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(FORM UPDATED: 08/11/2010)

WISCONSIN STATE LEGISLATURE ...
PUBLIC HEARING - COMMITTEE RECORDS

2007-08

(session year)

Senate

(Assembly, Senate, or Joint)

Committee on ...
Environment and Natural Resources
(SC-ENR)

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... **HR ... bills and resolutions** (w/Record of Comm. Proceedings)
  - (**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
  - (**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

* Contents organized for archiving by: Mike Barman (LRB) (July/2014)

Senate

Record of Committee Proceedings

Committee on Environment and Natural Resources

Clearinghouse Rule 07-025

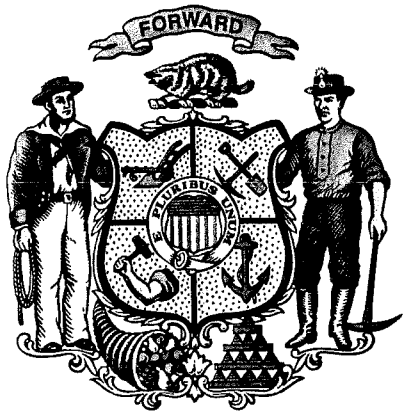
Relating to the IESWTR, LT1, DDBP, PN, CCR, radionuclide, and total coliform rules and updating of analytical methods for public water systems.

Submitted by Department of Natural Resources.

August 22, 2007 Referred to Committee on Environment and Natural Resources.

September 22, 2007 No action taken.

Elizabeth Bier
Committee Clerk


FORWARD
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REPORT TO LEGISLATURE

NR 809, Wis. Adm. Code
IESWTR, LT1, DDBP, PN, CCR, radionuclide and total coliform rules and
updating of analytical methods for public water systems

Board Order No. DG-33-06
Clearinghouse Rule No. 07-025

Basis and Purpose of the Proposed Rule

The United States Environmental Protection Agency (USEPA) published amendments to 40 CFR parts 141 and 142. Section 281.17(8), Stats., and our primacy agreement with US EPA require the Department to adopt rules at least as stringent as federal regulations. These proposed amendments are necessary to assure that the Department's administrative rules are consistent with federal regulations.

On January 14, 2002,US EPA published National Drinking Water Regulations for Long-Term 1 Enhanced Surface Water Treatment (LT1); these changes impact all public drinking water systems using surface water or groundwater under the direct influence of surface water (GWUDI) and serving fewer than ten thousand (10,000) people. This rulemaking will also include revisions to correct minor errors in and updates to the following:

- the existing interim enhanced surface water treatment rule (IESWTR);
- the stage 1 disinfection and disinfection byproducts rule (DDBPR);
- the lead and copper rule (LCR);
- the drinking water public notification rule (PNR);
- the radionuclide rule;
- analytical methods; and

Additionally, language has been clarified in regard to the total coliform rule (TCR) maximum contaminant level (MCL) determinations impacting systems collecting less than 40 samples per month.

In order to maintain primacy, Wisconsin must adopt all federal requirements under the Safe Drinking Water Act (SDWA) or have requirements that are equal to or more stringent then the SDWA. In the case of the LT1 regulation there were two alternatives available for Wisconsin to meet this requirement:

1. Full adoption of the LT1 rule for surface water and groundwater under the direct influence of surface water (GWUDI) systems with populations of 10,000 or less. Or,
2. Amending the state version of the Interim Enhanced Surface Water Treatment Rule (IESWTR) to apply to all surface water and GWUDI systems.

Alternative #1 required incorporation of rule language that would not be used by any drinking water systems and would have added confusion in understanding ch. NR 809 requirements. Only two systems in Wisconsin would fall under the LT1 requirements and, in reality, the LT1 rule would not apply to either. The first system, Wisconsin Veterans Home at King will be using all groundwater by the end of 2007. The second system, Ashland Water Utility, uses an alternative technology (membrane filtration) and is required to meet standards of the IESWTR by virtue of their plan of operation. Wisconsin has no systems that are considered GWUDI under the federal regulations.

Alternative #2 changed the application of the IESWTR to all surface water and GWUDI systems rather than just those serving population of 10,000 and over. This is consistent with current practice. The requirements of the LT1 were developed based on the IESWTR, but were modified by USEPA to reduce the burden on small systems. Since there are no Wisconsin systems to be burdened, it was not necessary to promulgate additional rule language.

The recommendation was use alternative #2 for meeting the primacy requirement to adopt rules at least as stringent as the federal rules; that the IESWTR apply to all surface water and GWUDI systems in Wisconsin.

All the minor errors and additions edits have been identified by USEPA in various primacy reviews and are required to be completed.

The existing language on non-acute or monthly TCR MCL determination was not clear and needed elucidation, the actual meaning was not changed.

Summary of Public Comments

The department received one public comment on the updating of analytical methods.

Paul Junio of Test America Laboratory commented: "While NR 809 has a revision proposed to it, DNR has been unlucky in its timing. EPA released the Methods Update Rule on March 12, 2007 (MUR), which was after DNR opened NR 809 for comments. The methods tables contained in the MUR include additional methods that are not currently a part of NR809, either in the current form or in its revised form. I strongly encourage the WDNR to incorporate those methods included in the MUR into ch. 809 at this time."

Modifications Made

The department incorporated the March 12, 2007 Methods Update Rule into the applicable tables contained in this order.

Appearances at the Public Hearing

On April 11, 2007 public hearings were held in person in Madison and by video feed in Eau Claire, Spooner, Milwaukee and Green Bay. No one attended any of the hearings.

Changes to Rule Analysis and Fiscal Estimate

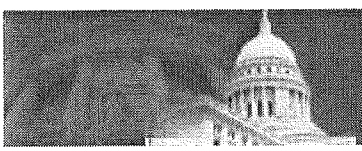
No changes were required.

Response to Legislative Council Rules Clearinghouse Report

The recommendations have been accepted and incorporated into the rule.

Final Regulatory Flexibility Analysis

Typically, the Department has little flexibility with drinking water regulations since State rules can be no less stringent than the federal regulation. Flexibility in the rule will be used to reduce monitoring costs and complexity wherever possible.



WISCONSIN STATE LEGISLATURE

Wisconsin Department of Administration
Division of Executive Budget and Finance
DOA-2048 (R10/2000)

Fiscal Estimate — 2007 Session

☒ Original ☐ Updated ☐ Corrected ☐ Supplemental		LRB Number	Amendment Number if Applicable
		Bill Number	Administrative Rule Number NR 809

Subject
Revisions to NR 809 (Safe Drinking Water)

Fiscal Effect
State: ☒ No State Fiscal Effect
☐ Indeterminate
Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.
☐ Increase Existing Appropriation ☐ Increase Existing Revenues
☐ Decrease Existing Appropriation ☐ Decrease Existing Revenues
☐ Create New Appropriation
☐ Increase Costs — May be possible to absorb within agency's budget. ☐ Yes ☐ No
☐ Decrease Costs

Local: ☒ No Local Government Costs
☐ Indeterminate
1. ☐ Increase Costs ☐ Permissive ☐ Mandatory
2. ☐ Decrease Costs ☐ Permissive ☐ Mandatory
3. ☐ Increase Revenues ☐ Permissive ☐ Mandatory
4. ☐ Decrease Revenues ☐ Permissive ☐ Mandatory
5. Types of Local Governmental Units Affected:
☐ Towns ☐ Villages ☐ Cities
☐ Counties ☐ Others _____
☐ School Districts ☐ WTCS Districts

Fund Sources Affected
☐ GPR ☐ FED ☐ PRO ☐ PRS ☐ SEG ☐ SEG-S

Affected Chapter 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

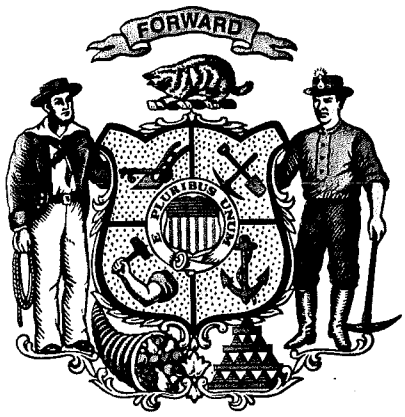
This rule change allows WDNR regulations to incorporate the remaining USEPA surface water treatment regulations so that WDNR maintains primary enforcement authority. The requirements of the Long-Term 1 Enhanced Surface Water Treatment (LT1) were developed based on the Interim Enhanced Surface Water Treatment Rule (IESWTR), but were modified by USEPA to reduce the burden on small systems.

This packages broadens the state version of IESWTR to apply to surface water and to groundwater under direct influence (GWUDI) systems that serve populations of less than 10,000. This is consistent with current practice. The requirements of the LT1 were developed based on the IESWTR, but were modified by USEPA to reduce the burden on small systems.

Fiscal Impact: The rule package updates code citations and corrects errors in order to increase the clarity of ch. NR 809 and to ensure consistency with federal regulations. Therefore, it has no state fiscal effect. In addition, since it is assumed that there are no communities with populations less than 10,000 to which these rule changes would apply, this rule package is estimated to have no fiscal effect on local governments.

Long-Range Fiscal Implications

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature	Telephone No.	Date (mm/dd/ccyy)
	266-2794	07/13/07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ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD AMENDING, REPEALING AND RECREATING AND CREATING RULES

The Natural Resource Board proposes an order to amend NR 809.30 (1)(b), NR 809.30(3), NR 809.31(6), NR 809.50(3) Table B, NR 809.542(2)(c)3, NR 809.546(1)(a), NR 809.725(1) Table F, NR 809.75(4), NR 809.76 (1) (a) and (b), NR 809.76 (2)(a) and (b), NR 809.765 (1), NR 809.80 (3), NR 809.833(3)(b)2., NR 809.833(3)(e), NR 809.833(4)(c), NR 809.833(6)(a) through (d), NR 809.835(2), NR 809.835(3), NR 809.837(7), NR 809.90(4)(b) , NR 809.957, NR 809.959 Appendix A to Subchapter X footnote 7, NR 809.959 Appendix A to Subchapter X footnote 8; to repeal and recreate NR 809.725(1) Table A, NR 809.725(1) Table B; to create NR 809.53(3) (e) relating to the IESWTR, LT1, DDBP, PN, CCR, radionuclide, and total coliform rules and updating of analytical methods for public water systems.

DG-33-06

Analysis prepared by Department of Natural Resources

Statutory authority: ss.280.11 and 281.17 (8), Stats.
Statutes interpreted: ss.280.11 and 281.17(8), Stats.

Explanation of Authority: 280.11 - The department shall, after a public hearing, prescribe, publish and enforce minimum reasonable standards and rules and regulations for methods to be pursued in the obtaining of pure drinking water for human consumption and the establishing of all safeguards deemed necessary in protecting the public health against the hazards of polluted sources of impure water supplies intended or used for human consumption.

281.17(8) - The department may establish, administer and maintain a safe drinking water program no less stringent than the requirements of the Safe Drinking Water Act, 42 USC 300f to 300j–26.

Related Statute or Rule: There are no related statutes or rules.

Plain Language Analysis:
On January 14, 2002, the United States Environmental Protection Agency (USEPA) published National Drinking Water Regulations for Long-Term 1 Enhanced Surface Water Treatment (LT1); these changes impact all public drinking water systems using surface water or groundwater under the direct influence of surface water (GWUDI) and serve fewer than ten thousand (10,000) people.
The LT1 requires small surface water systems serving a population of less than 10,000 to meet strengthened filtration requirements. The LT1 also requires small surface water systems to calculate levels of microbial inactivation to ensure that microbial protection is not jeopardized if significant changes are made to disinfection treatment to attain compliance with requirements of the Stage 1 Disinfectants and Disinfection Byproducts Rule (DBPR). The LT1 builds upon the framework established for larger surface water systems in the Interim Enhanced Surface Water Treatment Rule (IESWTR). The differences between the LT 1 and the IESWTR essentially are that the LT 1 rule provides longer time frames for reporting filter turbidity exceedences, the state can waive requirements to develop disinfection profiles for microbial inactivation in response to filter problems, and under the LT 1 rule the state has flexibility for some requirements in the comprehensive performance evaluation (CPE) conducted by systems that have significant individual filter problems.
In order to maintain primacy, Wisconsin must adopt all federal requirements under the Safe Drinking Water Act (SDWA) or have requirements that are equal to or more stringent then the SDWA. In the case of the LT1 regulation there are two alternatives that were considered to meet this requirement:

1. Full adoption of the LT1 rule for surface water and groundwater under the direct influence of surface water (GWUDI) systems with populations of 10,000 or less. Or,
2. Amending the state version of the Interim Enhanced Surface Water Treatment Rule (IESWTR) to apply to all surface water and GWUDI systems.

Alternative #1 would have required the incorporation of rule language that would not be used by any drinking water system and added confusion in understanding ch. NR 809 requirements. Only two systems in Wisconsin will fall under the LT1 requirements and the LT1 rule will not apply to either. The first system, Wisconsin Veterans Home at King will be using all groundwater by the end of 2007. The second system, Ashland Water Utility, uses an alternative technology (membrane filtration) and is required to meet standards of the IESWTR by virtue of their plan of operation. Wisconsin has no systems that are considered GWUDI under the federal regulations.

Alternative #2 changed the application of the IESWTR to all surface water and GWUDI systems rather than just those with populations of 10,000 and above. This is consistent with current practice. The requirements of the LT1 were developed based on the IESWTR, but were modified by USEPA to reduce the burden on small systems. Since there are no Wisconsin systems to be burdened it is not necessary to promulgate additional rule language.

The recommendation to use alternative #2, the application of the IESWTR to apply to all surface water and GWUDI systems in Wisconsin, was presented for public comment.

This rulemaking includes revisions to correct minor errors in and to update the following:

1. the existing interim enhanced surface water treatment rule (IESWTR);
2. the stage 1 disinfection and disinfection byproducts rule (DDBPR);
3. the lead and copper rule (LCR);
4. the drinking water public notification rule (PNR);
5. the radionuclide rule; and
6. analytical methods.
7.

All the minor errors and additions edits have been identified by USEPA in various primacy reviews and are required to be completed.

Additionally, language is clarified with regard to total coliform rule (TCR) maximum contaminant level (MCL) determinations impacting systems collecting less than 40 samples per month.

The existing language on non-acute or monthly TCR MCL determination was not clear and therefore needed elucidation, the actual meaning has not been changed.

Summary and comparison of federal regulations: This rule change will allow WDNR regulations to incorporate the remaining federal surface water treatment regulations so that WDNR may maintain primacy ("primary enforcement authority") for the affected regulation. All the minor errors and additions edits have been identified by USEPA in various primacy reviews and are required to be completed as a condition of primacy.

Summary of factual data and analytical methodologies: These changes are required to be adopted by the department in order to maintain primary enforcement of the federal SDWA. There have been no data or analytical methodologies used by the department in the development of these changes.

Comparison to other states: Illinois, Iowa and Michigan have modified their rules governing public drinking water to incorporate the federal LT 1 rule governing surface water and GWUDI systems serving less than 10,000 people. Minnesota adopts all federal requirements of the SDWA by direct reference. The surrounding states have a number of small public surface water and GWUDI systems using conventional treatment serving populations under 10,000 people. The water systems, in the surrounding states, using surface water or GWUDI sources, not using conventional treatment are evaluated on a case-by-case basis, to determine filter monitoring requirements using similar procedures as Wisconsin. Therefore, the LT 1 rule does provides some relief in those states from the monitoring required by the IESWT rule. In contrast, Wisconsin has only two surface water and no GWUDI systems with populations under 10,000. The first system is the Wisconsin Veterans Home (WVH) in King, WI. They use conventional surface water treatment for part of their drinking water; by the end of 2007, WVH in King will be fully served by a groundwater source. The second system, the City of

Ashland water utility, has a membrane filtration plant not conventional treatment, and is required by a DNR issued plan approval to meet requirements that are at least as stringent as the IESWT rule. Since adding the additional language of the LT1 rule would not change any requirements for public water systems in Wisconsin, ch. NR 809 remains consistent with the requirements of the surrounding states.

The minor revisions, corrections and clarifications included in this rule package should serve to bring Wisconsin's rule in line with the surrounding states since the requirements of the SDWA are mandatory to retain primacy.

Analysis to determine affect on small business: The majority of these rule changes are clarification of federal requirements that are already in existence. The proposed rule changes for surface water and GWUDI systems will not impact small business, since no small systems will be regulated under them. The addition of USEPA approved analytical methods may provide laboratories with additional flexibility in analyzing public drinking water samples.

Affects on small business: The effects of these rule changes are to provide additional flexibility to laboratories that perform analyses for public water systems. Since there are no small surface water systems or GWUDI in Wisconsin, the LT1 rule is not necessary to provide monitoring relief for small water systems.

Agency contact person: Lee Boushon, Chief, Drinking Water Systems Section, email: lee.boushon@dnr.state.wi.us telephone: (608) 266-0857.

SECTION 1. NR 809.30 (1)(b) is amended to read:

NR 809.30 (1)(b) For a system which collects fewer than 40 samples per month, if no more than one sample, including routine and repeat samples, collected during a ~~sampling~~ monitoring period is total coliform-positive, the system is in compliance with the MCL for total coliforms.

SECTION 2. NR 809.30 (3) is amended to read:

NR 809.30(3) The water supplier for a public water system shall determine compliance with the MCL for total coliforms in subs. (1) and (2) for each monitoring period in which the system is required to monitor for total coliforms.

SECTION 3. NR 809.31(6) is amended to read:

NR 809.31(6) SANITARY SURVEYS. (a) ~~Public~~ All public water systems shall undergo a sanitary survey every 5 years~~, except that non-community water systems using only protected and disinfected ground water, as determined on a case-by-case basis by the department, shall undergo a sanitary survey at least every 10 years after the initial sanitary survey~~. The department will review the results of each sanitary survey to determine whether the existing monitoring frequency is adequate and what additional measures, if any, the system needs to undertake to improve drinking water quality.

SECTION 4. NR 809.50(3) Table B is amended to read:

Table B

BAT for Combined Radium-226 and Radium-228, Uranium, Gross Alpha Particle Activity, and Beta Particle and Photon Radioactivity

Contaminant	BAT
1. Combined radium-226 and radium-228	Ion exchange, reverse osmosis, lime softening
2. Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/

	filtration
3. Gross alpha particle activity (excluding Radon and Uranium).	Reverse osmosis.
4. Beta particle and photon ~~Ion exchange~~ radioactivity	Ion exchange and ~~Reverse~~ reverse osmosis ~~radioactivity~~

SECTION 5. NR 809.53(3) (e) is created to read:

NR 809.53(3)(e) If the MCL for radioactivity set forth in ss. NR 809.50(1) and 809.51(1) and (2) is exceeded, the operator of a community water system shall give notice to the department pursuant to s. NR 809.80(1) and to the public as required by subch. X.

SECTION 6. NR 809.542(2)(c)3. is amended to read:

NR 809.542(2)(c)3. Any water system deemed to have optimized corrosion control pursuant to this paragraph shall notify the department in writing pursuant to s. NR 809.55 (1)~~(f)~~ (e) of any change in treatment or the addition of a new source. The department may require any system to conduct additional monitoring or to take other action the department deems appropriate to ensure that systems maintain minimal levels of corrosion in the distribution system.

SECTION 7. NR 809.546(1)(a) is amended to read:

NR 809.546(1)(a) The United States environmental protection agency (USEPA) and [insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the USEPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line contributes lead concentrations of more than 15 ppb ~~or more~~ after we have completed the comprehensive treatment pro-gram. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

SECTION 8. NR 809.725(1) Table A is repealed and recreated to read:

TABLE A
Approved Methodology for Primary Inorganic Contaminants

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
Antimony	Atomic absorption; gaseous hydride [15]		D3697-92, 02				
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
	Inductively Coupled Plasma-Mass Spectrometry (ICP/MS)	200.8[5]					
Asbestos	Transmission Electron Microscopy	100.1[6]	-	-	-		
	Transmission Electron Microscopy	100.2[7]	-	-	-		
Arsenic[8]	ICP/MS	200.8[5]					

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
	Atomic absorption; platform furnace	200.9[5]					
	Atomic Absorption; Furnace technique		D2972-97, 03 C	3113 B		3113 B-99	
	Hydride Atomic Absorption		D2972-97, 03 B	3114 B		3114 B-97	
Barium	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]		3120 B	3120 B	3120 B-99	
	Atomic Absorption; Direct Aspiration			3111 D		3111 D-99	
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
Beryllium	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]		3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique		D3645-97, 03 B	3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Cadmium	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]					
	Atomic Absorption; Furnace technique[9]			3113 B		3113 B-99	
	Atomic absorption; platform furnace						
Copper	ICP/MS	200.8[5]					
	Inductively Coupled Plasma			3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique		D1688-95, 02 C	3113 B		3113 B-99	
	Atomic Absorption; Direct Aspiration		D1688-95, 02 A	3111 B		3111 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Chromium	ICP/MS	200.7[5]					
	Inductively Coupled Plasma			3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Cyanide	Manual Distillation		D2036-98 A	4500-CN⁻ C	4500-CN⁻ C		
	Spectrophotometric, Amenable		D2036-98 B	4500-CN⁻ G	4500-CN⁻ G	4500-CN⁻ G-99	
	Spectrophotometric, Manual		D2036-98 A	4500-CN⁻ E	4500-CN⁻ E	4500-CN⁻ E-99	I-3300-855[15]
	Selective Electrode			4500-CN⁻ F	4500-CN⁻ F	4500-CN⁻ F-99	
	UV, Distillation, Spectrophotometric						Kelada-01[18]
	Micro Distillation, Flow Injection, Spectrophotometric						QuikChem 10-204-00-1-X[16]
	Ligand Exchange and Amperometry		D6888-04				OIA-1677,DW[14]
	Semi-automated	335.4[9]					
Fluoride	Ion Chromatography	300.1[17]	D4327-97, 03	4110 B	4110 B	4110 B-00	

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
	Manual Distill.; Color. SPADNS			4500-F B, D	4500-F B, D	4500-F B, D-97	
	Manual Electrode		D1179-93, 99 B	4500-F C	4500-F C	4500-F C-97	
	Automated Alizarin			4500-F E	4500-F E	4500-F E-97	129-71W[10]
	Capillary Ion Electrophoresis						D6508, Rev. 2[11]
	Automated ion selective electrode						380-75WE[10]
Lead	ICP/MS	200.8[5]					
	Atomic Absorption; Furnace technique		D3559-96, 03 D	3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
	Differential Pulse Anodic Stripping Voltammetry						Method 1001
Mercury	ICP/MS	200.8[5]					
	Manual, Cold Vapor[6]	245.1[13]	D3223-97, 02	3112 B		3112 B-99	
	Automated, Cold Vapor[6]	245.2[5]					
Nickel	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]		3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
	Atomic Absorption; Direct Aspiration			3111 B		3111 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Nitrate	Ion Chromatography	300.1[17]	D4327-97, 03	4110 B	4110 B	4110 B-00	B-1011[20]
	Automated Cadmium Reduction	353.2		4500-NO3 F	4500-NO3 F	4500-NO3 F-00	
	Ion Selective Electrode			4500-NO3 D	4500-NO3 D	4500-NO3 D-00	601[22]
	Manual Cadmium Reduction			4500-NO3 E	4500-NO3 E	4500-NO3 E-00	
	Capillary Ion Electrophoresis						D6508, Rev. 2[11]
Nitrite	Ion Chromatography	300.1[17]	D4327-97, 03	4110 B	4110 B	4110 B-00	
	Automated Cadmium Reduction			4500-NO3 F	4500-NO3 F	4500-NO3 F-00	
	Manual Cadmium Reduction		D3867-90B	4500-NO3 E			
	Spectrophotometric			4500-NO2 B	4500-NO2 B	4500-NO2 B-00	
	Capillary Ion Electrophoresis						D6508, Rev. 2[11]
Selenium	ICP/MS	200.8[5]					
	Hydride-Atomic Absorption		D3859-98, 03 A	3114 B		3114 B-97	
	Atomic Absorption; Furnace technique		D3859-98, 03 B	3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Thallium	ICP/MS	200.8[5]					

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
	Atomic absorption; platform furnace	200.9[5]					
Turbidity	Nephelometric	180.1[9]		2130 B			
	Great Lakes Instruments						Method 2[19]

[1] Standard Methods for the Examination of Water and Wastewater, 18th edition (1992), 19th edition (1995), or 20th edition (1998). American Public Health Association, 1015 Fifteenth Street, NW., Washington, DC 20005. The cited methods published in any of these three editions may be used, except that the versions of 3111 B, 3111 D, 3113 B and 3114 B in the 20th edition may not be used.

[2] The procedures shall be done in accordance with the "Standard Methods for the Examination of Water and Wastewater", 18th and 19th Editions, American Public Health Association, American Water Works Association, 1992 and 1995. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, NW, Washington, D.C., 20005. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington DC.

[3] The procedures shall be done in accordance with the "Annual Book of ASTM Standards", 1994, Vols 11.01 and 11.02. American Society for Testing and Material. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Society for Testing and Material, 1916 Race Street, Philadelphia, Pennsylvania 19103. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

[4] Standard Methods Online are available at http://www.standardmethods.org. The year in which each method was approved by the Standard Methods Committee is designated by the last two digits in the method number. The methods listed are the only online versions that may be used.

[5] "Methods for the Determination of Metals in Environmental Samples-Supplement I", ORD Publications, EPA/600/R-94-111 May, 1994. Available from National Technical Information Service, Order #PB94-184942 PB95-125472, 5285 Port Royal Road, Springfield, VA 22161.

[6] Method 100.1, "Analytical Method for Determination of Asbestos Fibers in Water", EPA-600/4-83-043, September 1983. U.S. EPA, Environmental Research Laboratory, Athens, GA 30613. Available at NTIS, PB83-260471.

[7] Method 100.2, "Determination Of Asbestos Structures over 10-um In Length In Drinking Water", EPA-600/R-94-134, June 1994. Available at NTIS, PB94-201902

[8] If ultrasonic nebulization is used in the determination of arsenic by Methods 200.7, 200.8, or SM 3120 B, the arsenic must be in the pentavalent state to provide uniform signal response. For methods 200.7 and 3120 B, both samples and standards must be diluted in the same mixed acid matrix concentration of nitric and hydrochloric acid with the addition of 100 µL of 30% hydrogen peroxide per 100ml of solution. For direct analysis of arsenic with method 200.8 using ultrasonic nebulization, samples and standards must contain one mg/L of sodium hypochlorite

[9] "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, Available at NTIS, PB94-121811

[10] The procedures shall be done in accordance with the Industrial Method No. 129-71 W, "Fluoride in Water and Wastewater", December 1972, and Method No. 380-75WE, "Fluoride in Water and Wastewater", February 1976, Technicon Industrial Systems. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51,. Copies may be obtained from the

Technicon Industrial Systems, Tarrytown, NY 10591. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

[11] Method D6508, Rev. 2, ``Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte," available from Waters Corp, 34 Maple St, Milford, MA, 01757, Telephone: 508/482-2131, Fax: 508/482-3625.

[12] "Methods for the Determination of Metals in Environmental Samples-Supplement I", ORD Publications, EPA/600/R-94-111 May, 1994. Available from National Technical Information Service, Order #PB94-184942 PB95-125472, 5285 Port Royal Road, Springfield, VA 22161.

[13] Method 245.2 is available from US EPA, EMSL, Cincinnati, OH 45268. The identical methods were formerly in ''Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, Available at National Technical Information Services, PB84-128677, 5285 Port Royal Road, Springfield, VA 22161

[14] ''Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, Available at NTIS, PB94-121811.

[15] Method I-2601-90, Methods for Analysis by the U.S. Geological Survey National Water Quality Laboratory--Determination of Inorganic and Organic Constituents in Water and Fluvial Sediment, Open File Report 93-125, 1993; For Methods I-1030-85; I-1601-85; I-1700-85; I-2598-85; I-2700-85; and I-3300-85 See Techniques of Water Resources Investigation of the U.S. Geological Survey, Book 5, Chapter A-1, 3rd edition., 1989; Available from Information Services, U.S. Geological Survey, Federal Center, Box 25286, Denver, CO 80225-0425.

[16] The description for the QuikChem Method 10-204-00-1-X, ``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, for cyanide is available from Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218. Telephone: 414-358-4200

[17] ``Methods for the Determination of Organic and Inorganic Compounds in Drinking Water," Vol. 1, EPA 815-R-00-014, August 2000. Available at NTIS, PB2000-106981.

[18] The description for the Kelada-01 Method, ``Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001, EPA 821-B-01-009 for cyanide is available from the National Technical Information Service (NTIS), PB 2001-108275, 5285 Port Royal Road, Springfield, VA 22161. The toll free telephone number is 800-553-6847. Note: A 450-W UV lamp may be used in this method instead of the 550-W lamp specified if it provides performance within the quality control (QC) acceptance criteria of the method in a given instrument. Similarly, modified flow cell configurations and flow conditions may be used in the method, provided that the QC acceptance criteria are met.

[19] GLI Method 2, ''Turbidity", November 2, 1992, Great Lakes Instruments, Inc., 8855 North 55th Street, Milwaukee, Wisconsin 53223.

[20] "Waters Test Method for the Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography", Method B-1011, Millipore Corporation, Waters Chromatography Division, 34 Maple Street, Milford, MA 01757.

[21] Because method detection limits reported in EPA Methods 200.7 and 200.9 were determined using a 2X preconcentration step during sample digestion, method detection limits determined when samples are analyzed by direct analysis (i.e., no sample digestion) will be higher. For direct analysis of cadmium and arsenic by Method 200.7 sample preconcentration using pneumatic nebulization may be required to achieve lower detection limits. Preconcentration may also be required for direct analysis of antimony, lead, and thallium by

Method 200.9; antimony and lead by Method 3113 B; and lead by Method D3559–90D unless multiple in-furnace depositions are made.

[22] The procedure shall be done in accordance with the Technical Bulletin 601, "Standard Method of Test for Nitrate in Drinking Water", July 1994, PN 221890-001, Analytical Technology, Inc. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51. Copies may be obtained from ATI Orion, 529 Main Street, Boston, MA 02129. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

SECTION 9. NR 809.725(1) Table B is repealed and recreated to read:

TABLE B
SDWA Approved Methodology for Organic Contaminants

Contaminant	EPA Methods [1,2]	SM	ASTM	Other
Regulated Parameters:				
Volatile Organic Chemical				
Benzene	502.2, 524.2			
Carbon tetrachloride	502.2, 524.2, 551.1			
Chlorobenzene	502.2, 524.2			
Dibromochloropropane (DBCP)	504.1, 551.1			
1,2-Dichlorobenzene	502.2, 524.2			
1,4-Dichlorobenzene	502.2, 524.2			
1,2-Dichloroethane	502.2, 524.2			
cis-Dichloroethylene	502.2, 524.2			
trans-Dichloroethylene	502.2, 524.2			
Dichloromethane	502.2, 524.2			
1,2-Dichloropropane	502.2, 524.2			
Ethylbenzene	502.2, 524.2			
Styrene	502.2, 524.2			
Tetrachloroethylene	502.2, 524.2, 551.1			
1,1,1-Trichloroethane	502.2, 524.2, 551.1			
Trichloroethylene	502.2, 524.2, 551.1			
Toluene	502.2, 524.2			
1,2,4-Trichlorobenzene	502.2, 524.2			
1,1-Dichloroethylene	502.2, 524.2			
1,1,2-Trichloroethane	502.2, 524.2, 551.1			
Vinyl chloride	502.2, 524.2			
Xylenes (total)	502.2, 524.2			
Synthetic Organic Chemicals				
2,3,7,8-TCDD (dioxin)		1613[3]		
2,4-D [4] (as acids, salts and esters)	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003)	
2,4,5-TP [4] (Silvex)	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003)	
Alachlor	507, 525.2, 508.1, 505[8], 551.1			

Atrazine [5]	507, 525.2, 508.1, 505[8], 551.1			Syngenta [6] AG-625
Benzo(a)pyrene	525.2, 550, 550.1			
Carbofuran	531.1	6610[7]		
Chlordane	508, 525.2, 508.1, 505			
Dalapon	552.1 515.1, 552.2, 515.3, 515.4, 552.3			
Di(2-ethylhexyl)adipate	506, 525.2			
Di(2-ethylhexyl)phthalate	506, 525.2			
Dibromochloropropane (DBCP)	504.1, 551.1			
Dinoseb	515.2, 555, 515.1, 515.3			
Diquat	549.2			
Endothall	548.1			
Endrin	508, 525.2, 508.1, 505, 551.1			
Ethylene dibromide (EDB)	504.1, 551.1			
Glyphosate	547	6651[10]		
Heptachlor	508, 525.2, 508.1, 505, 551.1			
Heptachlor Epoxide	508, 525.2, 508.1, 505, 551.1			
Hexachlorobenzene	508, 525.2, 508.1, 505, 551.1			
Hexachlorocyclopentadiene	508, 525.2, 508.1, 505, 551.1			
Lindane	508, 525.2, 508.1, 505, 551.1			
Methoxychlor	508, 525.2, 508.1, 505, 551.1			
Oxamyl	531.1	6610[7]		
PCBs (as decachlorobiphenyl)	508A[9]			
(as Aroclors)	508.1, 508, 525.2, 505			
Pentachlorophenol	515.2, 525.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003)	
Picloram [4]	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 s(Reapproved 2003)	
Simazine	507, 525.2, 508.1, 505[8], 551.1			
Toxaphene	508, 508.1, 525.2, 505			
Total Trihalomethanes	502.2, 524.2, 551.1			
Unregulated Parameters:				
Aldicarb	531.1	6610[7]		
Aldicarb sulfone	531.1	6610[7]		
Aldicarb Sulfoxide	531.1	6610[7]		
Aldrin	505, 508, 525.2, 508.1			
Butachlor	507, 525.2			
Carbaryl	531.1	6610[7]		
Dicamba	515.1, 555, 515.2			
Dieldrin	505, 508, 525.2, 508.1			
3-Hydroxcarbofuran	531.1	6610[7]		
Methomyl	531.1	6610[7]		
Metolachlor	507, 525.2, 508.1			
Metribuzin	507, 525.2, 508.1			

Propachlor	507, 525.2, 508.1			

[1] Procedures for Methods 502.2, 504.1, 505, 506, 507, 508, 508.1, 515.2, 524.2 525.2, 531.1, 551.1 and 552.2 are in Methods for the Determination of Organic Compounds in Drinking Water Supplement III, EPA/600/R-95-131, August 1995. Methods 508A and 515.1 are in "Methods for the Determination of Organic Compounds in Drinking Water", EPA–600/4–88/039, December 1988, Revised, July 1991. Methods 547, 550, and 550.1 are in "Methods for the Determination of Organic Compounds in Drinking Water, Supplement I", EPA–600/4–90/020, July 1990. Methods 548.1, 549.1and 555 are in "Methods for the Determination of Organic Compounds in Drinking Water, Supplement II", EPA–600/R–92–129, August 1992. These documents are available from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 as publications NTIS PB91–231480, PB91–146027, and PB92–207703. The toll free number is 1-800-553-6847. EPA Methods 515.3 and 549.2 are available from U.S. Environmental Protection Agency, National Exposure Research Laboratory (NERL)-Cincinnati, 26 West Martin Luther King Drive, Cincinnati, OH 45268. ASTM Method D 5317-93 is available in the Annual Book of ASTM Standards, 1996, Vol. 11.02, American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428, or in any edition published after 1993.

[2] For previously approved EPA methods which remain available for compliance monitoring until June 1, 2001, see paragraph (e)(2) of this section. (e)(2) states: "T*he* following EPA methods will remain available for compliance monitoring until June 1, 2001. The following documents are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be inspected at EPA's Drinking Water Docket, 401 M St., SW., Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. EPA methods 502.2 Rev. 2.0, 505 Rev. 2.0, 507 Rev. 2.0, 508 Rev. 3.0, 531.1 Rev. 3.0 are in ''Methods for the Determination of Organic Compounds in Drinking Water'', December 1988, revised July 1991; methods 506 and 551 are in ''Methods for the Determination of Organic Compounds in Drinking Water—Supplement I'', July 1990; methods 515.2 Rev. 1.0 and 524.2 Rev. 4.0 are in ''Methods for the Determination of Organic Compounds in Drinking Water—Supplement II,'' August 1992; and methods 504.1 Rev. 1.0, 508.1 Rev. 1.0, 525.2 Rev.1.0 are available from US EPA NERL, Cincinnati, OH 45268."

[3] Method 1613, "Tetra– through Octa– Chlorinated Dioxins and Furans by Isotope Dilution. HRGC/HRMS, EPA–821/B–94/005, October 1994, Method 1613 can be used to measure 2, 3, 7, 8–TCDD (dioxin). This method is available from National Technical Information Service, NTIS PB95–104774.

[4] Accurate determination of the chlorinated esters requires hydrolysis of the sample as described in EPA Methods 515.1, 515.2, 515.3, 515.4 and 555 and ASTM Method D 5317-93, 98 (Reapproved 2003).

[5] Substitution of the detector specified in Method 505, 507, 508, or 508.1 for the purpose of achieving lower detection limits is allowed as follows: Either an electron capture or nitrogen phosphorus detector may be used provided all regulatory requirements and quality control criteria are met.

[6] This method may not be used for the analysis of atrazine in any system where chlorine dioxide is used for drinking water treatment. In samples from all other systems, any result generated by Method AG-625 that is greater than one-half the maximum contaminant level (MCL) (in other word, greater than 0.0015 mg/L or 1.5 µg/L) must be confirmed using another approved method for this contaminant and should use additional volume of the original sample collected for compliance monitoring. In instances where a result from Method AG-625 triggers such confirmatory testing, the confirmatory result is to be used to determine compliance.

[7] Method 6610 shall be followed in accordance with the "Supplement to the 18th edition of Standard Methods for the Examination of Water and Wastewater", 1994, or with the 19th edition of Standard Methods for the Examination of Water and Wastewater, 1995, APHA; either publication may be used. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C., 2005. Other required analytical test procedures germane to conducting these analyses are

contained in Technical Notes on Drinking Water Methods, EPA/600/R-94-173, October 1994, NTIS PB95-104766.

[8] A nitrogen–phosphorus detector should be substituted for the electron capture detector in Method 505 (or a different approved method should be used) to determine alachlor, atrazine and simizine, if lower detection limits are required.

[9] Method 505 or 508 can be used as a screen for PCBs. Method 508A shall be used to quantitate PCBs as decachlorobiphenyl if detected in Method 505 or 508. PCBs are qualitatively identified as Aroclors and measured for compliance purposes as decachlorobiphenyl.

[10] Method 6651 shall be followed in accordance with the "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, and 19th edition, 1995, American Public Health Association. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C., 20005.

SECTION 10. NR 809.725(1) Table F is amended to read:

TABLE F
Sample Preservation, Containers and
Maximum Holding Times for Inorganic Parameters

Parameter	Preservation[1]	Container[2]	Holding Time[3]
METALS			
Aluminum	HNO_3	P or G	6 months
Antimony	HNO_3	P or G	6 months
Arsenic	Conc. HNO_3 to pH<2	P or G	6 months
Barium	HNO_3	P or G	6 months
Beryllium	HNO_3	P or G	6 months
Cadmium	HNO_3	P or G	6 months
Copper	HNO_3	P or G	6 months
Chromium	HNO_3	P or G	6 months
Iron	HNO_3	P or G	6 months
Lead	HNO_3	P or G	6 months
Manganese	HNO_3	P or G	6 months
Mercury	HNO_3	P or G	28 days
Nickel	HNO_3	P or G	6 months
Selenium	HNO_3	P or G	6 months
Silver	HNO_3	P or G	6 months
Thallium	HNO_3	P or G	6 months
Zinc	HNO_3	P or G	6 months
OTHER PARAMETERS			
Asbestos	Cool, 4°C	P or G	48 hours[4]
Bromate	Ethylenediamine	P or G	28 days
Chloride	None	P or G	28 days
Chlorite	50 mg/L EDA, Cool to 4°C	P or G	14 days

Color	Cool, 4°C	P or G	48 hours
Cyanide	Cool, 4°C+NaOH to pH>12 NaOH to pH>12 0.6 g Ascorbic acid	P or G	14 days
Fluoride	None	P or G	28 days
Foaming Agents	Cool,4°C	P or G	48 hours
Nitrate (as N)			
Chlorinated	Cool, 4°C	P or G	14 days[5]
Non-Chlorinated	Cool, 4°C	P or G	~~14 days~~ 48 hours
Nitrite (as N)	Cool, 4°C ~~or Conc. H_2SO_4 to pH<2~~	P or G	48 hours[5]
Nitrate + Nitrite[6]	~~Cool, 4°C or~~ Conc. H_2SO_4 to pH<2	P or G	14 days
Odor	Cool, 4°C	G	48 hours
pH	None	P or G	Analyze Immediately
Solids (TDS)	Cool, 4°C	P or G	7 days
Sulfate	Cool, 4°C	P or G	28 days
Turbidity	Cool, 4°C	P or G	48 hours

[1] If HNO_3 cannot be used because of shipping restrictions; sample may be initially preserved by icing and immediately shipping it to the laboratory. Upon receipt in the laboratory, the sample must be acidified with conc HNO_3 to pH < 2. At time of analysis, sample container should be thoroughly rinsed with 1:1 HNO_3; washings should be added to sample.

[2] P = plastic, hard or soft. G = glass, hard or soft.

[3] In all cases, samples should be analyzed as soon after collection as possible.

[4] Instructions for containers, preservation procedures and holding times as specified in Method 100.2 must be adhered to for all compliance analyses including those conducted with Method 101.1.

[5] If the sample is chlorinated, the holding time for an unacidified sample kept at 4°C is extended to 14 days.

[6] Nitrate-nitrite refers to a measurement of total nitrate.

SECTION 11. NR 809.75(4)(intro.) is amended to read:

NR 809.75(4) (intro.) After December 31, 2001, systems ~~serving at least 10,000 people~~ shall install and operate water treatment processes that will reliably achieve all of the following:

SECTION 12. NR 809.76 (1) (a) and (b) are amended to read:

NR 809.76 (1) CONVENTIONAL FILTRATION TREATMENT. (a) For systems using conventional filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 0.5 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using conventional filtration shall be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E.

(b) The turbidity level of representative samples of a system's filtered water may not exceed 5 NTU, measured as specified in s. NR 809.725 (1) Table E. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using conventional filtration shall at no time exceed 1 NTU, measured as specified in s. NR 809.725 (1) Table E.

SECTION 13. NR 809.76 (2)(a) and (b) are amended to read:

NR 809.76 (2) DIRECT FILTRATION. (a) For systems using direct filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 0.5 NTU in at least 95% of the

measurements taken each month, measured as specified in s. NR 809.725 (1), Table E. The department may approve a turbidity limit up to 1 NTU if the water supplier provides the department with documentation which reliably indicates the system achieves at least 99.9% removal or inactivation of *Giardia lamblia* cysts at a turbidity level above 0.5 NTU at least 95% of the time that the system delivers water to the public. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using direct filtration shall be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E.

(b) The turbidity level of representative samples of a system's filtered water may not exceed 5 NTU, measured as specified in s. NR 809.725 (1), Table E. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using direct filtration shall at no time exceed 1 NTU, measured as specified in s. NR 809.725 (1), Table E.

SECTION 14. NR 809.765 (1) is amended to read:

NR 809.765 Filtration sampling requirements. (1) Monitoring requirements for systems using filtration treatment. In addition to monitoring required by s. NR 809.76, a public water system ~~serving at least 10,000 people and~~ using conventional or direct filtration shall conduct continuous monitoring of turbidity for each individual filter using a method approved in s. NR 809.725 (1) and shall calibrate turbidimeters using the procedure specified by the manufacturer. Systems shall record the results of individual filter monitoring every 15 minutes.

SECTION 15. NR 809.80 (3) is amended to read:

NR 809.80 (3) The supplier of water is not required to report analytical results to the department in cases where the ~~state laboratory of hygiene performs the analysis and~~ laboratory doing the analysis reports the results electronically to the department within the time frames contained in this section. The supplier of water is responsible for analytical results that are not reported within the required time frames.

SECTION 16. NR 809.833(3)(b)2. is amended to read:

NR 809.833(3)(b)2. Results of monitoring in compliance with requirements issued under 40 CFR ~~Sub. D,~~ part 141, ss. 141.142 and 141.143 (information collection rule) need only be included for 5 years from the date of last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.

SECTION 17. NR 809.833(3)(e) is amended to read:

NR 809.833(3)(e) The tables shall clearly identify any data indicating violations of MCLs, MRDL or treatment techniques and the report shall contain a clear and readily understandable explanation of the violation including: the length of the violation, the potential adverse health effects, and actions taken by the system to address the violation. To describe the potential health effects, the system shall use the relevant language of Appendix A to this subchapter.

SECTION 18. NR 809.833(4)(c) note is created to read:

NR 809.833(4)(c) **Note:** To determine the significance of the results it is recommended that systems call the Safe Drinking Water Hotline (800–426–4791).

SECTION 19. NR 809.833(6)(a) through (d) are amended to read:

NR 809.833(6) EXEMPTIONS. (a) An explanation of the reasons for the ~~variance or exemption~~ conditional waiver or variance.

(b) The date on which the ~~variance or exemption~~ conditional waiver or variance was issued.

(c) A brief status report on the steps the system is taking to install treatment, find alternative sources of water or otherwise comply with the terms and schedules of the ~~variance or exemption~~ conditional waiver or variance.

(d) A notice of any opportunity for public input in the review, or renewal, of the ~~variance or exemption~~ conditional waiver or variance.

SECTION 20. NR 809.835(2) is amended to read:

NR 809.835 (2) Beginning July 1, 2002 a system that detects arsenic above 0.005 mg/L and up to and including ~~0.01~~ 0.010 mg/L:

SECTION 21. NR 809.835(3) is amended to read:

NR 809.835 (3) Beginning July 1, 2002 and ending January 22, 2006 a community water system that detects arsenic above ~~0.01~~ 0.010mg/L and up to and including 0.05 mg/L shall include health effects language for arsenic prescribed by Appendix A to this subchapter.

SECTION 22. NR 809.837(7)(intro.) is amended to read:

NR 809.837(7)(intro.) The governor of Wisconsin or the governor's designee may waive the requirement of ~~par. (a)~~ sub. (1) for community water systems serving fewer than 10,000 persons.

SECTION 23. NR 809.90(4)(b) is amended to read:

NR 809.90(4)(b) The public water system owner or operator shall ~~receive~~ obtain a written certification from the bottled water company that the bottled water supplied meets all requirements of ~~s. ATCP 40.07~~ ch. ATCP 70. The public water system owner or operator shall provide the certification to the department the first quarter after it supplies bottled water and annually thereafter.

SECTION 24. NR 809.957(1) is amended to read:

NR 809.957 (1) WHEN SPECIAL NOTICE IS TO BE GIVEN. Community water systems that exceed the fluoride secondary maximum contaminant level of ~~2~~ 2.0 mg/l as specified in s. NR 809.60, determined by the last single sample taken in accordance with s. NR 809.12, but do not exceed the maximum contaminant level (MCL) of ~~4~~ 4.0 mg/l for fluoride, as specified in s. NR 809.11, shall provide the public notice in sub. (3) to persons served. Public notice shall be provided as soon as practical but no later than 12 months from the day the water system learns of the exceedance. A copy of the notice shall also be sent to all new billing units and new customers at the time service begins and to the state public health officer. The public water system shall repeat the notice at least annually for as long as the secondary maximum contaminant level is exceeded. If the public notice is posted, the notice shall remain in place for as long as the secondary maximum contaminant level is exceeded, but in no case less than 7 days, even if the exceedance is eliminated. On a case-by-case basis, the department may require an initial notice sooner than 12 months and repeat notices more frequently than annually.

SECTION 25. NR 809.959 Appendix A to Subchapter X footnote 7 is amended to read:

[7] Most of the requirements of the Interim Enhanced Surface Water Treatment Rule (63 FR 69477) become effective January 1, 2002 for systems using surface water or ground water under the direct influence of surface water ~~serving at least 10,000 persons~~. However, NR 809.77 has some requirements that become effective as early as April 16, 1999. The Surface Water Treatment Rule remains in effect for systems ~~serving at least 10,000 persons~~ even after 2002; the Interim Enhanced Surface Water Treatment Rule adds additional requirements and does not in many cases supersede the Surface Water Treatment Rule.

SECTION 26. NR 809.959 Appendix B to Subchapter X footnote 8 is amended to read:

[8] There are various regulations that set turbidity standards for different types of systems, including 40 CFR 141.13, the 1989 Surface Water Treatment Rule, and the 1998 Interim Enhanced Surface Water Treatment Rule. For systems subject to the interim enhanced surface water treatment rule (systems ~~serving at least 10,000 people,~~ using surface water or ground water under the direct influence of surface water), that use conventional filtration or direct filtration, after January 1, 2002, the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent shall not exceed 1 NTU at any time. Systems subject to the interim enhanced surface water treatment rule using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration shall meet turbidity limits set by the department.

SECTION 27. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2) (intro), Stats.

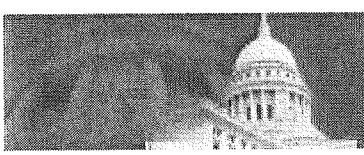
SECTION 28. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on August 15, 2007.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Scott Hassett, Secretary

(SEAL)



WISCONSIN STATE LEGISLATURE

Form 1100-001
(R 2/07)

NATURAL RESOURCES BOARD AGENDA ITEM

Item No. 3.A.2

SUBJECT: Adoption of Board Order DG-33-06, revisions to ch. NR 809 relating to the regulation of public drinking water systems

FOR: AUGUST 2007 **BOARD MEETING**

TO BE PRESENTED BY:
Lee H. Boushon

SUMMARY:
On January 14, 2002, U.S. EPA published National Drinking Water Regulations for Long-Term 1 Enhanced Surface Water Treatment (LT1); these changes impact all public drinking water systems using surface water or groundwater under the direct influence of surface water (GWUDI) and serve fewer than ten thousand (10,000) people. In order to maintain primacy, Wisconsin must adopt all federal requirements under the Safe Drinking Water Act (SDWA) or have requirements that are equal to or more stringent then the SDWA.

This rulemaking also included revisions to correct minor errors in and updates to the following:
1. the existing interim enhanced surface water treatment rule (IESWTR);
2. the stage 1 disinfection and disinfection byproducts rule (DDBPR);
3. the lead and copper rule (LCR);
4. the drinking water public notification rule (PNR);
5. the radionuclide rule; and
6. analytical methods.

Additionally, language was clarified with regard to total coliform rule (TCR) maximum contaminant level (MCL) determinations impacting systems collecting less than 40 samples per month.

On April 11, 2007 public hearings were held, in person, in Madison and by video feed in Eau Claire, Spooner, Milwaukee and Green Bay. No one attended any of the hearings. The department received comments from the Wisconsin Legislative Council Rules Clearinghouse and one public comment. All comments have been addressed and incorporated in to the rule order.

RECOMMENDATION: That the Board adopts the proposed rule changes to NR 809.

LIST OF ATTACHED MATERIALS:

No	☐	Fiscal Estimate Required	Yes	☑	Attached
No	☑	Environmental Assessment or Impact Statement Required	Yes	☐	Attached
No	☐	Background Memo	Yes	☑	Attached

APPROVED:

Bureau Director, Jill D. Jonas — Date 7/16/07

Administrator, Todd L. Ambs — Date 7/17/07

Secretary, Scott Hassett — Date 7/27/07

cc: Laurie J. Ross - AD/5

STAFF REVIEW - DNR BOARD AGENDA ITEM

REMINDER

Have the following questions been answered under the summary section of this form?

- -Why is the rule needed?
- -What are the significant changes?
- -What are the key issues/controversies?
- -What was the last action of the Board?

LIST OF ATTACHED REFERENCE MATERIAL REQUIRED FOR RULE PROPOSALS:

Hearing authorization:

Background Memo (if needed)*
Fiscal Estimate
Environmental Assessment (if needed)
Rule

Final adoption:

Background Memo (if needed)*
Response Summary
Fiscal Estimate
Environmental Assessment (if needed)
Rule

* If all the questions listed in the REMINDER section above can be adequately summarized on the Green Sheet (and a second sheet if needed), the Background Memo may be omitted.

Unit	Reviewer	Date	Comments
Environmental Analysis and Review	DLS	7/16/07	
Management and Budget	Pat Norman	7/13/07	
Legal Services -Program Attorney -Carol Turner	MS CT	7/16/7 7/17/07	
Other (if applicable)			

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: July 13, 2007 FILE REF: July 2007

TO: Natural Resources Board

FROM: Scott Hassett - AD/5

SUBJECT: Background Memo – Adoption of amendments to ch. NR 809-Safe Drinking Water

WHY THE CHANGE IS BEING PROPOSED AND SUMMARY OF THE RULE

The United States Environmental Protection Agency (USEPA) published amendments to 40 CFR parts 141 and 142. Section 281.17(8) Stats and our primacy agreement with USEPA require the Department to adopt rules at least as stringent as federal regulations. These proposed amendments are necessary to assure that the Department's administrative rules are consistent with federal regulations.

On January 14, 2002,USEPA published National Drinking Water Regulations for Long-Term 1 Enhanced Surface Water Treatment (LT1); these changes impact all public drinking water systems using surface water or groundwater under the direct influence of surface water (GWUDI) and serving fewer than ten thousand (10,000) people. This rulemaking will also include revisions to correct minor errors in and updates to the following:

- the existing interim enhanced surface water treatment rule (IESWTR);
- the stage 1 disinfection and disinfection byproducts rule (DDBPR);
- the lead and copper rule (LCR);
- the drinking water public notification rule (PNR);
- the radionuclide rule;
- analytical methods; and

Additionally, language has been clarified in regard to the total coliform rule (TCR) maximum contaminant level (MCL) determinations impacting systems collecting less than 40 samples per month.

DESCRIPTION OF POLICY ISSUES/ANALYSIS OF POLICY ALTERNATIVES

In order to maintain primacy, Wisconsin must adopt all federal requirements under the Safe Drinking Water Act (SDWA) or have requirements that are equal to or more stringent then the SDWA. In the case of the LT1 regulation there were two alternatives available for Wisconsin to meet this requirement:

1. Full adoption of the LT1 rule for surface water and groundwater under the direct influence of surface water (GWUDI) systems with populations of 10,000 or less. Or,

2. Amending the state version of the Interim Enhanced Surface Water Treatment Rule (IESWTR) to apply to all surface water and GWUDI systems.

Alternative #1 required incorporation of rule language that would not be used by any drinking water systems and would have added confusion in understanding ch. NR 809 requirements. Only two systems in Wisconsin would fall under the LT1 requirements and, in reality, the LT1 rule would not apply to either. The first system, Wisconsin Veterans Home at King will be using all groundwater by the end of 2007. The second system, Ashland Water Utility, uses an alternative technology (membrane filtration) and is required to meet standards of the IESWTR by virtue of their plan of operation. Wisconsin has no systems that are considered GWUDI under the federal regulations.

Alternative #2 changed the application of the IESWTR to all surface water and GWUDI systems rather than just those serving population of 10,000 and over. This is consistent with current practice. The requirements of the LT1 were developed based on the IESWTR, but were modified by USEPA to reduce the burden on small systems. Since there are no Wisconsin systems to be burdened it was not necessary to promulgate additional rule language.

The recommendation was use alternative #2 for meeting the primacy requirement to adopt rules at least as stringent as the federal rules; that the IESWTR apply to all surface water and GWUDI systems in Wisconsin.

All the minor errors and additions edits have been identified by USEPA in various primacy reviews and are required to be completed.

The existing language on non-acute or monthly TCR MCL determination was not clear and needed elucidation, the actual meaning was not changed.

HOW THE PROPOSAL AFFECTS EXISTING POLICY

Adopting regulations that are at least as stringent as federal drinking water regulations is consistent with current policy.

HOW THE PROPOSAL AFFECTS THE REGULATED COMMUNITY

The regulated community should not be burdened by anything in this rule package. There will be clarification of some language and that will help systems understand the regulations. There are no additional fiscal impacts from this rule change beyond what is already imposed by federal regulations and state plan approvals. If Wisconsin does not adopt the proposed change in lieu of the LT1 rule, adoption of the full regulation would be required. If the full regulation was adopted, the one public water system impacted by virtue of population will not obtain any monitoring relief since the approval for their membrane filter plant is as stringent as the IESWTR.

ENVIRONMENTAL ANALYSIS

This rule is a Type III action under s. NR 150.03(6)(b)3.b., Wis. Admin. Code. Preparation of an Environmental Assessment document is therefore not necessary.

FINAL REGULATORY FLEXIBILITY ANALYSIS

Typically, the Department has little flexibility with drinking water regulations since State rules can be no less stringent than the federal regulation. Flexibility in the rule will be used to reduce monitoring costs and complexity wherever possible.

HEARING SYNOPSIS and PUBLIC COMMENTS:

On April 11, 2007 public hearings were held in person in Madison and by video feed in Eau Claire, Spooner, Milwaukee and Green Bay. No one attended any of the hearings.

The department received comments from the Wisconsin Legislative Council Rules Clearinghouse. All of those comments have been addressed in the attached order.

The department also received one public comment on the updating of analytical methods.

Paul Junio of Test America Laboratory commented: "While NR809 has a revision proposed to it, DNR has been unlucky in its timing. EPA released the Methods Update Rule on March 12, 2007 (MUR), which was after DNR opened NR 809 for comments. The methods tables contained in the MUR include additional methods that are not currently a part of NR809, either in the current form or in its revised form. I strongly encourage the WDNR to incorporate those methods included in the MUR into ch. 809 at this time."

Answer: The department agrees with your comment and has incorporated the March 12, 2007 Methods Update Rule into the applicable tables contained in this order.

Wisconsin Department of Administration
Division of Executive Budget and Finance
DOA-2048 (R10/2000)

Fiscal Estimate — 2007 Session

☒ Original	☐ Updated	LRB Number	Amendment Number if Applicable
☐ Corrected	☐ Supplemental	Bill Number	Administrative Rule Number NR 809

Subject

Revisions to NR 809 (Safe Drinking Water)

Fiscal Effect

State: ☒ No State Fiscal Effect
☐ Indeterminate

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

☐ Increase Existing Appropriation ☐ Increase Existing Revenues
☐ Decrease Existing Appropriation ☐ Decrease Existing Revenues
☐ Create New Appropriation

☐ Increase Costs — May be possible to absorb within agency's budget. ☐ Yes ☐ No

☐ Decrease Costs

Local: ☒ No Local Government Costs
☐ Indeterminate

1. ☐ Increase Costs ☐ Permissive ☐ Mandatory
2. ☐ Decrease Costs ☐ Permissive ☐ Mandatory
3. ☐ Increase Revenues ☐ Permissive ☐ Mandatory
4. ☐ Decrease Revenues ☐ Permissive ☐ Mandatory
5. Types of Local Governmental Units Affected: ☐ Towns ☐ Villages ☐ Cities ☐ Counties ☐ Others _____ ☐ School Districts ☐ WTCS Districts

Fund Sources Affected: ☐ GPR ☐ FED ☐ PRO ☐ PRS ☐ SEG ☐ SEG-S

Affected Chapter 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

This rule change allows WDNR regulations to incorporate the remaining USEPA surface water treatment regulations so that WDNR maintains primary enforcement authority. The requirements of the Long-Term 1 Enhanced Surface Water Treatment (LT1) were developed based on the Interim Enhanced Surface Water Treatment Rule (IESWTR), but were modified by USEPA to reduce the burden on small systems.

This packages broadens the state version of IESWTR to apply to surface water and to groundwater under direct influence (GWUDI) systems that serve populations of less than 10,000. This is consistent with current practice. The requirements of the LT1 were developed based on the IESWTR, but were modified by USEPA to reduce the burden on small systems.

Fiscal Impact: The rule package updates code citations and corrects errors in order to increase the clarity of ch. NR 809 and to ensure consistency with federal regulations. Therefore, it has no state fiscal effect. In addition, since it is assumed that there are no communities with populations less than 10,000 to which these rule changes would apply, this rule package is estimated to have no fiscal effect on local governments.

Long-Range Fiscal Implications

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature: [signature]	Telephone No. 266-2794	Date (mm/dd/yyyy) 07/13/07

Wisconsin Department of Administration
Division of Executive Budget and Finance
DOA-2048 (R10/2000)

Fiscal Estimate — 2007 Session

Page 2 Assumptions Narrative Continued

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number NR 809

Assumptions Used in Arriving at Fiscal Estimate – Continued

Wisconsin Department of Administration
Division of Executive Budget and Finance
DOA-2047 (R10/2000)

Fiscal Estimate Worksheet — 2007 Session

Detailed Estimate of Annual Fiscal Effect

☒ Original	☒ Updated	LRB Number	Amendment Number if Applicable
☐ Corrected	☐ Supplemental	Bill Number	Administrative Rule Number NR 809

Subject

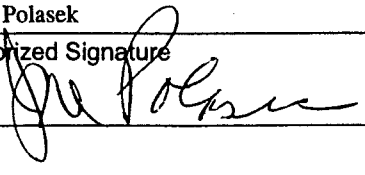
Revisions to NR 809 (Safe Drinking Water)

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):

Annualized Costs:	Annualized Fiscal Impact on State Funds from:	
A. State Costs by Category	Increased Costs	Decreased Costs
State Operations — Salaries and Fringes	$	$ -
(FTE Position Changes)	(FTE)	(- FTE)
State Operations — Other Costs		-
Local Assistance		-
Aids to Individuals or Organizations		-
Total State Costs by Category	$	$ -
B. State Costs by Source of Funds	Increased Costs	Decreased Costs
GPR	$	$ -
FED		-
PRO/PRS		-
SEG/SEG-S		-
State Revenues — Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes	$	$ -
GPR Earned		-
FED		-
PRO/PRS		-
SEG/SEG-S		-
Total State Revenues	$ 0	$ - 0

Net Annualized Fiscal Impact

	State	Local
Net Change in Costs	$ 0	$ 0
Net Change in Revenues	$ 0	$ 0

Prepared By:	Telephone No.	Agency
Joe Polasek	266-2794	Department of Natural Resources
Authorized Signature	Telephone No.	Date (mm/dd/ccyy)
	266-2794	07/13/07

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD AMENDING, REPEALING AND RECREATING AND CREATING RULES

The Natural Resource Board proposes an order to amend NR 809.30 (1)(b), NR 809.30(3), NR 809.31(6), NR 809.50(3) Table B, NR 809.542(2)(c)3, NR 809.546(1)(a), NR 809.725(1) Table F, NR 809.75(4), NR 809.76 (1) (a) and (b), NR 809.76 (2)(a) and (b), NR 809.765 (1), NR 809.80 (3), NR 809.833(3)(b)2., NR 809.833(3)(e), NR 809.833(4)(c), NR 809.833(6)(a) through (d), NR 809.835(2), NR 809.835(3), NR 809.837(7), NR 809.90(4)(b), and NR 809.957, NR 809.959 Appendix A to Subchapter X footnote 7, NR 809.959 Appendix A to Subchapter X footnote 8; to repeal and recreate NR 809.725(1) Table A, and NR 809.725(1) Table B; to create NR 809.53(3) (e) relating to the IESWTR, LT1, DDBP, PN, CCR, radionuclide, and total coliform rules and updating of analytical methods for public water systems.

DG-33-06

Analysis prepared by Department of Natural Resources

Statutory authority: ss.280.11 and 281.17 (8), Stats.
Statutes interpreted: ss.280.11 and 281.17(8), Stats.

Explanation of Authority: 280.11 - The department shall, after a public hearing, prescribe, publish and enforce minimum reasonable standards and rules and regulations for methods to be pursued in the obtaining of pure drinking water for human consumption and the establishing of all safeguards deemed necessary in protecting the public health against the hazards of polluted sources of impure water supplies intended or used for human consumption . . .

281.17(8) - The department may establish, administer and maintain a safe drinking water program no less stringent than the requirements of the Safe Drinking Water Act, 42 USC 300f to 300j–26.

Related Statute or Rule: There are no related statutes or rules.

Plain Language analysis:

On January 14, 2002, the United States Environmental Protection Agency (USEPA) published National Drinking Water Regulations for Long-Term 1 Enhanced Surface Water Treatment (LT1); these changes impact all public drinking water systems using surface water or groundwater under the direct influence of surface water (GWUDI) and serve fewer than ten thousand (10,000) people.

The LT1 requires small surface water systems serving a population of less than 10,000 to meet strengthened filtration requirements. The LT1 also requires small surface water systems to calculate levels of microbial inactivation to ensure that microbial protection is not jeopardized if significant changes are made to disinfection treatment to attain compliance with requirements of the Stage 1 Disinfectants and Disinfection Byproducts Rule (DBPR). The LT1 builds upon the framework established for larger surface water systems in the Interim Enhanced Surface Water Treatment Rule (IESWTR). The differences between the LT 1 and the IESWTR essentially are that the LT 1 rule provides longer time frames for reporting filter turbidity exceedences, the state can waive requirements to develop disinfection profiles for microbial inactivation in response to filter problems, and under the LT 1 rule the state has flexibility for some requirements in the comprehensive performance evaluation (CPE) conducted by systems that have significant individual filter problems.

In order to maintain primacy, Wisconsin must adopt all federal requirements under the Safe Drinking Water Act (SDWA) or have requirements that are equal to or more stringent then the SDWA. In the case of the LT1 regulation there are two alternatives that were considered to meet this requirement:

1. Full adoption of the LT1 rule for surface water and groundwater under the direct influence of surface water (GWUDI) systems with populations of 10,000 or less. Or,

2. Amending the state version of the Interim Enhanced Surface Water Treatment Rule (IESWTR) to apply to all surface water and GWUDI systems.

Alternative #1 would have required the incorporation of rule language that would not be used by any drinking water system and added confusion in understanding ch. NR 809 requirements. Only two systems in Wisconsin will fall under the LT1 requirements and the LT1 rule will not apply to either. The first system, Wisconsin Veterans Home at King will be using all groundwater by the end of 2007. The second system, Ashland Water Utility, uses an alternative technology (membrane filtration) and is required to meet standards of the IESWTR by virtue of their plan of operation. Wisconsin has no systems that are considered GWUDI under the federal regulations.

Alternative #2 changed the application of the IESWTR to all surface water and GWUDI systems rather than just those with populations of 10,000 and above. This is consistent with current practice. The requirements of the LT1 were developed based on the IESWTR, but were modified by USEPA to reduce the burden on small systems. Since there are no Wisconsin systems to be burdened it is not necessary to promulgate additional rule language.

The recommendation to use alternative #2, the application of the IESWTR to apply to all surface water and GWUDI systems in Wisconsin, was presented for public comment.

This rulemaking includes revisions to correct minor errors in and to update the following

1. the existing interim enhanced surface water treatment rule (IESWTR);
2. the stage 1 disinfection and disinfection byproducts rule (DDBPR);
3. the lead and copper rule (LCR);
4. the drinking water public notification rule (PNR);
5. the radionuclide rule; and
6. analytical methods.

All the minor errors and additions edits have been identified by USEPA in various primacy reviews and are required to be completed.

Additionally, language is clarified with regard to total coliform rule (TCR) maximum contaminant level (MCL) determinations impacting systems collecting less than 40 samples per month.

The existing language on non-acute or monthly TCR MCL determination was not clear and therefore needed elucidation, the actual meaning has not been changed.

Summary and comparison of federal regulations: This rule change will allow WDNR regulations to incorporate the remaining federal surface water treatment regulations so that WDNR may maintain primacy ("primary enforcement authority") for the affected regulation. All the minor errors and additions edits have been identified by USEPA in various primacy reviews and are required to be completed as a condition of primacy.

Summary of factual data and analytical methodologies: These changes are required to be adopted by the department in order to maintain primary enforcement of the federal SDWA. There have been no data or analytical methodologies used by the department in the development of these changes.

Comparison to other states: Illinois, Iowa and Michigan have modified their rules governing public drinking water to incorporate the federal LT 1 rule governing surface water and GWUDI systems serving less than 10,000 people. Minnesota adopts all federal requirements of the SDWA by direct reference. The surrounding states have a number of small public surface water and GWUDI systems using conventional treatment serving populations under 10,000 people. The water systems, in the surrounding states, using surface water or GWUDI sources, not using conventional treatment are evaluated on a case-by-case basis, to determine filter monitoring

requirements using similar procedures as Wisconsin. Therefore, the LT 1 rule does provides some relief in those states from the monitoring required by the IESWT rule. In contrast, Wisconsin has only two surface water and no GWUDI systems with populations under 10,000. The first system is the Wisconsin Veterans Home (WVH) in King, WI. They use conventional surface water treatment for part of their drinking water; by the end of 2007, WVH in King will be fully served by a groundwater source. The second system, the City of Ashland water utility, has a membrane filtration plant not conventional treatment, and is required by a DNR issued plan approval to meet requirements that are at least as stringent as the IESWT rule. Since adding the additional language of the LT1 rule would not change any requirements for public water systems in Wisconsin, ch. NR 809 remains consistent with the requirements of the surrounding states.

The minor revisions, corrections and clarifications included in this rule package should serve to bring Wisconsin's rule in line with the surrounding states since the requirements of the SDWA are mandatory to retain primacy.

Analysis to determine affect on small business: The majority of these rule changes are clarification of federal requirements that are already in existence. The proposed rule changes for surface water and GWUDI systems will not impact small business, since no small systems will be regulated under them. The addition of USEPA approved analytical methods may provide laboratories with additional flexibility in analyzing public drinking water samples.

Affects on small business: The effects of these rule changes are to provide additional flexibility to laboratories that perform analyses for public water systems. Since there are no small surface water systems or GWUDI in Wisconsin, the LT1 rule is not necessary to provide monitoring relief for small water systems.

Agency contact person: Lee Boushon, Chief, Drinking Water Systems Section, email: lee.boushon@dnr.state.wi.us telephone: (608) 266-0857.

SECTION 1. NR 809.30 (1)(b) is amended to read:

NR 809.30 (1)(b) For a system which collects fewer than 40 samples per month, if no more than one sample, including routine and repeat samples, collected during a ~~sampling~~ monitoring period is total coliform-positive, the system is in compliance with the MCL for total coliforms.

SECTION 2. NR 809.30 (3) is amended to read:

NR 809.30(3) The water supplier for a public water system shall determine compliance with the MCL for total coliforms in subs. (1) and (2) for each monitoring period in which the system is required to monitor for total coliforms.

SECTION 3. NR 809.31(6) is amended to read:

NR 809.31(6) SANITARY SURVEYS. (a) ~~Public~~ All public water systems shall undergo a sanitary survey every 5 years~~, except that non-community water systems using only protected and disinfected ground water, as determined on a case-by-case basis by the department, shall undergo a sanitary survey at least every 10 years after the initial sanitary survey~~. The department will review the results of each sanitary survey to determine whether the existing monitoring frequency is adequate and what additional measures, if any, the system needs to undertake to improve drinking water quality.

SECTION 4. NR 809.50(3) Table B is amended to read:

Table B

BAT for Combined Radium–226 and Radium–228, Uranium, Gross Alpha Particle Activity, and Beta Particle and Photon Radioactivity

Contaminant	BAT
1. Combined radium–226 and radium–228	Ion exchange, reverse osmosis, lime softening
2. Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/ filtration
3. Gross alpha particle activity (excluding Radon and Uranium).	Reverse osmosis.
4. Beta particle and photon ~~Ion exchange~~ radioactivity	~~Reverse~~ Ion exchange and reverse osmosis ~~radioactivity~~

SECTION 5. NR 809.53(3) (e) is created to read:

NR 809.53(3)(e) If the MCL for radioactivity set forth in ss. NR 809.50(1) and 809.51(1) and (2) is exceeded, the operator of a community water system shall give notice to the department pursuant to s. NR 809.80(1) and to the public as required by subch. X.

SECTION 6. NR 809.542(2)(c)3. is amended to read:

NR 809.542(2)(c)3. Any water system deemed to have optimized corrosion control pursuant to this paragraph shall notify the department in writing pursuant to s. NR 809.55 (1)~~(f)~~ (e) of any change in treatment or the addition of a new source. The department may require any system to conduct additional monitoring or to take other action the department deems appropriate to ensure that systems maintain minimal levels of corrosion in the distribution system.

SECTION 7. NR 809.546(1)(a) is amended to read:

NR 809.546(1)(a) The United States environmental protection agency (USEPA) and [insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the USEPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace each lead service line that we control if the line contributes lead concentrations of more than 15 ppb ~~or more~~ after we have completed the comprehensive treatment pro-gram. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

SECTION 8. NR 809.725(1) Table A is repealed and recreated to read:

TABLE A
Approved Methodology for Primary Inorganic Contaminants

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
Antimony	Atomic absorption; gaseous hydride [15]		D3697-92, 02				

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
	Inductively Coupled Plasma-Mass Spectrometry (ICP/MS)	200.8[5]					
Asbestos	Transmission Electron Microscopy	100.1[6]	-	-	-		
	Transmission Electron Microscopy	100.2[7]	-	-	-		
Arsenic[8]	ICP/MS	200.8[5]					
	Atomic absorption; platform furnace	200.9[5]					
	Atomic Absorption; Furnace technique		D2972-97, 03 C	3113 B		3113 B-99	
	Hydride Atomic Absorption		D2972-97, 03 B	3114 B		3114 B-97	
Barium	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]		3120 B	3120 B	3120 B-99	
	Atomic Absorption; Direct Aspiration			3111 D		3111 D-99	
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
Beryllium	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]		3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique		D3645-97, 03 B	3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Cadmium	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]					
	Atomic Absorption; Furnace technique[9]			3113 B		3113 B-99	
	Atomic absorption; platform furnace						
Copper	ICP/MS	200.8[5]					
	Inductively Coupled Plasma			3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique		D1688-95, 02 C	3113 B		3113 B-99	
	Atomic Absorption; Direct Aspiration		D1688-95, 02 A	3111 B		3111 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Chromium	ICP/MS	200.7[5]					
	Inductively Coupled Plasma			3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Cyanide	Manual Distillation		D2036-98 A	4500-CN- C	4500-CN- C		
	Spectrophotometric, Amenable		D2036-98 B	4500-CN- G	4500-CN- G	4500-CN- G-99	

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
	Spectrophotometric, Manual		D2036-98 A	4500-CN⁻ E	4500-CN⁻ E	4500-CN⁻ E-99	I-3300-855[15]
	Selective Electrode			4500-CN⁻ F	4500-CN⁻ F	4500-CN⁻ F-99	
	UV, Distillation, Spectrophotometric						Kelada-01[18]
	Micro Distillation, Flow Injection, Spectrophotometric						QuikChem 10-204-00-1-X[16]
	Ligand Exchange and Amperometry		D6888-04				OIA-1677,DW[14]
	Semi-automated	335.4[9]					
Fluoride	Ion Chromatography	300.1[17]	D4327-97, 03	4110 B	4110 B	4110 B-00	
	Manual Distill.; Color. SPADNS			4500-F B, D	4500-F B, D	4500-F B, D-97	
	Manual Electrode		D1179-93, 99 B	4500-F C	4500-F C	4500-F C-97	
	Automated Alizarin			4500-F E	4500-F E	4500-F E-97	129-71W[10]
	Capillary Ion Electrophoresis						D6508, Rev. 2[11]
	Automated ion selective electrode						380-75WE[10]
Lead	ICP/MS	200.8[5]					
	Atomic Absorption; Furnace technique		D3559-96, 03 D	3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
	Differential Pulse Anodic Stripping Voltammetry						Method 1001
Mercury	ICP/MS	200.8[5]					
	Manual, Cold Vapor[6]	245.1[13]	D3223-97, 02	3112 B		3112 B-99	
	Automated, Cold Vapor[6]	245.2[5]					
Nickel	ICP/MS	200.8[5]					
	Inductively Coupled Plasma	200.7[5]		3120 B	3120 B	3120 B-99	
	Atomic Absorption; Furnace technique			3113 B		3113 B-99	
	Atomic Absorption; Direct Aspiration			3111 B		3111 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Nitrate	Ion Chromatography	300.1[17]	D4327-97, 03	4110 B	4110 B	4110 B-00	B-1011[20]
	Automated Cadmium Reduction	353.2		4500-NO3 F	4500-NO3 F	4500-NO3 F-00	
	Ion Selective Electrode			4500-NO3 D	4500-NO3 D	4500-NO3 D-00	601[22]
	Manual Cadmium Reduction			4500-NO3 E	4500-NO3 E	4500-NO3 E-00	
	Capillary Ion Electrophoresis						D6508, Rev. 2[11]
Nitrite	Ion Chromatography	300.1[17]	D4327-97, 03	4110 B	4110 B	4110 B-00	
	Automated Cadmium Reduction			4500-NO3 F	4500-NO3 F	4500-NO3 F-00	
	Manual Cadmium Reduction		D3867-90B	4500-NO3 E			

Contaminant	Methodology [21]	EPA	ASTM[3]	SM, 18/19th [1,2]	SM, 20th [1]	SM-Online[4]	Other
	Spectrophotometric			4500-NO2 B	4500-NO2 B	4500-NO2 B-00	
	Capillary Ion Electrophoresis						D6508, Rev. 2[11]
Selenium	ICP/MS	200.8[5]					
	Hydride-Atomic Absorption		D3859-98, 03 A	3114 B		3114 B-97	
	Atomic Absorption; Furnace technique		D3859-98, 03 B	3113 B		3113 B-99	
	Atomic absorption; platform furnace	200.9[5]					
Thallium	ICP/MS	200.8[5]					
	Atomic absorption; platform furnace	200.9[5]					
Turbidity	Nephelometric	180.1[9]		2130 B			
	Great Lakes Instruments						Method 2[19]

[1] Standard Methods for the Examination of Water and Wastewater, 18th edition (1992), 19th edition (1995), or 20th edition (1998). American Public Health Association, 1015 Fifteenth Street, NW., Washington, DC 20005. The cited methods published in any of these three editions may be used, except that the versions of 3111 B, 3111 D, 3113 B and 3114 B in the 20th edition may not be used.

[2] The procedures shall be done in accordance with the "Standard Methods for the Examination of Water and Wastewater", 18th and 19th Editions, American Public Health Association, American Water Works Association, 1992 and 1995. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, NW, Washington, D.C., 20005. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington DC.

[3] The procedures shall be done in accordance with the "Annual Book of ASTM Standards", 1994, Vols 11.01 and 11.02. American Society for Testing and Material. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Society for Testing and Material, 1916 Race Street, Philadelphia, Pennsylvania 19103. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

[4] Standard Methods Online are available at http://www.standardmethods.org. The year in which each method was approved by the Standard Methods Committee is designated by the last two digits in the method number. The methods listed are the only online versions that may be used.

[5] "Methods for the Determination of Metals in Environmental Samples-Supplement I", ORD Publications, EPA/600/R-94-111 May, 1994. Available from National Technical Information Service, Order #PB94184942 PB95-125472, 5285 Port Royal Road, Springfield, VA 22161.

[6] Method 100.1, "Analytical Method for Determination of Asbestos Fibers in Water", EPA-600/4-83-043, September 1983. U.S. EPA, Environmental Research Laboratory, Athens, GA 30613. Available at NTIS, PB83-260471.

[7] Method 100.2, "Determination Of Asbestos Structures over 10-um In Length In Drinking Water", EPA-600/R-94-134, June 1994. Available at NTIS, PB94-201902

[8] If ultrasonic nebulization is used in the determination of arsenic by Methods 200.7, 200.8, or SM 3120 B, the arsenic must be in the pentavalent state to provide uniform signal response. For methods 200.7 and 3120 B, both samples and standards must be diluted in the same mixed acid matrix concentration of nitric and

hydrochloric acid with the addition of 100 µL of 30% hydrogen peroxide per 100ml of solution. For direct analysis of arsenic with method 200.8 using ultrasonic nebulization, samples and standards must contain one mg/L of sodium hypochlorite

[9] ''Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, Available at NTIS, PB94-121811

[10] The procedures shall be done in accordance with the Industrial Method No. 129-71 W, ''Fluoride in Water and Wastewater", December 1972, and Method No. 380-75WE, "Fluoride in Water and Wastewater", February 1976, Technicon Industrial Systems. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51,. Copies may be obtained from the Technicon Industrial Systems, Tarrytown, NY 10591. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

[11] Method D6508, Rev. 2, ``Test Method for Determination of Dissolved Inorganic Anions in Aqueous Matrices Using Capillary Ion Electrophoresis and Chromate Electrolyte," available from Waters Corp, 34 Maple St, Milford, MA, 01757, Telephone: 508/482-2131, Fax: 508/482-3625.

[12] "Methods for the Determination of Metals in Environmental Samples-Supplement I", ORD Publications, EPA/600/R-94-111 May, 1994. Available from National Technical Information Service, Order #PB94-184942 PB95-125472, 5285 Port Royal Road, Springfield, VA 22161.

[13] Method 245.2 is available from US EPA, EMSL, Cincinnati, OH 45268. The identical methods were formerly in ''Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983, Available at National Technical Information Services, PB84-128677, 5285 Port Royal Road, Springfield, VA 22161

[14] ''Methods for the Determination of Inorganic Substances in Environmental Samples", EPA-600/R-93-100, August 1993, Available at NTIS, PB94-121811.

[15] Method I-2601-90, Methods for Analysis by the U.S. Geological Survey National Water Quality Laboratory--Determination of Inorganic and Organic Constituents in Water and Fluvial Sediment, Open File Report 93-125, 1993; For Methods I-1030-85; I-1601-85; I-1700-85; I-2598-85; I-2700-85; and I-3300-85 See Techniques of Water Resources Investigation of the U.S. Geological Survey, Book 5, Chapter A-1, 3rd edition., 1989; Available from Information Services, U.S. Geological Survey, Federal Center, Box 25286, Denver, CO 80225-0425.

[16] The description for the QuikChem Method 10-204-00-1-X, ``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, for cyanide is available from Lachat Instruments, 6645 W. Mill Rd., Milwaukee, WI 53218. Telephone: 414-358-4200

[17] ``Methods for the Determination of Organic and Inorganic Compounds in Drinking Water," Vol. 1, EPA 815-R-00-014, August 2000. Available at NTIS, PB2000-106981.

[18] The description for the Kelada-01 Method, ``Kelada Automated Test Methods for Total Cyanide, Acid Dissociable Cyanide, And Thiocyanate," Revision 1.2, August 2001, EPA 821-B-01-009 for cyanide is available from the National Technical Information Service (NTIS), PB 2001-108275, 5285 Port Royal Road, Springfield, VA 22161. The toll free telephone number is 800-553-6847. Note: A 450-W UV lamp may be used in this method instead of the 550-W lamp specified if it provides performance within the quality control (QC) acceptance criteria of the method in a given instrument. Similarly, modified flow cell configurations and flow conditions may be used in the method, provided that the QC acceptance criteria are met.

[19] GLI Method 2, "Turbidity", November 2, 1992, Great Lakes Instruments, Inc., 8855 North 55th Street, Milwaukee, Wisconsin 53223.

[20] "Waters Test Method for the Determination of Nitrite/Nitrate in Water Using Single Column Ion Chromatography", Method B-1011, Millipore Corporation, Waters Chromatography Division, 34 Maple Street, Milford, MA 01757.

[21] Because method detection limits reported in EPA Methods 200.7 and 200.9 were determined using a 2X preconcentration step during sample digestion, method detection limits determined when samples are analyzed by direct analysis (i.e., no sample digestion) will be higher. For direct analysis of cadmium and arsenic by Method 200.7 sample preconcentration using pneumatic nebulization may be required to achieve lower detection limits. Preconcentration may also be required for direct analysis of antimony, lead, and thallium by Method 200.9; antimony and lead by Method 3113 B; and lead by Method D3559–90D unless multiple in-furnace depositions are made.

[22] The procedure shall be done in accordance with the Technical Bulletin 601, "Standard Method of Test for Nitrate in Drinking Water", July 1994, PN 221890-001, Analytical Technology, Inc. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U. S. C. 552 (a) and 1 CFR Part 51. Copies may be obtained from ATI Orion, 529 Main Street, Boston, MA 02129. Copies may be inspected at EPA's Drinking Water Docket, 401 M Street, SW, Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC.

SECTION 9. NR 809.725(1) Table B is repealed and recreated to read:

TABLE B
SDWA Approved Methodology for Organic Contaminants

Contaminant	EPA Methods [1,2]	SM	ASTM	Other
Regulated Parameters:				
Volatile Organic Chemical				
Benzene	502.2, 524.2			
Carbon tetrachloride	502.2, 524.2, 551.1			
Chlorobenzene	502.2, 524.2			
Dibromochloropropane (DBCP)	504.1, 551.1			
1,2-Dichlorobenzene	502.2, 524.2			
1,4-Dichlorobenzene	502.2, 524.2			
1,2-Dichloroethane	502.2, 524.2			
cis-Dichloroethylene	502.2, 524.2			
trans-Dichloroethylene	502.2, 524.2			
Dichloromethane	502.2, 524.2			
1,2-Dichloropropane	502.2, 524.2			
Ethylbenzene	502.2, 524.2			
Styrene	502.2, 524.2			
Tetrachloroethylene	502.2, 524.2, 551.1			
1,1,1-Trichloroethane	502.2, 524.2, 551.1			
Trichloroethylene	502.2, 524.2, 551.1			
Toluene	502.2, 524.2			
1,2,4-Trichlorobenzene	502.2, 524.2			
1,1-Dichloroethylene	502.2, 524.2			
1,1,2-Trichloroethane	502.2, 524.2, 551.1			
Vinyl chloride	502.2, 524.2			
Xylenes (total)	502.2, 524.2			

Synthetic Organic Chemicals				
2,3,7,8-TCDD (dioxin)		1613[3]		
2,4-D [4] (as acids, salts and esters)	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003)	
2,4,5-TP [4] (Silvex)	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003)	
Alachlor	507, 525.2, 508.1, 505[8], 551.1			
Atrazine [5]	507, 525.2, 508.1, 505[8], 551.1			Syngenta [6] AG-625
Benzo(a)pyrene	525.2, 550, 550.1			
Carbofuran	531.1	6610[7]		
Chlordane	508, 525.2, 508.1, 505			
Dalapon	552.1 515.1, 552.2, 515.3, 515.4, 552.3			
Di(2-ethylhexyl)adipate	506, 525.2			
Di(2-ethylhexyl)phthalate	506, 525.2			
Dibromochloropropane (DBCP)	504.1, 551.1			
Dinoseb	515.2, 555, 515.1, 515.3			
Diquat	549.2			
Endothall	548.1			
Endrin	508, 525.2, 508.1, 505, 551.1			
Ethylene dibromide (EDB)	504.1, 551.1			
Glyphosate	547	6651[10]		
Heptachlor	508, 525.2, 508.1, 505, 551.1			
Heptachlor Epoxide	508, 525.2, 508.1, 505, 551.1			
Hexachlorobenzene	508, 525.2, 508.1, 505, 551.1			
Hexachlorocyclopentadiene	508, 525.2, 508.1, 505, 551.1			
Lindane	508, 525.2, 508.1, 505, 551.1			
Methoxychlor	508, 525.2, 508.1, 505, 551.1			
Oxamyl	531.1	6610[7]		
PCBs (as decachlorobiphenyl)	508A[9]			
(as Aroclors)	508.1, 508, 525.2, 505			
Pentachlorophenol	515.2, 525.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 (Reapproved 2003)	
Picloram [4]	515.2, 555, 515.1, 515.3, 515.4		D5317-93, 98 s(Reapproved 2003)	
Simazine	507, 525.2, 508.1, 505[8], 551.1			
Toxaphene	508, 508.1, 525.2, 505			
Total Trihalomethanes	502.2, 524.2, 551.1			
Unregulated Parameters:				
Aldicarb	531.1	6610[7]		
Aldicarb sulfone	531.1	6610[7]		
Aldicarb Sulfoxide	531.1	6610[7]		

Aldrin	505, 508, 525.2, 508.1			
Butachlor	507, 525.2			
Carbaryl	531.1	6610[7]		
Dicamba	515.1, 555, 515.2			
Dieldrin	505, 508, 525.2, 508.1			
3-Hydroxcarbofuran	531.1	6610[7]		
Methomyl	531.1	6610[7]		
Metolachlor	507, 525.2, 508.1			
Metribuzin	507, 525.2, 508.1			
Propachlor	507, 525.2, 508.1			

[1] Procedures for Methods 502.2, 504.1, 505, 506, 507, 508, 508.1, 515.2, 524.2 525.2, 531.1, 551.1 and 552.2 are in Methods for the Determination of Organic Compounds in Drinking Water Supplement III, EPA/600/R-95-131, August 1995. Methods 508A and 515.1 are in "Methods for the Determination of Organic Compounds in Drinking Water", EPA–600/4–88/039, December 1988, Revised, July 1991. Methods 547, 550, and 550.1 are in "Methods for the Determination of Organic Compounds in Drinking Water, Supplement I", EPA–600/4–90/020, July 1990. Methods 548.1, 549.1and 555 are in "Methods for the Determination of Organic Compounds in Drinking Water, Supplement II", EPA–600/R–92–129, August 1992. These documents are available from the National Technical Information Service (NTIS), U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161 as publications NTIS PB91–231480, PB91–146027, and PB92–207703. The toll free number is 1-800-553-6847. EPA Methods 515.3 and 549.2 are available from U.S. Environmental Protection Agency, National Exposure Research Laboratory (NERL)-Cincinnati, 26 West Martin Luther King Drive, Cincinnati, OH 45268. ASTM Method D 5317-93 is available in the Annual Book of ASTM Standards, 1996, Vol. 11.02, American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428, or in any edition published after 1993.

[2] For previously approved EPA methods which remain available for compliance monitoring until June 1, 2001, see paragraph (e)(2) of this section. (e)(2) states: "T*he* following EPA methods will remain available for compliance monitoring until June 1, 2001. The following documents are incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Copies may be inspected at EPA's Drinking Water Docket, 401 M St., SW., Washington, DC 20460; or at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. EPA methods 502.2 Rev. 2.0, 505 Rev. 2.0, 507 Rev. 2.0, 508 Rev. 3.0, 531.1 Rev. 3.0 are in ''Methods for the Determination of Organic Compounds in Drinking Water'', December 1988, revised July 1991; methods 506 and 551 are in ''Methods for the Determination of Organic Compounds in Drinking Water—Supplement I'', July 1990; methods 515.2 Rev. 1.0 and 524.2 Rev. 4.0 are in ''Methods for the Determination of Organic Compounds in Drinking Water—Supplement II,'' August 1992; and methods 504.1 Rev. 1.0, 508.1 Rev. 1.0, 525.2 Rev.1.0 are available from US EPA NERL, Cincinnati, OH 45268."

[3] Method 1613, "Tetra– through Octa– Chlorinated Dioxins and Furans by Isotope Dilution. HRGC/HRMS, EPA–821/B–94/005, October 1994, Method 1613 can be used to measure 2, 3, 7, 8–TCDD (dioxin). This method is available from National Technical Information Service, NTIS PB95–104774.

[4] Accurate determination of the chlorinated esters requires hydrolysis of the sample as described in EPA Methods 515.1, 515.2, 515.3, 515.4 and 555 and ASTM Method D 5317-93, 98 (Reapproved 2003).

[5] Substitution of the detector specified in Method 505, 507, 508, or 508.1 for the purpose of achieving lower detection limits is allowed as follows: Either an electron capture or nitrogen phosphorus detector may be used provided all regulatory requirements and quality control criteria are met.

[6] This method may not be used for the analysis of atrazine in any system where chlorine dioxide is used for drinking water treatment. In samples from all other systems, any result generated by Method AG-625 that is greater than one-half the maximum contaminant level (MCL) (in other word, greater than 0.0015 mg/L or 1.5 µg/L) must be confirmed using another approved method for this contaminant and should use additional volume

of the original sample collected for compliance monitoring. In instances where a result from Method AG-625 triggers such confirmatory testing, the confirmatory result is to be used to determine compliance.

[7] Method 6610 shall be followed in accordance with the "Supplement to the 18th edition of Standard Methods for the Examination of Water and Wastewater", 1994, or with the 19th edition of Standard Methods for the Examination of Water and Wastewater, 1995, APHA; either publication may be used. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C., 2005. Other required analytical test procedures germane to conducting these analyses are contained in Technical Notes on Drinking Water Methods, EPA/600/R-94-173, October 1994, NTIS PB95-104766.

[8] A nitrogen–phosphorus detector should be substituted for the electron capture detector in Method 505 (or a different approved method should be used) to determine alachlor, atrazine and simizine, if lower detection limits are required.

[9] Method 505 or 508 can be used as a screen for PCBs. Method 508A shall be used to quantitate PCBs as decachlorobiphenyl if detected in Method 505 or 508. PCBs are qualitatively identified as Aroclors and measured for compliance purposes as decachlorobiphenyl.

[10] Method 6651 shall be followed in accordance with the "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, and 19th edition, 1995, American Public Health Association. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552 (a) and 1 CFR Part 51. Copies may be obtained from the American Public Health Association, 1015 Fifteenth Street, N.W., Washington, D.C., 20005.

SECTION 10. NR 809.725(1) Table F is amended to read:

TABLE F
Sample Preservation, Containers and
Maximum Holding Times for Inorganic Parameters

Parameter	Preservation[1]	Container[2]	Holding Time[3]
METALS			
Aluminum	HNO_3	P or G	6 months
Antimony	HNO_3	P or G	6 months
Arsenic	Conc. HNO_3 to pH<2	P or G	6 months
Barium	HNO_3	P or G	6 months
Beryllium	HNO_3	P or G	6 months
Cadmium	HNO_3	P or G	6 months
Copper	HNO_3	P or G	6 months
Chromium	HNO_3	P or G	6 months
Iron	HNO_3	P or G	6 months
Lead	HNO_3	P or G	6 months
Manganese	HNO_3	P or G	6 months
Mercury	HNO_3	P or G	28 days
Nickel	HNO_3	P or G	6 months
Selenium	HNO_3	P or G	6 months
Silver	HNO_3	P or G	6 months

Thallium	HNO_3	P or G	6 months
Zinc	HNO_3	P or G	6 months
OTHER PARAMETERS			
Asbestos	Cool, 4°C	P or G	48 hours[4]
Bromate	Ethylenediamine	P or G	28 days
Chloride	None	P or G	28 days
Chlorite	50 mg/L EDA, Cool to 4°C	P or G	14 days
Color	Cool, 4°C	P or G	48 hours
Cyanide	Cool, 4°C+NaOH to pH>12 NaOH to pH>12 0.6 g Ascorbic acid	P or G	14 days
Fluoride	None	P or G	28 days
Foaming Agents	Cool,4°C	P or G	48 hours
Nitrate (as N)			
Chlorinated	Cool, 4°C	P or G	14 days[5]
Non-Chlorinated	Cool, 4°C	P or G	~~14 days~~ 48 hours
Nitrite (as N)	Cool, 4°C ~~or Conc. H_2SO_4 to pH<2~~	P or G	48 hours[5]
Nitrate + Nitrite[6]	~~Cool, 4°C or~~ Conc. H_2SO_4 to pH<2	P or G	14 days
Odor	Cool, 4°C	G	48 hours
pH	None	P or G	Analyze Immediately
Solids (TDS)	Cool, 4°C	P or G	7 days
Sulfate	Cool, 4°C	P or G	28 days
Turbidity	Cool, 4°C	P or G	48 hours

[1] If HNO_3 cannot be used because of shipping restrictions; sample may be initially preserved by icing and immediately shipping it to the laboratory. Upon receipt in the laboratory, the sample must be acidified with conc HNO_3 to pH < 2. At time of analysis, sample container should be thoroughly rinsed with 1:1 HNO_3; washings should be added to sample.

[2] P = plastic, hard or soft. G = glass, hard or soft.

[3] In all cases, samples should be analyzed as soon after collection as possible.

[4] Instructions for containers, preservation procedures and holding times as specified in Method 100.2 must be adhered to for all compliance analyses including those conducted with Method 101.1.

[5] If the sample is chlorinated, the holding time for an unacidified sample kept at 4°C is extended to 14 days.

[6] Nitrate-nitrite refers to a measurement of total nitrate.

SECTION 11. NR 809.75(4)(intro.) is amended to read:

NR 809.75(4) (intro.) After December 31, 2001, systems ~~serving at least 10,000 people~~ shall install and operate water treatment processes that will reliably achieve all of the following:

SECTION 12. NR 809.76 (1) (a) and (b) are amended to read:

NR 809.76 (1) CONVENTIONAL FILTRATION TREATMENT. (a) For systems using conventional filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 0.5 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000~~

~~people and~~ using conventional filtration shall be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E.

(b) The turbidity level of representative samples of a system's filtered water may not exceed 5 NTU, measured as specified in s. NR 809.725 (1) Table E. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using conventional filtration shall at no time exceed 1 NTU, measured as specified in s. NR 809.725 (1) Table E.

SECTION 13. NR 809.76 (2)(a) and (b) are amended to read:

NR 809.76 (2) DIRECT FILTRATION. (a) For systems using direct filtration, the turbidity level of representative samples of a system's filtered water shall be less than or equal to 0.5 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E. The department may approve a turbidity limit up to 1 NTU if the water supplier provides the department with documentation which reliably indicates the system achieves at least 99.9% removal or inactivation of *Giardia lamblia* cysts at a turbidity level above 0.5 NTU at least 95% of the time that the system delivers water to the public. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using direct filtration shall be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month, measured as specified in s. NR 809.725 (1), Table E.

(b) The turbidity level of representative samples of a system's filtered water may not exceed 5 NTU, measured as specified in s. NR 809.725 (1), Table E. Beginning January 1, 2002, the turbidity level of filtered water of a system ~~serving at least 10,000 people and~~ using direct filtration shall at no time exceed 1 NTU, measured as specified in s. NR 809.725 (1), Table E.

SECTION 14. NR 809.765 (1) is amended to read:

NR 809.765 Filtration sampling requirements. (1) Monitoring requirements for systems using filtration treatment. In addition to monitoring required by s. NR 809.76, a public water system ~~serving at least 10,000 people and~~ using conventional or direct filtration shall conduct continuous monitoring of turbidity for each individual filter using a method approved in s. NR 809.725 (1) and shall calibrate turbidimeters using the procedure specified by the manufacturer. Systems shall record the results of individual filter monitoring every 15 minutes.

SECTION 15. NR 809.80 (3) is amended to read:

NR 809.80 (3) The supplier of water is not required to report analytical results to the department in cases where the ~~state laboratory of hygiene performs the analysis and~~ laboratory doing the analysis reports the results electronically to the department within the time frames contained in this section. The supplier of water is responsible for analytical results that are not reported within the required time frames.

SECTION 16. NR 809.833(3)(b)2. is amended to read:

NR 809.833(3)(b)2. Results of monitoring in compliance with requirements issued under 40 CFR ~~Sub. D,~~ part 141, ss. 141.142 and 141.143 (information collection rule) need only be included for 5 years from the date of last sample or until any of the detected contaminants becomes regulated and subject to routine monitoring requirements, whichever comes first.

SECTION 17. NR 809.833(3)(e) is amended to read:

NR 809.833(3)(e) The tables shall clearly identify any data indicating violations of MCLs, MRDL or treatment techniques and the report shall contain a clear and readily understandable explanation of the violation including: the length of the violation, the potential adverse health effects, and actions taken by the system to address the violation. To describe the potential health effects, the system shall use the relevant language of Appendix A to this subchapter.

SECTION 18. NR 809.833(4)(c) note is created to read:

NR 809.833(4)(c) **Note:** To determine the significance of the results it is recommended that systems call the Safe Drinking Water Hotline (800–426–4791).

SECTION 19. NR 809.833(6)(a) through (d) are amended to read:

NR 809.833(6) EXEMPTIONS. (a) An explanation of the reasons for the ~~variance or exemption~~ conditional waiver or variance.

(b) The date on which the ~~variance or exemption~~ conditional waiver or variance was issued.

(c) A brief status report on the steps the system is taking to install treatment, find alternative sources of water or otherwise comply with the terms and schedules of the ~~variance or exemption~~ conditional waiver or variance.

(d) A notice of any opportunity for public input in the review, or renewal, of the ~~variance or exemption~~ conditional waiver or variance.

SECTION 20. NR 809.835(2) is amended to read:

NR 809.835 (2) Beginning July 1, 2002 a system that detects arsenic above 0.005 mg/L and up to and including ~~0.01~~ 0.010 mg/L:

SECTION 21. NR 809.835(3) is amended to read:

NR 809.835 (3) Beginning July 1, 2002 and ending January 22, 2006 a community water system that detects arsenic above ~~0.01~~ 0.010 mg/L and up to and including 0.05 mg/L shall include health effects language for arsenic prescribed by Appendix A to this subchapter.

SECTION 22. NR 809.837(7)(intro.) is amended to read:

NR 809.837(7)(intro.) The governor of Wisconsin or the governor's designee may waive the requirement of ~~par. (a)~~ sub. (1) for community water systems serving fewer than 10,000 persons.

SECTION 23. NR 809.90(4)(b) is amended to read:

NR 809.90(4)(b) The public water system owner or operator shall ~~receive~~ obtain a written certification from the bottled water company that the bottled water supplied meets all requirements of ~~s. ATCP 70.07~~ ch. ATCP 70. The public water system owner or operator shall provide the certification to the department the first quarter after it supplies bottled water and annually thereafter.

SECTION 24. NR 809.957(1) is amended to read:

NR 809.957 (1) WHEN SPECIAL NOTICE IS TO BE GIVEN. Community water systems that exceed the fluoride secondary maximum contaminant level of ~~2~~ 2.0 mg/l as specified in s. NR 809.60, determined by the last single sample taken in accordance with s. NR 809.12, but do not exceed the maximum contaminant level (MCL) of ~~4~~ 4.0 mg/l for fluoride, as specified in s. NR 809.11, shall provide the public notice in sub. (3) to persons served. Public notice shall be provided as soon as practical but no later than 12 months from the day the water system learns of the exceedance. A copy of the notice shall also be sent to all new billing units and new customers at the time service begins and to the state public health officer. The public water system shall repeat the notice at least annually for as long as the secondary maximum contaminant level is exceeded. If the public notice is posted, the notice shall remain in place for as long as the secondary maximum contaminant level is exceeded, but in no case less than 7 days, even if the exceedance is eliminated. On a case–by–case basis, the department may require an initial notice sooner than 12 months and repeat notices more frequently than annually.

SECTION 25. NR 809.959 Appendix A to Subchapter X footnote 7 is amended to read:

[7] Most of the requirements of the Interim Enhanced Surface Water Treatment Rule (63 FR 69477) become effective January 1, 2002 for systems using surface water or ground water under the direct influence of surface water ~~serving at least 10,000 persons~~. However, NR 809.77 has some requirements that become effective as early as April 16, 1999. The Surface Water Treatment Rule remains in effect for systems ~~serving at least 10,000 persons~~ even after 2002; the Interim Enhanced Surface Water Treatment Rule adds additional requirements and does not in many cases supersede the Surface Water Treatment Rule.

SECTION 26. NR 809.959 Appendix B to Subchapter X footnote 8 is amended to read:

[8] There are various regulations that set turbidity standards for different types of systems, including 40 CFR 141.13, the 1989 Surface Water Treatment Rule, and the 1998 Interim Enhanced Surface Water Treatment Rule. For systems subject to the interim enhanced surface water treatment rule (systems ~~serving at least 10,000 people,~~ using surface water or ground water under the direct influence of surface water), that use conventional filtration or direct filtration, after January 1, 2002, the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent shall not exceed 1 NTU at any time. Systems subject to the interim enhanced surface water treatment rule using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration shall meet turbidity limits set by the department.

SECTION 27. EFFECTIVE DATE. This rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2) (intro), Stats.

SECTION 28. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on_____.

Dated at Madison, Wisconsin _____.

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Scott Hassett, Secretary

(SEAL)