Each CWS or NTNCWS supplier regulated under subsection (a) of this Section
2117	,	must be operated by qualified personnel who meet the requirements specified in
2118		35 Ill. Adm. Code 680.
2119		
2120	d)	Control of disinfectant residuals. Notwithstanding the MRDLs in Section
2121	,	611.313, a supplier may increase residual disinfectant levels in the distribution
2122		system of chlorine or chloramines (but not chlorine dioxide) to a level and for a
2123		time necessary to protect public health, to address specific microbiological
2124		contamination problems caused by circumstances such as, but not limited to,
2125		distribution line breaks, storm run-off events, source water contamination events,
2126		or cross-connection events.
2127		
2128	BOAF	XD NOTE: Derived from 40 CFR 141.130 (2005)(2002).
2129		
2130	(Sourc	ce: Amended at 30 Ill. Reg, effective)
2131		
2132	SUBPAR	T N: INORGANIC MONITORING AND ANALYTICAL REQUIREMENTS
2133		
2134	Section 611.6	509 Determining Compliance
2135	~ *	
2136	Compliance v	with the MCLs of Section 611.300 or 611.301 (as appropriate) must be determined
2137	based on the a	analytical results obtained at each sampling point.
2138		
2139	a)	For suppliers that monitor at a frequency greater than annual, compliance with the
2140		MCLs for antimony, arsenic (effective January 22, 2004), asbestos, barlum,
2141		berylnum, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium, or
2142		thailium is determined by a running annual average at each sampling point.
2143		Effective January 22, 2004, 11 a system fails to collect the required number of
2144		samples, compliance (average concentration) will be based on the total number of
2145		samples collected.
2146		1) ICAL AND A AND AND IN A AND A
2147		1) If the average at any sampling point is greater than the MCL, then the

2148			supplier is out of compliance.
2149		•	
2150		2)	If any one sample would cause the annual average to be exceeded, then the
2151			supplier is out of compliance immediately.
2152			
2153		3)	Any sample below the method detection limit must be calculated at zero
2154			for the purpose of determining the annual average.
2155			
2156			BOARD NOTE: The "method detection limit" is different from the
2157			"detection limit," as set forth in Section 611.600. The "method detection
2158			limit" is the level of contaminant that can be determined by a particular
2159			method with a 95 percent degree of confidence, as determined by the
2160			method outlined in appendix B to 40 CFR 136, Appendix B, incorporated
2161			by reference at Section 611.102.
2162			
2163	b)	For su	ppliers that monitor annually or less frequently, compliance with the MCLs
2164		for ant	imony, arsenic (effective January 22, 2004), asbestos, barium, beryllium,
2165		cadmi	um, chromium, cyanide, fluoride, mercury, nickel, selenium, or thallium is
2166		determ	nined by the level of the contaminant at any sampling point. If confirmation
2167		sample	es are required by the Agency, the determination of compliance will be
2168		based	on the average of the annual average of the initial MCL exceedence and any
2169		Agenc	y-required confirmation samples. Effective January 22, 2004, if a supplier
2170		fails to	collect the required number of samples, compliance (average
2171		concer	ntration) will be based on the total number of samples collected.
2172			
2173	c)	Comp	liance with the MCLs for nitrate and nitrite is determined based on one
2174	,	sample	e if the levels of these contaminants are below the MCLs. If the levels of
2175		nitrate	or nitrite in the initial sample exceed the MCLs, Section 611.606 requires
2176		confir	mation sampling, and compliance is determined based on the average of the
2177		initial	and confirmation samples.
2178			1
2179	d)	Arsen	ic sampling results must be reported to the nearest 0.001 mg/ ℓ .
2180			
2181	BOARD NO	ΓE: Der	ived from 40 CFR 141.23(i) (2005) (2002) .
2182	20120-110		······································
2183	(Sour	ce: Am	ended at 30 Ill. Reg. effective)
2184	(
2185	SUBPA	RT O:	ORGANIC MONITORING AND ANALYTICAL REOUIREMENTS
2186	50211		
2187	Section 611	646 Ph	ase I. Phase II. and Phase V Volatile Organic Contaminants
2188	Section OIIV	,., 110	and all and and an and a state of the contemporation
2180	Monitoring	f the Ph	ase I Phase II and Phase V VOCs for the purpose of determining
2109	compliance y	r the the	MCL must be conducted as follows:
2170	compliance v		MCL must be conducted as follows.

2191		
2192	a)	Definitions. As used in this Section the following have the given meanings:
2193	,	
2194		"Detect" and "detection" mean that the contaminant of interest is present at
2195		a level greater than or equal to the "detection limit."
2196		
2197		"Detection limit" means 0.0005 mg/l
2198		
2190		BOARD NOTE: Derived from 40 CER 141 24($\theta(7)$ ($\theta(11)$ ($\theta(14)(i)$)
2200		and $(f)(20)$ (2005)(2003) This is a "trigger level" for Phase I Phase II
2200		and Phase V VOCs in assuch as it prompts further action. The use of the
2201		term "detect" in this Section is not intended to include any analytical
2202		canability of quantifying lower levels of any contaminant, or the "method
2203		detection limit " Note, however, that contain language at the and of federal
2204		(0,20) is complete of meaning that the "method detection limit"
2203		is used to derive the "detection limit." The Based has above to disrogard
2200		is used to derive the detection limit. The Board has chosen to disregard that longuage at the end of noregraph ($\Phi(20)$ in favor of the more direct
2207		that language at the end of paragraph $(1)(20)$ in layor of the more direct
2208		(1)(1) and $(1)(1)$.
2209		"Mathed detection limit " on used in subsections (a) and (t) of this Section
2210		"Method detection limit," as used in subsections (q) and (t) of this Section
2211		means the minimum concentration of a substance that can be measured
2212		and reported with 99 percent confidence that the analyte concentration is
2213		greater than zero and is determined from analysis of a sample in a given
2214		matrix containing the analyte.
2215		
2216		BOARD NOTE: Derived from <u>appendix B to</u> 40 CFR 136, Appendix B
2217		(2005)(2003). The method detection limit is determined by the procedure
2218		set forth in appendix B to 40 CFR 136, incorporated by reference in
2219		Section 611.102(c) Appendix B. See subsection (t) of this Section.
2220		
2221	b)	Required sampling. Each supplier must take a minimum of one sample at each
2222		sampling point at the times required in subsection (u) of this Section.
2223		
2224	c)	Sampling points.
2225		
2226		1) Sampling points for a GWS. Unless otherwise provided by a SEP granted
2227		by the Agency pursuant to Section 611.110, a GWS supplier must take at
2228		least one sample from each of the following points: each entry point that
2229		is representative of each well after treatment.
2230		
2231		2) Sampling points for an SWS or mixed system supplier. Unless otherwise
2232		provided by a SEP granted by the Agency pursuant to Section 611.110, an
2233		SWS or mixed system supplier must sample from each of the following

_

2234		points:					
2235		-					
2236		A)	Each entry point after treatment: or				
2237		,					
2238		B)	Points in the distribution system that are representative of each				
2239			source.				
2240							
2241		3) The	supplier must take each sample at the same sampling point unless the				
2242		Age	ncy has granted a SEP nursuant to Section 611,110 that designates				
2243		anot	her location as more representative of each source, treatment plant, or				
2244		with	in the distribution system				
2245		** 1011	in the distribution system.				
2246		4) If a s	system draws water from more than one source, and the sources are				
2247		com	bined before distribution, the supplier must compleat on entry point				
2248		durir	ag periods of normal operating conditions when water in				
2249		renre	esentative of all sources being used				
2250		Topic	somative of an sources being used.				
2251		BOARD NO	TE: Subsections (b) and (c) of this Section derived from 40 CEP				
2252		141 24(f)(1)	through $(f)(3)$ (2005)(2002)				
2253		141.24(1)(1)	$\frac{1}{2003}$				
2255	ሰ	Fach CWS	and NTNCWS sumplior must take four concention and taken 1				
2255	u)	for each of t	he Phase I VOCa excluding vinul attaction and Phase II VOC				
2255		during each	compliance period beginning in the semuliance period but the				
2250		initial comp	liance period				
2258		minual comp.	nance period.				
2259	(م	Reduction to	onnual monitoring from the I file initial and it is the initial of				
2260	0)	I Phase II o	and Phase V VOCa as allowed in subjection (a)(1) a fitting of the Phase				
2260		was complet	and Thase V VOCS, as anowed in subsection (r)(1) of this Section,				
2261		Phase I VOC	is including vinvil chloride: Phase II VOC: or Phase V VOC: 4				
2262		the supplier	must take one semple enoughly beginning in the initial equations				
2265		neriod	must take one sample annually beginning in the initial compliance				
2265		period.					
2265	Ð	GWS reduct	ion to triannial manitaring frequences A frequenciation of a				
2260	1)	Venrs of onn	ton to theminal monitoring frequency. After a minimum of three				
2207		the Dhace I V	VOCa including vinyl chloride. Dhoos II VOCa an Dia VVOC				
2200		must take on	vocs, including vinyl chloride; Phase II vocs; or Phase v vocs				
220)		must take on	le sample during each three-year comphance period.				
2270	പ	A CWS on N	ITNOWS sumption that has some late 1 the initial states to the				
2271	BJ	A UWB OF N	subsection (d) of this Section and addited the initial round of monitoring				
2212		Dhane I VOC	Subscripting wind allowide. Divers H NOC - 1 Diversion of the				
2273		rnase i vOC	A consultant of the SED successes to Set in Cold and Phase V VOCs may				
2274 2275		apply to the	Agency for a SEP pursuant to Section 611.110 that releases it from				
2273		the requirem	ents of subsection (e) or (f) of this Section. A supplier that serves				
2270		tewer than 3	300 service connections may apply to the Agency for a SEP that				

2277		releas	es it from the requirements of subsection (d) of this Section as to 1,2,4-
2278		trichle	probenzene.
2279		DOAT	PD NOTE: Derived from 40 CER 141 24($\theta(7)$ and ($\theta(10)$ (2005)(2002)
2280		DUAI and th	CD NOTE. Derived from 40 CFK 141.24(I)(7) and (I)(10) $(2005)(2005)$,
2281			le discussion at 57 Feu. Reg. 51825 (July 17, 1992). Provisions concerning
2282		the ter	m of the waiver appear in subsections (1) and (1) of this Section. The
2283		defini	tion of "detect," parenthetically added to the rederal counterpart paragraph,
2284		1S 1N S	ubsection (a) of this Section.
2285			
2286	h)	Vulne	rability assessment. The Agency must consider the factors of Section
2287		611.1	10(e) in granting a SEP from the requirements of subsection (d), (e), or (f)
2288		of this	s Section sought pursuant to subsection (g) of this Section.
2289			
2290	i)	A SE	P issued to a GWS pursuant to subsection (g) of this Section is for a
2291		maxir	num of six years, except that a SEP as to the subsection (d) of this Section
2292		monit	oring for 1,2,4-trichlorobenzene must apply only to the initial round of
2293		monit	oring. As a condition of a SEP, except as to a SEP from the initial round
2294		of sub	section (d) of this Section monitoring for 1,2,4-trichlorobenzene, the
2295		suppli	er shall, within 30 months after the beginning of the period for which the
2296		waive	r was issued, reconfirm its vulnerability assessment required by subsection
2297		(h) of	this Section and submitted pursuant to subsection (g) of this Section, by
2298		taking	g one sample at each sampling point and reapplying for a SEP pursuant to
2299		subse	ction (g) of this Section. Based on this application, the Agency must do
2300		either	of the following:
2301			0
2302		1)	If it determines that the PWS meets the standard of Section 611.610(e),
2303		,	issue a SEP that reconfirms the prior SEP for the remaining three-year
2304			compliance period of the six-year maximum term; or
2305			
2306		2)	Issue a new SEP requiring the supplier to sample annually.
2307		,	
2308		BOA	RD NOTE: Subsection (i) of this Section does not apply to an SWS or
2309		mixed	1 system supplier.
2310			
2311	i)	Speci	al considerations for a SEP for an SWS or mixed-system supplier.
2312	J/		
2313		1)	The Agency must determine that an SWS is not vulnerable before issuing
2314		-)	a SEP pursuant to Section 611,110 to an SWS supplier. A SEP issued to
2315			an SWS or mixed system supplier pursuant to subsection (g) of this
2315			Section is for a maximum of one compliance period: and
2310			Section is for a maximum of one compliance period, and
2317		2)	The Agency may require as a condition to a SFP issued to an SWS or
2310		<i>2</i>)	mixed sumplier that the sumplier take such samples for Phase I Dhase II
4317			mixed supplier, that the supplier take such samples for r hase 1, r hase 1,

2320			and Ph	hase V VOCs at such a frequency as the Agency determines are					
2321			necessary, based on the vulnerability assessment.						
2322									
2323		BOAF	BOARD NOTE: There is a great degree of similarity between 40 CFR						
2324		141.24	141.24(f)(7) (2005) (2003) , the provision applicable to GWSs, and 40 CFR						
2325		141.24	141,24(f)(10) (2005)(2003), the provision for SWSs. The Board has consolidated						
2326		the co	the common requirements of both paragraphs into subsection (g) of this Section.						
2327		Subse	Subsection (i) of this Section represents the elements unique to an SWSs or n						
2328		systen	n, and si	ubsection (i) of this Section relates to a GWS supplier. Although 40					
2329		CFR 1	141.24(f	f(7) and $f(10)$ are silent as to a mixed system supplier, the Board					
2330		has in	cluded a	a mixed system supplier with an SWS supplier because this best					
2331		follow	vs the fe	deral scheme for all other contaminants.					
2332									
2333	k)	If one	of the F	Phase I VOCs, excluding vinyl chloride; a Phase II VOC; or a Phase					
2334		V VO	C is det	ected in any sample, then the following must occur:					
2335									
2336		1)	The su	upplier must monitor quarterly for that contaminant at each sampling					
2337			point t	that resulted in a detection.					
2338			-						
2339		2)	Annua	al monitoring.					
2340									
2341			A)	The Agency must grant a SEP pursuant to Section 611.110 that					
2342				allows a supplier to reduce the monitoring frequency to annual at a					
2343				sampling point if it determines that the sampling point is reliably					
2344				and consistently below the MCL.					
2345									
2346			B)	A request for a SEP must include the following minimal					
2347				information:					
2348									
2349				i) For a GWS, two quarterly samples.					
2350									
2351				ii) For an SWS or mixed system supplier, four quarterly					
2352				samples.					
2353									
2354			C)	In issuing a SEP, the Agency must specify the level of the					
2355				contaminant upon which the "reliably and consistently"					
2356				determination was based. Any SEP that allows less frequent					
2357				monitoring based on an Agency "reliably and consistently"					
2358				determination must include a condition requiring the supplier to					
2359				resume quarterly monitoring pursuant to subsection (k)(1) of this					
2360				Section if it violates the MCL specified by Section 611.311.					
2361									
2362		3)	Suppl	iers that monitor annually must monitor during the quarters that					

2363			previou	usly yielded the highest analytical result.
2304 2365		4)	Supplie	ers that do not detect a contaminant at a sampling point in three
2365		-)	consect	utive annual samples may apply to the Agency for a SEP pursuant
2300			to Secti	ion 611,110 that allows it to discontinue monitoring for that
2307			contam	inant at that point, as specified in subsection (a) of this Section
2300			comain	unant at that point, as specified in subsection (g) of this Section.
2309		5)	A GWS	Soundiar that has detected one or more of the two carbon
2370		5)	AGW	is supplied that has detected one of more of the two-carbon size $(k)(5)(A)$ of this Section must monitor
2371			contain	linants listed in subsection $(k)(3)(A)$ of this Section must monitor
2312			quarter	Ty for vinyr chloride as described in subsection $(k)(5)(C)$ of this section
2373			Section	i, subject to the initiation of subsection $(k)(3)(C)$ of this Section.
2374			A)	"Two and an anteninente" (Dhase Len II VOC) are the following:
2373			A)	Two-carbon contaminants (Phase For II VOC) are the following:
2370				1,2-Dichloroethane (Phase I)
2378				
2379				1,1-Dichloroethylene (Phase I)
2380				
2381				cis-1,2-Dichloroethylene (Phase II)
2382				
2383				trans-1,2-Dichloroethylene (Phase II)
2384				
2385				Tetrachloroethylene (Phase II)
2386				
2387				1,1,1-Trichloroethylene (Phase I)
2388				
2389				Trichloroethylene (Phase I)
2390				• • • •
2391			B)	The supplier must sample quarterly for vinyl chloride at each
2392				sampling point at which it detected one or more of the two-carbon
2393				contaminants listed in subsection $(k)(5)(A)$ of this Section.
2394				
2395			C)	The Agency must grant a SEP pursuant to Section 611.110 that
2396			-	allows the supplier to reduce the monitoring frequency for vinyl
2397				chloride at any sampling point to once in each three-year
2398				compliance period if it determines that the supplier has not
2399				detected vinyl chloride in the first sample required by subsection
2400				(k)(5)(B) of this Section.
2401				
2402	1)	Quarte	erly mon	nitoring following MCL violations.
2403	*		*	
2404		1)	Supplie	ers that violate an MCL for one of the Phase I VOCs, including
2405			vinyl c	hloride; Phase II VOCs; or Phase V VOCs, as determined by

2406 2407			subsec at the s	tion (o) of this Section, must monitor quarterly for that contaminant, sampling point where the violation occurred, beginning the next
2408			quarter	after the violation.
2402		2)	Annua	1 monitoring
2411		2)	7 minuu	i monitoring.
2412			A)	The Agency must grant a SEP nursuant to Section 611 110 that
2413			,	allows a supplier to reduce the monitoring frequency to annually if
2414				it determines that the sampling point is reliably and consistently
2415				below the MCL.
2416				
2417			B)	A request for a SEP must include the following minimal
2418			,	information: four quarterly samples.
2419				
2420			C)	In issuing a SEP, the Agency must specify the level of the
2421				contaminant upon which the "reliably and consistently"
2422				determination was based. Any SEP that allows less frequent
2423				monitoring based on an Agency "reliably and consistently"
2424				determination must include a condition requiring the supplier to
2425				resume quarterly monitoring pursuant to subsection (1)(1) of this
2426				Section if it violates the MCL specified by Section 611.311.
2427				
2428			D)	The supplier must monitor during the quarters that previously
2429				yielded the highest analytical result.
2430				
2431	m)	Confir	mation	samples. The Agency may issue a SEP pursuant to Section 610.110
2432		to requ	iire a su	pplier to use a confirmation sample for results that it finds dubious
2433		for wh	atever r	eason. The Agency must state its reasons for issuing the SEP if the
2434		SEP is	Agenc	y-initiated.
2435				
2436		1)	If a su	pplier detects any of the Phase I, Phase II, or Phase V VOCs in a
2437			sample	e, the supplier must take a confirmation sample as soon as possible,
2438			but no	later than 14 days after the supplier receives notice of the detection.
2439				
2440		2)	Averag	ging is as specified in subsection (o) of this Section.
2441				
2442		3)	The A	gency must delete the original or confirmation sample if it
2443			determ	ines that a sampling error occurred, in which case the confirmation
2444			sample	e will replace the original or confirmation sample.
2445			_	
2446	n)	This s	ubsectio	on (n) corresponds with 40 CFR 141.24(f)(14), an optional USEPA
2447		provisi	ion rela	ting to compositing of samples that USEPA does not require for
2448		state p	rogram	s. This statement maintains structural consistency with USEPA

2449		rules.						
2450								
2451	0)	Compl	Compliance with the MCLs for the Phase I, Phase II, and Phase V VOCs must be					
2452		determ	determined based on the analytical results obtained at each sampling point.					
2453		Effecti	Effective January 22, 2004, if one sampling point is in violation of an MCL, the					
2454		system	system is in violation of the MCL.					
2455								
2456		1)	Effective January 22, 2004, for a supplier that monitors more than once					
2457			per year, compliance with the MCL is determined by a running annual					
2458			average at each sampling point.					
2459								
2460		2)	Effective January 22, 2004, a supplier that monitors annually or less					
2461			frequently whose sample result exceeds the MCL must begin quarterly					
2462			sampling. The system will not be considered in violation of the MCL until					
2463			it has completed one year of quarterly sampling.					
2464								
2465		3)	Effective January 22, 2004, if any sample result will cause the running					
2466		-,	annual average to exceed the MCL at any sampling point the supplier is					
2467			out of compliance with the MCL immediately					
2468			the of comprisited with the MCE minibulatory.					
2469		4)	Effective January 22, 2004, if a supplier fails to collect the required					
2470		.,	number of samples, compliance will be based on the total number of					
2471			samples collected					
2472								
2473		5)	Effective January 22, 2004, if a sample result is less than the detection					
2474		2)	limit zero will be used to calculate the annual average					
2475			mini, 2010 min oo ubba to baleando nie amiaan average.					
2476		െ	Until January 22, 2004, for a supplier that conducts monitoring at a					
2477		•)	frequency greater than annual compliance is determined by a running					
2478			annual average of all samples taken at each sampling point					
2479			and a vorage of an samples taken at each sampling point.					
2480			A) If the annual average of any sampling point is greater than the					
2481			MCL then the supplier is out of compliance					
2482			MCL, then the supplier is out of compliance.					
2483			B) If the initial sample or a subsequent sample would cause the appual					
2484			average to exceed the MCL then the supplier is out of compliance					
2485			immediately					
2405			miniculatory.					
2400			() Any complex below the detection limit must be desmaded as some for					
2707 7/88			c) Any samples below the detection limit must be deemed as zero for numeros of determining the average of determining the average of determining the average of the second sec					
2700			purposes of determining the annual average.					
2407 2400		7)	Until January 22, 2004 if manitoring in 1 of 1 at 1					
2490 2491		1)	frequently, the supplier is out of compliance if the level of a contaminant					

2492		at an	y sampling point is greater than the MCL. Until January 22, 2004, if				
2493	a confirmation sample is taken, the determination of compliance is based						
2494	on the average of two samples.						
2495							
2496	p)	This subsect	ion (p) corresponds with 40 CFR 141.24(f)(16), which USEPA				
2497		removed and	I reserved. This statement maintains structural consistency with the				
2498		federal regul	lations.				
2499		-					
2500	q)	Analysis und	ter this Section must only be conducted by laboratories that have				
2501	D	received cert	tification by USEPA or the Agency according to the following				
2502		conditions:					
2503							
2504		1) To re	eceive certification to conduct analyses for the Phase I VOCs.				
2505		exch	iding vinyl chloride: Phase II VOCs: and Phase V VOCs, the				
2506		labor	ratory must do the following:				
2507							
2508		A)	It must analyze performance evaluation (PE) samples that include				
2509		,	these substances provided by the Agency pursuant to 35 Ill. Adm.				
2510			Code 186.170:				
2511			······································				
2512		B)	It must achieve the quantitative acceptance limits under				
2513			subsections $(q)(1)(C)$ and $(q)(1)(D)$ of this Section for at least 80				
2514			percent of the regulated organic contaminants in the PE sample:				
2515			F				
2516		C)	It must achieve quantitative results on the analyses performed				
2517		-,	under subsection (a)(1)(A) of this Section that are within ± 20				
2518			percent of the actual amount of the substances in the PE sample				
2519			when the actual amount is greater than or equal to $0.010 \text{ mg/}\ell$:				
2520			and the actual and and to greater than or equal to ore they e,				
2521		D)	It must achieve quantitative results on the analyses performed				
2522		-,	under subsection (a)(1)(A) of this Section that are within ± 40				
2523			percent of the actual amount of the substances in the PE sample				
2524			when the actual amount is less than 0.010 mg/l ; and				
2525							
2526		E)	It must achieve a method detection limit of 0 0005 mg/ $l_{\rm c}$ according				
2527		_)	to the procedures in appendix B to 40 CFR 136-appendix B.				
2528			incorporated by reference in Section 611 102				
2529							
2530		2) To re	eceive certification to conduct analyses for vinyl chloride the				
2531		labor	ratory must do the following:				
2532		14001					
2533		A)	It must analyze PE samples provided by the Agency pursuant to 35				
2534			Ill Adm Code 186 170				
			······································				

2535							
2536		B)	It must achieve quantitative results on the analyses performed				
2537		,	under subsection $(a)(2)(A)$ of this Section that are within + 40				
2538			percent of the actual amount of vinyl chloride in the PE sample.				
2539			province and actions, and all of the first officiation in the first sample,				
2540		C)	It must achieve a method detection limit of 0 0005 $mg/l_{according}$				
2541		,	to the procedures in appendix B to 40 CFR 136-appendix B				
2542			incorporated by reference in Section 611 102: and				
2543							
2544		D)	It must obtain certification pursuant to subsection $(\alpha)(1)$ of this				
2545		- /	Section for Phase I VOCs excluding vinyl chloride: Phase II				
2546			VOCs: and Phase V VOCs.				
2547							
2548	r)	This subsection	on (r) corresponds with 40 CFR 141 24(f)(18) an obsolete provision				
2549	,	that relates to	the initial compliance period from 1993 through 1995. This				
2550		statement mai	intains consistency with the federal regulations				
2551			initialité conditionelle fonderal regulations.				
2552							
2553	s)	The Agency s	hall, by a SEP issued pursuant to Section 611 110 increase the				
2554	-,	number of sampling points or the frequency of monitoring if it determines that it					
2555		is necessary to	o detect variations within the PWS				
2556							
2557	t)	Each laborato	ry certified for the analysis of Phase I. Phase II. or Phase V. VOCs				
2558	-/	pursuant to su	bsection $(a)(1)$ or $(a)(2)$ of this Section shall do the following:				
2559		P	$(q_1(2))$ of any been on share to the following.				
2560		1) Determ	nine the method detection limit (MDL) as defined in appendix B to				
2561		40 CE	R 136 Appendix B, incorporated by reference in Section 611 102				
2562		at whi	ch it is capable of detecting the Phase I. Phase II. and Phase V				
2563		VOCs	and.				
2564			,,				
2565		2) Achiev	ve an MDL for each Phase I. Phase II and Phase V VOC that is less				
2566		than o	r equal to 0.0005 mg/l .				
2567			1				
2568	u)	Each supplier	must monitor, within each compliance period, at the time				
2569	/	designated by	the Agency by SEP pursuant to Section 611,110.				
2570		0,					
2571	v)	A new system	supplier or a supplier that uses a new source of water that begins				
2572	-	operation after	r January 22, 2004 must demonstrate compliance with the MCL				
2573		within a perio	d of time specified by a permit issued by the Agency. The supplier				
2574		must also com	ply with the initial sampling frequencies specified by the Agency to				
2575		ensure the sun	pplier can demonstrate compliance with the MCL. Routine and				
2576		increased mon	itoring frequencies must be conducted in accordance with the				
2577		requirements i	in this Section.				
JCAR350611-0613054r01

2578		
2579	BOARD NOTE: Derived from 40 CFR 141.24(f) (2005)(2003).	
2580		
2581	(Source: Amended at 30 Ill. Reg, effective)	

JCAR350611-0613054r01

2582 Section 611.APPENDIX D Defined Substrate Method for the Simultaneous Detection of 2583 Total Coliforms and Escherichia Coli from Drinking Water 2584 2585 Autoanalysis Colilert Presence-Absence (AC P-A) Method. 2586 2587 The AC P-A test format must be either a $100\text{-m}\ell$ 10-tube most probable number test (one tube 2588 positive denoting the presence of total coliforms in that sample) or a single vessel containing 2589 sufficient reagent to receive 100 ml of sample. The reagent is available from Access Medical Systems, Branford Connecticut. 2590 2591 2592 The AC P-A method must be performed as follows: 2593 2594 1. For the 10-tube method, add 10 m ℓ of water sample to each test tube. For the 2595 single-vessel method, add 100 m ℓ of water sample to the vessel. 2596 2597 2. Dissolve the reagent powder by agitation. (This should produce a colorless 2598 solution.) 2599 2600 3. Incubate the test tubes or vessel at 35° C for 24 hours. 2601 2602 4. Development of yellow during incubation denotes the presence of total coliforms 2603 in either the test tube or the vessel. 2604 5. 2605 Expose each positive (yellow) test tube or vessel to a fluorescent (366 nm) light 2606 source. Fluorescence specifically demonstrates the presence of Escherichia coli. 2607 2608 BOARD NOTE: Derived from S. Edberg, M. Allen & D. Smith, "National Field Evaluation of a Defined Substrate Method for the Simultaneous Detection of 2609 2610 Total Coliforms and Escherichia coli from Drinking Water: Comparison with 2611 Presence-Absence Techniques,", Applied and Environmental Microbiology, vol. 55, pp. 1003-1008, as incorporated by reference at 40 CFR 141.21(f)(6)(iii) 2612 2613 (2005)(2002). This method is for use in conjunction with the requirements of 2614 Section 611.526. 2615 (Source: Amended at 30 Ill. Reg. _____, effective _____) 2616