

# RULES AND REGULATIONS

## Title 25—ENVIRONMENTAL PROTECTION

### ENVIRONMENTAL QUALITY BOARD [25 PA. CODE CH. 109]

#### Long Term 1 Enhanced Surface Water Treatment Rule

The Environmental Quality Board (Board) amends Chapter 109 (relating to safe drinking water). The final-form rulemaking pertains to public drinking water systems serving less than 10,000 people that use either surface water sources or groundwater sources under the direct influence of surface water (GUDI). The Federal Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) will improve the control of microbial pathogens in drinking water, including the protozoan *Cryptosporidium*. Key provisions include: *Cryptosporidium* removal requirements for systems that filter; strengthened combined filter effluent turbidity performance standards; requirements for individual filter turbidity monitoring for plants using conventional or direct filtration; and a provision to ensure that microbial protection is not compromised as facility operators take the necessary steps to comply with new disinfection byproduct standards. The implementation of the LT1ESWTR will significantly reduce the level of *Cryptosporidium* in finished drinking water supplies through improvements in filtration. In addition, the final-form rulemaking is expected to increase the level of protection from other disease-causing organisms like *Giardia lamblia* and waterborne protozoa, bacteria or viruses.

The LT1ESWTR was promulgated on January 14, 2002, and public water systems must comply with the new requirements starting in January 2005. The Commonwealth must adopt regulations implementing the LT1ESWTR by January 14, 2004. Failure to do so, and without an Environmental Protection Agency (EPA) granted extension, may result in the Commonwealth losing its primary enforcement responsibility. The Department of Environmental Protection (Department) requested an extension from the EPA until December 31, 2004, to incorporate the provisions of the LT1ESWTR into Chapter 109.

This order was adopted by the Board at its meeting on February 17, 2004.

#### A. Effective Date

The final-form rulemaking will go into effect upon publication in the *Pennsylvania Bulletin*.

#### B. Contact Persons

For further information, contact Jeffrey A. Gordon, Chief, Division of Drinking Water Management, P. O. Box 8467, Rachel Carson State Office Building, Harrisburg, PA 17105-8467, (717) 772-4018; or Marylou Barton, Assistant Counsel, Bureau of Regulatory Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060.

Persons with a disability may use the AT&T Relay Service, (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available on the Department's website: [www.dep.state.pa.us](http://www.dep.state.pa.us).

#### C. Statutory Authority

The final-form rulemaking is being made under the authority of section 4 of the Pennsylvania Safe Drinking Water Act (35 P. S. § 721.4), which grants the Board the authority to adopt rules and regulations governing the provision of drinking water to the public, and sections 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-7 and 510-20).

#### D. Background and Purpose

The EPA promulgated the Federal Interim Enhanced Surface Water Treatment Rule (IESWTR) on December 16, 1998, to control *Cryptosporidium* in public drinking water systems using surface water sources and serving 10,000 or more people. The Board amended Chapter 109 to include the EPA's IESWTR at the Board's April 17, 2001, meeting. The EPA promulgated the LT1ESWTR on January 14, 2002, which extends most of the IESWTR's requirements to public drinking water systems using surface water sources and serving less than 10,000 people.

Briefly, the main provisions of the LT1ESWTR include: 2-log (99%) *Cryptosporidium* removal; strengthened combined filter effluent turbidity performance standards; requirements for individual filter turbidity monitoring for plants using conventional or direct filtration; and a provision on applicability monitoring, profiling and benchmarking to insure that microbial protection is not compromised as facility operators take the necessary steps to comply with new disinfection byproduct standards.

Other Federal rules promulgated in tandem with the LT1ESWTR—or within the next 2 years as a follow-up to the LT1ESWTR—are the Long Term 2 Enhanced Surface Water Treatment Rule (Long Term 2), Stage 2 Disinfectants and Disinfection Byproducts Rule and the Filter Backwash Recycling Rule. Long Term 2 will apply to all public water systems using surface water or GUDI sources. GUDI is any water beneath the surface of the ground with the presence of insects or other microorganisms, algae, organic debris or large diameter pathogens such as *Giardia lamblia* and *Cryptosporidium*, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH which closely correlate to climatological or surface water conditions. The Filter Backwash Recycling Rule applies to this same group, but only if they use conventional or direct filtration technologies. Through a staged approach, the Federal rules will continue to improve microbial protection while reducing health risks associated with disinfection byproducts.

*Cryptosporidium* is a common protozoan in the environment. Sources of *Cryptosporidium* oocysts include agricultural runoff and wastewater discharges. If a water system's treatment processes do not operate efficiently, oocysts may enter finished water at levels that pose health risks. Unlike other pathogens (disease-causing organisms) such as viruses and bacteria, *Cryptosporidium* oocysts are resistant to inactivation using standard disinfection practices. Until effective and practical disinfection methods are available, the successful control of *Cryptosporidium* is dependent on physical removal processes.

In humans, *Cryptosporidium* may cause a severe gastrointestinal infection, termed cryptosporidiosis, which

can last several weeks. Cryptosporidiosis is a common protozoal infection that usually causes 7 to 14 days of diarrhea, a low-grade fever, nausea and abdominal cramps in individuals with healthy immune systems. There is currently no therapeutic cure for cryptosporidiosis, but the disease is self-limiting in healthy individuals. It does, however, pose serious health and mortality risks for sensitive subpopulations including children, the elderly, pregnant women, organ transplant recipients and persons with weakened immune systems, almost 20% of the population in the United States.

In 1993, *Cryptosporidium* caused over 400,000 people in Milwaukee to experience serious intestinal illness. More than 4,000 people were hospitalized and at least 50 deaths were attributed to the *Cryptosporidium* outbreak. Between 1984 and 1994, 6 of the 10 documented waterborne outbreaks of cryptosporidiosis occurred in systems serving fewer than 10,000 people. These outbreaks have widespread health implications and cost families, businesses and local/state governments millions of dollars.

This Commonwealth's 340 filter plants, and the regulations that govern them, provide important health protection for over 8 million residents in this Commonwealth and thousands of out-of-State visitors who receive some or all of their drinking water from filtered surface water suppliers. It is, therefore, in the best interest of this Commonwealth's public health protection and economic development goals to incorporate the LT1ESWTR into Chapter 109.

*"More Stringent Proposals" Presented to Advisory Committees*

In developing the proposed rulemaking, the Department identified two situations in which it wanted to establish requirements that were more stringent than the applicable Federal requirements. These two provisions are already in effect for the larger water systems, which must meet similar existing regulations. The Department presented these two more stringent proposals to the Water Resources Advisory Committee (WRAC) and the Technical Assistance Center for Small Water Systems (TAC) in a document called "Long Term 1 Enhanced Surface Water Treatment Rule—More Stringent Proposals." These issues, and the WRAC's and TAC's responses, are as follows:

(1) Contained in 40 CFR 141.560 (relating to Is my system subject to individual filter turbidity requirements?) is a requirement for systems using conventional filtration or direct filtration to continuously monitor the turbidity for each individual filter at the water system. In 40 CFR 141.562 (relating to My system only has two or fewer filters is there any special provision regarding individual filter turbidity monitoring?), any of these systems with two or fewer filters may conduct continuous monitoring of the combined filter effluent turbidity instead of individual filter effluent turbidity monitoring. The Department proposes to require roughly 75 systems affected by 40 CFR 141.560 and 141.562 to monitor each filter even if their filtration plants have two or fewer filters. This proposed provision will be part of § 109.301(1)(iv) (relating to general monitoring requirements) and will allow water system operators to detect a poorly performing filter and thus prevent a waterborne disease outbreak. The majority of the 75 systems will incur no additional cost related to this provision, but a few could incur an additional cost of under \$4,000 for equipment to continuously monitor turbidity.

(2) Suppliers using conventional filtration or direct filtration are required under 40 CFR 141.563 (relating to What follow-up action is my system required to take based on continuous turbidity monitoring?) to report to the State when individual filter turbidities exceed 1.0 or 2.0 nephelometric turbidity units (NTU) and then undertake specific follow-up actions. This provision does not apply when individual filter turbidities exceed 0.5 NTU. The Department proposes to require all suppliers affected by 40 CFR 141.563 to similarly notify the Department if an individual filter exceeds 0.5 NTU. This proposed provision is part of § 109.301(1)(iv) and § 109.701(e)(2)(ii) (relating to reporting and recordkeeping). Research has shown that when filter effluent turbidity ranges between 0.1 NTU and 0.3 NTU, *Cryptosporidium* presence was as much as 90% greater than when filter effluent turbidity was 0.1 NTU or less. Similarly, there is a significant difference between 0.5 NTU and 1.0 NTU with regards to the level of pathogens that may be passing through the filter. No additional cost is incurred by including the 0.5 NTU trigger.

The Department presented briefings on the draft proposed rulemaking, which included the two more stringent proposals previously discussed, to the WRAC and the TAC at their meetings on November 13, 2002, and November 14, 2002, respectively. Following the public comment period on the proposed rulemaking, a briefing occurred at the September 10, 2003, WRAC meeting. Additionally, presentation materials, a copy of the July 26, 2003, proposed rulemaking and a draft comment and response document were distributed to all TAC members by e-mail. During all of these communications, neither the WRAC nor the TAC expressed disagreement with the issues or the rationale for the Department's proposals.

The proposed LT1ESWTR provisions were presented at the May 21, 2003, Board meeting, and the Board adopted the proposal. The LT1ESWTR was published at 33 Pa.B. 3609 (July 26, 2003) with a 30-day public comment period. The comment period concluded on August 25, 2003. No public meetings were held.

*E. Summary of Comments and Responses on the Proposed Rulemaking and Changes to the Proposed Rulemaking*

The EPA Region 3 and the Independent Regulatory Review Commission (IRRC) submitted comments to the Board on the proposed rulemaking.

*§ 109.204. Disinfection profiling and benchmarking.*

Although a formal comment on § 109.204 was not received, the Board amended subsection (c) to clarify that small water suppliers also need to submit the "benchmark" to the Department. Like the large water suppliers, the "benchmark" is one of the data points already contained in the disinfection profiling information. Adding the term to this section clarifies that suppliers must identify the benchmark when they submit the profiling information, thus resulting in no additional burden for the suppliers serving less than 10,000 people.

*§ 109.301. General monitoring requirements.*

The EPA requested the addition of the phrase "before a violation is incurred" to § 109.301(1)(iv)(C) to make the Commonwealth's regulations consistent with 40 CFR 141.561 (relating to What happens if my system's turbidity monitoring equipment fails?). IRRC requested further clarity in this section for provisions affecting water suppliers serving 10,000 or more persons. IRRC indicated that because it is unclear whether the phrase "before a violation is incurred" applies to large water suppliers, the

Board should consider placing the separate and distinct requirement for suppliers serving fewer than 10,000 persons into new clause (D).

In response to these comments, separate provisions for large and small water suppliers have been added as clauses (C) and (D) and the phrase "before a violation is incurred" has been added to both clauses.

*§ 109.407. General public notification requirements.*

*§ 109.409. Tier 2 public notice—form, manner and frequency of notice.*

The EPA suggested adding a reference to Subchapter G (relating to system management responsibilities) in §§ 109.407(a)(2) and 109.409(a)(1) to make the Commonwealth's regulations consistent with 40 CFR Part 141, Subpart Q, Appendix A (relating to NPDWR violating and other situations requiring public notice), which requires public notification for failure to conduct follow-up activities under 40 CFR 141.563.

The Board has amended these sections accordingly.

*§ 109.714. Filter profile, filter self-assessment and comprehensive performance evaluations.*

The EPA requested the addition of a provision in § 109.714(2) that if a filter self-assessment is required, the public water system must report the date that triggered the self-assessment and the date that it was completed. The EPA also requested adding a provision in § 109.714(3)(iv) that if a comprehensive performance evaluation (CPE) is required, the public water system must report that the CPE is required and indicate the date that it was triggered.

The Board has added the suggested language in both paragraphs of § 109.714 for consistency with the Federal requirements.

#### F. Benefits, Costs and Compliance

##### *Benefits*

About 537,000 residents in this Commonwealth who receive drinking water from the 200 affected filter plants will benefit from the final-form rulemaking. The implementation of the final-form rulemaking will significantly reduce the level of Cryptosporidium in finished drinking water supplies through improvements in filtration. The EPA has estimated that the National benefits of this rule range from \$18.9 to \$90.9 million per year (in 1999 dollars). This estimate is based on the value of an avoided case of cryptosporidiosis, which ranges from \$796 to \$1,411 per person. Through improved filtration performance, the rule is estimated to reduce the mean annual number of waterborne cryptosporidiosis in the Nation by 12,000 to 41,000 cases per year assuming individuals consume 1.2 liters of drinking water per day. In addition, the filtration provisions of the rule are expected to increase the level of protection from other pathogens like *Giardia lamblia* and waterborne bacterial or viral pathogens.

##### *Compliance Costs*

In this Commonwealth, about 537,000 residents and thousands of out-of-State visitors who receive their drinking water from the 200 affected filter plants will benefit from improved health protection under the final-form rulemaking. These public drinking water systems serve less than 10,000 people and use surface water or GUDI sources. Traditionally, these smaller systems have required relatively more technical, financial and managerial assistance to implement new regulations. In the future,

an additional 63 systems (serving 57,000 people) might be affected that presently use GUDI sources but are not currently filtered.

The turbidity provisions, which include treatment changes, monitoring and reporting requirements, account for the largest portion of the total rule costs. In projecting costs, the EPA estimates that Nationally the rule's turbidity provisions will cause 2,207 systems to modify their treatment, 2,327 will install turbidimeters and 5,817 will incur monitoring costs. Some systems might seek less costly alternatives, such as connecting into a larger regional water system. The EPA estimates that the annualized, Nationwide cost of the final rule will range from \$39.5 (at a 3% discount rate) to \$44.8 million (at a 7% discount rate). Approximately 84% (\$33.1 to \$38.2 million at the 3% and 7% discount rates, respectively) of the rule's total annual costs are imposed on drinking water utilities while states incur the remaining 16% (\$6.4 to \$6.6 million) of the annual costs. Total capital costs for the LT1ESWTR (nonannualized) is \$173.6 million across the country. Costs are based on 1999 dollars.

The EPA's National estimates showed that of the approximately 11,000 small entities potentially affected by the LT1ESWTR, over 5,000 are expected to incur average annualized costs of less than \$70 (0.003% of average annual revenue) while slightly more than 3,000 are expected to incur average annualized costs of less than \$850 (0.03% of average annual revenue). Of the remaining systems, approximately 500 systems are expected to incur average annualized costs of approximately \$2,500 (0.1% of average annual revenue) and approximately 2,000 systems are expected to incur average annualized costs of approximately \$13,000 (0.6% of average annual revenue). Less than 100 systems are expected to incur average annualized costs of approximately \$15,700 (0.7% of average annual revenue).

Under the LT1ESWTR amendments, customers of small public water systems may face increased costs in their drinking water bills. The increase will be limited because most surface water systems in this Commonwealth already meet the higher turbidity standards. The actual increase in water rates will depend upon a number of factors, including population served and the filtration technology in use. At the National level, the EPA estimates the mean annual cost per household is \$6.24 and the cost per household is less than \$15 for 90% of 6.3 million households potentially affected by the LT1ESWTR. Of the remaining households, 9% will experience a range of annual costs from \$15 to \$120 (\$10 per month), while only 1% of households are estimated to experience annual costs exceeding \$120.

##### *Compliance Assistance Plan*

The Department's Safe Drinking Water Program works with the Pennsylvania Infrastructure Investment Authority to offer financial assistance to eligible public water systems. This assistance is in the form of a low-interest loan, with some augmenting grant funds for hardship cases. Eligibility is based upon factors such as public health impact, compliance necessity and project/operational affordability.

In addition, the Department has instituted a number of assistance programs, including the highly successful and Nationally-recognized Filter Plant Performance Evaluation Program. More recently, the Department contracted with the Pennsylvania Section American Water Works Association under the Partnership for Safe Water Program (Partnership). The Partnership promotes and sup-

ports filtered surface water suppliers who are committed to going beyond compliance. The Safe Drinking Water Program has also established a network of regional and central office training staff that is responsive to identifiable training needs. The target audience in need of training may be either program staff or the regulated community. As a result of the Department's advanced technical assistance programs, this Commonwealth's public water suppliers are well positioned to manage the risk and meet the more rigorous public health protection measures included in the LT1ESWTR.

*Paperwork Requirements*

The final-form rulemaking will require public water systems to monitor and report individual filter turbidity. Modifying the existing data reporting forms will easily facilitate this additional monitoring and reporting. In effect, little additional paperwork will be necessary.

*G. Sunset Review*

The final-form rulemaking will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

*H. Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on July 15, 2003, the Department submitted a copy of the notice of proposed rulemaking, published at 33 Pa.B. 3609, to IRRC and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing the final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P. S. § 745.5a(j.2)), on April 28, 2004, the final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on April 29, 2004, and approved the final-form rulemaking.

*I. Findings*

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201 and 1202) and regulations promulgated thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law, and all comments were considered.

(3) The final-form rulemaking does not enlarge the purpose of the proposed rulemaking published at 33 Pa.B. 3609.

(4) The final-form rulemaking is necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.

*J. Order*

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 109, are amended by amending §§ 109.202, 109.204, 109.301, 109.407, 109.409, 109.701 and 109.714

to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

*(Editor's Note: The amendments to §§ 109.407 and 109.409 were not included in the proposed rulemaking at 33 Pa.B. 3609.)*

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect immediately upon publication.

KATHLEEN A. MCGINTY,  
*Chairperson*

*(Editor's Note: For the text of the order of the Independent Regulatory Review Commission, relating to this document, see 34 Pa.B. 2649 (May 15, 2004).)*

**Fiscal Note: 7-384. (1) General Fund;**

	<i>Environmental Protection Operations</i>	<i>Environmental Program Management</i>
(2) Implementing Year 2003-04 is	\$0	\$0
(3) 1st Succeeding Year 2004-05 is	\$98,482	\$21,618
2nd Succeeding Year 2005-06 is	\$98,482	\$21,618
3rd Succeeding Year 2006-07 is	\$98,482	\$21,618
4th Succeeding Year 2007-08 is	\$98,482	\$21,618
5th Succeeding Year 2008-09 is	\$98,482	\$21,618

	<i>Environmental Protection Operations</i>	<i>Environmental Program Management</i>
(4) 2002-03 Program—	\$75,559,000	\$43,780,000
2001-02 Program—	\$75,074,000	\$43,354,000
2000-01 Program—	\$76,108,000	\$41,471,000

(8) recommends adoption.

**Annex A**

**TITLE 25. ENVIRONMENTAL PROTECTION  
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**Subpart C. PROTECTION OF NATURAL RESOURCES**

**ARTICLE II. WATER RESOURCES**

**CHAPTER 109. SAFE DRINKING WATER**

**Subchapter B. MCLs, MRDLs OR TREATMENT TECHNIQUE REQUIREMENTS**

**§ 109.202. State MCLs, MRDLs and treatment technique requirements.**

\* \* \* \* \*

(c) *Treatment technique requirements for pathogenic bacteria, viruses and protozoan cysts.* A public water system shall provide adequate treatment to reliably protect users from the adverse health effects of microbiological contaminants, including pathogenic bacteria, viruses and protozoan cysts. The number and type of treatment barriers and the efficacy of treatment provided shall be commensurate with the type, degree and likelihood of contamination in the source water.

(1) A public water supplier shall provide, as a minimum, continuous filtration and disinfection for surface water and GUDI sources. The treatment technique shall provide at least 99.9% removal and inactivation of *Giardia lamblia* cysts, and at least 99.99% removal and inactivation of enteric viruses. Beginning January 1, 2002, public water suppliers serving 10,000 or more people shall provide at least 99% removal of *Cryptosporidium* oocysts. Beginning January 1, 2005, public water suppliers serving fewer than 10,000 people shall provide at least 99% removal of *Cryptosporidium* oocysts. The Department, depending on source water quality conditions, may require additional treatment as necessary to meet the requirements of this chapter and to protect the public health.

(i) The filtration process shall meet the following performance requirements:

(A) *Conventional or direct filtration.*

\* \* \* \* \*

(IV) Beginning January 1, 2005, for public water systems serving fewer than 10,000 persons, the filtered water turbidity shall meet the following criteria:

(-a-) Be less than or equal to 0.3 NTU in at least 95% of the measurements taken each month under § 109.301(1).

(-b-) Be less than or equal to 1 NTU at all times, measured under § 109.301(1).

\* \* \* \* \*

**§ 109.204. Disinfection profiling and benchmarking.**

(a) The disinfection profiling and benchmarking requirements, established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.172, 141.530—141.536, 141.540—141.544 and 141.570(c) and (d) are incorporated by reference except as otherwise established by this chapter.

(b) Public water suppliers that did not conduct TTHM and HAA5 monitoring under this section because they served fewer than 10,000 persons when the monitoring was required, but serve 10,000 or more persons before January 1, 2005, shall comply with this section. These suppliers shall also establish a disinfection benchmark and consult with the Department for approval. A supplier that decides to make a significant change to its disinfection practice, as described in this section, shall consult with the Department before making such a change.

(c) The public water supplier shall conduct disinfection profiling in accordance with the procedures and methods in the most current edition of the *Disinfection Profiling and Benchmarking Guidance Manual* published by the EPA. The results of the disinfection profiling and the benchmark, including raw data and analysis, shall be retained indefinitely on the water system premises or at a convenient location near the premises. Public water suppliers serving 10,000 or more persons and required to conduct disinfection profiling shall submit the disinfection profiling data and the benchmark data to the Department

by June 1, 2001, in a format acceptable to the Department. Public water suppliers serving 500 to 9,999 persons shall submit the disinfection profiling data and the benchmark to the Department by October 1, 2004. Public water suppliers serving less than 500 persons shall submit the disinfection profiling data and the benchmark to the Department by April 1, 2005, in a format acceptable to the Department.

**Subchapter C. MONITORING REQUIREMENTS**

**§ 109.301. General monitoring requirements.**

The monitoring requirements established by the EPA under the National Primary Drinking Water Regulations, 40 CFR Part 141 (relating to national primary drinking water regulations), as of December 8, 1984, are incorporated by reference. Public water suppliers shall monitor for compliance with MCLs and MRDLs in accordance with the requirements established in the National Primary Drinking Water Regulations, except as otherwise established by this chapter unless increased monitoring is required by the Department under § 109.302 (relating to special monitoring requirements). Alternative monitoring requirements may be established by the Department and may be implemented in lieu of monitoring requirements for a particular National Primary Drinking Water Regulation if the alternative monitoring requirements are in conformance with the Federal act and regulations. The monitoring requirements shall be applied as follows:

(1) *Performance monitoring for filtration and disinfection.* A public water supplier providing filtration and disinfection of surface water or GUDI sources shall conduct the performance monitoring requirements established by the EPA under the National Primary Drinking Water Regulations, unless increased monitoring is required by the Department under § 109.302.

\* \* \* \* \*

(iv) A public water supplier providing conventional filtration treatment or direct filtration and serving 10,000 or more people and using surface water or GUDI sources shall, beginning January 1, 2002, conduct continuous monitoring of turbidity for each individual filter using an approved method under the EPA regulation in 40 CFR 141.74(a) (relating to analytical and monitoring requirements) and record the results at least every 15 minutes. Beginning January 1, 2005, public water suppliers providing conventional or direct filtration and serving fewer than 10,000 people and using surface water or GUDI sources shall conduct continuous monitoring of turbidity for each individual filter using an approved method under the EPA regulation in 40 CFR 141.74(a) and record the results at least every 15 minutes.

\* \* \* \* \*

(C) A public water supplier serving 10,000 or more persons has a maximum of 5 working days following the failure of the equipment to repair or replace the equipment before a violation is incurred.

(D) A public water supplier serving fewer than 10,000 persons has a maximum of 14 days following the failure of the equipment to repair or replace the equipment before a violation is incurred.

\* \* \* \* \*

**Subchapter D. PUBLIC NOTIFICATION**

**§ 109.407. General public notification requirements.**

(a) *Violation categories and other situations requiring a public notice.* A public water supplier shall give public notice for the following circumstances:

\* \* \* \* \*

(2) Failure to comply with a prescribed treatment technique requirement in Subchapter B, G or K (relating to MCLs, MRDLs or treatment technique requirements; system management responsibilities; and lead and copper).

\* \* \* \* \*

**§ 109.409. Tier 2 public notice—form, manner and frequency of notice.**

(a) *General violation categories and other situations requiring a Tier 2 public notice.* A public water supplier shall provide Tier 2 public notice for the following circumstances:

(1) All violations of the primary MCL, MRDL and treatment technique requirements in Subchapter B, G or K (relating to MCLs, MRDLs or treatment technique requirements; system management responsibilities; and lead and copper), except where a Tier 1 notice is required under § 109.408 (relating to Tier 1 public notice—form, manner and frequency of notice) or when the Department determines that a Tier 1 notice is required. The tier assignment for fluoride is not incorporated by reference. Under § 109.202(d) (relating to MCLs, MRDLs or treatment technique requirements), a public water system shall comply with the primary MCL for fluoride of 2 mg/L. As such, a public water supplier shall provide Tier 2 public notice for violation of the primary MCL for fluoride.

\* \* \* \* \*

**Subchapter G. SYSTEM MANAGEMENT RESPONSIBILITIES**

**§ 109.701. Reporting and recordkeeping.**

(a) *Reporting requirements for public water systems.* Public water systems shall comply with the following requirements:

\* \* \* \* \*

(2) *Monthly reporting requirements for performance monitoring.*

(i) The test results of performance monitoring required under § 109.301(1) (relating to general monitoring requirements) for public water suppliers providing filtration and disinfection of surface water or GUDI sources shall include the following at a minimum:

(A) For turbidity performance monitoring:

\* \* \* \* \*

(V) Instead of clause (A)(III) and (IV), beginning January 1, 2002, for public water systems that serve 10,000 or more people and use conventional or direct filtration:

\* \* \* \* \*

(VI) Instead of clause (A)(III) and (IV), beginning January 1, 2005, for public water systems that serve fewer than 10,000 persons and use conventional or direct filtration:

(-a-) The number of filtered water turbidity measurements that are less than or equal to 0.3 NTU.

(-b-) The date, time and values of any filtered water turbidity measurements exceeding 1 NTU.

\* \* \* \* \*

**§ 109.714. Filter profile, filter self-assessment and comprehensive performance evaluations.**

Public water systems are required to perform or conduct a filter profile, filter self-assessment or CPE if any individual filter monitoring conducted under § 109.301(1)(iv) (relating to general monitoring requirements) demonstrates one or more of the conditions in paragraphs (1)—(3).

(1) If an individual filter demonstrates a condition under § 109.701(e)(2)(i) or (ii) (relating to reporting and recordkeeping), the public water system shall notify the Department within 24 hours of the individual filter turbidity level exceedance and shall report the obvious reason for the abnormal filter performance. If a system serving 10,000 or more persons is not able to identify the reason for the exceedance, the system shall produce a filter profile within 7 days of the exceedance and report to the Department that a filter profile was produced.

(2) If an individual filter demonstrates a condition under § 109.701(e)(2)(iii), the public water system shall notify the Department within 24 hours of the individual filter turbidity level exceedance, shall conduct a self-assessment of the filter within 14 days of the exceedance and shall report to the Department that a filter self-assessment was conducted. A filter self-assessment shall consist of at least the following components:

\* \* \* \* \*

(vi) For public water suppliers serving fewer than 10,000 persons, if a self-assessment is required, the public water supplier shall report the date that it was triggered and the date that it was completed.

(3) If an individual filter demonstrates a condition under § 109.701(e)(2)(iv), the public water system shall:

\* \* \* \* \*

(iv) Instead of subparagraphs (ii) and (iii), for public water systems serving fewer than 10,000 persons:

(A) Arrange for the conduction of a CPE by the Department no later than 60 days following the turbidity level exceedance.

(B) Ensure that the CPE is completed and submitted to the Department no later than 120 days following the turbidity level exceedance.

(C) A new CPE is not required if a CPE was completed by the Department within the previous 12 months, or the system and the Department are jointly participating in a program involving a combination of CPE results as the bases for implementing process control priority-setting techniques and maintaining long-term involvement to systematically train staff and administrators at the system.

(D) If a CPE is required, the public water system shall report that a CPE is required and the date that it was triggered.

[Pa.B. Doc. No. 04-1061. Filed for public inspection June 18, 2004, 9:00 a.m.]