

# RULES AND REGULATIONS

## Title 7—AGRICULTURE

### MILK MARKETING BOARD

[7 PA. CODE CH. 151]

#### Calculation of Bonding Obligation

The Milk Marketing Board (Board) amends § 151.9 (relating to calculation of bonding obligation) to read as set forth in Annex A, under authority of section 14 of the Milk Producers' Security Act (act) (31 P. S. § 626.14).

Notice of proposed rulemaking was published at 30 Pa.B. 4253 (August 12, 2000) with an invitation to submit written comments within 30 days. The Board received no public comments. The Senate Committee on Agriculture and Rural Affairs and the House Agriculture and Rural Affairs Committee offered no comments, suggestions or objections to the proposed amendment. The Independent Regulatory Review Commission (IRRC) did offer comments, which are discussed as follows.

In final-form rulemaking, the Board considered IRRC's comments and suggestions. In addition, the Board considered this final-form rulemaking and its purpose under Executive Order 1996-1, "Regulatory Review and Promulgation."

#### *Purpose*

The principal purpose of the final-form rulemaking is to adjust the calculation of milk dealers' bonding obligations to reflect more accurately the volume of producer purchases during a 12-month period, thus providing greater economic protection for dairy farmers. The final-form rulemaking also updates the regulation by replacing a citation to the repealed Milk Producers' and Cooperative Security Funds Act with a citation to the successor act.

#### *Comments*

IRRC offered three recommendations related to subsection (a). First, IRRC recommended that the citation to the act be removed from the final-form rulemaking; the Board believes it is necessary to leave the citation in the final-form rulemaking so that it is clear that this regulation addressed the bonding obligation contained in the act. Second, IRRC noted that there is no need to quote statutory language in the regulation; the Board removed the quote from section 7(c) of the act (31 P. S. § 626.7(c)) in the final-form rulemaking. Finally, IRRC recommended that, for greater clarity and readability, the final-form rulemaking should be written in the active voice; the Board has followed this recommendation as well, and the final-form amendment has been written in the active voice.

IRRC also questioned the meanings of "a purchase subject to minimum pricing fixed by the Board" and "a purchase not subject to minimum pricing fixed by the Board" in subsection (b)(1) and (2). A "purchase subject to minimum pricing fixed by the Board" is a transaction between a milk dealer and a Commonwealth producer. A "purchase not subject to minimum pricing fixed by the Board" is another transaction between a milk dealer and a producer. This is a longstanding and well-settled distinction within the dairy industry, based on decades of enforcement and interpretation of the Milk Marketing Law (31 P. S. §§ 700j-101—700j-1302), that the Board does not think it is necessary to clarify the distinction in the final-form rulemaking.

#### *Paperwork Estimates*

Section 151.9 will not substantially alter paperwork, accounting or reporting requirements already in place.

#### *Effective Date*

This final-form rulemaking will become effective upon publication in the *Pennsylvania Bulletin*.

#### *Sunset Date*

There is no sunset date.

#### *Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(1)), the Board submitted a copy of the notice of proposed rulemaking, published at 30 Pa.B. 4253, to IRRC and to the Senate Committee on Agriculture and Rural Affairs and the House Agriculture and Rural Affairs Committee for review and comment.

Under section 5(c) of the Regulatory Review Act, the Board also provided IRRC and the House and Senate Committees with other documentation. In preparing this final-form regulation, the Board has considered the comments received from IRRC.

Under section 5.1(d) of the Regulatory Review Act (71 P. S. § 745.5a(d)), on April 30, 2002, 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 May 9, 2002, and approved the final-form rulemaking.

#### *Contact Person*

The official responsible for information on the final-form rulemaking is Lynda J. Bowman, Executive Secretary, Milk Marketing Board, 2301 North Cameron Street, Harrisburg, PA 17110-9408, (717) 787-4194.

#### *Findings*

The Board finds that:

(1) Public notice of the intention to adopt the final-form 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 the regulations promulgated thereunder in 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 is necessary and appropriate for the administration of the act.

#### *Order*

The Board, acting under authorizing statute, orders that:

(a) The regulations of the Board, 7 Pa. Code Chapter 151, are amended by amending § 151.9 to read as set forth in Annex A.

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

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

(d) The order shall take effect upon publication in the *Pennsylvania Bulletin*.

LYNDA J. BOWMAN,  
*Secretary*

(*Editor's Note:* For the text of the order of the Independent Regulatory Review Commission, relating to this document, see 32 Pa.B. 2646 (May 25, 2002).)

**Fiscal Note:** Fiscal Note 47-7 remains valid for the final adoption of the subject regulation.

#### Annex A

### TITLE 7. AGRICULTURE

#### PART VI. MILK MARKETING BOARD

#### CHAPTER 151. SECURITY FUNDS, BONDING AND ALTERNATIVE SECURITY

##### § 151.9. Calculation of bonding obligation.

(a) For the purpose of sections 7(c) and 8 of the Milk Producers' Security Act (act) (31 P. S. §§ 626.7(c) and 626.8), the Board will use the following method to ascertain the highest aggregate amount owed by the dealer to producers for a 40-day period during the preceding 12 months:

(1) Review the amount owed by the milk dealer to all its producers for each month in the preceding calendar year.

(2) Identify the 2 consecutive months in which the sum of the amounts owed was the highest.

(3) Divide the sum of the amounts owed from paragraph (2) by the total number of days in the 2 consecutive months.

(4) Multiply the quotient from paragraph (3) by 40.

(b) As used in sections 7(c) and 8 of the act and in subsection (a), "amount owed" has the following meanings:

(1) For a purchase subject to minimum pricing fixed by the Board, "amount owed" means the amount the milk dealer was required to pay the producer under the applicable Board order, even though the actual amount paid exceeded the Board-established minimum price.

(2) For a purchase not subject to minimum pricing fixed by the Board, "amount owed" means the actual amount the milk dealer lawfully paid the producer.

[Pa.B. Doc. No. 02-1371. Filed for public inspection August 9, 2002, 9:00 a.m.]

## Title 25—ENVIRONMENTAL PROTECTION

### ENVIRONMENTAL QUALITY BOARD

#### [25 PA. CODE CH. 109]

#### Safe Drinking Water

The Environmental Quality Board (Board) by this order amends Chapter 109 (relating to safe drinking water). The amendments will establish new requirements for community water systems to prepare and provide to their customers an annual consumer confidence report (CCR), major revisions to the public notification (PN) requirements, minor revisions to the regulation of lead and

copper (LCRMR) to improve implementation and minor revisions to Chapter 109 to retain primary enforcement authority (primacy) and to clarify existing requirements.

This order was adopted by the Board at its meeting of May 22, 2002.

#### A. Effective Date

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as a final-form rulemaking.

#### 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 Pamela Bishop, 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 by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available electronically through the Department of Environmental Protection's (Department) website (<http://www.dep.state.pa.us>).

#### C. Statutory Authority

These amendments are 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 purpose of the final-form rulemaking is to amend the Department's Safe Drinking Water regulations to incorporate new primacy requirements contained in three recent Federal rulemakings. The United States Environmental Protection Agency (EPA) promulgated the following National Primary Drinking Water Regulations: CCR Final Rule as published in the August 19, 1998, *Federal Register*; PN Final Rule as published in the May 4, 2000, *Federal Register*; and the LCRMR as published in the January 12, 2000, *Federal Register* (40 CFR Parts 9, 141, and 142 (relating to OMB approvals under the Paperwork Reduction Act; National primary drinking water regulations; and National secondary drinking water regulations). The amendments will address these new and revised provisions to satisfy primacy requirements.

##### 1. New CCR requirements.

The amendments include new requirements for community water systems to prepare and provide to their customers an annual CCR on the quality of the water delivered by the public water system. These amendments will incorporate the provisions of the Federal CCR Rule that were mandated by the 1996 Amendments to the Federal Safe Drinking Water Act (SDWA). The CCR is the cornerstone of the public right-to-know provisions in the Federal SDWA.

The CCR will provide valuable information to customers of community water systems and allow them to make personal, health-based decisions regarding their drinking water consumption. The information in the report is information that the community water system already collects. Reports shall contain information on the sources of water provided, levels of detected contaminants, violations of State regulations and health information concerning drinking water and potential risks from detected contaminants. The information contained in a CCR can

raise consumers' awareness of where their water comes from, help them understand the process by which safe drinking water is delivered to their homes and educate them about the importance of preventative measures, such as source water protection, that ensure a safe drinking water supply. Water suppliers can use the CCR to promote dialogue with their consumers and to encourage consumers to become more involved in decisions which may affect their health.

#### 2. *Major revisions to PN requirements.*

The amendments include major revisions to the PN requirements and will incorporate the provisions of the Federal PN Rule. Public water suppliers use public notification to alert consumers to potential health risks from violations of drinking water standards and to tell them how to avoid or minimize the risks. The EPA revised its PN requirements in April 2000 as required by the 1996 Amendments to the Federal SDWA because it was determined that the complexity of the rule hindered successful implementation. The EPA was required to amend the existing PN provisions to better target notices for serious violations posing a short-term exposure risk to health and to make the existing notification process less burdensome and more effective.

The revisions to PN modify the minimum requirements public water suppliers must meet regarding the form, manner, frequency and content of public notices. The new requirements make it easier for water suppliers to provide consumers with more accurate and timely information on violations and the seriousness of any potential adverse health effects. The revisions require faster notice in emergencies and fewer notices overall. In addition, public notification of drinking water violations provides a means to protect public health, builds trust with consumers through open and honest sharing of information and establishes an ongoing, positive relationship with the community.

#### 3. *Minor revisions to the regulation of lead and copper (LCRMR).*

The amendments reflect minor revisions to the regulation of lead and copper. The lead and copper regulations apply to community and nontransient noncommunity water systems. The EPA made several minor revisions to the National Primary Drinking Water Regulations for lead and copper. The changes do not affect the lead or copper maximum contaminant level goals, the action levels or the basic regulatory requirements. The intended effect of this action is to streamline and reduce regulatory burden where changes can be made without jeopardizing the level of public health protection or protection of the environment. Other minor changes clarify requirements and improve the rule's implementation. Finally, the amendments address two issues that were the subject of an EPA judicial remand.

#### 4. *Amendments to correct minor deficiencies and clarify existing requirements.*

The amendments will correct minor deficiencies in Chapter 109 to satisfy outstanding issues with the EPA and obtain primacy approval for the LCR and an earlier rulemaking known as the Phase II/V Rule. The amendments also clarify existing requirements.

The Board has incorporated the provisions of the Federal CCR, PN and LCRMR and the Federal corrective amendments into the Pennsylvania Safe Drinking Water Regulations (25 Pa. Code Chapter 109) in order to obtain primary enforcement authority, under the Federal SDWA.

The proposed rulemaking was approved by the Board on July 17, 2001. The proposed rulemaking was published at 31 Pa.B. 5083 (September 8, 2001). The 60-day public comment period concluded on November 7, 2001. There were 794 commentators to the proposal. An additional 1,142 electronic form letters were received from two organizations. One public meeting/hearing was held in Wyomissing, PA on October 9, 2001.

The Small Water Systems Technical Assistance Center Advisory Board (TAC) and the Water Resources Advisory Committee (WRAC) were each briefed on the comments received during the public comment period. The TAC reviewed and discussed the final-form rulemaking during two meetings held on January 8 and February 8, 2002. The TAC approved the final-form rulemaking for recommendation to the Board. The WRAC reviewed and discussed the final-form rulemaking on January 9, 2002. The WRAC approved the final-form rulemaking for recommendation to the Board.

The Federal Safe Drinking Water Act (42 U.S.C.A. § 300g-2(a)) requires that primacy states, such as the Commonwealth, adopt the EPA regulations no later than 2 years after EPA promulgation. The EPA may approve an extension of up to 2 years for states that: (1) lack legislative or regulatory authority to enforce the new regulations, or (2) lack program capability to implement the new regulations, or (3) are adopting two or more EPA regulations at the same time.

On August 9, 2000, the Department submitted a primacy extension request to the EPA. The EPA granted an extension on April 16, 2001, for the Department to submit a complete and final primacy revision application for the CCR, PN and LCRMR by August 21, 2002. Failure to adopt the amendments by this extension date may result in this Commonwealth losing its primary enforcement responsibility.

#### *E. Summary of Comments and Responses on the Proposed Rulemaking and Changes to the Proposed Rulemaking* *§ 109.1. Definitions.*

A commentator asserted that the definition of "CCR" is substantive because the word "shall" is used. Accordingly, the word "shall" was deleted.

#### *§ 109.301. General monitoring requirements.*

A commentator asserted that § 109.301(7)(ii)(C)(V) contained vague requirements to "... meet other Tier 1 public notification requirements." This requirement was redundant and was therefore deleted.

#### *§ 109.407. General public notification.*

A commentator asked what "other violations and situations" will the Department determine require a public notice under § 109.407(a)(9). The Department identifies other violations or situations requiring a public notice under § 109.408(a)(7). Section 109.407(a)(9) was redundant and was therefore deleted.

A commentator requested clarification regarding the phrase "unless other tier assignments are established by regulations or order of the Department" found in § 109.407(b). The commentator asserted that the language regarding "regulations" is not needed because the only way to change a regulation is by promulgating a new regulation. Secondly, the commentator questioned whether it was the Department's intent to issue orders on a case-by-case basis and under what circumstances an order would be issued. The language regarding "regulations" is consistent with existing language found in

§ 109.202(a)(2) and is therefore being retained. In addition to establishing an alternative tier assignment through regulations, the Department has the authority to establish an alternative tier assignment for any violation on a case-by-case basis. Some circumstances where a violation may be upgraded to a higher tier include:

- When the violation is persistent; or
- When the level of contamination is extraordinarily high. Consumers can suffer acute health effects from almost any contaminant if they are exposed to extraordinarily high levels.

The alternative tier assignment would be established during the consultation process. If need be, the Department can order the system to comply with the alternative requirements by issuing a Field Order.

*§ 109.408. Tier 1 public notice—form, manner and frequency of notice.*

A commentator asked what the circumstances would be for the Department to require Tier 1 public notice for the waterborne emergencies listed in § 109.408(a)(7)(i)–(iii). The commentator asserted that public notice should only be necessary when the waterborne emergency causes the finished water to become contaminated. Paragraph (7) has been amended to clarify that public notice is required when a waterborne emergency adversely affects the quality or quantity of the finished water.

The EPA recommended that the term “reasonably designed” rather than simply “designed” should be used to be consistent with the intent of the Federal rule. The final-form rulemaking has been amended accordingly in all relevant sections.

Commentators endorsed the inclusion of a consultation process with the Department under § 109.408(b)(3)–(4) rather than using a list of more prescriptive State requirements. However, for the consultation process to be more workable, the commentators requested a formalized dispute resolution process to assure that both parties agree to additional notification requirements that are established as a result of the consultation with the Department. The Department does not believe that a formalized dispute resolution process is needed or even appropriate. The Department intends to use the consultation process to require additional notice in situations where: (1) there were deficiencies in the initial notice; (2) there was inadequate delivery of the initial notice; (3) special populations need to be informed; (4) repeat notices are required for ongoing violations; and (5) the system returned to compliance. The Department contends that the additional notice requirements may be necessary to ensure that minimum requirements are met and that public notification is effective.

A commentator requested that § 109.408(b)(4) be amended to specify a repeat notice frequency of every 30 days. This final-form rulemaking has been amended to require a 30-day repeat notice frequency for on-going Tier 1 violations and situations.

Commentators endorsed the reduction in time allowed for the delivery of Tier 1 notices under § 109.408(b). However, the commentators were concerned that the requirements in § 109.408(c) reduce the number of activities needed to notify the public. The requirements in § 109.408(c) are consistent with the Federal regulation. To ensure that public notice is effective, the EPA provided water suppliers with the flexibility to choose from a specified list the delivery methods that are appropriate for the system type and size and that fit the specific

situation. Suppliers are required to use, at a minimum, one or more of the specified methods.

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

Commentators requested that the timing requirements for a Tier 2 notice under § 109.409(b)(2) be changed from “no later than 30 days” to “no later than 24 hours”. The Department has decided to retain the 30-day time frame because the existing language is consistent with the Federal regulations. Congress mandated that the Federal regulations must provide for different frequencies of notices based on the persistence of the violations and the seriousness of any potential adverse health effects that may be involved. The EPA indicated that the need to know of Tier 2 violations is not immediate. Further, the 30-day time frame distinguishes Tier 2 notification from the more immediate notice required for Tier 1-type violations or situations. The Department also contends that the rule requires notice as soon as possible, but in no case longer than 30 days after the supplier learns of the violation and that the Department may elevate any Tier 2 violation to Tier 1, if appropriate.

Commentators requested that the Department require all utilities to notify the media within 24 hours whenever their water violates a State drinking water standard. The Department declined to make this amendment because the existing delivery requirements for Tier 2 notice are consistent with the Federal regulations. Methods of delivery are directly related to the timing requirements for each tier type. Not all cases would require notification by the media to meet the timing requirements. Water suppliers are required to provide Tier 2 notice as soon as possible, but no later than 30 days after the system learns of the violation. Because suppliers have up to 30 days to provide notice, community water systems are required to provide notice by mail or other direct delivery to each customer and any other method reasonably designed to reach other persons regularly served by the system. Noncommunity water systems are required to provide notice by posting the notice in conspicuous locations throughout the distribution system, or by mail or direct delivery to each customer and any other method reasonably designed to reach other persons served by the system.

*§ 109.411. Content of a public notice.*

A commentator requested that § 109.411(c)(1)(ii) be amended to specify a minimum font size because the existing language was arbitrary for compliance determinations. The final-form rulemaking has been amended to require a minimum font size of 10 points.

In the Preamble to the proposed rulemaking, the Department requested comments regarding the multilingual requirements found in § 109.411(c)(2). Some commentators felt that the population threshold for providing multilingual information should be 5%, while other commentators felt the threshold should be 2,500 people. Some commentators supported the existing language which affords the water supplier the choice to: (1) provide information in the appropriate languages regarding the importance of the notice; or (2) provide a telephone number or address where persons served may contact the water system to obtain a translated copy of the notice or to request assistance in the appropriate language. Other commentators felt that suppliers should be required to translate all notices. Finally, some commentators questioned how the Department would determine the number of non-English speaking consumers for any given water system. The Department has decided to:

- Maintain consistency with the Federal provision and afford the water supplier the choice to provide information in the appropriate language (that is, a warning statement), or provide a translated copy of the notice or assistance in the appropriate language.

- Follow California's lead and require all public notices to contain information in Spanish regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the notice or to request assistance.

- Define a large proportion of the population as a group that exceeds 10% of the consumers for systems serving at least 1,000 people or 100 consumers for systems serving less than 1,000 people, and that speaks the same language other than English.

- Make the final determination of which systems need to include this information using data from the United States Census Bureau.

The multilingual requirements are identical for public notice and consumer confidence reports, and are located in § 109.411(c)(2) and § 109.416(3)(ii)–(iii), respectively.

The EPA asserted that the standard health effects language specified for fluoride under § 109.411(d)(1) is not appropriate for the Commonwealth's primary MCL of 2 mg/L. The EPA requested that the Department use the health effects language provided in the special notice required for an exceedance of the EPA's secondary standard for fluoride of 2 mg/L. Section 109.411(d)(1) has been amended accordingly.

#### *§ 109.416. Consumer confidence report requirements.*

Section 109.416(3) was amended to address an oversight by the Department. The section was amended to clarify that the Federal standard health effects language for fluoride is not incorporated by reference. Systems should use the health effects language specified in § 109.411(d)(1).

Section 109.416(3)(ii) was amended to be consistent with the multilingual requirements for public notification found in § 109.411(c)(2).

Section 109.416(3)(v) was amended to be consistent with the minimum font size requirements for public notification found in § 109.411(c)(1)(ii).

#### *§ 109.1003. Monitoring requirements.*

Sections 109.1003(b)(4) and (5) were amended to address an oversight by the Department. The references to special monitoring requirements for unregulated contaminants were deleted.

#### *§ 109.1004. Public notification.*

The EPA requested that this section be amended to clarify that bulk water haulers must comply with the CCR requirements. This clarification was added as subsection (d).

#### *§ 109.1102. Action levels and treatment technique requirements.*

Sections 109.1102(b)(2)(i) and (ii) were amended to address an oversight by the Department. In subparagraph (i), the phrase "An existing" was retained to clarify the requirements for an existing large water system. Language was added to subparagraph (ii) to clarify the requirements for a large system triggered into corrosion control.

#### *§ 109.1103. Monitoring requirements.*

Sections 109.1103(e)(1)(v)(A) and (B)(I)(-a-) were amended to address an oversight by the Department. The phrase "on more than any 9 days in a 6-month period" was added to clarify how the Department determines compliance with the water quality parameters.

Section 109.1103(e)(2)(ii) was amended to address an oversight by the Department. The word "annual" was deleted from the title of this section to clarify that this section contains information about all forms of reduced water quality parameter monitoring, not just annual monitoring.

#### *§ 109.1107. System management responsibilities.*

The EPA requested that this section be amended to satisfy primacy requirements. As a result of these amendments, all lead and copper tap water quality parameter, and source water monitoring results shall be submitted to the Department. This is consistent with the Federal regulation.

#### *F. Benefits, Costs and Compliance*

Executive Order 1996-1 requires a cost/benefit analysis of the final-form rulemaking.

##### *Benefits*

###### *1. New CCR requirements.*

The amendments will affect all 2,201 community water systems that serve a total population of over 10.5 million in this Commonwealth. The CCR Rule, in concert with the PN Rule, will help to ensure that consumers are provided with information they need to make informed public health decisions concerning the water they are served.

###### *2. Major revisions to the PN requirements.*

The amendments will affect all 10,473 public water systems that serve a total population of over 12.9 million of this Commonwealth. The benefits resulting from the PN Rule are expected to improve the current level of public health protection as a result of the simplifications.

###### *3. Minor revisions to the regulation of lead and copper (LCRMR).*

The amendments will affect all 3,468 community and nontransient noncommunity water systems that serve a total population of over 11 million of this Commonwealth. The benefits resulting from the LCRMR Rule are not expected to change, and the EPA indicated that public health protection should also remain unchanged.

##### *Compliance Costs*

###### *1. New CCR requirements.*

The EPA has estimated that, Nationwide, a total annual cost of almost \$23 million will be borne by the regulated (\$20.3 million) and regulating communities (\$2.8 million) as a result of the CCR Rule. It is estimated that water systems of this Commonwealth will bear over \$950,000 of the total annual cost. The \$950,000 estimate includes costs for preparing, printing and mailing the CCR. It is estimated the Department will bear over \$50,000 of the total annual cost.

###### *2. Major revisions to the PN requirements.*

The EPA has estimated that, Nationwide, the total annual cost to the regulated and regulating communities for the current PN Rule is \$27 million. The EPA has estimated that, Nationwide, a total annual cost to the regulated and regulating communities for the new PN

Rule is \$17.9 million. This results in a net annual cost reduction of over \$9 million (a 33.7% reduction) for both the regulated and regulating communities. The total annual costs for the new PN Rule are as follows:

- The EPA has estimated that, Nationwide, the total annual cost to the regulated community is almost \$16.4 million. It is estimated that water systems of this Commonwealth will bear almost \$930,000 of the total annual cost. Assuming an annual cost reduction of 33.7% as previously referenced, this equates to a total cost savings of over \$310,000.

- The EPA has estimated that, Nationwide, the total annual cost to the regulating communities is over \$1.5 million. It is estimated that the Department will bear almost \$27,000 of the total annual cost. Assuming an annual cost reduction of 33.7% as previously referenced, this equates to a total cost savings of over \$9,000.

3. *Minor revisions to the regulation of lead and copper (LCRMR).*

For the LCRMR Rule, the EPA estimated that, Nationwide, public water systems will realize a total cost reduction of over \$2.8 million, while the regulating communities will realize a total cost increase of almost \$2.2 million. It is estimated that water systems of this Commonwealth will realize a total cost reduction of almost \$128,000 while the Department will bear over \$39,000 of the total annual cost.

*Estimated Net Annual Cost of CCR, PN and LCRMR Rules*

Rule	Cost to Pennsylvania Water Systems	Cost to DEP
CCR	\$ 950,000	\$ 50,000
PN	-310,000	-9,000
LCRMR	-128,000	39,000
Totals	512,000	80,000

*Compliance Assistance Plan*

The final-form rulemaking address monitoring and reporting requirements. As a result, financial assistance should not be necessary.

The Safe Drinking Water Program has 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 program staff and the regulated community. In addition, information or links to the EPA information on each of the regulations is available through the Department's Internet website at [www.dep.state.pa.us](http://www.dep.state.pa.us).

*Paperwork Requirements*

The final-form rulemaking address monitoring and reporting requirements. As a result, some changes to forms, reports and other paperwork are expected.

The CCR Rule requires community water systems to prepare and deliver a CCR. Several organizations have developed templates for systems to use when developing their CCRs (such as EPA, American Water Works Association (AWWA), Pennsylvania Rural Water Association (PRWA)). The Rule also requires water suppliers to submit a certification that all provisions have been met. The EPA has also provided a template for this certification form.

Revisions to the PN Rule should result in fewer notices overall. The EPA has provided templates for systems to use when developing public notices.

The LCRMR should result in a reduction in reporting requirements.

*G. Sunset Review*

This 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 August 28, 2001, the Department submitted a copy of the notice of proposed rulemaking, published at 31 Pa.B. 5083 to the Independent Regulatory Review Commission (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 these final-form regulations, the Department has considered all comments from IRRC, the Committees and the public.

Under section 5.1(d) of the Regulatory Review Act (71 P. S. § 745.5a(d)), on July 1, 2002, these final-form regulations were deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on July 11, 2002, and approved the final-form regulations.

*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 at 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) These final-form regulations do not enlarge the purpose of the proposal published at 31 Pa.B. 5083.

(4) These final-form regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this Preamble.

*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 §§ 109.1.109.202, 109.301, 109.302, 109.503, 109.701, 109.702, 109.707, 109.805, 109.806, 109.810, 109.1003, 109.1102, 109.1103, 109.1104 and 109.1107; by adding §§ 109.407—109.416; and by deleting §§ 109.401—109.406 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

(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 House and Senate

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 in the *Pennsylvania Bulletin*.

DAVID E. HESS,  
Chairperson

(Editor's Note: For the text of the order of the Independent Regulatory Review Commission, see 32 Pa.B. 3675 (July 27, 2002).)

**Fiscal Note:** Fiscal Note 7-368 remains valid for the final adoption of the subject regulations.

**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 A. GENERAL PROVISIONS**

**§ 109.1. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

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*CCR—Consumer Confidence Report*—An annual water quality report that community water systems deliver to their customers, as described in § 109.416 (relating to CCR requirements).

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**Subchapter B. MCLS, MRDLS OR TREATMENT TECHNIQUE REQUIREMENTS**

**§ 109.202. State MCLS, MRDLS and treatment technique requirements.**

(a) *Primary MCLS.*

(1) A public water system shall supply drinking water that complies with the primary MCLS adopted by the EQB under the act.

(2) This subchapter incorporates by reference the primary MCLS in the National Primary Drinking Water Regulations, at 40 CFR Part 141, Subparts B and G (relating to maximum contaminant levels) as State MCLS, under authority of section 4 of the act (35 P. S. § 721.4), unless other MCLS are established by regulations of the Department. The primary MCLS which are incorporated by reference are effective on the date established by the Federal regulations.

(3) A public water system that is installing granular activated carbon or membrane technology to comply with the MCL for TTHMs, HAA5, chlorite (where applicable) or bromate (where applicable) may apply to the Department for an extension of up to 24 months past the applicable compliance date specified in the Federal regulations, but not beyond December 31, 2003. In granting the extension, the Department will set a schedule for compliance and may specify any interim measures that the Department deems necessary. Failure to meet the

schedule or interim treatment requirements constitutes a violation of National Primary Drinking Water Regulations.

(b) *Secondary MCLS.*

(1) A public water system shall supply drinking water that complies with the secondary MCLS adopted by the EQB under the act, except for the MCL for pH which represents a reasonable goal for drinking water quality.

(2) This subchapter incorporates by reference the secondary MCLS established by the EPA in the National Secondary Drinking Water Regulations, 40 CFR 143.3 (relating to secondary MCLS), as of January 30, 1991, as State MCLS, under the authority of section 4 of the act, unless other MCLS are established by regulations of the Department. The secondary MCL for copper is not incorporated by reference.

(3) A secondary MCL for aluminum of 0.2 mg/L is adopted as a State MCL.

(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. 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.*

(I) The filtered water turbidity shall be less than or equal to .5 NTU in 95% of the measurements taken each month under § 109.301(1) (relating to general monitoring requirements).

(II) The filtered water turbidity shall be less than or equal to 2.0 NTU at all times, measured under § 109.301(1).

(III) Beginning January 1, 2002, for public water systems serving 10,000 or more 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).

(B) *Slow sand or diatomaceous earth filtration.*

(I) The filtered water turbidity shall be less than or equal to 1.0 NTU in 95% of the measurements taken each month under § 109.301(1).

(II) The filtered water turbidity shall be less than or equal to 2.0 NTU at all times, measured under § 109.301(1).

(C) *Other filtration technologies.* The same performance criteria as those given for conventional filtration and

direct filtration in clause (A) shall be achieved unless the Department specifies more stringent performance criteria based upon onsite studies, including pilot plant studies, where appropriate.

(ii) The combined total effect of disinfection processes utilized in a filtration plant shall achieve at least a 90% inactivation of *Giardia* cysts and a 99.9% inactivation of viruses, as determined by CTs and measurement methods established by the EPA. The residual disinfectant concentration in the water delivered to the distribution system prior to the first customer may not be less than .2 mg/L for more than 4 hours, as demonstrated by measurement taken under § 109.301(1). Failure to maintain this level that extends beyond 4 hours constitutes a breakdown in treatment. A system that experiences a breakdown in treatment shall, under § 109.701(a)(3) (relating to reporting and recordkeeping), notify the Department within 1 hour after the water system learns of the violation or the situation, and shall provide public notice in accordance with § 109.408 (relating to Tier 1 public notice—form, manner and frequency of notice).

(iii) For an unfiltered surface water source permitted for use prior to March 25, 1989, the public water supplier shall:

(A) Maintain a minimum residual disinfectant concentration in the water delivered to the distribution system prior to the first customer of 2.5 mg/L expressed as free chlorine or its equivalent as approved by the Department. The residual disinfectant concentration shall be demonstrated by measurements taken under § 109.301(2).

(I) For a system using disinfectants other than free chlorine, the water supplier shall maintain:

(-a-) A minimum concentration that provides, in terms of CTs achieved, a level of protection equivalent to that provided by 2.5 mg/L free chlorine, as determined by the available contact time between the point of application and the first customer, under peak flow conditions.

(-b-) At least .2 mg/L of disinfectant in the water delivered to the distribution system prior to the first customer.

(II) For a system with extended contact times, generally 60 minutes or more, between the point of application and the first customer, the Department may allow the water supplier to maintain a disinfectant residual concentration less than 2.5 mg/L free chlorine or its equivalent if the CTs established by the EPA are achieved.

(B) Provide continuous filtration and disinfection in accordance with this paragraph according to the following schedule:

(I) By December 31, 1991, for a public water system that, prior to March 25, 1989, had a waterborne disease outbreak or *Giardia* contamination in its surface water source.

(II) Within 48 months after the discovery of one of the following conditions, or by December 31, 1995, whichever is earlier, for a public water system that experiences the condition after March 25, 1989:

(-a-) A waterborne disease outbreak.

(-b-) *Giardia* contamination in its surface water source.

(-c-) A violation of the microbiological MCL, the turbidity MCL or the monitoring or reporting requirements for the microbiological MCL.

(-d-) A violation of the source microbiological or turbidity monitoring requirements under § 109.301(2)(i)(A) and (B) or the related reporting requirements.

(-e-) The source water fecal coliform concentration exceeds 20/100 ml or the total coliform concentration exceeds 100/100 ml in a source water sample collected under § 109.301(2).

(-f-) The source water turbidity level exceeds 5.0 NTU in a sample collected under § 109.301(2).

(-g-) The system fails to maintain a continuous residual disinfectant concentration as required under this subparagraph.

(III) By December 31, 1995, for other public water systems not covered by subclause (I) or (II).

(iv) For an unfiltered surface water source which is subject to subparagraph (iii)(B)(II) and (III), the public water supplier shall:

(A) Submit to the Department for approval a feasibility study which specifies the means by which the supplier shall, by the applicable deadline established in subparagraph (iii)(B), meet the requirements of this paragraph. The study shall identify the alternative which best assures the long-term viability of the public water system to meet drinking water standards. The study shall propose a schedule for completion of work, including the design, financing, construction and operation of one of the following alternatives:

(I) Permanent filtration treatment facilities that meet the requirements of this chapter.

(II) Abandonment of the unfiltered surface water source and one of the following:

(-a-) Permanent interconnection with another water supply which meets the requirements of this chapter.

(-b-) Permanent water treatment facilities, utilizing groundwater as the source of supply, which meet the requirements of this chapter.

(-c-) Provision for adequate supply from existing sources which meets the requirements of this chapter.

(B) Submit the feasibility study according to the following schedule:

(I) By March 31, 1992, for a supplier which prior to August 31, 1991, experienced a triggering event as specified in subparagraph (iii)(B)(II).

(II) By June 30, 1992, for a supplier which after August 31, 1991, but before January 1, 1992, experienced a triggering event as specified in subparagraph (iii)(B)(II).

(III) By August 31, 1992, for other suppliers.

(C) Submit a full and complete permit application for the means identified in the approved feasibility study by which the supplier shall meet the requirements of this paragraph, according to the following schedule:

(I) By the date set in the approved feasibility study for a supplier which, prior to January 1, 1992, experienced a triggering event as specified in subparagraph (iii)(B)(II).

(II) By June 30, 1993, for a supplier subject to the requirements of subparagraph (iii)(B)(II), except that a public water supplier serving fewer than 3,300 people may submit its permit application by December 31, 1993.

(D) Initiate construction of the means identified in the approved feasibility study by which the supplier shall meet the requirements of this paragraph, according to the following schedule:

(I) By the date set in the approved feasibility study for a supplier which, prior to January 1, 1992, experienced a triggering event as specified in subparagraph (iii)(B)(II).



(II) By June 30, 1994, for a supplier subject to the requirements of subparagraph (iii)(B)(III), except that a public water supplier serving fewer than 3,300 people may initiate construction by December 31, 1994.

(E) Complete construction and commence operation of the alternative identified in the approved feasibility study by the dates specified in subparagraph (iii)(B).

(v) The requirements of subparagraph (iv) do not modify, repeal, suspend, supersede or otherwise change the terms of a compliance schedule or deadline, established by an existing compliance order, consent order and agreement, consent adjudication, court order or consent decree. For purposes of this paragraph, the term "existing" means a compliance order, consent order and agreement, consent adjudication, court order or consent decree which was issued or dated before December 14, 1991.

(vi) For a source including springs, infiltration galleries, cribs or wells permitted for use by the Department prior to May 16, 1992, and determined by the Department to be a GUDI source, the public water supplier shall:

(A) Maintain a minimum residual disinfectant concentration in the water delivered to the distribution system prior to the first customer in accordance with subsection (c)(1)(iii)(A).

(B) Provide continuous filtration and disinfection in accordance with this paragraph within 48 months after the Department determines the source of supply is a GUDI source.

(C) Submit to the Department for approval a feasibility study within 1 year after the Department determines the source of supply is a GUDI source. The feasibility study shall specify the means by which the supplier shall, within the deadline established in clause (B), meet the requirements of this paragraph and shall otherwise comply with paragraph (1)(iv)(A).

(2) A community public water system shall provide continuous disinfection for groundwater sources.

(d) *Fluoride.* A public water system shall comply with the primary MCL for fluoride of 2 mg/L, except that a noncommunity water system implementing a fluoridation program approved by the Department of Health and using fluoridation facilities approved by the Department under § 109.505 (relating to requirements for noncommunity water systems) may exceed the MCL for fluoride but may not exceed the fluoride level approved by the Department of Health. The secondary MCL for fluoride of 2 mg/L established by the EPA under 40 CFR 143.3 (relating to secondary MCLs) is not incorporated into this chapter.

(e) *Treatment technique requirements for acrylamide and epichlorohydrin.* Systems which use acrylamide or epichlorohydrin in the water treatment process shall certify in accordance with § 109.701(d)(7) that the following specified levels have not been exceeded:

- (1) Acrylamide = 0.05% dosed at 1 ppm (or equivalent).
  - (2) Epichlorohydrin = 0.01% dosed at 20 ppm (or equivalent).
- (f) *MRDLs.*

(1) A public water system shall supply drinking water that complies with the MRDLs adopted by the EQB under the act.

(2) This subchapter incorporates by reference the primary MRDLs in the National Primary Drinking Water

Regulations, in 40 CFR Part 141, Subpart G (relating to maximum contaminant levels and maximum residual disinfectant levels) as State MRDLs, under the authority of section 4 of the act (35 P. S. § 721.4), unless other MRDLs are established by regulations of the Department. The primary MRDLs which are incorporated by reference are effective on the date established by the Federal regulations.

(g) *Treatment technique requirements for disinfection byproduct precursors.* A public water system that uses either surface water or GUDI sources and that uses conventional filtration treatment shall provide adequate treatment to reliably control disinfection byproduct precursors in the source water. Enhanced coagulation and enhanced softening are deemed by the Department to be treatment techniques for the control of disinfection byproduct precursors in drinking water treatment and distribution systems. This subchapter incorporates by reference the treatment technique in 40 CFR 141.135 (relating to treatment technique for control of disinfection byproduct (DBP) precursors). Coagulants approved by the Department are deemed to be acceptable for the purpose of this treatment technique. This treatment technique is effective on the date established by the Federal regulations.

**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.

(i) Except as provided under subparagraphs (ii) and (iii), a public water supplier:

(A) Shall determine and record the turbidity level of representative samples of the system's filtered water at least once every 4 hours that the system is in operation, except as provided in clause (B).

(B) May substitute continuous turbidity monitoring and recording for grab sample monitoring and manual recording if it validates the continuous measurement for accuracy on a regular basis using a procedure specified by the manufacturer. For systems using slow sand filtration or filtration treatment other than conventional filtration, direct filtration or diatomaceous earth filtration, the Department may reduce sampling frequency to once per day.

(C) Shall continuously monitor and record the residual disinfectant concentration of the water being supplied to the distribution system and record both the lowest value for each day and the number of periods each day when the value is less than .2 mg/L for more than 4 hours. If a public water system's continuous monitoring or recording equipment fails, the public water supplier may, upon notification of the Department under § 109.701(a)(3) (relating to reporting and recordkeeping), substitute grab sampling or manual recording every 4 hours in lieu of continuous monitoring. Grab sampling or manual recording may not be substituted for continuous monitoring or recording for longer than 5 days after the equipment fails.

(D) Shall measure and record the residual disinfectant concentration at representative points in the distribution system no less frequently than the frequency required for total coliform sampling for compliance with the MCL for microbiological contaminants.

(ii) For a public water supplier serving 3,300 or fewer people, the Department may reduce the residual disinfectant concentration monitoring for the water being supplied to the distribution system to a minimum of 2 hours between samples at the grab sampling frequencies prescribed as follows if the historical performance and operation of the system indicate the system can meet the residual disinfectant concentration at all times:

<i>System Size (People)</i>	<i>Samples/Day</i>
<500	1
500—1,000	2
1,001—2,500	3
2,501—3,300	4

If the Department reduces the monitoring, the supplier shall nevertheless collect and analyze another residual disinfectant measurement as soon as possible, but no longer than 4 hours from any measurement which is less than .2 mg/L.

(iii) For a public water supplier serving fewer than 500 people, the Department may reduce the filtered water turbidity monitoring to one grab sample per day, if the historical performance and operation of the system indicate effective turbidity removal is maintained under the range of conditions expected to occur in the system's source water.

(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.

(A) The water supplier shall calibrate turbidimeters using the procedure specified by the manufacturer.

(B) If there is failure in the continuous turbidity monitoring equipment, the system shall conduct grab sampling every 4 hours in lieu of continuous monitoring.

(C) A public water supplier has a maximum of 5 days following the failure of the equipment to repair or replace the equipment.

(2) *Performance monitoring for unfiltered surface water and GUDI.* A public water supplier using unfiltered surface water or GUDI sources shall conduct the following source water and performance monitoring requirements on an interim basis until filtration is provided, unless increased monitoring is required by the Department under § 109.302:

(i) Except as provided under subparagraphs (ii) and (iii), a public water supplier:

(A) Shall perform fecal coliform or total coliform density determinations on samples of the source water immediately prior to disinfection. Regardless of source water turbidity, the minimum frequency of sampling for fecal or total coliform determination may be no less than the following:

<i>System Size (People)</i>	<i>Samples/Day</i>
<500	1
500—3,299	2
3,300—10,000	3
10,001—25,000	4
25,001 or more	5

(B) Shall measure the turbidity of a representative grab sample of the source water immediately prior to disinfection at least once every 4 hours that the system is in operation, except as provided in clause (C).

(C) May substitute continuous turbidity monitoring for grab sample monitoring if it validates the continuous measurement for accuracy on a regular basis using a protocol approved by the Department.

(D) Shall continuously monitor the residual disinfectant concentration required under § 109.202(c)(1)(iii) (relating to State MCLs, MRDLs and treatment technique requirements) of the water being supplied to the distribution system and record the lowest value for each day. If a public water system's continuous monitoring equipment fails, the public water supplier may, upon notification of the Department under § 109.701(a)(3), substitute grab sampling every 4 hours in lieu of continuous monitoring. Grab sampling may not be substituted for continuous monitoring for longer than 5 days after the equipment fails.

(E) Shall measure the residual disinfectant concentration at representative points in the distribution system no less frequently than the frequency required for total coliform sampling for compliance with the MCL for microbiological contaminants.

(ii) For a public water supplier serving 3,300 or fewer people, the Department may reduce the residual disinfectant concentration monitoring for the water being supplied to the distribution system to a minimum of 2 hours between samples at the grab sampling frequencies prescribed as follows if the historical performance and operation of the system indicate the system can meet the residual disinfectant concentration at all times:

<i>System Size (People)</i>	<i>Samples/Day</i>
<500	1
500—1,000	2
1,001—2,500	3
2,501—3,300	4

If the Department reduces the monitoring, the supplier shall nevertheless collect and analyze another residual disinfectant measurement as soon as possible, but no longer than 4 hours from any measurement which is less than the residual disinfectant concentration approved under § 109.202(c)(1)(iii).

(iii) For a public water supplier serving fewer than 500 people, the Department may reduce the source water turbidity monitoring to one grab sample per day, if the historical performance and operation of the system indicate effective disinfection is maintained under the range of conditions expected to occur in the system's source water.

(3) *Monitoring requirements for coliforms.* Public water systems shall determine the presence or absence of total coliforms for each routine or check sample; and, the presence or absence of fecal coliforms or *E. coli* for a total coliform positive sample in accordance with analytical techniques approved by the Department under § 109.304 (relating to analytical requirements). A system may forego fecal coliform or *E. coli* testing on a total coliform-positive sample if the system assumes that any total coliform-positive sample is also fecal coliform-positive. A system which chooses to forego fecal coliform or *E. coli* testing shall, under § 109.701(a)(3), notify the Department within 1 hour after the water system learns of the violation or the situation, and shall provide public notice in accordance with § 109.408 (relating to Tier 1 public notice—form, manner and frequency of notice).

(i) *Frequency.* Public water systems shall collect samples at regular time intervals throughout the monitoring period as specified in the system distribution sample siting plan under § 109.303(a)(2) (relating to sampling requirements). Systems which use groundwater and serve 4,900 persons or fewer, may collect all required samples on a single day if they are from different sampling sites in the distribution system.

(A) Except as provided under § 109.705(b) (relating to sanitary surveys), the number of monthly total coliform samples that community water systems shall take is based on the population served by the system as follows:

<i>Population Served</i>	<i>Minimum Number of Samples per Month</i>
25 to 1,000	1
1,001 to 2,500	2
2,501 to 3,300	3
3,301 to 4,100	4
4,101 to 4,900	5
4,901 to 5,800	6
5,801 to 6,700	7
6,701 to 7,600	8
7,601 to 8,500	9
8,501 to 12,900	10
12,901 to 17,200	15
17,201 to 21,500	20
21,501 to 25,000	25
25,001 to 33,000	30
33,001 to 41,000	40
41,001 to 50,000	50
50,001 to 59,000	60
59,001 to 70,000	70
70,001 to 83,000	80
83,001 to 96,000	90
96,001 to 130,000	100
130,001 to 220,000	120
220,001 to 320,000	150
320,001 to 450,000	180
450,001 to 600,000	210
600,001 to 780,000	240
780,001 to 970,000	270
970,001 to 1,230,000	300
1,230,001 to 1,520,000	330
1,520,001 to 1,850,000	360
1,850,001 to 2,270,000	390
2,270,001 to 3,020,000	420
3,020,001 to 3,960,000	450
3,960,001 or more	480

(B) Except as provided under § 109.705(c), the number of periodic total coliform samples that noncommunity water systems shall take is as follows:

(I) A noncommunity water system using only ground-water and serving 1,000 or fewer persons per day on a permanent basis, January through December each year, shall take one sample each calendar quarter that the system provides water to the public.

(II) A noncommunity water system using surface water (in total or in part) or serving more than 1,000 persons per day during a given month shall take the same number of samples as a community water system serving the same number of persons specified in clause (A) for each month the system provides water to the public, even if the population served is temporarily fewer than 1,000 persons per day. A groundwater system determined to be under the influence of surface water shall begin monitoring at this frequency 6 months after the Department determines that the source water is under the direct influence of surface water.

(C) A public water system that uses a surface water source and does not practice filtration in compliance with Subchapter B (relating to MCLs, MRDLs or treatment technique requirements) shall collect at least one total coliform sample at the entry point, or an equivalent location as determined by the Department, to the distribution system within 24 hours of each day that the turbidity level in the source water, measured as specified in paragraph (2)(i)(B), exceeds 1.0 NTU. The Department may extend this 24-hour collection limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the sample analyzed within 30 hours of collection. A logistical problem outside the system's control may include a source water turbidity result exceeding 1.0 NTU over a holiday or weekend in which the services of a Department certified laboratory are not available within the prescribed sample holding time. These sample results shall be included in determining compliance with the MCL for total coliforms established under § 109.202(a)(2).

(ii) *Repeat monitoring.* A public water system shall collect a set of check samples within 24 hours of being notified of a total coliform-positive routine or check sample. The Department may extend this 24-hour collection limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the check samples analyzed within 30 hours of collection. A logistical problem outside the system's control may include a coliform-positive sample result received over a holiday or weekend in which the services of a Department certified laboratory are not available within the prescribed sample holding time.

(A) A system which collects more than one routine sample per monitoring period shall collect at least three check samples for each total coliform-positive sample found.

(B) A system which collects only one routine sample per monitoring period shall collect at least four check samples for each total coliform-positive sample found.

(C) The system shall collect at least one check sample from the sampling tap where the original total coliform-positive sample was taken, at least one check sample at a tap within five service connections upstream of the original coliform-positive sample and at least one check sample within five service connections downstream of the original sampling site. If a total coliform-positive sample occurs at the end of the distribution system or one service connection away from the end of the distribution system,

the water supplier shall collect an additional check sample upstream of the original sample site in lieu of a downstream check sample.

(D) A system shall collect all check samples on the same day, except that a system with a single service connection may collect the required set of check samples all on the same day or consecutively over a 4-day period.

(E) If a check sample is total coliform-positive, the public water system shall collect additional check samples in the manner specified in this subparagraph. The system shall continue to collect check samples until either total coliforms are not detected in check samples, or the system determines that the MCL for total coliforms as established under § 109.202(a)(2) has been exceeded and notifies the Department.

(F) If a system collecting fewer than five routine samples per month has one or more valid total coliform-positive samples, the system shall collect at least five routine samples during the next month the system provides water to the public. The number of routine samples for the month following a total coliform-positive sample may be reduced by the Department to at least one sample the next month if the reason for the total coliform-positive sample is determined and the problem has been corrected or will be corrected before the end of the next month.

(G) Results of all routine and check samples not invalidated by the Department shall be included in determining compliance with the MCL for total coliforms as established under § 109.202(a)(2).

(iii) *Invalidation of total coliform samples.* A total coliform sample invalidated under this paragraph does not count towards meeting the minimum monitoring requirements of this section.

(A) The Department may invalidate a total coliform-positive sample if one of the following applies:

(I) The laboratory which performed the analysis establishes that improper sample analysis caused the total coliform-positive result.

(II) A domestic or other nondistribution system plumbing problem exists when a coliform contamination incident occurs that is limited to a specific service connection from which a coliform-positive sample was taken in a public water system with more than one service connection. The Department's determination to invalidate a sample shall be based on a total coliform-positive check sample collected at the same tap as the original total coliform-positive sample and all total coliform-negative check samples collected within five service connections of the original total coliform positive sample. This type of sample invalidation does not apply to public water systems with only one service connection.

(III) A total coliform-positive sample result is due to a circumstance or condition which does not reflect water quality in the distribution system. The Department's decision to invalidate a sample shall be based on evidence that the sample result does not reflect water quality in the distribution system. In this case, the system shall still collect all check samples required under subparagraph (ii) to determine compliance with the MCL for total coliforms as established under § 109.202(a)(2).

(B) A laboratory shall invalidate a total coliform sample if no total coliforms are detected and one of the following occurs:

(I) The sample produces a turbid culture in the absence of gas production using an analytical method where gas formation is examined.

(II) The sample exhibits confluent growth or produces colonies too numerous to count with an analytical method using a membrane filter.

(C) If a laboratory invalidates a sample because of interference as specified in clause (B), the laboratory shall notify the system within 1 business day to collect another sample from the same location as the original sample within 24 hours of being notified of the interference and have it analyzed for the presence of total coliforms. The system shall resample within 24 hours of being notified of interference and continue to resample every 24 hours until it receives a valid result. The Department may extend this 24-hour limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the resamples analyzed within 30 hours. A logistical problem outside the system's control may include a notification of a laboratory sample invalidation, due to interference, which is received over a holiday or weekend in which the services of a Department certified laboratory are not available within the prescribed sample holding time.

(iv) Special purpose samples, such as those taken to determine whether disinfection practices are sufficient following pipe placement, replacement or repair, may not be used to determine compliance with the MCL for total coliform. Check samples taken under subparagraph (ii) are not considered special purpose samples, and shall be used to determine compliance with the monitoring and MCL requirements for total coliforms established under this paragraph and § 109.202(a)(2).

(4) *Exception.* For a water system which complies with the performance monitoring requirements under paragraph (2), the monitoring requirements for compliance with the turbidity MCL do not apply.

(5) *Monitoring requirements for VOCs.* Community water systems and nontransient noncommunity water systems shall monitor for compliance with the MCLs for VOCs established by the EPA under 40 CFR 141.61(a) (relating to MCLs for organic contaminants). The monitoring shall be conducted according to the requirements established by the EPA under 40 CFR 141.24(f) (relating to organic chemicals other than total trihalomethanes, sampling and analytical requirements), incorporated herein by reference, except as modified by this chapter. Initial or first year monitoring mentioned in this paragraph refers to VOC monitoring conducted on or after January 1, 1993.

(i) *Vinyl chloride.* Monitoring for compliance with the MCL for vinyl chloride is required only for groundwater entry points at which one or more of the following two-carbon organic compounds have been detected: trichloroethylene, tetrachloroethylene, 1,2-dichloroethane, 1,1,1-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene or 1,1-dichloroethylene.

(ii) *Initial monitoring schedule.* The initial monitoring shall consist of four consecutive quarterly samples at each entry point in accordance with the following monitoring schedule during the compliance period beginning January 1, 1993, except for systems which are granted reduced initial monitoring in accordance with clauses (E) and (F). A system which monitors during the initial monitoring period, but begins monitoring before its scheduled initial monitoring year specified in this subparagraph, shall begin monitoring every entry point during the first calendar quarter of the year it begins monitoring, except as provided in clause (E).

(A) Systems serving more than 10,000 persons shall begin monitoring during the quarter beginning January 1, 1994.

(B) Systems serving 3,301 persons to 10,000 persons shall begin monitoring during the quarter beginning January 1, 1995.

(C) Systems serving 500 to 3,300 persons shall begin monitoring during the quarter beginning January 1, 1993.

(D) Systems serving fewer than 500 persons shall begin monitoring during the quarter beginning January 1, 1994.

(E) For systems serving 3,300 or fewer people which monitor at least one quarter prior to October 1, 1993, and do not detect VOCs at an entry point during the first quarterly sample, the required initial monitoring is reduced to one sample at that entry point. For systems serving 500 to 3,300 people to qualify for this reduced monitoring, the initial monitoring shall have been conducted during the quarter beginning January 1, 1993.

(F) For systems serving more than 3,300 people, which were in existence prior to January 1, 1993, initial monitoring for compliance with the MCLs for VOCs established by the EPA under 40 CFR 141.61(a) is reduced to one sample for each entry point which meets the following conditions:

(I) VOC monitoring required by the Department between January 1, 1988, and December 31, 1992, has been conducted and no VOCs regulated under 40 CFR 141.61(a) were detected.

(II) The first quarter monitoring required by this paragraph has been conducted during the first quarter of the system's scheduled monitoring year under this paragraph, with no detection of a VOC.

(G) Initial monitoring of new entry points associated with new sources which are permitted under Subchapter E (relating to permit requirements) to begin operation after December 31, 1992, shall conduct initial monitoring as follows:

(I) Entry points at which a VOC is detected during new source monitoring shall be monitored quarterly beginning the first quarter the entry points begin serving the public. Quarterly monitoring shall continue until reduced monitoring is granted in accordance with subparagraph (iii)(D).

(II) Entry points at which no VOC is detected during new source monitoring shall begin initial quarterly monitoring during the first calendar quarter of the year after the entry point begins serving the public. If no VOC is detected during the first quarter of monitoring, first year monitoring is reduced to one sample at that entry point.

(iii) *Repeat monitoring for entry points at which a VOC is detected.*

(A) For entry points at which a VOC is detected at a level equal to or greater than its MCL during the first year of quarterly monitoring, the monitoring shall be repeated quarterly beginning the quarter following detection at a level equal to or greater than the MCL, for VOCs for which the EPA has established MCLs under 40 CFR 141.61(a), except for vinyl chloride as provided in subparagraph (i), until reduced monitoring is granted in accordance with clause (D).

(B) For entry points at which a VOC is detected, and reduced monitoring is granted in accordance with clause (D), and a VOC is thereafter detected at a level greater than the MCL, the monitoring shall be repeated quarterly beginning the quarter following detection at a level for

the VOCs for which the EPA has established MCLs under 40 CFR 141.61(a), except for vinyl chloride as provided in subparagraph (i), until reduced monitoring is granted in accordance with clause (D).

(C) For entry points at which no VOC is detected during the first year of monitoring but a VOC is detected thereafter, the monitoring shall be repeated quarterly beginning the quarter following detection at a level for the VOCs for which the EPA has established MCLs under 40 CFR 141.61(a), except for vinyl chloride as provided in subparagraph (i), or until reduced monitoring is granted in accordance with clause (D).

(D) After analyses of four consecutive quarterly samples at an entry point, including initial quarterly samples, demonstrate that the VOC levels in each quarterly sample are less than the MCLs, the required monitoring is reduced to one sample per year at the entry point for the VOCs for which the EPA has established MCLs under 40 CFR 141.61(a), except for vinyl chloride as provided in subparagraph (i).

(E) A confirmation sample shall be collected and analyzed for each VOC listed under 40 CFR 141.61(a) which is detected at a level in excess of its MCL during annual or less frequent compliance monitoring. The confirmation sample shall be collected within 2 weeks of notification by the certified laboratory performing the analysis that an MCL has been exceeded. The average of the results of the original and the confirmation sample will be used to determine compliance. Monitoring shall be completed by the deadline specified for VOC compliance monitoring.

(iv) *Repeat monitoring for entry points at which no VOC is detected.*

(A) For entry points at which VOCs are not detected during the first year of quarterly monitoring, or annual monitoring if only one sample was required at an entry point for first year monitoring under subparagraph (ii)(E), (F) or (G)(II), required monitoring is reduced to one sample per entry point per year.

(B) For groundwater entry points where VOCs are monitored in accordance with this paragraph, but are not detected during 3 years of quarterly or annual monitoring, or both, required monitoring is reduced to one sample per entry point during each subsequent compliance period. Reduced monitoring shall be conducted at 3-year intervals from the year of required initial monitoring.

(v) *Reduced monitoring.* When reduced monitoring is provided under subparagraph (iii)(D), or subparagraph (iv)(A) or (B), the system shall monitor the entry point during the calendar year quarter of highest anticipated VOC levels or as specified by the Department. The reduced monitoring option in subparagraph (iv)(B) does not apply to entry points at which treatment has been installed for VOC removal. Quarterly performance monitoring is required for VOCs for which treatment has been installed.

(vi) *Waivers.* Waivers under 40 CFR 141.24(f) will not be available for the VOC monitoring requirements in this paragraph.

(6) *Monitoring requirements for SOCs (pesticides and PCBs).* Community water systems and nontransient noncommunity water systems shall monitor for compliance with the MCLs for SOCs established by the EPA under 40 CFR 141.61(c). The monitoring shall be conducted according to the requirements established by the EPA under 40 CFR 141.24(h), incorporated herein by reference except as modified by this chapter.

(i) *Initial monitoring schedule.* Initial monitoring shall consist of four consecutive quarterly samples at each entry point beginning during the quarter beginning January 1, 1995, except for systems which are granted an initial monitoring waiver in accordance with subparagraph (v). Systems which monitor during the initial monitoring period but begin monitoring before 1995 shall begin monitoring during the first calendar quarter of the year.

(A) New entry points associated with new sources which are vulnerable to SOC contamination, as determined in accordance with subparagraph (v), and which begin operation after March 31, 1995, and do not detect an SOC during new source sampling shall begin initial quarterly monitoring during the first calendar year quarter of the year after the entry point begins serving the public.

(B) New entry points associated with new sources which are vulnerable to SOC contamination as determined in accordance with subparagraph (v), at which an SOC is detected during new source sampling shall begin initial quarterly monitoring the first quarter the entry point begins serving the public. Quarterly monitoring shall continue until reduced monitoring is granted in accordance with subparagraph (ii)(E).

(ii) *Repeat monitoring for SOCs that are detected.* For entry points which were monitored for SOCs during the initial quarterly monitoring period or during the required quarterly monitoring immediately after being determined vulnerable to contamination by an SOC, repeat monitoring shall be conducted as follows:

(A) For entry points at which an SOC is detected at a level equal to or greater than its MCL, the monitoring for the detected SOC shall be continued quarterly, until reduced monitoring is granted in accordance with clause (E).

(B) For entry points at which an SOC is detected during the first year of quarterly monitoring, and reduced monitoring is granted in accordance with clause (E), and the SOC is thereafter detected at a level greater than its MCL, the monitoring for the detected SOC shall be repeated quarterly, until reduced monitoring is granted in accordance with clause (E).

(C) For entry points at which an SOC is not detected during the first year of quarterly monitoring, but an SOC is detected initially thereafter at a level less than the MCL, monitoring shall be repeated annually for the detected SOC.

(D) For entry points at which an SOC is not detected during the first year of quarterly monitoring, but the SOC is detected thereafter at a level equal to or greater than the MCL, monitoring for that SOC shall be repeated quarterly, until reduced monitoring is granted in accordance with clause (E).

(E) After analyses of four consecutive quarterly samples at an entry point, including initial quarterly samples, demonstrate that the SOC level in each quarterly sample is less than the MCL, the required monitoring for each SOC detected below the MCL is reduced to one sample per year at the entry point.

(F) For entry points at which either heptachlor or heptachlor epoxide is detected during the initial round of consecutive quarterly samples, or in subsequent repeat samples, the monitoring shall be continued for both contaminants in accordance with the more frequent moni-

toring required of the two contaminants based on the level at which each is detected.

(G) A confirmation sample shall be collected and analyzed for each SOC listed under 40 CFR 141.61(c) which is detected at a level in excess of its MCL during annual or less frequent compliance monitoring. The confirmation sample shall be collected within 2 weeks of the water supplier receiving notification from the certified laboratory performing the analysis that an MCL has been exceeded. The average of the results of the original and the confirmation samples will be used to determine compliance. Confirmation monitoring shall be completed by the deadline specified for SOC compliance monitoring.

(iii) *Repeat monitoring for SOCs that are not detected.* For entry points at which SOCs are not detected during the first year of quarterly monitoring, the required monitoring is reduced to one sample in each 3-year compliance period for systems serving 3,300 or fewer persons and to two consecutive quarterly samples in each compliance period for systems serving more than 3,300 persons. Reduced monitoring shall be conducted at 3-year intervals from the year of required initial VOC monitoring, in accordance with paragraph (5)(ii).

(iv) *Reduced monitoring.* When reduced monitoring is provided under subparagraph (ii) or (iii), the system shall monitor the entry point during the second calendar year quarter, or the second and third calendar year quarter when two quarterly samples are required in each compliance period, unless otherwise specified by the Department. The reduced monitoring option in subparagraph (iii) does not apply to entry points at which treatment has been installed for SOC removal. Compliance monitoring for SOCs for which treatment has been installed to comply with an MCL shall be conducted at least annually, and performance monitoring shall be conducted quarterly.

(v) *Waivers.* A waiver will be granted to a public water supplier from conducting the initial compliance monitoring or repeat monitoring, or both, for an SOC based on documentation provided by the public water supplier and a determination by the Department that the criteria in clause (B), (C) or (D) has been met. A waiver is effective for one compliance period and may be renewed in each subsequent compliance period. If the Department has not granted an areawide use waiver in accordance with clause (B), the public water supplier is responsible for submitting a waiver application and renewal application to the Department for review in accordance with clause (B) or (C) for specific entry points. Waiver applications will be evaluated relative to the vulnerability assessment area described in clause (A) and the criteria in clause (B) or (C). Entry points at which treatment has been installed to remove an SOC are not eligible for a monitoring waiver for the SOCs for which treatment has been installed.

(A) *Vulnerability assessment area for SOCs except dioxin and PCBs.*

(I) For groundwater entry points, the vulnerability assessment area shall consist of wellhead protection area Zones I and II.

(II) For surface water entry points, the vulnerability assessment area shall consist of the area that supplies water to the entry point and is separated from other watersheds by the highest topographic contour.

(B) *Use waivers.* An areawide use waiver will be granted by the Department for contaminants which the Department has determined have not been used, stored, manufactured or disposed of in this Commonwealth, or

portions of this Commonwealth. A use waiver specific to a particular entry point requires that an SOC was not used, stored, manufactured or disposed of in the vulnerability assessment area. If use waiver criteria cannot be met, a public water supplier may apply for a susceptibility waiver.

(C) *Susceptibility waivers.* A susceptibility waiver for specific contaminants may be granted based on the following criteria, and only applies to groundwater entry points:

- (I) Previous analytical results.
- (II) Environmental persistence and transport of the contaminant.
- (III) Proximity of the drinking water source to point or nonpoint source contamination.
- (IV) Elevated nitrate levels as an indicator of the potential for pesticide contamination.
- (V) Extent of source water protection or approved wellhead protection program.

(D) *Waivers for dioxin and PCBs.* A system is granted a waiver from monitoring for dioxin and PCBs unless the Department determines that there is a source of dioxin or PCB contamination which poses a threat to a drinking water source.

(7) *Monitoring requirements for IOCs.* Community water systems and nontransient noncommunity water systems shall monitor for compliance with the MCLs for IOCs established by the EPA under 40 CFR 141.62 (relating to maximum contaminant levels (MCLs) for inorganic contaminants), and for arsenic established by the EPA under 40 CFR 141.11 (relating to maximum contaminant levels for inorganic contaminants). Transient noncommunity water suppliers shall monitor for compliance with the MCLs for nitrate and nitrite. The monitoring shall be conducted according to the requirements established by the EPA under 40 CFR 141.23 (relating to inorganic chemical sampling and analytical requirements). The requirements are incorporated by reference except as modified by this chapter.

(i) *Monitoring requirements for asbestos.*

(A) *Waivers for asbestos monitoring.* A system is granted a waiver from asbestos monitoring unless the Department determines that the system's distribution system contains asbestos cement pipe and the system has not implemented optimum corrosion control measures, or the Department determines that the system's source water is vulnerable to asbestos contamination.

(B) *Initial monitoring schedule.* Community water systems and nontransient noncommunity water systems not granted a waiver under clause (A) shall monitor for compliance with the MCL for asbestos by taking one sample at each vulnerable sampling point during the first 3-year compliance period of each 9-year compliance cycle, with the initial compliance monitoring beginning not later than the calendar year beginning January 1, 1995.

(C) *Monitoring of new entry points.* New entry points which begin operation after December 31, 1995, shall conduct initial monitoring during the first compliance period of the first compliance cycle after the entry point begins serving the public, if the Department determines that a waiver cannot be granted in accordance with clause (A).

(D) *Repeat monitoring for systems that detect asbestos.* If a sample exceeds the MCL for asbestos, the monitoring at that sampling point shall be continued quarterly

beginning in the quarter following the MCL violation. After four consecutive quarterly samples less than the MCL at that entry point, the required monitoring is reduced to one sample at that entry point during the first 3-year compliance period of each subsequent 9-year compliance cycle, if treatment has not been installed to remove asbestos from the source water. Compliance monitoring at entry points at which treatment has been installed to remove asbestos from source water shall be conducted at least annually, and performance monitoring shall be conducted quarterly.

(ii) *Monitoring requirements for nitrate and nitrite.* The following compliance monitoring for nitrite is not required at entry points receiving water which has been disinfected with free chlorine, chlorine dioxide or ozone:

(A) *Initial monitoring schedule.* A public water system shall begin new monitoring for nitrate and nitrite by taking one annual sample at each groundwater entry point to the system beginning during the year beginning January 1, 1993. Community water systems and nontransient noncommunity water systems with surface water sources shall monitor quarterly at each surface water entry point for nitrate and nitrite beginning during the quarter beginning January 1, 1993. Transient noncommunity water systems shall monitor each surface water entry point by taking one annual sample beginning during the year beginning January 1, 1993.

(B) *Monitoring of new entry points.* New community and nontransient noncommunity surface water entry points which begin serving the public after the first calendar quarter of a year and did not detect levels of nitrate or nitrite equal to or greater than 50% of the MCL during new source sampling shall begin initial monitoring for nitrate and nitrite during the first calendar quarter of the year after the entry point begins serving the public. New community and nontransient noncommunity groundwater and surface water entry points at which nitrate or nitrite is detected at levels equal to or greater than 50% of the MCL during new source sampling shall begin initial quarterly monitoring the first quarter the entry point begins serving the public. New community and nontransient noncommunity groundwater entry points at which nitrate and nitrite are not detected at levels equal to or greater than 50% of the MCL, and all transient noncommunity entry points, shall begin initial annual monitoring during the first new calendar year after the entry point begins serving the public.

(C) *Repeat monitoring for systems with nitrate or nitrite levels equal to or greater than 50% of the MCL.*

(I) For entry points at which initial monitoring results or subsequent monitoring indicate nitrate or nitrite levels equal to or greater than 50% of the MCL, community and nontransient noncommunity water systems shall begin quarterly monitoring the quarter following detection at that level and continue quarterly monitoring for both nitrate and nitrite, unless reduced monitoring is granted in accordance with subclause (III).

(II) For entry points at which initial monitoring results or subsequent monitoring indicate nitrate or nitrite levels greater than the MCL, transient noncommunity systems shall begin quarterly monitoring the quarter following detection at that level and continue quarterly monitoring for both nitrate and nitrite, unless reduced monitoring is granted in accordance with subclause (IV).

(III) After four consecutive quarterly samples at an entry point for a community or nontransient noncommunity system indicate nitrate and nitrite levels in each

sample are less than 50% of the MCLs, the required compliance monitoring is reduced to one sample per year at the entry point. Annual monitoring shall be conducted during the calendar quarter in which the consecutive quarterly monitoring indicated that the highest levels of contamination were present, unless the Department determines that a different monitoring quarter should be used in accordance with paragraph (10).

(IV) After four consecutive quarterly samples at an entry point for a transient noncommunity system indicate nitrate and nitrite levels in each sample are less than the MCLs, the required compliance monitoring is reduced to one sample per year at the entry point. Annual monitoring shall be conducted during the calendar quarter in which the consecutive quarterly monitoring indicated that the highest levels of contamination were present, unless the Department determines that a different monitoring quarter should be used in accordance with paragraph (10).

(V) For nitrate or nitrite sample results in excess of the MCLs, the water supplier shall take a confirmation sample within 24 hours of having received the original sample result. A water supplier that is unable to comply with the 24-hour sampling requirement shall immediately notify persons served by the public water system in accordance with § 109.408. Systems exercising this option shall take and analyze a confirmation sample within 2 weeks of notification of the analytical results of the first sample.

(VI) Noncommunity water systems for which an alternate nitrate level has been approved by the Department in accordance with 40 CFR 141.11(d) are not required to collect a confirmation sample if only the nitrate MCL is exceeded and nitrate is not in excess of the alternate nitrate level. If the alternate nitrate level is exceeded, the water supplier shall collect a confirmation sample within 24 hours after being advised by the certified laboratory performing the analysis that the compliance sample exceeded 20 mg/L for nitrate. Confirmation monitoring shall be completed by the deadline for compliance monitoring. Quarterly performance monitoring is required for nitrate and nitrite at entry points where treatment has been installed to remove nitrate or nitrite.

(D) *Repeat monitoring for systems with nitrate and nitrite levels less than 50% of the MCLs.* For entry points at which initial monitoring results indicate nitrate and nitrite levels in each sample are less than 50% of the MCLs, nitrate and nitrite monitoring shall be repeated annually during the calendar quarter in which the water supplier anticipates the highest levels of contamination, unless the Department determines that a different monitoring quarter should be used in accordance with paragraph (10).

(iii) *Monitoring requirements for antimony, arsenic, barium, beryllium, cadmium, cyanide, chromium, fluoride, mercury, nickel, selenium and thallium.*

(A) *Initial monitoring schedule.* Community water systems and nontransient noncommunity water systems shall monitor each surface water entry point annually beginning during the year beginning January 1, 1993, and shall monitor each groundwater entry point once every 3 years beginning during the year beginning January 1, 1994.

(B) *Monitoring of new entry points.* New groundwater entry points which begin operation after December 31, 1994, shall begin initial monitoring in accordance with the schedule in clause (A)—that is, 1997, and so forth.

New surface water entry points shall begin initial annual monitoring during the first new calendar year after the entry point begins serving the public.

(C) *Repeat monitoring for entry points at which an IOC MCL is exceeded.*

(I) For entry points at which initial monitoring results or subsequent monitoring indicates an IOC level in excess of the MCL, monitoring shall be repeated quarterly beginning the quarter following detection at that level for each IOC in excess of an MCL, until reduced monitoring is granted in accordance with subclause (II).

(II) After analyses of four consecutive quarterly samples at an entry point where treatment has not been installed to comply with an IOC MCL indicate that contaminant levels are less than the MCLs, the required monitoring for each IOC less than the MCL is reduced to the frequencies stated in clause (A). This reduced monitoring option does not apply to entry points at which treatment has been installed for IOC removal. Compliance monitoring for IOCs for which treatment has been installed to comply with an MCL shall be conducted at least annually, and performance monitoring shall be conducted quarterly.

(III) A confirmation sample shall be collected and analyzed for each IOC listed under 40 CFR 141.11(b) or 141.62(b) which is detected at a level in excess of its MCL during annual or less frequent compliance monitoring. The confirmation sample shall be collected within 2 weeks of notification by the certified laboratory performing the analysis that an MCL has been exceeded. The average of the results of the original and the confirmation samples will be used to determine compliance. Confirmation monitoring shall be completed by the deadline specified for IOC compliance monitoring.

(D) *Waivers for IOC monitoring.* Except when treatment has been installed to remove the IOC, after three consecutive rounds of quarterly, annual or triennial monitoring indicate the contaminant level for an IOC is below the MCL in all samples at an entry point, routine monitoring for the remainder of the compliance cycle for that IOC is waived and the required monitoring for the IOC is reduced to one sample per 9-year compliance cycle at that entry point. Reduced monitoring shall be conducted during the first monitoring period of the next monitoring cycle. A waiver is effective for one compliance cycle and may be renewed in each subsequent compliance cycle.

(E) *Operational monitoring for fluoride.* Public water suppliers who fluoridate shall conduct operational monitoring for fluoride daily.

(8) *Monitoring requirements for public water systems that obtain finished water from another public water system.*

(i) Consecutive water suppliers shall monitor for compliance with the MCL for microbiological contaminants at the frequency established by the EPA and incorporated by reference into this chapter.

(ii) Community consecutive water suppliers shall:

(A) Monitor for compliance with the MCL for TTHMs established under 40 CFR 141.12 (relating to maximum contaminant levels for total trihalomethanes) in accordance with 40 CFR 141.30 (relating to total trihalomethanes sampling, analytical and other requirements) if the system does one of the following:

(I) Serves more than 10,000 persons.



(II) Obtains finished water from another public water system serving more than 10,000 persons.

(B) Monitor the distribution system for compliance with the MCL for asbestos at the frequency indicated in paragraph (7)(i), when the Department determines that the system's distribution system contains asbestos cement pipe and optimum corrosion control measures have not been implemented.

(iii) Consecutive water suppliers are exempt from conducting monitoring for the MCLs for VOCs, SOCs and IOCs if the public water system from which the finished water is obtained complies with paragraphs (5)–(7), except that asbestos monitoring is required in accordance with subparagraph (ii)(B).

(iv) For a public water system which is not a consecutive water system, the exemption in subparagraph (iii) applies to entry points which obtain finished water from another public water system.

(v) A public water supplier that obtains finished water from another permitted public water system using surface water sources shall, beginning May 16, 1992, measure the residual disinfectant concentration at representative points in the distribution system at least as frequently as the frequency required for total coliform sampling for compliance with the MCL for microbiological contaminants.

(vi) Community water systems and nontransient noncommunity water systems that provide finished water that contains a chemical disinfectant or oxidant shall comply with the monitoring requirements for disinfection byproducts and disinfectant residuals in paragraphs (12)(i)–(iii) and (13).

(9) *Monitoring requirements for POE devices.* A public water supplier using a POE device shall, in addition to the monitoring requirements specified in paragraphs (1)–(8), conduct monitoring on the devices installed. As a minimum, the monitoring shall include the MCLs for which the POE device is intended to treat and monthly microbiological monitoring. The Department may allow the water supplier to reduce the frequency of microbiological monitoring based upon historical performance. Except for microbiological contaminants, monitoring shall be performed quarterly on 25% of the installed POE devices with the locations rotated so that each device is monitored at least once annually, unless increased monitoring is required by the Department under § 109.302.

(10) *Additional monitoring.* The Department may by written notice require a public water supplier to conduct monitoring for compliance with MCLs or MRDLs during a specific portion of a monitoring period, if necessary to ensure compliance with the monitoring or reporting requirements in this chapter.

(11) *Monitoring requirements for entry points that do not provide water continuously.* Entry points from which water is not provided during every quarter of the year shall monitor in accordance with paragraphs (5)–(7), except that monitoring is not required during a quarter when water is not provided to the public, unless special monitoring is required by the Department under § 109.302.

(12) *Monitoring requirements for disinfection byproducts and disinfection byproduct precursors.* Community water systems and nontransient noncommunity water systems that use a chemical disinfectant or oxidant, or provide finished water that contains a chemical disinfectant or oxidant, shall monitor for disinfection

byproducts. Systems that use either surface water or GUDI sources and that serve at least 10,000 persons shall begin monitoring by January 1, 2002. Systems that use either surface water or GUDI sources and that serve fewer than 10,000 persons, or systems that use groundwater sources, shall begin monitoring by January 1, 2004. Systems monitoring for disinfection byproducts and disinfection byproduct precursors shall take all samples during normal operating conditions. Systems monitoring for disinfection byproducts and disinfection byproduct precursors may use only data collected under this chapter to qualify for reduced monitoring. Compliance with the MCLs and monitoring requirements for TTHMs, HAA5, chlorite (where applicable) and bromate (where applicable) shall be determined in accordance with 40 CFR 141.132 and 141.133 (relating to monitoring requirements; and compliance requirements) which are incorporated herein by reference.

(i) *TTHMs and HAA5.*

(A) *Routine monitoring.*

(I) Systems that use either surface water or GUDI sources shall monitor as follows:

(-a) Systems serving at least 10,000 persons shall take at least four samples per quarter per treatment plant. At least 25% of all samples collected each quarter shall be collected at locations representing maximum residence time. The remaining samples shall be taken at locations that are representative of the entire distribution system and that are representative of at least average residence time.

(-b) Systems serving from 500 to 9,999 persons shall take at least one sample per quarter per treatment plant. The sample shall be taken at a location that represents a maximum residence time.

(-c) Systems serving fewer than 500 persons shall take at least one sample per year per treatment plant during the month of warmest water temperature. The sample shall be taken at a location that represents a maximum residence time. If the sample, or average of all samples, exceeds either a TTHM or HAA5 MCL, then the system shall take at least one sample per quarter per treatment plant. The sample shall be taken at a location that represents a maximum residence time. The system may reduce the sampling frequency back to one sample per year per treatment plant in accordance with the reduced monitoring criteria of clause (B).

(-d) If a system samples more frequently than the minimum required in items (-a)–(-c), at least 25% of all samples collected each quarter shall be collected at locations representing maximum residence time, with the remainder of the samples representing locations of at least average residence time.

(II) Systems that use groundwater sources shall monitor as follows:

(-a) Systems serving at least 10,000 persons shall take at least one sample per quarter per treatment plant. Multiple wells drawing water from a single aquifer may be considered as a single treatment plant. The sample shall be taken at a location that represents a maximum residence time.

(-b) Systems serving fewer than 10,000 persons shall take at least one sample per year per treatment plant during the month of warmest water temperature. Multiple wells drawing water from a single aquifer may be considered as a single treatment plant. The sample shall be taken at a location that represents a maximum

residence time. If the sample, or average of all samples, exceeds either a TTHM or HAA5 MCL, the system shall take at least one sample per quarter per treatment plant. The sample shall be taken at a location that represents a maximum residence time. The system may reduce the sampling frequency back to one sample per year per treatment plant in accordance with the reduced monitoring criteria of clause (B).

(-c-) If a system samples more frequently than the minimum required, at least 25% of all samples collected each quarter shall be collected at locations representing maximum residence time, with the remainder of the samples representing locations of at least average residence time.

(B) *Reduced monitoring.* Systems that have monitored for TTHMs and HAA5 for at least 1 year may reduce monitoring according to this clause. Systems that use either surface water or GUDI sources shall monitor source water TOC monthly for at least 1 year prior to qualifying for reduced monitoring. The Department retains the right to require a system that meets the requirements of this clause to resume routine monitoring.

(I) Systems that use either surface water or GUDI sources and that have a source water annual TOC average that is no greater than 4.0 mg/L and an annual TTHM average that is no greater than 0.040 mg/L and an annual HAA5 average that is no greater than 0.030 mg/L may reduce monitoring according to items (-a)—(-c-). Systems that qualify for reduced monitoring may remain on reduced monitoring provided that the annual TTHM average is no greater than 0.060 mg/L and the annual HAA5 average is no greater than 0.045 mg/L. Systems that exceed these levels shall resume routine monitoring as prescribed in clause (A) in the quarter immediately following the quarter in which the system exceeds 0.060 mg/L for TTHMs or 0.045 mg/L for HAA5.

(-a-) Systems serving at least 10,000 persons may reduce monitoring to one sample per quarter per treatment plant. The sample shall be taken at a location that represents a maximum residence time.

(-b-) Systems serving from 500 to 9,999 persons may reduce monitoring to one sample per year per treatment plant. The sample shall be taken during the month of warmest water temperature and at a location that represents a maximum residence time.

(-c-) Systems serving fewer than 500 persons and that are on increased monitoring as prescribed by clause (A) may reduce monitoring to one sample per year per treatment plant. The sample shall be taken during the month of warmest water temperature and at a location that represents a maximum residence time.

(II) Systems that use groundwater sources may reduce monitoring according to the following:

(-a-) Systems serving at least 10,000 persons may reduce monitoring to one sample per year per treatment plant if the annual TTHM average is no greater than 0.040 mg/L and the annual HAA5 average is no greater than 0.030 mg/L. The sample shall be taken during the month of warmest water temperature and at a location that represents a maximum residence time. Systems that qualify for reduced monitoring may remain on reduced monitoring provided that the annual TTHM average is no greater than 0.060 mg/L and the annual HAA5 average is no greater than 0.045 mg/L. Systems that exceed these levels shall resume routine monitoring as prescribed in clause (A) in the quarter immediately following the

quarter in which the system exceeds 0.060 mg/L for TTHMs or 0.045 mg/L for HAA5.

(-b-) Systems serving fewer than 10,000 persons may reduce monitoring to one sample per 3-year cycle per treatment plant if the annual TTHM average is no greater than 0.040 mg/L and the annual HAA5 average is no greater than 0.030 mg/L for 2 consecutive years or the annual TTHM average is no greater than 0.020 mg/L and the annual HAA5 average is no greater than 0.015 mg/L for 1 year. The sample shall be taken during the month of warmest water temperature within the 3-year cycle beginning on January 1 following the quarter in which the system qualifies for reduced monitoring. The sample shall be taken at a location that represents a maximum residence time. Systems that qualify for reduced monitoring may remain on reduced monitoring provided that the annual TTHM average is no greater than 0.080 mg/L and the annual HAA5 average is no greater than 0.060 mg/L. Systems that exceed these levels shall resume routine monitoring as prescribed in clause (A) in the quarter immediately following the quarter in which the system exceeds 0.080 mg/L for TTHMs or 0.060 mg/L for HAA5.

(ii) *Chlorite.* Community water systems and nontransient noncommunity water systems that use chlorine dioxide for disinfection or oxidation, or provide finished water that contains chlorine dioxide, shall monitor for chlorite.

(A) *Routine monitoring.*

(I) *Daily monitoring.* Systems shall take daily samples at the entrance to the distribution system. Systems that must conduct additional monitoring in accordance with clause (B) shall continue to take routine daily samples at the entrance to the distribution system.

(II) *Monthly monitoring.*

(-a-) Systems shall take a three-sample set each month in the distribution system. The system shall take one sample at each of the following locations:

(-1-) As close to the first customer as possible.

(-2-) At a location representing an average residence time.

(-3-) At a location representing a maximum residence time.

(-b-) Systems that must conduct additional monitoring in accordance with subclause (III) may use the results of the additional monitoring to meet the monthly monitoring requirements of this subclause.

(III) *Additional monitoring.* If a daily sample at the entrance to the distribution system exceeds the chlorite MCL, the system shall take three samples in the distribution system on the following day. The system shall take one sample at each of the following locations:

(-a-) As close to the first customer as possible.

(-b-) At a location representing an average residence time.

(-c-) At a location representing a maximum residence time.

(B) *Reduced monitoring.* Chlorite monitoring in the distribution system required by clause (A)(II) may be reduced to one three-sample set per quarter after 1 year of monitoring where no individual chlorite sample taken in the distribution system under clause (A)(II) has exceeded the chlorite MCL and the system has not been required to conduct additional monitoring under clause (A)(III). The system may remain on the reduced monitor-

ing schedule until either any of the three individual chlorite samples taken quarterly in the distribution system exceeds the chlorite MCL or the system is required to conduct additional monitoring under clause (A)(III), at which time the system shall revert to routine monitoring as prescribed by clause (A).

(iii) *Bromate*. Community water systems and nontransient noncommunity water systems that use ozone for disinfection or oxidation, or provide finished water that contains ozone, shall monitor for bromate.

(A) *Routine monitoring*. Systems shall take one sample per month for each treatment plant that uses ozone. Systems shall take the monthly sample at the entrance to the distribution system while the ozonation system is operating under normal conditions.

(B) *Reduced monitoring*. Systems required to analyze for bromate may reduce monitoring from monthly to quarterly provided that the system demonstrates that the average source water bromide concentration is less than 0.05 mg/L based upon representative monthly bromide measurements for 1 year. Systems on reduced monitoring shall continue to take monthly samples for source water bromide. Systems may remain on reduced bromate monitoring until the running annual average source water bromide concentration, computed quarterly, is equal to or greater than 0.05 mg/L based upon representative monthly measurements, at which time the system shall revert to routine monitoring as prescribed by clause (A).

(iv) *Disinfection byproduct precursors*. Systems that use either surface water or GUDI sources and that use conventional filtration shall monitor for disinfection byproduct precursors.

(A) *Routine monitoring*. Systems shall take monthly samples of the source water alkalinity, the source water TOC and postsedimentation TOC for each treatment plant that uses conventional filtration. Postsedimentation TOC can be taken at any point between sedimentation effluent and the entry point to the distribution system. The three samples shall be taken concurrently and at a time that is representative of both normal operating conditions and influent water quality.

(B) *Reduced monitoring*. Systems with an average postsedimentation TOC of less than 2.0 mg/L for 2-consecutive years, or less than 1.0 mg/L for 1 year, may reduce monitoring for source water alkalinity, source water TOC and postsedimentation TOC from monthly to quarterly for each applicable treatment plant. The system shall revert to routine monitoring as prescribed by clause (A) in the month following the quarter when the annual average postsedimentation TOC is not less than 2.0 mg/L.

(C) *Early monitoring*. Systems may begin monitoring to determine whether the TOC removal requirements of 40 CFR 141.135(b)(1) (relating to enhanced coagulation and enhanced softening performance requirements) can be met 12 months prior to the compliance date for the system. This monitoring is not required and failure to monitor during this period is not a violation. However, any system that does not monitor during this period, and then determines in the first 12 months after the compliance date that it is not able to meet the requirements of 40 CFR 141.135(b)(1) and shall therefore apply for alternate minimum TOC removal requirements under 40 CFR 141.135(b)(4) is not eligible for retroactive approval of the alternate minimum TOC removal requirements and is in violation. Systems may apply for alternate minimum TOC removal requirements any time after the compliance date.

(13) *Monitoring requirements for disinfectant residuals*. Community water systems and nontransient noncommunity water systems that use a chemical disinfectant or oxidant, or provide finished water that contains a chemical disinfectant or oxidant, shall monitor for disinfectant residuals. Transient noncommunity water systems that use chlorine dioxide as either a disinfectant or oxidant shall monitor for chlorine dioxide disinfectant residual. Systems that use either surface water or GUDI sources and that serve at least 10,000 persons shall begin monitoring by January 1, 2002. Systems that use either surface water or GUDI sources and that serve fewer than 10,000 persons, or systems that use groundwater sources, shall begin monitoring by January 1, 2004. Systems monitoring for disinfectant residuals shall take all samples during normal operating conditions. Compliance with the MRDLs and monitoring requirements for chlorine, chloramines and chlorine dioxide (where applicable) shall be determined in accordance with 40 CFR 141.132 and 141.133 (relating to monitoring requirements; and compliance requirements) which are incorporated herein by reference.

(i) *Chlorine and chloramines*. Systems shall measure the residual disinfectant level at the same points in the distribution system and at the same time that total coliforms are sampled, as specified in paragraph (3). Systems that used either surface water or GUDI sources may use the results of residual disinfectant concentration sampling conducted under paragraph (1) or (2) in lieu of taking separate samples.

(ii) *Chlorine dioxide*.

(A) *Routine monitoring*. Systems shall take one sample per day at the entrance to the distribution system. For any daily sample that exceeds the MRDL, the system shall conduct additional monitoring as specified in clause (B) in addition to the sample required at the entrance to the distribution system. Compliance shall be based on consecutive daily samples collected by the system under this clause.

(B) *Additional monitoring*. If a daily sample at the entrance to the distribution system exceeds the chlorine dioxide MRDL, the system shall take three samples in the distribution system on the following day. If chlorine dioxide or chloramines are used to maintain a disinfectant residual in the distribution system, or if chlorine is used to maintain a disinfectant residual in the distribution system and there are no disinfectant addition points after the entrance to the distribution system, the system shall take three samples as close to the first customer as possible, at intervals of at least 6 hours. If chlorine is used to maintain a disinfectant residual in the distribution system and there are one or more disinfection addition points after the entrance to the distribution system, the system shall take one sample at each of the following locations:

(I) As close to the first customer as possible.

(II) At a location representing an average residence time.

(III) At a location representing a maximum residence time.

#### § 109.302. Special monitoring requirements.

(a) The Department may require a public water supplier to conduct monitoring in addition to that required by § 109.301 (relating to general monitoring requirements) if the Department has reason to believe the public

water system is not in compliance with the MCL, MRDL or treatment technique requirement for the contaminant.

(b) The Department may require a public water supplier to conduct additional monitoring to provide information on contamination of the water supply where a potential health hazard may exist in the water supply and monitoring required under § 109.301 may not be adequate to protect the public health.

(c) The Department may require a public water supplier to conduct special monitoring for an unregulated contaminant if the Department has reason to believe the contaminant is present in the public water system and creates a health risk to the users of the public water system.

(d) The Department will provide a schedule for sampling, instructions for sampling methods and handling samples, and analytical procedures to be followed by public water systems required to perform special monitoring.

(e) The Department may designate special monitoring requirements on a case-by-case basis for experimental facilities.

(f) To enable the Department to determine if a public water supplier is using a source directly influenced by surface water, the Department may require a public water supplier to conduct monitoring to evaluate the direct influence of surface water upon the source of supply. Monitoring shall be conducted for at least 6 months to include both the wet and dry periods of the year. Samples shall be taken from the collection facilities and measurements shall include the following:

(1) Daily field measurement of temperature, pH, specific conductance and turbidity.

(2) Daily measurement of water level, or flow, and precipitation necessary to establish climatic conditions.

(3) Weekly measurements for total coliform.

(4) Other measurements as required by the Department to evaluate the direct influence of surface water upon the source of supply.

(g) The Department may reduce or eliminate the monitoring required by subsection (f) if the public water supplier demonstrates and the Department determines that the source of supply is not directly influenced by surface water.

#### Subchapter D. PUBLIC NOTIFICATION

##### §§ 109.401—109.406. (Reserved).

##### § 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:

(1) Failure to comply with an applicable State primary MCL or MRDL in Subchapter B (relating to MCLs, MRDLs or treatment technique requirements).

(2) Failure to comply with a prescribed treatment technique requirement in Subchapter B or Subchapter K (relating to lead and copper).

(3) Failure to perform water quality monitoring, as required by Subchapter C (relating to monitoring requirements) or Subchapter K.

(4) Operation under a variance or an exemption under Subchapter I (relating to variances and exemptions issued by the Department).

(5) Failure to comply with the requirements of any schedule that has been set under a variance or exemption.

(6) Occurrence of a waterborne disease outbreak or other waterborne emergency.

(7) Availability of unregulated contaminant monitoring data.

(8) Exceedance of the nitrate MCL by noncommunity water systems, when permitted by the Department in writing to exceed the MCL in accordance with 40 CFR 141.11(d) (relating to MCLs for inorganic contaminants).

(b) *Definition of public notice tiers.* Public notice requirements are divided into three tiers, to take into account the seriousness of the violation or situation and any potential adverse health effects that may be involved. The public notice requirements for each violation or situation identified in subsection (a) is determined by the tier to which it is assigned. This subchapter incorporates by reference the tier assignment for each specific violation or situation in the National Primary Drinking Water Regulations, 40 CFR Part 141, Subpart Q, Appendix A (relating to the tier assignment for each specific NPDWR violation and other situations requiring public notice), unless other tier assignments are established by regulations or order of the Department.

(1) *Tier 1 public notice.* Required for violations and situations specified in subsection (a) with significant potential to have serious adverse effects on human health as a result of short-term exposure. General violation categories and other situations requiring a Tier 1 public notice are specified in § 109.408(a) (relating to Tier 1 public notice—form, manner and frequency of notice).

(2) *Tier 2 public notice.* Required for all other violations and situations in subsection (a) with potential to have serious adverse effects on human health. General violation categories and other situations requiring a Tier 2 public notice are specified in § 109.409(a) (relating to Tier 2 public notice—form, manner and frequency of notice).

(3) *Tier 3 public notice.* Required for all other violations and situations in subsection (a) not included in Tier 1 and Tier 2. General violation categories and other situations requiring a Tier 3 public notice are specified in § 109.410(a) (relating to Tier 3 public notice—form, manner and frequency of notice).

(c) *Public notice recipients.*

(1) A public water supplier shall provide public notice to persons served by the public water system, in accordance with this subchapter. A public water system that sells or otherwise provides drinking water to another public water system, such as to a consecutive water, bulk water hauling or vended water system, shall give public notice to the owner or operator of the other water system. The other water system is responsible for ensuring that public notice is provided to the persons it serves.

(2) If a public water system has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the Department may allow the water supplier to limit distribution of the public notice to only persons served by that portion of the system which is out of compliance.

Permission for limiting distribution of the notice shall be granted in writing by the Department.

(3) If a public water system has a violation involving a point-of-entry (POE) device, the Department may allow the water supplier to limit distribution of the public notice to only persons served by that POE device. Permission for limiting distribution of the notice shall be granted in writing by the Department.

(4) If a community water system has a Tier 1 violation, the water supplier shall also notify key public officials as designated in the community water system's emergency response plan under § 109.707(a) (relating to emergency response plan).

(5) If a noncommunity water system in which persons 17 years of age or under are cared for or educated, such as a school or day care center, has a Tier 1 violation, the water supplier shall also provide public notice directly to the parent or guardian of those persons.

(6) A water supplier shall provide a copy of the notice to the Department in accordance with the requirements under § 109.701(a)(4) (relating to reporting and recordkeeping).

**§ 109.408. Tier 1 public notice—form, manner and frequency of notice.**

(a) *General violation categories and other situations requiring a Tier 1 public notice.* A public water supplier shall provide Tier 1 public notice for the following circumstances:

(1) Violation of the MCL for total coliforms when fecal coliforms or *E. coli* are present in the water distribution system, as specified in § 109.202(a)(2) (relating to MCLs, MRDLs or treatment technique requirements), or when the water supplier fails to test for fecal coliforms or *E. coli* when any check sample tests positive for coliforms, as specified in § 109.301(3) (relating to general monitoring requirements).

(2) Violation of the MCL for nitrate, nitrite or total nitrate and nitrite, as defined in § 109.202(a)(2), or when the water supplier fails to take a confirmation sample within 24 hours of the system's receipt of the first sample showing an exceedance of the nitrate or nitrite MCL, as specified in § 109.301(7)(ii)(C)(V).

(3) Exceedance of the nitrate MCL by noncommunity water systems, where permitted by the Department in writing to exceed the MCL in accordance with 40 CFR 141.11(d) (relating to maximum contaminant levels for inorganic chemicals).

(4) Violation of the MRDL for chlorine dioxide, as defined in § 109.202(f)(2), when one or more samples taken in the distribution system the day following an exceedance of the MRDL at the entrance of the distribution system exceed the MRDL, or when the water supplier does not take the required samples in the distribution system, as specified in § 109.301.

(5) Violation of the turbidity MCL of 5 NTU based on an average for 2 consecutive days by a public water system using an unfiltered surface water source, as specified in § 109.202(a)(2).

(6) Violation of a treatment technique requirement for pathogenic bacteria, viruses and protozoan cysts as defined in § 109.202(c), resulting from a single exceedance of the maximum allowable turbidity limit.

(7) Occurrence of a waterborne disease outbreak, as defined in § 109.1 (relating to definitions), or other

waterborne emergency that adversely affects the quality or quantity of the finished water including, but not limited to, the following:

(i) Failure or significant interruption in key water treatment processes.

(ii) A natural disaster that disrupts the water supply or distribution system.

(iii) A chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination.

(8) Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the Department on a case-by-case basis.

(b) *Timing for a Tier 1 public notice.* A public water supplier shall do the following:

(1) Provide a public notice as soon as possible, but no later than 24 hours after the water supplier learns of the violation or situation under subsection (a).

(2) Report the circumstances to the Department within 1 hour of discovery of the violation or situation in accordance with § 109.701(a)(3) (relating to reporting and recordkeeping).

(3) Initiate consultation with the Department as soon as possible, but no later than 24 hours after the water supplier learns of the violation or situation, to determine initial and any additional public notice requirements.

(4) Comply with initial and any additional public notification requirements that are established as a result of the consultation with the Department. These requirements may include the timing, form, manner, duration, frequency, and content of the initial and any repeat notices, and other actions reasonably designed to reach all persons served. The repeat notice frequency, if applicable, for a Tier 1 public notice shall be established as a result of the consultation, but may be no less often than once every 30 days as long as the violation or situation persists.

(c) *Form and manner of a Tier 1 public notice.* The form and manner used by a public water supplier shall fit the specific situation and shall be reasonably designed to reach residential, transient and nontransient users of the water system. To reach all persons served, a water supplier shall use, at a minimum, one or more of the following forms of delivery:

(1) Appropriate broadcast media, such as radio or television.

(2) Posting of the notice in conspicuous locations throughout the area served by the water system.

(3) Hand delivery of the notice to persons served by the water system.

(4) Another delivery method approved in writing by the Department.

**§ 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 or K (relating to MCLs, MRDLs or treatment technique requirements; 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.

(2) Violations of the monitoring requirements in Subchapter C (relating to monitoring requirements) or Subchapter K, when the Department determines that a Tier 2 rather than a Tier 3 public notice is required, taking into account potential health impacts and persistence of the violation.

(3) Failure to comply with the terms and conditions of any variance or exemption in place under Subchapter I (relating to variances and exemptions issued by the Department).

(b) *Timing for a Tier 2 public notice.* A public water supplier shall do the following:

(1) Report the circumstances to the Department within 1 hour of discovery of a violation under subsection (a)(1), in accordance with § 109.701(a)(3) (relating to reporting and recordkeeping).

(2) Provide the public notice as soon as possible, but no later than 30 days after the system learns of the violation. If the public notice is posted, the notice shall remain in place for as long as the violation or situation persists, but in no case for less than 7 days, even if the violation or situation is resolved. The Department may, in appropriate circumstances, allow additional time for the initial notice of up to 3 months from the date the system learns of the violation. The Department will not grant an extension across the board or for an unresolved violation. Extensions granted by the Department will be in writing.

(3) Repeat the notice every 3 months as long as the violation or situation persists, unless the Department determines that appropriate circumstances warrant a different repeat notice frequency. In no circumstances may the repeat notice be given less frequently than once per year. The Department will not allow less frequent repeat notices across the board; or for an MCL violation for total coliforms established under § 109.202(a)(2); or for a violation of a treatment technique requirement for pathogenic bacteria, viruses and protozoan cysts as defined in § 109.202(c); or for other ongoing violations. Determinations granted by the Department for less frequent repeat notices will be in writing.

(c) *Form and manner of a Tier 2 public notice.* A public water supplier shall provide the initial public notice and any repeat notices in a form and manner that is reasonably designed to reach all persons served in the required time period. The form and manner of the public notice may vary based on the specific situation and type of water system, but the public water supplier shall at a minimum meet the following requirements:

(1) Unless directed otherwise by the Department in writing, community water systems shall provide notice using the following forms of delivery:

(i) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the public water system.

(ii) Any other method reasonably designed to reach other persons regularly served by the system, if they

would not normally be reached by the notice required in subparagraph (i). Those persons may include those who do not pay water bills or do not have service connection addresses such as house renters, apartment dwellers, university students, nursing home patients or prison inmates. Other methods may include publication in a local newspaper, delivery of multiple copies for distribution by customers that provide their drinking water to others (such as apartment building owners or large private employers), posting in public places served by the system or on the Internet or delivery to community organizations.

(2) Unless directed otherwise by the Department in writing, noncommunity water systems shall provide notice using the following forms of delivery:

(i) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system, or by mail or direct delivery to each customer and service connection, when known.

(ii) Any other method reasonably designed to reach other persons served by the system if they would not normally be reached by the notice required in subparagraph (i). Those persons may include those served who may not see a posted notice because the posted notice is not in a location they routinely pass by. Other methods may include publication in a local newspaper or newsletter distributed to customers, use of e-mail to notify employees or students or delivery of multiple copies in central locations such as community centers.

**§ 109.410. Tier 3 public notice—form, manner and frequency of notice.**

(a) *General violation categories and other situations requiring a Tier 3 public notice.* A public water supplier shall provide Tier 3 public notice for the following circumstances:

(1) Monitoring violations under Subchapter C or K (relating to monitoring requirements; and lead and copper), except when a Tier 1 notice is required under § 109.408 (relating to Tier 1 public notice—form, manner and frequency of notice) or where the Department determines that a Tier 2 notice is required.

(2) Operation under a variance or an exemption granted under Subchapter I (relating to variances and exemptions issued by the Department).

(3) Availability of unregulated contaminant monitoring results, as required under 40 CFR 141.40 (relating to monitoring requirements for unregulated contaminants).

(b) *Timing for a Tier 3 public notice.*

(1) A public water supplier shall provide the public notice no later than 1 year after the public water system learns of the violation or situation or begins operating under a variance or exemption. Following the initial notice, the water supplier shall repeat the notice annually for as long as the violation, variance, exemption or other situation persists. If the public notice is posted, the notice shall remain in place for as long as the violation, variance, exemption or other situation persists, but in no case may the initial and annual repeat notice be posted for less than 7 days (even if the violation or situation is resolved).

(2) Instead of individual Tier 3 public notices, a public water supplier may use an annual report detailing all violations and situations that occurred during the previous 12 months, as long as the timing requirements of paragraph (1) are met.

(c) *Form and manner of a Tier 3 public notice.* A public water supplier shall provide the initial notice and any repeat notices in a form and manner that is reasonably designed to reach all persons served in the required time period. The form and manner of the public notice may vary based on the specific situation and type of water system, but the public water supplier shall, at a minimum, meet the following requirements:

(1) Unless directed otherwise by the Department in writing, community water systems shall provide notice using the following forms of delivery:

(i) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the public water system.

(ii) Any other method reasonably designed to reach other persons regularly served by the system, if they would not normally be reached by the notice required in subparagraph (i). Those persons may include those who do not pay water bills or do not have service connection addresses such as house renters, apartment dwellers, university students, nursing home patients or prison inmates. Other methods may include publication in a local newspaper, delivery of multiple copies for distribution by customers that provide their drinking water to others (such as apartment building owners or large private employers), posting in public places or on the Internet or delivery to community organizations.

(2) Unless directed otherwise by the Department in writing, noncommunity water systems shall provide notice using the following forms of delivery:

(i) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system, or by mail or direct delivery to each customer and service connection, if known.

(ii) Any other method reasonably designed to reach other persons served by the system, if they would not normally be reached by the notice required in subparagraph (i). Those persons may include those who may not see a posted notice because the notice is not in a location they routinely pass by. Other methods may include publication in a local newspaper or newsletter distributed to customers, use of e-mail to notify employees or students or delivery of multiple copies in central locations such as community centers.

(d) *Use of a CCR to meet the Tier 3 public notice requirements.* For community water systems, the CCR required under § 109.416 (relating to CCR requirements) may be used as a vehicle for the initial Tier 3 public notice and all required repeat notices, as long as the following conditions are met:

(1) The CCR is provided to persons served no later than 12 months after the system learns of the violation or situation as required under subsection (b).

(2) The Tier 3 notice contained in the CCR follows the content requirements under § 109.411 (relating to content of a public notice).

(3) The CCR is distributed following the delivery requirements under subsection (c).

**§ 109.411. Content of a public notice.**

(a) *Elements of a public notice.* When a public water system is required to give public notice under this subchapter, each public notice shall include the following elements:

(1) A description of the violation or situation, including the contaminants of concern, and (as applicable) the contaminant levels.

(2) When the violation or situation occurred.

(3) Any potential adverse health effects from the violation or situation, including the standard language under subsection (d)(1) or (2), whichever is applicable.

(4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water.

(5) Whether alternative water supplies should be used.

(6) What actions consumers should take, including when they should seek medical help, if known.

(7) What the system is doing to correct the violation or situation.

(8) When the water system expects to return to compliance or resolve the situation.

(9) The name, business address and telephone number of the water system owner, operator or designee of the public water system as a source of additional information concerning the notice.

(10) A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under subsection (d)(3), where applicable.

(b) *Elements of a public notice for public water systems operating under a variance or exemption.*

(1) If a public water system has been granted a variance or an exemption under Subchapter I (relating to variances and exemptions issued by the Department), the public notice shall contain the following elements:

(i) An explanation of the reason for the variance or exemption.

(ii) The date on which the variance or exemption was issued.

(iii) 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.

(iv) A notice of any opportunity for public input in the review of the variance or exemption.

(2) If a public water system violates the conditions of a variance or exemption, the public notice shall contain the ten elements listed in subsection (a).

(c) *Presentation of a public notice.*

(1) Each public notice required by this section shall:

(i) Be displayed in a conspicuous way when printed or posted.

(ii) Not contain overly technical language or print that is smaller than a font size of 10 points.

(iii) Not be formatted in a way that defeats the purpose of the notice.

(iv) Not contain language that nullifies the purpose of the notice.

(2) Each public notice required by this section shall comply with multilingual requirements, as follows:

(i) The public notice shall contain information in Spanish regarding the importance of the notice or contain a telephone number or address where persons served may

contact the water system to obtain a translated copy of the notice or to request assistance.

(ii) For each non-English-speaking group other than Spanish-speaking that exceeds 10% of the consumers for systems serving at least 1,000 people or 100 consumers for systems serving less than 1,000 people, and speaks the same language other than English, the public notice shall contain information in the appropriate languages regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the notice or to request assistance in the appropriate language. The Department will make the final determination of which systems need to include this information.

(d) *Standard language for a public notice.* Public water systems shall include the following standard language in their public notice:

(1) *Standard health effects language for primary MCL or MRDL violations, treatment technique violations, and violations of the condition of a variance or exemption.* Public water systems shall include in each public notice appropriate health effects language. This subchapter incorporates by reference the health effects language specified in 40 CFR Part 141, Subpart Q, Appendix B (relating to standard health effects language for public notification), corresponding to each primary MCL, MRDL and treatment technique violation listed in 40 CFR Part 141, Subpart Q, Appendix A (relating to NPDWR violations and other situations requiring public notice), and for each violation of a condition of a variance or exemption, unless other health effects language is established by regulations or order of the Department. The health effects language for fluoride is not incorporated by reference. Public water systems shall include the following health effects language in each Tier 2 public notice for violation of the primary MCL of 2 mg/L for fluoride:

“This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/L) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). Dental fluorosis, in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental Protection Agency’s drinking water standard) can increase your risk of developing bone disease.”

(2) *Standard language for violations of monitoring requirements.* Public water systems shall include the following language in their notice, including the language necessary to fill in the blanks, for all violations of monitoring requirements listed in 40 CFR Part 141, Subpart Q, Appendix A:

“We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [insert compliance period], we “did not monitor or test” or “did not complete all monitoring or testing” for [insert contaminant(s)] and therefore cannot be sure of the quality of your drinking water during that time.”

(3) *Standard language to encourage the distribution of the public notice to all persons served.* Public water systems shall include in their notice the following language, if applicable:

“Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.”

**§ 109.412. Special notice of the availability of unregulated contaminant monitoring results.**

(a) *Timing for a special notice.* A community water system or nontransient, noncommunity water system required to monitor for an unregulated contaminant under 40 CFR 141.40 (relating to monitoring requirements for unregulated contaminants) shall notify persons served by the system of the availability of the results of the sampling no later than 12 months after the monitoring results are known.

(b) *Form and manner of a special notice.* The form and manner of the public notice shall follow the requirements for a Tier 3 public notice prescribed in § 109.410 (relating to Tier 3 public notice—form, manner and frequency of notice). A public water system may use an annual report or CCR to notify persons served by the system of the availability of the results of the sampling as long as the requirements under § 109.410(d) are met. The notice shall also identify a person and provide the telephone number to contact for information on the monitoring results.

**§ 109.413. Special notice for nitrate exceedances above MCL by noncommunity water systems, where granted permission by the Department.**

(a) *Timing for a special notice.* A noncommunity water system granted permission by the Department in writing in accordance with 40 CFR 141.11(d) (relating to maximum contaminant levels for inorganic chemicals) to exceed the nitrate MCL shall provide notice to persons served according to the requirements for a Tier 1 notice under § 109.408(a) and (b) (relating to Tier 1 public notice—form, manner and frequency of notice).

(b) *Form and manner of a special notice.* Noncommunity water systems granted permission by the Department in writing to exceed the nitrate MCL in accordance with 40 CFR 141.11(d) shall provide continuous posting of the fact that nitrate levels exceed 10 mg/L and include the potential health effects of exposure, according to the requirements for a Tier 1 notice delivery under § 109.408(c) and the content requirements under § 109.411 (relating to content of a public notice).

**§ 109.414. Notice to new billing units or new customers.**

(a) *Requirements for community water systems.* Community water systems shall give a copy of the most recent public notice for any continuing violation, the existence of a variance or exemption, or other ongoing situations requiring a public notice to all new billing units or new customers prior to or at the time service begins.

(b) *Requirements for noncommunity water systems.* Noncommunity water systems shall continuously post the public notice in conspicuous locations to inform new consumers of any continuing violation, variance or exemption, or other situation requiring a public notice for as long as the violation, variance, exemption or other situation persists.



**§ 109.415. Notice by the Department on behalf of the public water system.**

If a public water supplier fails to give notice to the public as required by this subchapter, the Department may perform this notification on behalf of the supplier of water and may assess costs of notification on the responsible water supplier.

(1) *Public notice given by the Department on behalf of the public water system.* If the Department gives the public notice required by this subchapter on behalf of the public water supplier, the Department will comply with this subchapter.

(2) *Public water system responsibilities when public notice is given by the Department.* If the Department gives public notice, the public water supplier remains responsible for ensuring that the requirements of this subchapter are met.

**§ 109.416. CCR requirements.**

This section applies only to community water systems and establishes the minimum requirements for the content of the annual CCR that each system must deliver to its customers. This report shall contain information on the quality of the water delivered by the system and characterize the risks, if any, from exposure to contaminants detected in the drinking water in an accurate and understandable manner.

(1) For the purposes of this section, the definitions of "customer" and "detected" established by the EPA under 40 CFR 141.151(c) and (d) (relating to definitions), respectively, are incorporated by reference.

(2) Each community water system shall deliver to its customers an annual CCR on the dates established by the EPA under 40 CFR 141.152 (relating to effective dates), which is incorporated by reference.

(3) Except as noted in subparagraphs (i)–(v), the annual report that a community water system provides to its customers shall contain all of the information, mandatory language and optional text specified by the EPA under 40 CFR 141.153 and 141.154 (relating to content of the reports; and required additional health information), which are incorporated by reference, and under 40 CFR 141, Subpart O, Appendix A (relating to regulated contaminants), which is incorporated by reference, unless other information, mandatory language or optional text is established by regulations or order of the Department. The health effects language for fluoride is not incorporated by reference. Public water systems shall include the health effects language specified in § 109.411(d)(1) (relating to content of a public notice) for violation of the primary MCL of 2 mg/L fluoride.

(i) If a water system wants to use wording of its own choice in place of optional text, the water supplier shall submit the proposed wording to the Department for review and written approval prior to including it in its annual CCR. Once approved, the water supplier's wording may be used in future CCRs without further approval from the Department as long as it is not changed and is still applicable.

(ii) The CCR shall contain information in Spanish regarding the importance of the report or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the report or to request assistance.

(iii) For each non-English-speaking group other than Spanish-speaking that exceeds 10% of the residents for

systems serving at least 1,000 people or 100 residents for systems serving less than 1,000 people, and speaks the same language other than English, the report shall contain information in the appropriate languages regarding the importance of the report or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the report or to request assistance in the appropriate language. The Department will make the final determination of which systems need to include this information.

(iv) For the purpose of defining how certain portions of a CCR shall appear, the term "prominently display" as used in 40 CFR 141.154(a) means that the information shall be printed either in a larger size typeface or bolded or enclosed within a border or all these so as to make the information conspicuous in comparison to the rest of the text appearing before and after the prominently displayed text. Prominently displayed text placed away from other text (such as, in a highlighted or boxed area) shall be printed no smaller than the text used elsewhere in the body of the report, excluding main or section titles.

(v) Information contained in a CCR shall appear in an easy-to-read format. Font sizes below 10 points or color combinations, or both, that make it difficult for persons to read and understand the information contained in the CCR may not be used.

(4) *Report delivery and recordkeeping.* Each community water system shall do the following:

(i) Mail or otherwise directly deliver to each customer and to the Department one copy of the annual CCR no later than the date the water system is required to distribute the CCR to its customers.

(ii) Make a good faith effort to reach consumers who do not get water bills. The Department will determine "good faith" based on those methods identified in 40 CFR 141.155(b) (relating to delivery requirements), which are incorporated by reference.

(iii) Submit in writing to the Department no later than 3 months after the delivery of the annual CCR:

(A) A certification that the annual CCR has been distributed to customers and that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the Department.

(B) A description of what was done to meet the good faith effort requirement described in subparagraph (ii).

(iv) If another State agency or commission also regulates the community water system, submit a copy of the system's annual CCR to the other agency or commission upon the specific request of that agency or commission no later than the date the water system is required to distribute the CCR to its customers. Each State agency or commission shall determine the way it requests a copy of the system's CCR. Those agencies or commissions may include, but are not limited to, the following:

(A) The Pennsylvania Public Utility Commission and the Office of Consumer Advocate in the Office of the Attorney General, for water systems that are public utilities regulated under 66 Pa.C.S. (relating to Public Utility Code).

(B) The Department of Public Welfare for self-contained community water systems serving personal care or other group housing facilities.

(C) The Department of Health, for self-contained community water systems serving skilled healthcare facilities.

(v) Make copies of its annual CCR available to the public on request.

(vi) If a community water system serves 100,000 or more people, post its current year's report to a publicly accessible site on the Internet.

(vii) Retain copies of each annual CCR and the related information required in paragraph (3) on the premises of the system or at a convenient location near the premises for no less than 3 years after the date of its delivery to customers.

### Subchapter E. PERMIT REQUIREMENTS

#### § 109.503. Public water system construction permits.

(a) *Permit application requirements.* An application for a public water system construction permit shall be submitted in writing on forms provided by the Department and shall be accompanied by plans, specifications, engineer's report, water quality analyses and other data, information or documentation reasonably necessary to enable the Department to determine compliance with the act and this chapter. The Department will make available to the applicant the Public Water Supply Manual, available from the Bureau of Water Supply and Community Health, Post Office Box 8467, Harrisburg, Pennsylvania 17105 which contains acceptable design standards and technical guidance. Water quality analyses shall be conducted by a laboratory certified under this chapter.

(1) *General requirements.* An application shall include:

(i) *Permit application signatures.* A Department permit application signed as follows:

(A) In the case of corporations, by a principal executive officer of at least the level of vice president, or an authorized representative, if the representative is responsible for the overall operation of the facility.

(B) In the case of a partnership, by a general partner.

(C) In the case of a sole proprietorship, by the proprietor.

(D) In the case of a municipal, State or other public facility, by either a principal executive officer, ranking elected official or other authorized employee.

(ii) *Plans, specifications and engineer's report.* Plans, specifications and engineer's reports shall comply with the following:

(A) The drawings, specifications and engineer's report shall be prepared by or under the supervision of a professional engineer registered to practice in this Commonwealth or in the state in which the public water system is located.

(B) The front cover or flyleaf of each set of drawings, of each copy of the engineer's report, and of each copy of specifications shall bear the signature and imprint of the seal of the registered engineer. Drawings shall bear an imprint or a legible facsimile of the seal.

(iii) *Information describing new sources.* The Department may accept approval of an out-of-State source by the agency having jurisdiction over drinking water in that state if the supplier submits adequate proof of the approval and the agency's standards are at least as stringent as this chapter. Information describing sources shall include:

(A) A comprehensive sanitary survey of the physical surroundings of each new source of raw water and its proximity to potential sources of contamination. For

surface water, this information shall include a description of the watershed topography and land uses within the watershed. For systems using wells, springs or infiltration galleries, this information shall include a hydrogeological report prepared and signed by a professional geologist who has complied with the requirements of the Engineer, Land Surveyor and Geologist Registration Law (63 P. S. §§ 148—158.2) describing the geology of the area including the source aquifers, overlying formations, hydrogeologic boundaries, aquifer porosity estimates, water table contour or potentiometric surface maps depicting prepumping conditions and other information deemed necessary to evaluate the hydraulic characteristics of the aquifer and demonstrate the suitability of the proposed source. At the discretion of the Department, these requirements may be altered for a proposed well, wellfield, spring or infiltration gallery that will be pumping less than or yielding less than 100,000 gallons per day.

(B) An evaluation of the quality of the raw water from each new source. This subparagraph does not apply when the new source is finished water obtained from an existing permitted community water system unless the Department provides written notice that an evaluation is required. The evaluation shall include analysis of the following:

(I) For groundwater sources, VOCs for which MCLs have been established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.61(a) (relating to maximum contaminant levels for organic contaminants). Vinyl chloride monitoring is required only if one or more of the two-carbon organic compounds specified under § 109.301(6)(i) (relating to general monitoring requirements) are detected. Samples for VOCs shall be collected in accordance with the provisions of § 109.303(e) (relating to sampling requirements).

(II) Except for asbestos, IOCs for which MCLs have been established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.62 (relating to maximum contaminant levels for inorganic contaminants). The new source shall be monitored for asbestos if the Department has reason to believe the source water is vulnerable to asbestos contamination.

(III) Lead.

(IV) Copper.

(V) Total coliform concentration and, if total coliform-positive, analyze for fecal coliform concentration.

(VI) SOCs.

(-a-) Alachlor, atrazine, chlordane, dibromochloropropane (DBCP), ethylene dibromide (EDB), heptachlor, heptachlor epoxide, lindane, methoxychlor, toxaphene, endrin, hexachlorobenzene, hexachlorocyclopentadiene, polychlorinated biphenyls (PCBs) and simazine unless the Department determines in writing that monitoring for one or more of the substances specified in this item is not necessary.

(-b-) Other SOCs except for dioxin for which MCLs have been established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.61(c) except for those SOCs for which the source is not considered vulnerable based on a vulnerability assessment conducted by the public water supplier and approved by the Department unless the Department determines in writing that monitoring for one or more of the SOCs is not necessary.

(-c-) Dioxin where there is a source of dioxin contamination within 1,000 feet of a groundwater source or within 1 mile upstream of a surface water source.

(VII) Gross Alpha ( $\alpha$ ) and Gross Beta ( $\beta$ ).

(VIII) For surface water sources, total trihalomethanes.

(IX) Aluminum, chloride, color, foaming agents, iron, manganese, pH, silver, sulfate, total dissolved solids and zinc for which MCLs have been established by the EPA under the National Secondary Drinking Water Regulations in 40 CFR 143.3 (relating to secondary MCLs).

(X) Alkalinity.

(XI) Hardness.

(XII) Temperature.

(XIII) Other contaminants that the Department determines necessary to evaluate the potability of the source.

(C) An evaluation of the quantity of the raw water from each new source. Flow data shall be submitted for springs, infiltration galleries or surface water sources. Aquifer test data, including drawdown and recovery data and the derivation of hydraulic conductivity, transmissivity and storage coefficient of the aquifer, shall be submitted for wells. At the discretion of the Department, these requirements may be altered for wells or wellfields pumping less than 100,000 gallons per day. The Department may require that other information be submitted to evaluate the safe yield of the source. The safe yield is the amount of water that can be withdrawn from an aquifer without causing an undesired result, such as adverse dewatering of an aquifer, induced potential health threats or impacts upon stream uses.

(D) A Department approved delineation of the Zone I wellhead protection area for community water system wells, springs or infiltration galleries.

(iv) *Chapter 102 requirements.* An erosion and sedimentation control plan which meets the requirements contained in Chapter 102 (relating to erosion and sediment control) when earth-moving activities are involved.

(2) *Special requirements for public water suppliers proposing to use POE devices.* Permit applications which propose the use of POE devices shall, in addition to the information required in paragraph (1), include the following:

(i) Documentation that each POE device to be used meets the certification requirements of § 109.612 (relating to POE devices).

(ii) Manufacturer's design and engineering information, including blueprints or similar drawings, which provide detailed information about the construction and operation of the treatment device and its components.

(iii) A detailed monitoring plan, subject to the Department's approval, which includes a list of the contaminants to be monitored and the frequency of monitoring.

(iv) An operation and maintenance plan, as outlined in § 109.702 (relating to operation and maintenance plan), which includes a schedule of routine maintenance to be performed and the parameters to be monitored to determine the performance and condition of the devices.

(v) A drawing of the water supply distribution system showing each house, building or facility where POE devices are to be installed.

(vi) Proof of the right-of-access for every house, building or facility to be served by a POE device.

(3) *Business plan requirements for new community water systems.* Permit applications submitted to the Department on or after October 1, 1996, for new community water systems shall, in addition to the information required in paragraph (1), include a business plan. A new community water system is a proposed community water system or an existing system not otherwise subject to the act which becomes a community water system subject to the act as a result of an increase in the number of year-round residents or residences served. The business plan shall be submitted on forms approved by the Department. To be considered complete, the business plan shall conform to the guidelines contained in the Department's Public Water Supply Manual and shall consist of the following three parts:

(i) *Facilities plan.* The facilities plan shall identify the scope of the water service to be provided. In addition to the requirements of subsection (a)(1)(ii), the facilities plan shall include the following:

(A) An assessment of current and reasonably foreseeable compliance requirements that are applicable under the act based on monitoring data from the proposed sources of supply.

(B) A description of the alternatives considered and the rationale for the approach selected to providing water service. This description shall include the technical, managerial, financial, operational and local decision making rationale for the selected approach. Unless the new system is a consecutive water system, the plan shall include the rationale for creating a separate system.

(C) An engineering description of the facilities to be constructed, including the construction phases and future plans for expansion. This description shall include an estimate of the full cost of any required construction, operation and maintenance.

(ii) *Management plan.* The management plan shall specify the commitments that are needed to provide for effective management and operation of the system and shall include the following:

(A) Documentation that the applicant has the legal right and authority to take the measures necessary for the construction, operation and maintenance of the system. The evidence shall include, but is not limited to, indices of ownership where the applicant is the owner of the system or, where the applicant is not the owner, legally enforceable management contracts or agreements.

(B) An operating plan to define the tasks to be performed in managing and operating the system. The operating plan shall consist of the following:

(I) *Part 1.* A management and administrative plan.

(II) *Part 2.* An operation and maintenance plan which conforms with § 109.702.

(C) Assurances that the commitments needed for proper operation and management of the system will be carried out. These assurances can be given in the form of documentation of the credentials of management and operations personnel, cooperative agreements or service contracts.

(iii) *Financial plan.* The financial plan shall describe the system's revenues and cash flow for meeting the costs of construction and the costs of operation and maintenance for at least 5 full years from the date the applicant anticipates initiating system operation. At a minimum, the financial plan shall include pro forma statements for each of the 5 years including the following:

- (A) Balance sheet.
- (B) Income statement.
- (C) Statement of cash flow.

(b) *Amendments.* A water supplier operating under a public water system permit shall obtain an amended construction permit before making a substantial modification to the public water system.

(1) A water supplier shall submit an application for an amended construction permit under the application requirements in subsection (a), if the proposed modification constitutes a major change to the public water system. Typical modifications which may be considered major changes are proposed new sources, additions or deletions of treatment techniques or processes, pumping stations and storage reservoirs.

(2) A water supplier shall submit a written request to the Department if the proposed modification constitutes a relatively minor change to the public water system. A request for an amended construction permit under this paragraph shall describe the proposed change in sufficient detail to allow the Department to adequately evaluate the proposal. Typical modifications which may be considered minor changes are changes in treatment chemicals; replacement of tank or reservoir linings or similar materials in contact with the water supply; interconnections; covering of reservoirs; construction of covered storage tanks and standpipes designed to standard specifications; transmission mains; and changes in legal status, such as transfers of ownership, incorporation or mergers.

(3) The Department determines whether a particular modification is a substantial modification and requires the construction permit to be amended under paragraph (1) or (2). A substantial modification is a modification which may affect the quality or quantity of water served to the public or may be prejudicial to the public health or safety. The Department's determination of whether the substantial modification is a major or minor change will include consideration of the expected amount of staff time required to review and process the proposal, the magnitude and complexity of the proposed change and the compliance history of the public water system.

(c) *Permit fees.*

(1) An application for a permit or a major permit amendment under subsection (a)(1), except for an application for construction or modification of corrosion control treatment facilities under § 109.1105 (relating to permit requirements), shall be accompanied by a check in the amount of \$750, payable to the "Commonwealth of Pennsylvania," except a fee is not required for an application submitted by a State regulatory agency, or an application submitted for a public water system serving 100 or fewer individuals. The fees for permitting and related services under § 109.1105 for corrosion control treatment facilities are established under § 109.1108 (relating to fees).

(2) A fee is not required for an application for an emergency permit under § 109.506 (relating to emergency permits) or an amendment under subsection (b)(2).

(d) *Department's review.*

(1) The Department will publish a notice in the *Pennsylvania Bulletin* of the applications submitted under subsection (a) or (b)(1) or § 109.507 (relating to permits for innovative technology), providing at least 30 days for public comment from the date of publication.

(2) The Department will not accept an application for review until the application is determined to be complete. A complete application is one which includes all the information specified in this chapter and other relevant information the Department determines is necessary to enable the Department to undertake a technical review of the application.

(3) If the Department determines the permit application is incomplete, it will request the additional information in writing from the applicant within 90-calendar days of receipt of the application.

(4) The Department will grant or deny a permit within 120 calendar days of receipt of the application, or when an incomplete application was submitted, within 120-calendar days of receipt of the applicant's written response to the Department's request for additional information.

(5) Applications will be reviewed in accordance with accepted engineering and hydrogeological practices. The approval of plans, specifications, hydrogeological reports and engineer's reports is limited to the sanitary features of design and other features of public health significance.

(6) In reviewing a permit application under this chapter, the Department may consider the following:

(i) Adherence to standards in Subchapter F (relating to design and construction standards).

(ii) Compliance by the proposed project with applicable statutes administered by the Commonwealth, river basin commissions created by interstate compact or Federal environmental statutes or regulations.

(iii) Consistency with the environmental rights and values secured by PA. CONST. art. I, § 27 and with the Commonwealth's duties as trustee to conserve and maintain this Commonwealth's public natural resources.

(iv) Present conditions and the effects of reasonably foreseeable future development within the area of the project, including wellhead protection areas.

(e) *Issuance and conditions.*

(1) Issuance of a construction permit authorizes only the construction or modifications included in the permit. The permit's continuing validity is conditioned upon satisfaction of the provisions of the permit.

(2) The plans, specifications, reports and supporting documents submitted as part of the permit application become part of the permit.

(3) A permit authorizing construction or modification of water facilities shall expire within 2 years from the date of issuance unless substantial work is initiated. A permit may be renewed by the Department if the water supplier makes a written request for renewal prior to the expiration date.

### **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:

(1) *General reporting requirements.* Unless a shorter period is specified in this section, the water supplier shall assure that the results of test measurements or analyses required by this chapter are reported to the Department within either the first 10 days following the month in which the result is received or the first 10 days following

the end of the required monitoring period as stipulated by the Department, whichever is shorter. The test results shall include the following at a minimum:

- (i) The name, address and public water system identification number (PWSID) of the public water system from which the sample was taken.
- (ii) The name, address and identification number of the laboratory performing the analysis unless the analysis is not required to be performed by a certified laboratory.
- (iii) The results of analytical methods, including negative results.
- (iv) Contaminants.
- (v) Analytical methods used.
- (vi) The date of sample.
- (vii) The date of analysis.
- (viii) Sample location.

(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:
  - (I) The number of days of filtration operation.
  - (II) The number of filtered water turbidity measurements taken each month.
  - (III) The number of filtered water turbidity measurements that are less than or equal to .5 NTU for conventional, direct or other filtration technologies, or 1.0 NTU for slow sand or diatomaceous earth filtration technologies.
  - (IV) The date, time and values of any filtered water turbidity measurements exceeding 2.0 NTU.
  - (V) In lieu 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:

(-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 that exceed 1 NTU for systems using conventional or direct filtration or that exceed the maximum level set under § 109.202(c)(1)(i)(A)(III) (relating to State MCLs, MRDLs and treatment technique requirements).

(B) For performance monitoring of the residual disinfectant concentration of the water being supplied to the distribution system:

- (I) The date, time and lowest value each day.
- (II) The date, duration and number of periods each day when the concentration is less than .2 mg/L for more than 4 hours.
- (III) The date, time and highest value each day the concentration is greater than the residual disinfectant concentration required under § 109.202(c)(1)(ii).

(IV) If the concentration does not rise above that required under § 109.202(c)(1)(ii), the date, time and highest value measured that month.

(C) For performance monitoring of the residual disinfectant concentration at representative points in the distribution system report the following:

- (I) The number of monthly routine samples required.
- (II) The number of monthly routine samples collected and analyzed.
- (III) The number of samples in which the residual disinfectant concentration was less than 0.02 mg/L.
- (IV) For samples in which the residual disinfectant concentration was less than 0.02 mg/L: the date, time and value of each sample.

(ii) The test results of performance monitoring required under § 109.301(2) for public water suppliers using unfiltered surface water or GUDI sources shall include the following, at a minimum:

- (A) For turbidity performance monitoring:
  - (I) The date, time and value of each sample that exceeds 1.0 NTU.
  - (II) The date, time and highest turbidity value, if the turbidity does not exceed 1.0 NTU in a sample.
- (B) For performance monitoring of the residual disinfectant concentration of the water being supplied to the distribution system:

(I) The date, time and lowest value each day the concentration is less than the residual disinfectant concentration required under § 109.202(c)(1)(iii).

(II) If the concentration does not fall below that required under § 109.202(c)(1)(iii) during the month, report the date, time and lowest value measured that month.

(C) For performance monitoring of the residual disinfectant concentration at representative points in the distribution system, report the following:

- (I) The number of monthly routine samples required.
- (II) The number of monthly routine samples collected and analyzed.
- (III) The number of samples in which the residual disinfectant concentration was less than 0.02 mg/L.
- (IV) For samples in which the residual disinfectant concentration was less than 0.02 mg/L: the date, time and value of each sample.

(D) For performance monitoring of the fecal coliform or total coliform density determinations on samples of the source water immediately prior to disinfection: the date, time and value of each sample.

(iii) The test results from performance monitoring required under § 109.301(7)(v) of the residual disinfectant concentration of the water in the distribution system shall include the date, time and value of each sample.

(iv) The test results of heterotrophic plate count measurements taken under § 109.710(b) (relating to disinfectant residual in the distribution system) shall include the date, time and value of each sample.

(3) *Compliance report.* A public water supplier shall report the circumstances to the Department within 1 hour of discovery for the following violations or situations:

- (i) A primary MCL or an MRDL has been exceeded or a treatment technique requirement has been violated under Subchapter B or K (relating to MCLs, MRDLs or treatment technique requirements; and lead and copper).
- (ii) A sample result requires the collection of check samples under § 109.301.

(iii) Circumstances exist which may adversely affect the quality or quantity of drinking water including, but not limited to, the occurrence of a waterborne disease outbreak, a failure or significant interruption in key water treatment processes, a natural disaster that disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination.

(4) *Notice.* The water supplier shall, within 10 days of completion of each public notification required under Subchapter D (relating to public notification) with the exception of a CCR, submit to the Department a certification that it has fully complied with the public notification requirements. The water supplier shall include with this certification a representative copy of each type of notice distributed, published, posted and made available to persons served by the system and to the media and a description of the means undertaken to make the notice available.

(5) *Siting plan.* The water supplier shall submit to the Department a written sample siting plan for routine coliform sampling as required by § 109.303(a)(2) (relating to sampling requirements) within 30 days of receipt of the Department's request for this information.

(i) A sample siting plan shall include at a minimum the following:

(A) A list of available sample site locations in the distribution system to be used for routine monitoring purposes, including the first service connection (or Department approved equivalent) and dead ends.

(B) The name of the company or individual collecting the samples.

(C) A time period by which available sites representative of the distribution system are to be sampled during each monitoring period.

(ii) The Department's approval of a sample siting plan will be based upon the following:

(A) The population served by the system.

(B) The accessibility of sample sites.

(C) The past monitoring history for the system.

(D) The completeness of the sample siting plan which includes the information specified in subparagraph (i) and other information relating to the criteria in this subparagraph necessary for evaluation of the sample siting plan.

(iii) A water supplier shall revise and resubmit its sample siting plan within 30 days of notification by the Department of a sample siting plan which fails to meet the criteria in subparagraphs (i) and (ii).

(iv) The water supplier shall notify the Department of subsequent revisions to an approved coliform sample siting plan for approval as they occur. Revisions to an approved coliform sample siting plan shall be submitted in written form to the Department within 30 days of notifying the Department of the revisions.

(6) *Records.* Upon request by the Department, the water supplier shall submit copies of records required to be maintained under this subchapter.

(7) *Form.* Reports required by this chapter shall be submitted in a manner or form acceptable to the Department.

(8) *Reporting requirements for disinfectant residuals.* Public water systems shall report MRDL monitoring data as follows:

(i) For systems monitoring for chlorine dioxide under § 109.301(13):

(A) The dates, results and locations of the samples that were taken during the previous month.

(B) Whether the MRDL was exceeded.

(C) Whether the MRDL was exceeded in any 2-consecutive daily samples and whether the resulting violation was acute or nonacute.

(ii) For systems monitoring for either chlorine or chloramines under § 109.301(13):

(A) The number of samples taken during each month of the previous quarter.

(B) The monthly arithmetic average of all samples taken in each month for the last 12 months.

(C) The arithmetic average of all monthly averages for the last 12 months.

(D) Whether the MRDL was exceeded.

(9) *Reporting requirements for disinfection byproducts.*

(i) Systems monitoring for TTHMs and HAA5 under § 109.301(12) shall report the following:

(A) Systems monitoring on a quarterly or more frequent basis shall report the following:

(I) The number of samples taken during the last quarter.

(II) The date, location and result of each sample taken during the last quarter.

(III) The arithmetic average of all samples taken in the last quarter.

(IV) The annual arithmetic average of the quarterly arithmetic averages for the last 4 quarters.

(V) Whether the annual arithmetic average exceeds the MCL for either TTHMs or HAA5.

(B) Systems monitoring less than quarterly but no less than annually shall report the following:

(I) The number of samples taken during the last year.

(II) The date, location and result of each sample taken during the last monitoring period.

(III) The arithmetic average of all samples taken in the last year.

(IV) Whether the annual arithmetic average exceeds the MCL for either TTHMs or HAA5.

(C) Systems monitoring less than annually shall report the following:

(I) The date, location and result of the last sample taken.

(II) Whether the sample exceeds the MCL for either TTHMs or HAA5.

(ii) Systems monitoring for chlorite under § 109.301(12) shall report the following:

(A) The number of samples taken each month for the last 3 months.

(B) The date, location and result of each entry point and distribution sample taken during the last quarter.

(C) The arithmetic average of each three-sample set of distribution samples taken in each month in the reporting period.

(D) Whether the monthly arithmetic average exceeds the MCL.

(iii) Systems monitoring for bromate under § 109.301(12) shall report the following:

(A) The number of samples taken during the last quarter.

(B) The date, location and result of each sample taken during the last quarter.

(C) The arithmetic average of the monthly arithmetic averages of all samples taken in the last year.

(D) Whether the annual arithmetic average exceeds the MCL.

(10) *Reporting requirements for disinfection byproduct precursors.* Systems monitoring for TOC under § 109.301(12) shall report in accordance with 40 CFR 141.134(d) (relating to reporting and recordkeeping requirements for disinfection byproduct precursors and enhanced coagulation or enhanced softening).

(b) *Reporting requirements for community water systems.* In addition to the reporting requirements for a public water system, a community water supplier shall comply with the following requirements:

(1) The water supplier shall prepare a monthly operational report on forms provided by the Department or in a form acceptable to the Department. The report shall be maintained on file by the operator for at least 2 years and submitted upon request of the Department. The report shall include at least the following:

- (i) The water produced daily.
- (ii) The chemical added daily.
- (iii) The physical and chemical determinations taken daily.
- (iv) Water-level monitoring data for supply and any associated monitoring wells.
- (v) The maintenance performed.
- (vi) Operational problems.

(2) The water supplier shall submit by March 31 an annual water supply report for the prior calendar year on forms provided by the Department or in a form acceptable to the Department. This report shall include information relating to water use, connections, distribution system and storage.

(3) The water supplier shall keep a record of complaints received from consumers related to the act or this chapter on forms provided by the Department or in a form acceptable to the Department. Water suppliers complying with the Pennsylvania Public Utility Commission (PUC) complaint recordkeeping requirements under 52 Pa. Code § 65.3 (relating to complaints) shall be in compliance with this subsection if the complaints related to the act or this chapter are cross referenced within the PUC required records in a manner to make them readily available. The records shall be maintained on file by the operator for at least 3 years and submitted upon request of the Department.

(c) *Reporting requirements for nontransient noncommunity water systems.* In addition to complying with the reporting requirements for public water systems under subsection (a), a nontransient noncommunity water sys-

tem shall comply with subsection (b)(1) except that records of water produced daily are not required.

(d) *Record maintenance.* The public water supplier shall retain on the premises of the public water system or at a convenient location near the premises the following:

(1) Records of bacteriological analyses which shall be kept for at least 5 years, and records of chemical analyses which shall be kept for at least 12 years. Actual laboratory reports may be kept, or data may be transferred to tabular summaries, if the following information is included:

- (i) The date, place and time of sampling, and the name of the person who collected the sample.
- (ii) Identification of the sample as to whether it was a routine distribution system sample, check sample, raw or finished water sample or other special purpose sample.
- (iii) The date of analysis.
- (iv) The laboratory, certification number and person responsible for performing the analysis.
- (v) The analytical technique and methods used.
- (vi) The results of the analysis.

(2) Records of performance monitoring required under § 109.301 which shall be kept for at least 3 years. At a minimum, these records shall contain the reporting requirements under subsection (a).

(3) Records of action taken by the public water supplier to correct violations of MCLs, MRDLs or treatment technique requirements, which shall be kept for at least 3 years after the last action taken with respect to the particular violation involved.

(4) Copies of written reports or communications relating to sanitary surveys conducted by a water supplier or his agent, which shall be kept for at least 12 years.

(5) Records concerning a variance or exemption granted to the system which shall be kept at least 5 years following the expiration of the variance or exemption.

(6) Plans, specifications and permits for water system facilities which shall be kept for the life of the facility.

(7) Records concerning the use of acrylamide and epichlorohydrin shall be kept for at least 12 years. These records shall include verification that the chemicals used were certified for conformance with ANSI/NSF Standard 60 in accordance with § 109.606 (relating to chemicals, materials and equipment) and that the combination—or product—of dose and monomer level did not exceed the following:

- (i) Acrylamide = 0.05% dosed at 1 ppm (or equivalent).
- (ii) Epichlorohydrin = 0.01% dosed at 20 ppm (or equivalent).

(8) Copies of public notifications issued under Subchapter D and certifications made to the Department under subsection (a)(4) shall be kept for 3 years after issuance.

(e) *Reporting requirements for public water systems required to perform individual filter monitoring under § 109.301(1)(iv).*

(1) Public water systems required to perform individual filter monitoring shall report that they have conducted individual filter monitoring within 10 days following the end of each month that the system serves water to the public.

(2) Public water systems required to perform individual monitoring shall report individual filter turbidity results if individual filter turbidity measurements demonstrate that one or more of the following conditions exist:

(i) An individual filter has a measured turbidity level greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart.

(ii) An individual filter has a measured turbidity level of greater than 0.5 NTU in two consecutive measurements taken 15 minutes apart at the end of the first 4 hours of continuous filter operation after the filter has been backwashed or otherwise taken offline.

(iii) An individual filter has a measured turbidity level greater than 1.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of 3-consecutive months.

(iv) An individual filter has a measured turbidity level greater than 2.0 NTU in two consecutive measurements taken 15 minutes apart at any time in each of 2-consecutive months.

(3) Individual filter turbidity monitoring reported as required under paragraph (2) shall include the following at a minimum:

(i) Filter number.

(ii) Turbidity measurements.

(iii) The dates on which the exceedance occurred.

(iv) If an individual filter demonstrates a condition under paragraph (2)(i) or (ii), the date on which a filter profile was produced or the date on which the reason for a turbidity exceedance was determined.

(v) If an individual filter demonstrates a condition under paragraph (2)(iii), the date on which a filter self-assessment was conducted.

(vi) If an individual filter demonstrates a condition under paragraph (2)(iv), the date on which a comprehensive performance evaluation was conducted.

(f) *Alternative individual filter turbidity exceedance levels.* Public water systems using lime softening may apply to the Department for alternative individual filter turbidity exceedance levels if they demonstrate that the higher individual filter turbidity levels are due to lime carryover and not to degraded filter performance.

(g) *Monitoring plans for disinfectants, disinfection byproducts and disinfection byproduct precursors.* Systems required to monitor for disinfection byproducts or disinfection byproduct precursors under § 109.301(12) or disinfectant residuals under § 109.301(13) shall develop and implement a monitoring plan. The system shall maintain the plan and make it available for inspection by the Department and the general public no later than 30 days following the applicable compliance dates. All systems that use either surface water or GUDI sources shall submit a copy of the monitoring plan to the Department no later than 30 days prior to the date of the first report required under this subchapter. The Department may also require the plan to be submitted by any other system, regardless of size or source water type. After review, the Department may require changes in any of the plan components.

(1) The plan shall include the following components:

(i) Specific locations and schedules for collecting samples for any parameters included in § 109.301(12) or (13).

(ii) How the system will calculate compliance with the MCLs, MRDLs and treatment techniques.

(iii) If approved for monitoring as a consecutive system, or if providing water to a consecutive system, the sampling plan shall reflect the entire distribution system.

(iv) Systems may consider multiple wells drawing water from a single aquifer as one treatment plant for determining the minimum number of TTHM and HAA5 samples required under § 109.301(12)(i).

(2) The system shall notify the Department of subsequent revisions to a monitoring plan as they occur. Revisions to a monitoring plan shall be submitted in written form to the Department within 30 days of notifying the Department of the revisions.

#### § 109.702. Operation and maintenance plan.

(a) A community water supplier shall develop an operation and maintenance plan for the community water system. The operation and maintenance plan shall conform to the guidelines contained in the Department's *Public Water Supply Manual* and shall contain at least the following information:

(1) A description of the facilities.

(2) An explanation of startup and normal operation procedures.

(3) A routine maintenance program.

(4) Records and reporting system.

(5) Sampling and analyses program.

(6) A public notification program including appropriate advance preparations, such as public notice templates, an explanation of appropriate methods of delivery and a designation of public notice recipients for each tier type.

(7) Staffing and training.

(8) Sanitary survey program including the wellhead protection program for any water system that develops one under § 109.713 (relating to wellhead protection programs).

(9) Safety program.

(10) Emergency plan and operating procedures.

(11) Manufacturer's manuals.

(12) An interconnect, valve and blowoff exercise and testing program.

(b) The community water supplier shall implement the operation and maintenance plan in accordance with accepted practices of the water supply industry.

(c) The operation and maintenance plan shall be reviewed and updated as necessary to reflect changes in the operation or maintenance of the water system. The plan shall be bound and placed in locations which are readily accessible to the water system's personnel, and shall be presented upon request to the Department.

(d) Noncommunity water suppliers may be directed by the Department to develop and implement an operation and maintenance plan as provided for in this section when the public health is threatened by inadequate operation and maintenance of the facilities.

#### § 109.707. Emergency response plan.

(a) A community water supplier shall develop a plan for the provision of safe and adequate drinking water under emergency circumstances, and submit the plan to the Department for approval by December 8, 1985. The emergency response plan shall conform to the guidelines



contained in the Department's Public Water Supply Manual and shall contain at least the following information:

(1) Identification of probable emergency situations, including, but not limited to, those specified in § 109.701(a)(3)(iii) (relating to reporting and recordkeeping), and alternative solutions to respond to situations including how the system will maintain its ability to provide service in the event of contamination or an outage of one or more of its sources of supply. Consideration shall be given to providing reserve capacity according to § 109.609 (relating to reserve capacity and finished water storage).

(2) Procedures for communications and coordination with the local emergency management organization.

(b) The plan shall be kept on file in a readily accessible location by the public water supplier.

(c) The plan shall be reviewed and updated at least annually.

**Subchapter H. LABORATORY CERTIFICATION**

**§ 109.805. Certification procedure.**

(a) After the Department receives a completed application accompanied by the applicable fee under § 109.803 (relating to fees), the Department may schedule an onsite inspection of the laboratory.

(b) The laboratory shall successfully complete at least one set of proficiency test samples required by the Department for the parameters in the category for which certification is sought. Acceptable tolerances of analyses of proficiency test evaluation samples shall be as stated by the EPA in 40 CFR Part 141 (relating to national primary drinking water regulations) or the "National Standards For Water Proficiency Testing, Criteria Document." For parameters not included in either document the acceptance limits shall be those established by the Department.

(c) The Department may grant administrative approval to a currently certified laboratory which has submitted a complete application for renewal of an existing certification, and the appropriate fee, and has successfully completed a performance sample for a previously uncertified subcategory before final certification is issued for that new subcategory. Analyses performed by a laboratory with administrative approval satisfy the requirements of this chapter. The Department may revoke an administrative approval at any time for just cause.

(d) The laboratory shall conspicuously display an administrative approval or certification issued to the laboratory by the Department under this subchapter.

(e) In addition to terms and conditions in the certification issued to a laboratory, the certified laboratory shall fulfill the following requirements to maintain certification:

(1) The laboratory shall notify the Department within 30 days of major changes in personnel, personnel assignments, equipment and facilities which affect accredited procedures. The Department may require additional information or proof of continued capability to perform the certified category of analyses. For the purposes of this subsection, personnel include laboratory supervisors and trained, experienced analysts.

(2) The laboratory shall have a satisfactory onsite inspection at least once every 3 years.

(3) The laboratory shall successfully complete at least one set of proficiency test samples required by the Department at least once every 12 months.

(4) The laboratory shall submit results of test measurements or analyses performed by the laboratory under this chapter in accordance with § 109.810 (relating to reporting and notification requirements).

**§ 109.806. Standards for certification.**

The certification will be based upon compliance with Departmental guidelines and the minimum criteria contained in the most current edition of the *Manual for the Certification of Laboratories Analyzing Drinking Water* published by the EPA. The evaluation for certification will include, but is not limited to, consideration of facilities, personnel, equipment, methodology, quality assurance, performance, recordkeeping, reporting and notification.

**§ 109.810. Reporting and notification requirements.**

(a) A laboratory certified under this subchapter shall submit to the Department, on forms provided by the Department, the results of test measurements or analyses performed by the laboratory under this chapter. These results shall be reported within either the first 10 days following the month in which the result is determined or the first 10 days following the end of the required monitoring period as stipulated by the Department, whichever is shorter.

(b) A laboratory certified under this subchapter shall whenever an MCL, MRDL or a treatment technique performance requirement under § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements) is violated, or a sample result requires the collection of check samples under § 109.301 (relating to general monitoring requirements):

(1) Notify the public water supplier by telephone within 1 hour of the laboratory's determination. If the supplier cannot be reached within that time, notify the Department by telephone within 2 hours of the determination. If it is necessary for the laboratory to contact the Department after the Department's routine business hours, the laboratory shall contact the appropriate Department regional office's after-hours emergency response telephone number and provide information regarding the occurrence, the name of a contact person and the telephone number where that individual may be reached in the event further information is needed. If the Department's appropriate emergency number cannot be reached, the laboratory shall notify the appropriate Department regional office by telephone within 1 hour of the beginning of the next business day. Each certified laboratory shall be responsible for the following:

(i) Obtaining and then maintaining the Department's current after-hours emergency response telephone numbers for each applicable regional office.

(ii) Establishing or updating a standard operating procedure by November 8, 2002, and at least annually thereafter to provide the information needed to report the occurrences to the Department. The information regarding the public water system shall include, but is not limited to, the PWSID number of the system, the system's name, the contaminant involved in the occurrence, the level of the contaminant found, where the sample was collected, the dates and times that the sample was collected and analyzed, the name and identification number of the certified laboratory, the name and telephone number of a contact person at the laboratory and what

steps the laboratory took to contact the public water system before calling the Department.

(2) Notify the appropriate Department district office in writing within 24 hours of the determination. For the purpose of determining compliance with this requirement, the postmark, if the notice is mailed, or the date the notice is received by the Department, whichever is earlier, will be used. Upon approval by the Department, the notice may be made electronically to the Department as long as the information is received within the 24-hour deadline.

(c) A laboratory certified under this subchapter shall notify the Department within 48 hours of termination of the laboratory certification from the EPA or another agency with primary enforcement responsibility.

(d) A laboratory shall notify the public water supplier served by the laboratory within 48 hours of the following:

(1) A failure to renew or Department denial of renewal of existing certification for a category of certification.

(2) Revocation of certification by the Department under this subchapter.

**Subchapter J. BOTTLED WATER AND VENDED WATER SYSTEMS, RETAIL WATER FACILITIES AND BULK WATER HAULING SYSTEMS**

**§ 109.1003. Monitoring requirements.**

(a) *General monitoring requirements.* Bottled water and vended water systems, retail water facilities and bulk water hauling systems shall monitor for compliance with the MCLs and MRDLs in accordance with § 109.301 (relating to general monitoring requirements) and shall comply with § 109.302 (relating to special monitoring requirements). The monitoring requirements shall be applied as follows, except that systems which have installed treatment to comply with a primary MCL shall conduct quarterly operational monitoring for the contaminant which the facility is designed to remove:

(1) Bottled water systems, retail water facilities and bulk water hauling systems, for each entry point shall:

(i) Monitor for microbiological contaminants weekly.

(ii) Monitor for turbidity every 4 hours or continuously each day a surface water source is in use.

(iii) Monitor for compliance with the MCLs for VOCs in accordance with § 109.301(5) beginning during the quarter that begins January 1, 1995, except that:

(A) Systems that obtain finished water from another permitted public water system are exempt from conducting monitoring for the VOCs if the public water system supplying the finished water performs the required monitoring at least annually and a copy of the analytical reports are received by the Department.

(B) For systems in existence prior to January 1, 1995, that obtain raw water from only protected groundwater sources, initial monitoring for compliance with the MCLs for VOCs established by the EPA under 40 CFR 141.61(a) (relating to MCLs for organic contaminants) on January 30, 1991, and July 17, 1992, will be reduced to one sample for entry points or systems which meet the following conditions:

(I) The VOC monitoring required by the Department between January 1, 1988, and December 31, 1994, has been conducted and no VOCs were detected.

(II) The first quarter of VOC monitoring required by this subparagraph has been conducted during the first quarter of 1995 with no detection of a VOC.

(C) Initial monitoring of new entry points associated with new sources which are permitted in accordance with § 109.1005 (relating to permit requirements) to begin operation after December 31, 1994, shall be conducted as follows:

(I) Entry points at which a VOC is detected during new source monitoring shall be monitored quarterly beginning the first quarter the entry points begin serving the public. Quarterly monitoring shall continue until reduced monitoring is granted in accordance with clause (D)(I).

(II) Entry points at which no VOC is detected during new source monitoring shall begin initial quarterly monitoring during the first calendar quarter of the year after the entry point begins serving the public.

(D) Repeat monitoring for entry points shall be conducted as follows:

(I) For an entry point at which a VOC is detected during initial monitoring or where a VOC is detected anytime at a level in excess of its MCL, compliance monitoring shall be repeated quarterly for the VOCs for which the EPA has established MCLs under 40 CFR 141.61(a), except for vinyl chloride as provided in § 109.301(5)(i). After analyses of four consecutive quarterly samples at an entry point, including initial quarterly monitoring samples, demonstrate that the VOC levels in each quarterly sample are less than the MCLs, the required compliance monitoring is reduced to one sample per year at that entry point for all 21 VOCs, except for vinyl chloride as provided in § 109.301(5)(i).

(II) For a groundwater or surface water entry point at which VOCs are not detected during the initial and subsequent repeat monitoring, repeat monitoring shall be one sample per year from that entry point.

(iv) Conduct initial and repeat monitoring for compliance with the MCLs for SOCs—pesticides and PCBs—in accordance with § 109.301(6) for four consecutive quarters beginning during the quarter that begins January 1, 1995, except that:

(A) Systems that obtain finished water from another permitted public water system are exempt from conducting compliance monitoring for the SOCs if one of the following applies:

(I) The public water system supplying the finished water performs the required monitoring annually and a copy of the analytical results are received by the Department.

(II) The public water system supplying the water has been granted a waiver from conducting the initial or repeat compliance monitoring, or both, for one or more SOCs under § 109.301(6)(v). This exemption from conducting compliance monitoring applies only to SOCs indicated in the waiver.

(B) Systems which are granted an initial monitoring waiver in accordance with § 109.301(6)(v) are exempt from conducting compliance monitoring for the SOCs indicated in the waiver.

(C) Initial monitoring of new entry points associated with new sources which are permitted in accordance with § 109.1005 (relating to permit requirements) to begin operation after December 31, 1994, shall be conducted as follows:

(I) Entry points at which an SOC is detected during new source monitoring shall be monitored quarterly beginning the first quarter the entry points begin serving

the public. Quarterly monitoring shall continue until reduced monitoring is granted in accordance with clause (D)(I).

(II) Entry points at which no SOC is detected during new source monitoring and which begin operation before April 1, 1995, shall conduct initial quarterly monitoring beginning during the quarter beginning January 1, 1995.

(III) Entry points at which no SOC is detected during new source monitoring and which begin operation after March 31, 1995, shall conduct initial quarterly monitoring beginning during the first calendar quarter of the year after the entry point begins serving the public.

(D) Repeat monitoring for entry points shall be conducted as follows:

(I) For entry points at which an SOC is detected during initial monitoring or where an SOC is detected anytime in excess of its MCL, compliance monitoring shall be repeated quarterly for the detected SOC for which the EPA has an established MCL under 40 CFR 141.61(c). After analyses of four consecutive quarterly samples at an entry point, including initial quarterly monitoring samples, demonstrate that the SOC level in each quarterly sample is less than the MCL, the required compliance monitoring is reduced for each SOC below the MCL to one sample per year at that entry point.

(II) For a groundwater or surface water entry point at which SOCs are not detected during the initial and any subsequent repeat monitoring, repeat monitoring shall be one sample per year from that entry point.

(v) Beginning in 1995, monitor for the primary IOCs, including lead and copper annually, except that:

(A) Systems are granted a waiver from asbestos monitoring unless the Department determines that the system's finished water is vulnerable to asbestos contamination by means of an asbestos cement pipe or the system's source water is vulnerable to asbestos contamination.

(B) Systems that obtain finished water from another permitted public water system are exempt from conducting compliance monitoring for the IOCs, except lead, copper and asbestos if the supplying system has not optimized corrosion control, if the public water system supplying the finished water performs the required monitoring annually and a copy of the analytical results is received by the Department.

(C) Monitoring for compliance with the MCLs for nitrate and nitrite shall be conducted quarterly following a monitoring result which is equal to or greater than 50% of the MCL. After four consecutive quarterly samples, indicate nitrate and nitrite in each sample are less than 50% of the MCLs, required monitoring is reduced to one sample per year.

(vi) Conduct operational monitoring for fluoride at least once each day, if the system fluoridates its water.

(vii) Monitor for compliance with radiological MCLs once every 4 years.

(viii) Beginning January 1, 2004, monitor annually for TTHMs and HAA5 if the system uses a chemical disinfectant or oxidant, or uses a source that has been treated with a chemical disinfectant or oxidant. Bottled water systems are not required to monitor for TTHMs and HAA5 if the system does not use a chlorine-based disinfectant or oxidant and does not use a source that has been treated with a chlorine-based disinfectant or oxidant.

(A) *Routine monitoring.* Systems shall take at least one sample per year per entry point during the month of warmest water temperature. If the sample, or average of all samples, exceeds either a TTHM or HAA5 MCL, the system shall take at least one sample per quarter per entry point. The system may reduce the sampling frequency back to one sample per year per entry point in accordance with the reduced monitoring criteria of clause (B).

(B) *Reduced monitoring.* Systems that have monitored for TTHMs and HAA5 for at least 1 year may reduce monitoring according to this clause. Systems that use either a surface water or GUDI source shall monitor source water TOC monthly for at least 1 year prior to qualifying for reduced monitoring. The Department retains the right to require a system that meets the requirements of this clause to resume routine monitoring.

(I) Systems that are on increased monitoring as prescribed by clause (A) and that use either a surface water or GUDI source and that have a source water annual TOC that is no greater than 4.0 mg/L and an annual TTHM average that is no greater than 0.040 mg/L and an annual HAA5 average that is no greater than 0.030 mg/L may reduce monitoring to one sample per year per entry point. The sample shall be taken during the month of warmest water temperature. Systems that qualify for reduced monitoring may remain on reduced monitoring provided that the annual TTHM average is no greater than 0.060 mg/L and the annual HAA5 average is no greater than 0.045 mg/L. Systems that exceed these levels shall resume routine monitoring as prescribed in clause (A) in the quarter immediately following the quarter in which the system exceeds 0.060 mg/L for TTHMs or 0.045 mg/L for HAA5.

(II) Systems that use groundwater sources may reduce monitoring to one sample per 3-year cycle per entry point if the annual TTHM average is no greater than 0.040 mg/L and the annual HAA5 average is no greater than 0.030 mg/L for 2-consecutive years or the annual TTHM average is no greater than 0.020 mg/L and the annual HAA5 average is no greater than 0.015 mg/L for 1 year. The sample shall be taken during the month of warmest water temperature within the 3-year cycle beginning on January 1 following the quarter in which the system qualifies for reduced monitoring. Systems that qualify for reduced monitoring may remain on reduced monitoring provided that the annual TTHM average is no greater than 0.080 mg/L and the annual HAA5 average is no greater than 0.060 mg/L. Systems that exceed these levels shall resume routine monitoring as prescribed in clause (A) in the quarter immediately following the quarter in which the system exceeds 0.080 mg/L for TTHMs or 0.060 mg/L for HAA5.

(ix) Beginning January 1, 2004, monitor daily for chlorite if the system uses chlorine dioxide for disinfection or oxidation, or uses a source that has been treated with chlorine dioxide. Systems shall take at least one daily sample at the entry point. If a daily sample exceeds the chlorite MCL, the system shall take 3 additional samples within 24 hours from the same lot, batch, machine, carrier vehicle or point of delivery. The chlorite MCL is based on the average of the required daily sample plus any additional samples.

(x) Beginning January 1, 2004, monitor monthly for bromate if the system uses ozone for disinfection or oxidation, or uses a source that has been treated with ozone.

(A) *Routine monitoring.* Systems shall take one sample per month for each entry point that uses ozone while the ozonation system is operating under normal conditions.

(B) *Reduced monitoring.* Systems may reduce monitoring for bromate from monthly to quarterly if the system demonstrates that the average source water bromide concentration is less than 0.05 mg/L based upon representative monthly bromide measurements for 1 year. Systems on reduced monitoring shall continue monthly source water bromide monitoring. If the running annual average source water bromide concentration, computed quarterly, is equal to or exceeds 0.05 mg/L, the system shall revert to routine monitoring as prescribed by clause (A).

(2) Vended water systems shall monitor in accordance with paragraph (1) except that vended water systems qualifying for permit by rule under § 109.1005(b), for each entry point shall:

- (i) Monitor monthly for microbiological contaminants.
- (ii) Monitor annually for total dissolved solids, lead and cadmium.
- (iii) Conduct special monitoring as required by the Department.
- (b) *Sampling requirements.*

(1) For bottled water and vended water systems, retail water facilities and bulk water hauling systems, samples taken to determine compliance with MCLs, MRDLs, monitoring requirements, including special monitoring requirements for unregulated contaminants, and treatment techniques shall be taken from each entry point.

(i) For bottled water systems, each entry point means each finished bottled water product. If multiple sources are used for a product and are not blended prior to bottling, the bottled water product for each source shall be considered a different product for monitoring purposes.

(ii) For bulk water hauling systems, retail water facilities and vended water systems, each entry point shall mean a point of delivery to the consumer from each carrier vehicle, machine or dispenser representative of each source.

(2) For the purpose of determining compliance with the monitoring and analytical requirements established under this subchapter, the Department will consider only those samples analyzed by a laboratory certified by the Department, except that measurements of turbidity, fluoridation operation, residual disinfection concentration, temperature and pH may be performed by a person meeting the requirements of § 109.1008(c) (relating to systems management responsibilities).

(3) Public water suppliers shall assure that samples for laboratory analysis are properly collected and preserved, are collected in proper containers, do not exceed maximum holding times between collection and analysis and are handled in accordance with guidelines governing quality control which may be established by the Department. A public water supplier who utilizes a certified laboratory for sample collection as well as analysis satisfies the requirements of this subsection.

(4) Compliance monitoring samples for VOCs, as required under subsection (a)(1)(iii), shall be collected by a person properly trained by a laboratory certified by the Department to conduct VOC or vinyl chloride analysis.

(5) Compliance monitoring samples required under subsection (a)(1)(iii) may be composited in accordance

with 40 CFR 141.24(g)(7) (relating to organic chemicals other than total trihalomethanes, sampling and analytical requirements) except:

(i) Samples from groundwater entry points may not be composited with samples from surface water entry points.

(ii) Samples from one type of bottled water product or vended water product may not be composited with samples from another type of bottled water product or vended water product.

(iii) Samples used in compositing shall be collected in duplicate.

(iv) If a VOC listed under 40 CFR 141.61(a) is detected at an entry point, samples from that entry point may not be composited for subsequent compliance or repeat monitoring requirements.

(v) Samples obtained from an entry point which contains water treated by a community water supplier or nontransient noncommunity water supplier to specifically meet an MCL for a VOC listed under 40 CFR 141.61(a) may not be composited with other entry point samples.

(c) *Repeat monitoring for microbiological contaminants.*

(1) If a sample collected in accordance with subsection (a)(1)(i) is found to be total coliform-positive:

(i) The bottled water system shall collect a set of three additional samples (check) from the same lot or batch of the type of product.

(ii) The vended water, retail water facility or bulk water hauling systems shall collect a set of four additional samples (check) from the same entry point (machine, point of delivery or carrier vehicle).

(2) Samples shall be collected for analysis within 24 hours of being notified of the total coliform-positive sample. The Department may extend this 24-hour collection limit to a maximum of 72 hours if the system adequately demonstrates a logistical problem outside the system's control in having the check samples analyzed within 30 hours of collection. A logistical problem outside the system's control may include a coliform-positive result received over a holiday or weekend in which the services of a Department certified laboratory are not available within the prescribed sample holding time.

(3) If a check sample is total coliform-positive, the system shall be deemed to have violated the MCL for total coliforms established under § 109.1002 (relating to MCLs, MRDLs or treatment techniques).

#### § 109.1004. Public notification.

(a) *General public notification requirements.* A bottled water or retail water supplier shall give public notification in accordance with this section. A bulk water or vended water supplier shall give public notification in accordance with Subchapter D (relating to public notification requirements). For the purpose of establishing a bulk water or vended water supplier's responsibilities under Subchapter D, a bulk water supplier shall comply with the public notification requirements specified for a community water system and a vended water supplier shall comply with the public notification requirements specified for a noncommunity water system.

(1) A bottled water or retail water supplier who knows that a primary MCL or an MRDL has been exceeded or treatment technique performance standard has been violated or has reason to believe that circumstances exist which may adversely affect the quality of drinking water, including, but not limited to, source contamination, spills,

accidents, natural disasters or breakdowns in treatment, shall report the circumstances to the Department within 1 hour of discovery of the problem.

(2) If the Department determines, based upon information provided by the bottled water or retail water supplier or other information available to the Department, that the circumstances present an imminent hazard to the public health, the water supplier shall issue a water supply warning approved by the Department and, if applicable, initiate a program for product recall approved by the Department under this subsection. The water supplier shall be responsible for disseminating the notice in a manner designed to inform users who may be affected by the problem.

(i) Within 4 hours of the Department's determination that an imminent hazard is present, the water supplier shall provide the notice to newspapers, radio and television media serving the affected public, or directly notify affected users in a manner approved by the Department. The water supplier shall also notify key public officials as designated in the system's emergency response plan.

(ii) If the notice provided under subparagraph (i) does not ensure that the affected public is adequately notified, the Department may require the water supplier to further disseminate the notice in an appropriate manner which may include direct mailings, publication in newspapers or other paid advertising, or postings.

(iii) A water supply warning shall be followed by further notices designed to inform the public on a continuing basis as to the expected duration of the hazard, progress towards solving the problem, and measures that should be taken by users to reduce their risk. These notices shall be given at intervals and in a manner directed by the Department as long as the threat to public health continues.

(iv) The water supply warning shall continue until the Department is satisfied that no significant threat to the public health remains and approves a notice canceling the warning. The water supplier is responsible for disseminating the cancellation of the water supply warning in a manner similar to the issuance of the warning.

(b) *Description and content of notice.* Notice given under this section shall be written in a manner reasonably designed to fully inform the users of the system. When appropriate or as designated by the Department, additional notice in a foreign language shall be given.

(1) The notice shall be conspicuous and may not use technical language, small print or other methods which would frustrate the purpose of the notice.

(2) The notice shall disclose material facts regarding the subject, including the nature of the problem and, when appropriate, a clear statement that an MCL or MRDL has been violated and preventive measures that should be taken by the public.

(3) Notices shall include a balanced explanation of the significance or seriousness to the public health of the subject of the notice including potential adverse health effects, the population at risk, a clear explanation of steps taken by the supplier to correct the problem, necessity for seeking alternative supplies, guidance on safeguards and alternatives available to users, and the results of additional sampling. In addition, bottled water system and retail water facility notices shall describe a program for product recall, if applicable.

(4) The notice shall include the telephone number of the owner, operator or designee of the public water system as a source of additional information concerning the notice.

(5) In all notices, when providing the information on potential adverse health effects required by subsection (b)(3), the water supplier shall include language established by the EPA for the contaminant specified in 40 CFR Part 141, Subpart Q, Appendix B (relating to mandatory health effects language) and incorporated by reference, or language established by the Department by regulations or order. The health effects language for fluoride is not incorporated by reference. A public water system shall include the health effects language specified in § 109.411(d)(1) (relating to content of a public notice) in each public notice required for violation of the primary MCL of 2 mg/L for fluoride.

(c) *Notice by the Department.* If a water supplier fails to give notice to the public as required by this section, the Department may perform this notification on behalf of the supplier of water and may assess costs of notification on the responsible water supplier. Issuance of public notice by the Department under the section does not divest a public water supplier of legal responsibility for issuance of public notification otherwise required by the subchapter.

(d) *CCR requirements.* A bulk water supplier that is determined by the Department to serve at least 25 of the same persons year-round shall prepare and deliver a CCR to each bill-paying customer in accordance with § 109.416 (relating to CCR requirements).

**Subchapter K. LEAD AND COPPER**

**§ 109.1102. Action levels and treatment technique requirements.**

(a) *Action levels for lead and copper:*

- (1) The lead action level is 0.015 mg/L.
- (2) The copper action level is 1.3 mg/L.

(3) An action level is exceeded when the concentration of a contaminant in more than 10% of tap water samples collected during a monitoring period conducted in accordance with § 109.1103 (relating to monitoring requirements) is greater than the action level.

(b) *Treatment technique requirement for corrosion control.*

(1) *Optimal corrosion control treatment.* A community water system or nontransient noncommunity water system shall provide optimal corrosion control treatment which minimizes the lead and copper concentrations at users' taps while ensuring that the treatment does not cause the system to violate a primary MCL. Water systems deemed to have optimized corrosion control treatment under this subsection shall operate in compliance with Department designated water quality parameters and continue to conduct lead and copper tap monitoring. A system may achieve optimal corrosion control treatment in one of the following ways:

(i) A small or medium water system is deemed to have optimized corrosion control if the system does not exceed either the lead or copper action level during each of two consecutive 6-month monitoring periods conducted in accordance with § 109.1103. If the system thereafter exceeds an action level during a monitoring period, the system shall complete applicable compliance activities under paragraph (2). The Department may require a system to repeat compliance activities previously com-

pleted when the Department determines that this is necessary for the system to achieve optimal corrosion control treatment.

(ii) A water system is deemed to have optimized corrosion control if the system demonstrates to the Department that for two consecutive 6-month monitoring periods conducted in accordance with § 109.1103 that the system does not exceed a lead or copper action level and the difference between the 90th percentile tap water lead level and the highest source water lead concentration is less than 0.005 mg/L, which is the Practical Quantitation Level for lead. To make this demonstration, the system shall collect one sample for lead from each entry point during a monitoring period prior to initiation of construction or modification of corrosion control treatment facilities. If the system thereafter exceeds an action level during a monitoring period, the system shall complete applicable compliance activities under paragraph (2). The Department may require a system to repeat compliance activities previously completed when the Department determines that this is necessary for the system to achieve optimal corrosion control treatment.

(iii) A system is deemed to have optimized corrosion control if the system installs new corrosion control treatment facilities or modifies existing treatment in accordance with paragraph (2) and operates in compliance with water quality parameter performance requirements specified by the Department in a permit issued under § 109.1105(c) (relating to permit requirements).

(iv) Any water system deemed to have optimized corrosion control in accordance with this subsection shall continue monitoring for lead and copper at the tap no less frequently than once every 3-calendar years using the reduced number of sites specified in § 109.1103(e), and collecting the samples at times and locations specified in § 109.1103(e)(iv).

(2) *Corrosion control treatment compliance schedule.* A system shall comply with the following schedule unless the system achieves optimal corrosion control treatment under paragraph (1)(i) or (ii) prior to initiation of construction or modification of corrosion control treatment facilities.

(i) An existing large water system shall:

(A) Submit a corrosion control treatment feasibility study that complies with paragraph (3) by June 30, 1994.

(B) Submit a permit application for construction or modification of corrosion control treatment facilities by March 31, 1995.

(C) Initiate construction or modification of corrosion control treatment facilities by December 31, 1995.

(D) Complete construction or modification of corrosion control treatment facilities and begin operation of these facilities by January 1, 1997.

(E) Submit a request for a Department designation of optimal corrosion control treatment performance requirements by January 31, 1998.

(ii) A large water system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under § 109.1102(b)(1) (relating to action levels and treatment technique requirements), or any medium or small water system that exceeds an action level shall:

(A) Submit a corrosion control treatment feasibility study that complies with paragraph (3) within 18 months of exceeding the action level.

(B) Submit a permit application or otherwise comply with the permit application requirements under § 109.1105(b) for construction or modification of corrosion control treatment facilities within 30 months of exceeding the action level.

(C) Initiate construction or modification of corrosion control treatment facilities within 48 months of exceeding the action level.

(D) Complete construction or modification of corrosion control treatment facilities and begin operation of these facilities within 60 months of exceeding the action level.

(E) Submit a request for Department designation of optimal corrosion control treatment performance requirements within 30 days of the end of the second follow-up monitoring period required under § 109.1103(c)(1)(ii) following completion of construction or modification of corrosion control treatment facilities.

(3) *Corrosion control treatment feasibility study.* The system shall prepare and submit a corrosion control treatment feasibility study to the Department by the applicable deadline established in paragraph (2). The purpose of this study is to identify corrosion control priorities, evaluate viable corrosion control approaches and select the optimal corrosion control treatment. As a minimum, the system shall include the information required in a basic study described in subparagraph (i). The Department may require a water supplier to conduct demonstration testing if the Department determines that a basic study is insufficient to determine optimal corrosion control treatment. Demonstration testing may also be required when a system continues to exceed an action level after corrosion control treatment has been installed.

(i) The basic study shall include the following information:

(A) A sample site location plan prepared in accordance with § 109.1103(g).

(B) A summary of lead and copper and water quality parameter monitoring results performed in accordance with § 109.1103. These results shall be evaluated considering the location of sample sites within the distribution system and used as the basis for considering corrosion control treatment options.

(C) An evaluation of source water contributions and the need for source water treatment.

(D) A desktop evaluation of alkalinity and pH adjustment, calcium hardness adjustment and corrosion inhibitor addition or a combination of these treatments. The evaluation shall include analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration. If source water treatment is needed to achieve optimal corrosion control, the water supplier shall evaluate the source water treatments specified in paragraph (4).

(E) An identification of chemical, physical or regulatory constraints on the use of a particular corrosion control treatment, such as its adverse effects on other treatment processes or the ability of wastewater facilities to comply with applicable statutes or regulations.

(F) A recommendation of optimal corrosion control treatment, including source water treatment, if applicable, for the system based on the supporting documentation specified in clauses (A)—(E). When a system has multiple sources, it may be necessary for the system to provide different corrosion control treatment for different sources.

(G) Recommended water quality parameter performance requirements for the selected corrosion control treatment.

(H) A proposed schedule for completion of the remaining corrosion control treatment compliance steps in accordance with paragraph (2), including, but not limited to, treatment design and permit application submittal, financing and construction, and initiation of operation.

(ii) A demonstration study shall include the evaluation of corrosion control treatments using pipe rig/loop tests, metal coupon tests or partial system tests.

(4) *Source water treatment.* A system that must reduce the concentration of lead or copper in its source water to achieve optimal corrosion control shall provide source water treatment.

(i) A system which exceeds either the lead or copper action level shall conduct initial source water monitoring in accordance with § 109.1103(a)(3). The water supplier shall use the results of this monitoring along with the results of lead and copper tap and water quality parameter monitoring to determine corrosion control treatment priorities including the need for source water treatment as part of the corrosion control feasibility study required under paragraph (3).

(ii) If source water treatment needs to be evaluated, the water supplier shall evaluate treatments including ion exchange, reverse osmosis, lime softening and coagulation/filtration. The water supplier shall recommend a source water treatment along with the recommendation for optimal corrosion control treatment. The water supplier shall include recommended source water treatment performance requirements for the selected treatment.

(iii) If, after review of the feasibility study, the Department determines that source water treatment is necessary as part of a system's overall approach to achieving optimal corrosion control, the water supplier shall provide source water treatment under the compliance schedule established in paragraph (2) for corrosion control treatment. The Department may require the water supplier to provide source water treatment for lead on an earlier schedule if the Department determines that lead in the source water presents an imminent hazard to the public health.

(iv) Following the installation of source water treatment, the water supplier shall conduct source water monitoring in accordance with § 109.1103(c)(3). Based on the results of this monitoring and lead and copper tap and water quality parameter monitoring, the Department will establish source water treatment performance requirements when water quality parameter performance requirements are established for the system under paragraph (5).

(5) *Water quality parameter performance requirements.* The Department will designate optimal corrosion control treatment water quality parameter performance requirements for large water systems by June 30, 1998, and for medium or small water systems within 18 months after the system completes construction or modification of corrosion control treatment, if the water supplier submits a request for Department designation of performance requirements within the time frames established in paragraph (2) and the request contains the information specified in § 109.1107(a)(3)(v) (relating to system management responsibilities). The performance requirements will be specified in the amended operation permit issued in accordance with § 109.1105(c). A system shall maintain

the designated water quality parameter performance requirements at or above minimum values or within specified ranges designated by the Department. The Department may designate values for additional water quality parameters if the Department determines these requirements are necessary to assure optimal corrosion control treatment. Depending on the type of corrosion control treatment, the performance requirements will be designated as follows:

(i) A minimum value or range of values for pH measured at each entry point to the distribution system.

(ii) A minimum pH value measured in distribution system samples.

(iii) If a corrosion inhibitor is used, a minimum concentration or range for the inhibitor necessary to form a passivating film on the interior walls of the distribution system pipes. The inhibitor concentration is measured at each entry point and in all distribution system samples.

(iv) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or range of concentrations for alkalinity measured at each entry point and in distribution system samples.

(v) If calcium carbonate stabilization is used as part of optimal corrosion control treatment, a minimum concentration or range of concentrations for calcium measured in distribution system samples.

**§ 109.1103. Monitoring requirements.**

(a) *Initial monitoring.*

(1) *Initial lead and copper tap monitoring.* The initial lead and copper tap monitoring for community and nontransient noncommunity water systems consists of two consecutive 6-month periods. Monitoring periods begin in January and July and end in June and December.

(i) In accordance with 40 CFR 141.86(d)(1) (relating to monitoring requirements for lead and copper in tap water), the first 6-month monitoring period for large, medium and small water systems shall begin on the following dates:

<i>1st monitoring</i>	<i>System size period begins on</i>
Large . . .	January 1, 1992
Medium . . .	July 1, 1992
Small . . .	July 1, 1993

(ii) The first 6-month monitoring period for a new water system created after June 26, 1995, shall begin with the next 6-month monitoring period following the issuance of an operations permit or following the system's provision of water to a sufficient number of sampling sites for the water supplier to comply with sample site requirements under subsection (g), whichever period is later.

(iii) A large water system shall monitor during two consecutive 6-month periods and shall comply with the corrosion control treatment compliance schedule under § 109.1102(b)(2) (relating to action levels and treatment technique requirements) or achieve optimal corrosion control treatment under § 109.1102(b)(1)(ii).

(iv) A small or medium water system shall monitor during each 6-month monitoring period until one of the following occurs:

(A) The system exceeds either the lead or copper action level and is therefore required to comply with the corrosion control treatment compliance schedule under § 109.1102(b)(2).

(B) The system meets both the lead and copper action levels during two consecutive 6-month monitoring periods, in which case the system qualifies for reduced monitoring in accordance with subsection (e)(1).

(v) A system shall collect at least one sample during each monitoring period from the number of sample sites listed in the following chart. The sample sites shall be selected in accordance with subsection (g).

<i>System size (# of people served)</i>	<i># of Sample Sites</i>
> 100,000 . . .	100
10,001 to 100,000 . . .	60
3,301 to 10,000 . . .	40
501 to 3,300 . . .	20
101 to 500 . . .	10
100 or fewer . . .	5

(2) *Initial water quality parameter monitoring.* A system shall measure the applicable water quality parameters in the distribution system and at each entry point. A large water system shall conduct initial water quality parameter monitoring during each initial monitoring period specified in paragraph (1). A small or medium water system shall conduct initial water quality parameter monitoring during the first monitoring period in which the system exceeds the lead or copper action level.

(i) The following water quality parameters shall be measured as applicable:

- (A) pH.
- (B) Alkalinity.
- (C) Orthophosphate, when an inhibitor containing a phosphate compound is used.
- (D) Silica, when an inhibitor containing a silicate compound is used.
- (E) Calcium.
- (F) Conductivity.
- (G) Water temperature.

(ii) A system shall collect two sets of water quality parameter distribution samples from the following number of sample sites. The sets of samples shall be collected from the same sample sites on different days and analyzed for the applicable water quality parameters.

<i>System size (# of people served)</i>	<i># of Sample Sites</i>
> 100,000 . . .	25
10,001 to 100,000 . . .	10
3,301 to 10,000 . . .	3
501 to 3,300 . . .	2
500 or fewer . . .	1

(iii) A system shall also collect two sets of water quality parameter samples at each entry point. The sets of samples shall be collected on different days and analyzed for the applicable water quality parameters.

(3) *Initial source water monitoring.* A system which exceeds either the lead or copper action level shall collect one source water sample from each entry point within 6 months after the exceedance. Monitoring is required only for the parameter for which the action level was exceeded.

(b) *Special lead and copper tap monitoring.*

(1) After completing initial monitoring and prior to initiation of construction or modification of corrosion

control treatment facilities, a system may collect special lead and copper tap samples at its option.

(2) Special lead and copper tap monitoring shall be conducted in accordance with subsection (a), including compliance with the requirements resulting from an action level exceedance.

(3) If a medium or small water system meets the lead and copper action levels during two consecutive 6-month special monitoring periods, the system is deemed to have optimized corrosion control and may discontinue the compliance activities under § 109.1102(b)(2) and proceed directly to reduced monitoring in accordance with subsection (e).

(4) If a medium or small water system exceeds an action level during a monitoring period after discontinuing compliance activities under paragraph (3), the system shall recommence completion of the applicable compliance activities under § 109.1102(b)(2). The Department may require a system to repeat compliance activities previously completed or undertake additional activities when the Department determines that the action is necessary to properly comply with corrosion control treatment requirements.

(5) If a system meets the lead action level during a special monitoring period, the system may discontinue public education in accordance with § 109.1104(a)(3) (relating to public education and notification).

(c) *Follow-up monitoring after construction or modification of corrosion control treatment facilities.* A system which completes construction or modification of corrosion control treatment facilities in accordance with § 109.1102(b)(2) shall conduct the applicable monitoring specified in this subsection. A system which exceeds the lead action level after construction or modification of corrosion control treatment facilities shall begin lead service line replacement in accordance with § 109.1107(d) (relating to system management responsibilities).

(1) *Lead and copper tap monitoring.* A system shall monitor for lead and copper at the tap during each specified monitoring period at the number of sample sites specified in subsection (a)(1)(v).

(i) A large water system shall monitor during each of two consecutive 6-month monitoring periods beginning no later than January 1, 1997. Following completion of this monitoring, but no later than January 31, 1998, the water supplier shall submit a request for the Department to designate optimal corrosion control treatment performance requirements for the system. Upon approval of the request, the Department will designate water quality parameter performance requirements in accordance with § 109.1102(b)(5) or source water treatment performance requirements in accordance with § 109.1102(b)(4), or both. The water supplier may request, and the Department may designate, performance requirements before the system completes the monitoring for both monitoring periods if the system has never exceeded an action level and the system demonstrates in its request that optimal corrosion control treatment has been achieved. After the Department has designated performance requirements, the system shall monitor in accordance with subsection (d)(1).

(ii) A small or medium water system shall monitor during each of two consecutive 6-month monitoring periods beginning no later than 60 months from the date an action level was exceeded. The water supplier shall submit within 30 days of the end of the second monitoring period a request for the Department to designate



optimal corrosion control treatment performance requirements for the system. Upon approval of the request, the Department will designate water quality parameter performance requirements in accordance with § 109.1102(b)(5) or source water treatment performance requirements in accordance with § 109.1102(b)(4). A small or medium water system that does not exceed the lead and copper action levels during each of two consecutive 6-month monitoring periods may reduce the number of sample sites and reduce the frequency of sampling to once per year in accordance with subsection (e)(1)(i). Systems not eligible for reduced monitoring under subsection (e)(1) shall monitor in accordance with subsection (d)(1).

(2) *Water quality parameter monitoring.* A system shall monitor for the applicable water quality parameters specified in subparagraph (iii) in the distribution system during each specified monitoring period at the number of sites specified in subsection (a)(2)(ii) and at each entry point at least once every 2 weeks.

(i) A large water system shall measure the water quality parameters during each of the two consecutive 6-month monitoring periods in which the system conducts lead and copper tap monitoring under paragraph (1)(i).

(ii) A small or medium water system which is conducting lead and copper tap monitoring in accordance with paragraph (1)(ii) shall measure the water quality parameters during each 6-month monitoring period in which the system exceeds either the lead or copper action level. Distribution system monitoring shall be conducted once during the monitoring period and biweekly entry point monitoring shall continue as long as the system exceeds the action level.

(iii) The water quality parameters shall be measured as follows:

(A) At sites within the distribution system, two sets of samples taken on different days from the same sample sites for:

(I) pH.

(II) Alkalinity.

(III) Orthophosphate, when an inhibitor containing a phosphate compound is used.

(IV) Silica, when an inhibitor containing a silicate compound is used.

(V) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(B) At each entry point, one set of samples every 2 weeks for:

(I) pH.

(II) When alkalinity is adjusted as part of corrosion control treatment, a reading of the dosage rate of the chemical used to adjust the alkalinity, and the alkalinity concentration.

(III) When a corrosion inhibitor is used as part of corrosion control treatment, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica, whichever is applicable.

(3) *Source water monitoring.* A system which installs source water treatment under § 109.1102(b)(4) shall monitor the source water at source water treatment entry points for the parameters for which the source water treatment was installed. The system shall monitor source water during the two consecutive 6-month monitoring periods specified in paragraph (1). Other systems which

exceed either the lead or copper action level while conducting lead and copper tap monitoring in accordance with paragraph (1) shall collect one source water sample from each entry point within 6 months after the exceedance for the parameters exceeding the action level.

(d) *Monitoring after performance requirements are established.* A system shall conduct the applicable monitoring under this subsection beginning no later than the next 6-month monitoring period following the Department's designation of optimal corrosion control treatment water quality parameter performance requirements under § 109.1102(b)(5) or source water performance requirements under § 109.1102(b)(4).

(1) *Lead and copper tap monitoring.* A system shall monitor for lead and copper at the tap during each monitoring period at the number of sample sites specified in subsection (a)(1)(v) until the system qualifies for reduced monitoring under subsection (e)(1).

(2) *Water quality parameter performance monitoring.* A system shall measure the applicable water quality parameters specified in subsection (c)(2)(iii) in the distribution system during each monitoring period at the number of sites specified in subsection (a)(2)(ii) and at each entry point at least once every 2 weeks. The results of this monitoring will be used by the Department in determining compliance with the water quality parameter performance requirements established under § 109.1102(b)(5). A system that is not in compliance with the water quality parameter performance requirements established under § 109.1102(b)(5) shall provide public notification in accordance with § 109.1104(b)(2).

(i) A large water system shall conduct the monitoring during each monitoring period until the system qualifies for reduced monitoring under subsection (e)(2).

(ii) A small or medium water system which is conducting lead and copper tap monitoring in accordance with paragraph (1), shall measure the water quality parameters during each 6-month monitoring period in which the system exceeds either the lead or copper action level. Distribution system monitoring shall be conducted at least once during the monitoring period and biweekly entry point monitoring shall continue as long as the system exceeds the action level.

(iii) A system is out of compliance with the requirements of § 109.1102(b)(5) for a 6-month period if it has excursions for any Department specified water quality parameter on more than any 9 days during the 6-month monitoring period. An excursion occurs whenever the daily value for one or more of the water quality parameters is below the minimum value or outside the range of values designated by the Department. The Department has the discretion to delete results of sampling errors from this calculation. Daily values are calculated as follows:

(A) On days when more than one sample for the water quality parameter is collected at a sampling location, the daily value shall be the average of all results collected during the day including continuous monitoring or grab samples, or both.

(B) On days when only one sample for the water quality parameter is collected at a sampling location, the daily value shall be the result of that sample.

(C) On days when no sample is collected for the water quality parameter at a sampling location, the daily value shall be the most recent calculated daily value for which a water quality parameter was sampled at a sample location.

(3) *Source water monitoring.* A system which is conducting lead and copper tap monitoring in accordance with paragraph (1) shall monitor for the parameters exceeding the action level at each entry point within 6 months of the action level exceedance. For systems which have installed source water treatment, the results of this monitoring will be used by the Department in determining compliance with source water treatment performance requirements established under § 109.1102(b)(4). The Department may require additional source water monitoring if the Department determines that the additional monitoring is necessary to assure compliance with the source water treatment performance requirements. A system that is not in compliance with the source water treatment performance requirements established under § 109.1102(b)(4) shall provide public notification in accordance with § 109.1104(b)(2).

(e) *Reduced monitoring.*

(1) *Reduced lead and copper tap monitoring.* A community water system conducting reduced lead and copper tap monitoring shall collect one sample from the number of sample sites listed in the following column. A nontransient noncommunity water system may reduce the number of sample sites to five, regardless of population served.

<i>System size (# of people served)</i>	<i># of Sample Sites (reduced monitoring)</i>
> 100,000 . . .	50
10,001 to 100,000 . . .	30
3,301 to 10,000 . . .	20
501 to 3,300 . . .	10
500 or fewer . . .	5

(i) *Annual lead and copper tap monitoring.*

(A) A small or medium water system that does not exceed the lead and copper action levels during each of two consecutive 6-month monitoring periods or a system which has optimized corrosion control treatment under § 109.1102(b)(1)(ii) may reduce the number of sample sites and reduce the frequency of sampling to once per year.

(B) A system that maintains the range of values for the optimal corrosion control treatment water quality parameter performance requirements specified by the Department under § 109.1102(b)(5) during each of two consecutive 6-month monitoring periods in accordance with subsection (d)(2) may request that the Department allow the system to reduce the frequency of monitoring to once per year and reduce the number of lead and copper sample sites.

(ii) *Triennial lead and copper tap monitoring.*

(A) A small or medium water system that does not exceed the lead and copper action levels during 3 consecutive years of monitoring, including initial monitoring, may reduce the frequency of monitoring for lead and copper to once every 3 years.

(B) A system that maintains the range of values for optimal corrosion control treatment water quality parameter performance requirements specified by the Department under § 109.1102(b)(5) during 3 consecutive years of monitoring may request that the Department allow the system to reduce the frequency of lead and copper tap monitoring from annually to once every 3 years.

(C) Triennial monitoring shall be conducted during the last year of each 3-year compliance period—for example 1998, 2001, 2004 and so forth.

(D) A system that demonstrates for two consecutive 6-month monitoring periods that the tap water lead level as determined under § 109.1102(a)(3) is less than or equal to 0.005 mg/L and the tap water copper level as determined under § 109.1102(a)(3) is less than 0.65 mg/L may reduce the number of samples in accordance with § 109.1103(e)(1) and reduce the frequency of sampling to once every 3 years.

(iii) *Request for reduced monitoring.* A system requesting reduced lead and copper tap monitoring under subparagraph (i)(B) or (ii)(B) shall submit that request on forms acceptable to the Department. The request shall include a summary of lead and copper tap and water quality parameter monitoring results and the results shall demonstrate that the system qualifies for reduced monitoring. The Department will review the information submitted and notify the water supplier of its decision and the basis for that decision.

(iv) *Sample sites and timing.* A system that reduces the number of sample sites and frequency of sampling shall collect samples from sample sites included in the pool of targeted sampling sites identified in subsection (g)(2). Systems sampling annually or less frequently shall conduct the lead and copper tap sampling between June 1 and September 30. The Department may approve a different period for conducting lead and copper tap monitoring sampling for systems collecting a reduced number of samples. The period may be no longer than 4 consecutive months and shall represent a time of normal operation when the highest levels of lead are most likely to occur.

(v) *Reduced lead and copper tap monitoring revocation.*

(A) A large water system authorized to conduct reduced lead and copper tap monitoring that fails to operate within the range of performance requirements for the water quality parameters specified by the Department under § 109.1102(b)(5) on more than any 9 days in a 6-month period shall resume lead and copper tap sampling in accordance with subsection (d)(1).

(B) A small or medium water system authorized to conduct reduced lead and copper tap monitoring that exceeds either the lead or copper action level shall comply with the following:

(I) The water supplier shall conduct water quality parameter monitoring during the monitoring period in which the action level is exceeded.

(-a-) If the system has installed corrosion control treatment in compliance with § 109.1102(b)(2), water quality parameter monitoring shall be conducted in accordance with subsection (c)(2). If the results of this monitoring indicate that the system failed to operate within the range of performance requirements for the water quality parameters specified by the Department under § 109.1102(b)(5) on more than any 9 days in a 6-month period, the water supplier shall resume lead and copper tap sampling in accordance with subsection (d)(1).

(-b-) If the system has not installed corrosion control treatment, water quality parameter monitoring shall be conducted in accordance with subsection (a)(2) and the system shall conduct corrosion control treatment activities in accordance with § 109.1102(b)(1)(i).

(II) The water supplier shall conduct source water monitoring in accordance with subsection (a)(3).

(III) If the lead action level is exceeded, the water supplier shall conduct a public education program in accordance with § 109.1104(a).

(2) *Reduced water quality parameter monitoring for large water systems.* A large water system conducting reduced water quality parameter monitoring shall collect two sets of distribution samples from the following reduced number of sample sites. The sets of samples shall be collected from the same sample sites on different days and analyzed for the applicable water quality parameters.

<i>System size (# of people served)</i>	<i># of Sample sites</i>
> 100,000 . . .	10
50,001 to 100,000 . . .	7

(i) *Reduced sites.* A large water system that maintains the range of values for water quality parameter performance requirements reflecting optimal corrosion control treatment specified by the Department under § 109.1102(b)(5) during each of two consecutive 6-month monitoring periods conducted in accordance with subsection (d)(2) may collect distribution samples from the reduced number of sites during subsequent 6-month monitoring periods until the system qualifies for reduced frequency under subparagraph (ii). The system shall continue monitoring at each entry point as specified in subsection (c)(2)(iii)(B).

(ii) *Reduced water quality parameter monitoring.*

(A) A large water system that maintains the range of values for water quality parameter performance requirements reflecting optimal corrosion control treatment specified by the Department under § 109.1102(b)(5) during 3 consecutive years of monitoring at the reduced number of sites under subparagraph (i) may reduce the frequency with which it collects sets of water quality parameter distribution samples from every 6 months to annually. A system conducting annual sampling shall collect these sets of samples evenly throughout the year to reflect seasonal variability. The system shall continue monitoring at each entry point as specified in subsection (c)(2)(iii)(B).

(B) A large water system may reduce the frequency with which it collects tap water samples for applicable water quality parameters specified in § 109.1102(b)(5) to every 3 years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead of 0.005 mg/L, that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L, and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the Department under § 109.1102(b)(5).

(iii) *Reduced water quality parameter monitoring revocation.* A large water system subject to reduced water quality parameter monitoring that fails to operate within the range of performance requirements for the water quality parameters specified by the Department under § 109.1102(b)(5) on more than any 9 days in any 6-month period shall resume water quality parameter distribution sampling in accordance with the number and frequency requirements specified in subsection (d)(2).

(iv) A large system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in subsection (e)(2) after it has completed two subsequent consecutive 6-month rounds of monitoring that meet the criteria of subsection (e)(2)(i).

(v) A large system may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites specified in subsection (e)(2) after it

demonstrates through subsequent rounds of monitoring that it meets the criteria of subsection (e)(2)(ii).

(f) *Additional monitoring by systems.* The results of monitoring conducted at specified sites during specified monitoring periods in addition to the minimum requirements of this section shall be considered by the system and the Department in making determinations—such as calculating the 90th percentile lead or copper action level or determining concentrations of water quality parameters—under this subchapter.

(g) *Sample site location plan.* The water supplier shall complete a sample site location plan which includes a materials evaluation of the distribution system, lead and copper tap sample site locations, water quality parameter sample site locations, and certification that proper sampling procedures are used. The water supplier shall complete the steps in paragraphs (1)—(3) by the applicable date for commencement of lead and copper tap monitoring under subsection (a)(1) and the step in paragraph (4) following completion of the monitoring. The water supplier shall keep the sample site location plan on record in accordance with § 109.1107(a)(1). If the system is required to prepare a corrosion control treatment feasibility study in accordance with § 109.1102(b)(3)(i), the system shall include the sample site location plan as part of the study.

(1) *Materials evaluation.* A system shall review the following sources of information in order to identify a sufficient number of lead and copper tap sampling sites.

(i) Plumbing codes, permits and records in the files of the building departments of each municipality served by the system which indicate the plumbing materials that are installed within structures connected to the distribution system.

(ii) Inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system.

(iii) Existing water quality information, which includes the results of prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(2) *Lead and copper tap sample site selection.* Lead and copper tap sampling sites are classified as tier 1, tier 2 or tier 3. Tier 1 sites are the highest priority sample sites.

(i) *Site selection for community water systems.* The water supplier shall select all tier 1 sample site locations, if possible. A community water system with an insufficient number of tier 1 sampling sites shall complete its sampling pool with tier 2 sites. Tier 3 sites shall be used to complete the sampling pool if the number of tier 1 and tier 2 sites is insufficient. If the system has an insufficient number of tier 1, tier 2 and tier 3 sites, the water supplier shall sample from other representative sites throughout the distribution system in which the plumbing materials used at the site would be commonly found at other sites served by the system.

(A) Tier 1 sampling sites shall consist of single family structures that have one or more of the following:

- (I) Copper pipes with lead solder installed after 1982.
- (II) Lead pipes.
- (III) Lead service line.

(B) When multiple-family residences comprise at least 20% of the structures served by a water system, the

system may consider a representative number of these types of structures as tier 1 sites in its sampling pool, if they meet the other criteria in clause (A).

(C) Tier 2 sampling sites shall consist of buildings, including multifamily residences, that have one or more of the following:

- (I) Copper pipes with lead solder installed after 1982.
- (II) Lead pipes.
- (III) Lead service line.

(D) Tier 3 sampling sites shall consist of single family structures, constructed as a single family residence and currently used as either a residence or business, that contain copper pipes with lead solder installed before 1983.

(ii) *Site selection for nontransient noncommunity water systems.* The water supplier shall select all tier 1 sample site locations, if possible. A nontransient noncommunity water system with an insufficient number of tier 1 sampling sites shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the system shall use representative sites throughout the distribution system in which the plumbing materials used at the site would be commonly found at other sites served by the system.

(A) Tier 1 sampling sites shall consist of buildings that have one or more of the following:

- (I) Copper pipes with lead solder installed after 1982.
- (II) Lead pipes.
- (III) Lead service line.

(B) If a nontransient noncommunity water system or a community water system that meets the criteria of § 109.1104(a)(2)(i)(E) contains a fewer number of buildings than the required number of sampling sites, the water supplier shall sample from different taps within a representative number of buildings. The taps shall be those most commonly used for drinking and the samples shall be taken on different days. If the system has an insufficient number of these taps to take each sample from a different tap, the water supplier may apply to the Department, in writing, to substitute non-first-draw samples. Those systems shall collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. Non-first-draw samples must be 1-liter in volume and collected from an interior tap that is typically used to provide drinking water.

(iii) *Sample sites with lead service lines.* A system that has a distribution system containing lead service lines shall draw 50% of the samples it collects during each monitoring period from sites that contain lead pipes or copper pipes with lead solder, and 50% of those samples from sites served by a lead service line. If a water system cannot identify a sufficient number of sampling sites served by a lead service line, the system shall collect first draw samples from each site identified as being served by a lead service line.

(iv) *Sample sites with point-of-use or point-of-entry devices.* Samples may not be taken from taps that have point-of-use or sites that have point-of-entry treatment devices designed to remove inorganic contaminants.

- (3) *Water quality parameter sample site selection.*

(i) *Water quality parameter distribution samples.* Water quality parameter distribution samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system and seasonal variability. Distribution sampling is not required to be conducted at sites targeted for lead and copper tap sampling under § 109.1103(a)(1) (relating to monitoring requirements). Systems may find it convenient to conduct distribution sampling for water quality parameters at sites used for coliform sampling under § 109.303(a) (relating to sampling requirements).

(ii) *Water quality parameter entry point samples.* Samples collected at entry points shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at an entry point during periods of normal operating conditions—that is, when water is representative of all sources being used.

(4) *Sample procedure certification.* A water supplier shall certify that sample collection methods identified in subsection (h)(1) were used to collect lead and copper tap samples. This certification shall be included in the sample site location plan. When a water supplier allows the residents to collect the samples, a copy of the material distributed to residents explaining the proper collection methods, and a list of the residents who performed sampling shall be included in the sample site location plan.

(h) *Sample collection methods.*

(1) *Lead and copper tap samples.* Tap samples for lead and copper collected in accordance with this subchapter, with the exception of lead service line samples collected under § 109.1107(d)(3) and tap monitoring samples collected under § 109.1103(g)(2)(ii)(B), shall be first-draw samples and the following sample collection methods shall be used:

(i) Each first-draw tap sample for lead and copper shall be 1 liter in volume and have stood motionless in the plumbing system of each sampling site for at least 6 hours.

(ii) First-draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First-draw samples from a nonresidential building shall be collected at an interior tap from which water is typically drawn for consumption.

(iii) First-draw samples may be collected by the water supplier or the water supplier may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph.

(iv) If a water supplier allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(v) Acidification of first-draw samples may be done up to 14 days after the sample is collected. After acidification, the sample shall stand in the original container for the time specified according to the approved EPA method before analyzing the sample.

(vi) For subsequent monitoring, the water supplier shall make every reasonable effort to collect each first-draw tap sample from the same sampling site from which it collected a previous sample. If the water supplier is unable to use an original sampling site, the system may

collect the tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity to the original site.

(2) *Water quality parameter distribution samples.* Water quality parameter distribution samples shall be collected using the following methods:

(i) Samples shall be fully flushed.

(ii) If a water supplier collects the water quality parameter distribution samples from the same location as coliform and disinfectant residual samples, the water quality parameter samples shall be collected in the following manner:

(A) Fully flush the tap and collect the coliform sample.

(B) Collect a sample to measure disinfectant residual.

(C) Collect and analyze the sample for temperature and pH.

(D) Collect the samples for the other water quality parameters.

(iii) Water quality parameter samples require two 500-ml samples to be collected. Two sample containers are required because calcium analysis shall be performed using a separate sample container in order to acidify the sample prior to measurement.

(iv) Temperature analyses shall be conducted in the field to insure accuracy.

(v) pH measurements shall be conducted in the field and made with a pH electrode and meter within 15 minutes of sample collection. The meter shall be capable of measuring to 1/10 of a unit.

(vi) If silica analyses are required, the sample shall be collected in a plastic container.

(3) *Water quality parameter entry point samples.* Water quality parameter entry point samples shall be collected using the methods identified in paragraph (2), except subparagraphs (ii) and (iii).

(4) *Source water samples.* Lead and copper source water samples shall be collected in accordance with the requirements regarding sample location, number of samples and collection methods specified in 40 CFR 141.23(a)(1) (relating to inorganic chemical sampling and analytical requirements).

(5) *Lead service line samples.* Each lead service line sample shall be 1 liter in volume and have stood motionless in the lead service line for at least 6 hours. Lead service line samples shall be collected in one of the following ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line.

(ii) Tapping directly into the lead service line.

(iii) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(i) *Analytical methods.* Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica and temperature shall be conducted in accordance with 40 CFR 141.89 (relating to analytical methods) which is

incorporated by reference. The Department will only consider lead and copper samples analyzed by a laboratory certified by the Department. Measurements for water quality parameters may be performed by a person meeting the operator certification requirements of § 109.1107(c).

(j) *Invalidation of lead or copper tap water samples.* A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under § 109.1102(a) or toward meeting the minimum monitoring requirements of this section. The Department's decision and rationale for invalidating a sample must be documented in writing.

(1) The Department may invalidate a lead or copper tap water sample if at least one of the following conditions is met:

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The Department determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(2) The system shall report to the Department the results of all samples, along with supporting documentation for samples the system believes should be invalidated.

(3) A system shall collect replacement samples for any samples invalidated under this subsection if, after the invalidation of one or more samples, the system has too few samples to meet the minimum monitoring requirements of this section.

(i) Replacement samples shall be taken as soon as possible but no later than 20 days after the Department invalidates the sample or by the end of the applicable monitoring period, whichever occurs later.

(ii) Replacement samples taken after the end of the applicable monitoring period shall not be used to meet the monitoring requirements of a subsequent monitoring period.

(iii) Replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

(k) *Monitoring waivers for small systems.* Any small system that meets the criteria of this subsection may apply to the Department to reduce the frequency of monitoring for lead and copper under this section to once every 9 years if it meets all of the materials criteria specified in subsection (k)(1) and all of the monitoring criteria specified in subsection (k)(2). A system that meets the criteria in subsection (k)(1) and (2) only for lead, or only for copper, may apply to the Department for a waiver to reduce the frequency of tap water monitoring to once every 9 years for that contaminant only.

(1) *Materials criteria.* The system shall demonstrate that its distribution system, service lines and all drinking water plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead-containing materials or copper-containing materials or both as follows:

(i) *Lead.* To qualify for a waiver of tap monitoring requirements for lead, the system shall provide certifica-

tion and supporting documentation to the Department that the system is free of all lead-containing materials as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers.

(B) It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless the fittings and fixtures meet the specifications of any standard established under 42 U.S.C.A. 300g-6(e) (relating to plumbing fittings and fixtures).

(ii) *Copper.* To qualify for a waiver of the tap water monitoring requirements for copper, the system shall provide certification and supporting documentation to the Department that the system contains no copper pipes or copper service lines.

(2) *Monitoring criteria for waiver issuance.* The system shall have completed at least one 6-month round of routine tap water monitoring for lead and copper at sites approved by the Department and from the number of sites as required under subsection (a)(1)(v). The system shall demonstrate that the 90th percentile levels for all rounds of monitoring conducted since the system became free of all lead-containing or copper-containing materials, as appropriate, meet the following criteria:

(i) *Lead levels.* To qualify for a waiver of the lead tap monitoring, the system shall demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.

(ii) *Copper levels.* To qualify for a waiver of the copper tap monitoring, the system shall demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

(3) *Department approval of waiver application.* The Department will notify the system of its waiver determination, in writing, setting forth the basis of the decision and any condition of the waiver. A system shall continue monitoring for lead and copper at the tap as required by this section until it receives written notification from the Department that the waiver has been approved.

(4) *Monitoring frequency for systems with waivers.*

(i) A system shall conduct tap water monitoring for the contaminant waived in accordance with subsection (e)(1)(iv) at the reduced number of sites identified in subsection (e) at least once every 9 years and provide the materials certification specified in paragraph (1) for the contaminants waived along with the monitoring results.

(ii) A system shall continue to monitor for any nonwaived contaminants in accordance with subsection (a)(1), as appropriate.

(iii) A system with a waiver shall notify the Department, in writing, within 60 days after becoming aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, as a result of new construction or repair.

(5) *Continued eligibility.* If the system continues to satisfy the requirements of paragraph (4), the waiver will be renewed automatically unless any of the conditions listed in subparagraph (i)—(iii) occurs. A system whose waiver has been revoked may reapply for a waiver when it again meets the appropriate materials and monitoring criteria of paragraphs (1) and (2).

(i) A system with a lead waiver no longer satisfies the materials criteria of paragraph (1)(i) or has a 90th percentile lead level greater than 0.005 mg/L.

(ii) A system with a copper waiver no longer satisfies the materials criteria of subsection (k)(1)(ii) or has a 90th percentile copper level greater than 0.65 mg/L.

(iii) The Department notifies the system, in writing, that the waiver has been revoked.

(6) *Requirements following waiver revocation.* A water system whose waiver has been revoked is subject to the corrosion control treatment, and lead and copper tap water monitoring requirements as follows:

(i) If the system exceeds the lead or copper, or both, action level, the system shall implement corrosion control treatment in accordance with § 109.1102(b), and any other applicable requirements of this subchapter.

(ii) If the system meets both the lead and copper action levels, the system shall monitor for lead and copper at the tap no less frequently than once every 3 years using the reduced number of sample sites specified in subsection (e).

#### § 109.1104. Public education and notification.

(a) *Public education program.* The water supplier for a system that exceeds the lead action level based on tap monitoring conducted under § 109.1103 (relating to monitoring requirements) shall implement a public education program in accordance with this section. The public education program will remain in effect until the system qualifies for discontinuation under paragraph (3).

(1) *Content.* The water supplier shall include mandatory language established by the EPA under 40 CFR 141.85 (relating to public education and supplemental monitoring requirements), which is incorporated by reference, in all of the printed and broadcast materials distributed through the lead public education program. Additional information presented by a system shall be consistent with the information specified in this section and be in plain English that can be understood by laypersons. If appropriate or as designated by the Department, public education materials shall be bilingual or multilingual. Systems may delete information pertaining to lead service lines, upon approval by the Department, if no lead service lines exist in the system's service area.

(i) *Mandatory language for newspapers and water bill inserts.* The community water supplier shall include the information contained in 40 CFR 141.85(a) in all printed material submitted to newspapers and inserted with customers' water bills. In addition to the water bill insert, the water supplier shall provide the following alert on the water bill itself in large print:

"Some homes in this community have elevated lead levels in their drinking water. Lead can pose a significant risk to your health. Please read the enclosed notice for further information."

If a water supplier is unable to include the alert verbatim on the water bill because of insufficient space on the bill, the water supplier may request, and the Department may allow, a minor wording change so long as the content remains essentially unaffected. Public education language in 40 CFR 141.85(a)(1)(iv)(B)(5) and (D)(2) may be modified regarding building permit record availability and consumer access to these records, upon approval by the Department.

(ii) *Mandatory language for pamphlets and brochures.* The water supplier shall include the information contained in 40 CFR 141.85(a)(1)(ii) and (iv) in all pamphlets or brochures printed and distributed in accordance with this section.

(iii) *Mandatory language for public service announcements.* The water supplier shall include the information contained in 40 CFR 141.85(b) in public service announcements submitted for broadcast.

(iv) *Mandatory language for nontransient noncommunity water systems.* The water supplier for a nontransient noncommunity water system shall include either the information contained in 40 CFR 141.85(a)(1), or the information contained in 40 CFR 141.85(a)(2), in public education materials printed and distributed in accordance with this section.

(2) *Delivery.*

(i) *Community water system requirements.* Within 60 days after exceeding the lead action level, unless it is already repeating public education tasks under subsection (a), the water supplier for a community water system shall deliver the public education materials to its customers in accordance with clauses (A)—(D). The water supplier shall repeat the tasks contained in clauses (A)—(C) every 12 months, and in clause (D) every 6 months for as long as the system exceeds the lead action level.

(A) The water supplier shall insert notices with and include the alert on each customer's water bill containing the information in paragraph (1)(i). If the billing cycle or billing form prevents distribution of this notice within 60 days of the lead action level exceedance, the water supplier may deliver the information required in paragraph (1) within 60 days of the lead action level exceedance in one of the following ways:

- (I) A separate direct mailing.
- (II) Hand delivery.

(B) The water supplier shall submit the information in paragraph (1)(i) to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(C) The water supplier shall deliver pamphlets or brochures, or both, that contain the information in paragraph (1)(ii) to facilities and organizations, including the following:

- (I) Public schools or local school boards, or both.
- (II) City or county health department.
- (III) Women, Infants, and Children or Head Start Programs whenever available.
- (IV) Public and private hospitals and clinics.
- (V) Pediatricians.
- (VI) Family planning clinics.
- (VII) Local welfare agencies.

(D) The water supplier shall submit a public service announcement which includes the information in paragraph (1)(iii) to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the water system.

(E) A community water system may apply to the Department, in writing, to use the text specified in 40 CFR 141.185(a)(2) in lieu of the text in 40 CFR 141.185(a)(1), and to perform the tasks listed under subparagraph (ii)(A) in lieu of the tasks under clauses (A)—(D) if:

(I) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to the plumbing or installing point-of-use treatment devices.

(II) The system provides water as part of the cost of services provided and does not charge for water consumption.

(F) A community water system serving 3,300 or fewer persons may omit the task contained in clause (D) if notices containing the information required under paragraph (1) are distributed to every household served by the system at least once during each calendar year the system exceeds the lead action level.

(ii) *Nontransient noncommunity water system requirements.* Within 60 days after exceeding the lead action level, the water supplier for a nontransient noncommunity water system shall deliver the public education materials contained in paragraph (1)(iv) to its consumers, unless it is already repeating public education tasks under this subsection.

(A) The water supplier shall post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system and distribute informational pamphlets or brochures, or both, on lead in drinking water to each person routinely served by the nontransient noncommunity water system. Systems may use electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

(B) The water supplier shall repeat the tasks contained in clause (A) at least once during each calendar year in which the system exceeds the lead action level.

(3) *Discontinuation of public education program.* A water supplier may discontinue implementation of its public education program if the system does not exceed the lead action level during the most recent 6-month monitoring period conducted under § 109.1103. The system shall resume public education in accordance with this section if it exceeds the lead action level at any time during a future monitoring period.

(4) *Notification of customer monitoring.* A water supplier that fails to meet the lead action level on the basis of tap monitoring conducted in accordance with § 109.1103 shall provide information regarding laboratories certified by the Department for lead and copper testing to any customer who requests it.

(b) *Public notification requirements.* A water supplier shall give public notification in accordance with Subchapter D (relating to public notification) when one of the following occurs:

(1) The water supplier fails to perform monitoring and analyses as required by § 109.1103.

(2) The water supplier is not in compliance with a treatment technique established under § 109.1102(b) (relating to action levels and treatment technique requirements).

**§ 109.1107. System management responsibilities.**

(a) *Reporting and recordkeeping.* Systems shall comply with the following requirements and otherwise comply with § 109.701 (relating to reporting and recordkeeping):

(1) *Sample site location plan.* The system shall prepare a sample site location plan in accordance with § 109.1103(g) (relating to monitoring requirements), maintain the plan on record and present or submit the plan upon request to the Department. The water supplier shall update the following information in the plan within the first 10 days following the end of each applicable monitoring period:

(i) Selection of different lead and copper tap sample sites from sites sampled during previous monitoring periods and corresponding site selection justification required under § 109.1103(g)(2)(v).

(ii) Changes in water quality parameter distribution or entry point site selection or source water entry point site selection from sites sampled during previous monitoring periods.

(iii) An update of the sample procedure certification required under § 109.1103(g)(4).

(2) *Reporting of monitoring results.* The water supplier shall assure that the results of analyses conducted in accordance with § 109.1103 are reported to the Department within the first 10 days following the end of each applicable monitoring period as stipulated by § 109.1103. Additional monitoring results beyond that required under § 109.1103 shall be kept on record by the water supplier and presented or submitted to the Department upon request.

(i) *Lead and copper tap monitoring results.* The following minimum information is required when reporting lead and copper tap monitoring results to the Department.

(A) The name, address and public water system identification number (PWSID) of the public water system from which the samples are taken.

(B) The contaminant ID.

(C) The parameter name.

(D) The sample period.

(E) The sample type.

(F) The number of samples required and the number of samples taken.

(G) The analytical methods used.

(H) The results of analyses conducted in accordance with this subchapter for lead and copper tap monitoring.

(I) The 90th percentile result.

(J) Whether an action level has been exceeded.

(K) The name, address and identification number of the certified laboratory performing the analysis.

(ii) *Water quality parameter monitoring results.* The following minimum information is required when reporting water quality parameter results to the Department:

(A) The name, address and PWSID of the public water system from which the samples are taken.

(B) The contaminant ID.

(C) The parameter name.

(D) The sample period.

(E) The sample type.

(F) The number of samples required and the number of samples taken.

(G) The analytical methods used.

(H) The results of analyses conducted in accordance with § 109.1103 for water quality parameters.

(I) Whether an excursion has occurred on more than any 9 days during a 6-month monitoring period for any Department specified water quality parameter.

(iii) *Source water monitoring results.* The following minimum information is required when reporting source water monitoring results to the Department:

(A) The name, address and PWSID of the public water system from which the samples are taken.

(B) The contaminant ID.

(C) The parameter name.

(D) The sample period.

(E) The sample type.

(F) The number of samples required and the number of samples taken.

(G) The analytical methods used.

(H) The results of analyses conducted in accordance with this subchapter for source water monitoring.

(I) The name, address and identification number of the certified laboratory performing the analysis.

(3) *Corrosion control treatment reporting requirements.*

(i) A water supplier demonstrating optimal corrosion control treatment under § 109.1102(b)(1)(ii) (relating to action levels and treatment technique requirements) shall submit information in writing sufficient for the Department to evaluate and determine whether optimal treatment has been achieved. 281961

(ii) The water supplier for a large water system shall complete a corrosion control treatment feasibility study in accordance with § 109.1102(b)(3) and submit the study to the Department by June 30, 1994.

(iii) The water supplier for a small or medium water system required to complete a corrosion control treatment feasibility study in accordance with § 109.1102(b)(3) shall submit the study to the Department within 18 months of exceeding an action level.

(iv) Upon completion of construction or modification of corrosion control treatment the water supplier shall submit to the Department a certification of construction as required under § 109.504(a) (relating to public water system operation permits).

(v) Upon completion of required monitoring under § 109.1103(c) following construction or modification of corrosion control treatment, the water supplier shall submit to the Department a request for designation of optimal corrosion control treatment performance requirements in accordance with § 109.1102(b)(5). The request shall include as a minimum a summary of analyses conducted under § 109.1103(c) and recommended performance requirements if different from those recommended by the water supplier as part of the construction permit application process.

(4) *Public education reporting requirements.* A water supplier required to implement a public education program in accordance with § 109.1104(a) (relating to public education and notification) shall submit a letter to the Department demonstrating that the system has complied with the public education program requirements of this subchapter within 10 days after the end of each period in which the system is required to perform public education tasks. The letter shall contain a list of newspapers, radio and television stations, facilities and organizations to which the system has delivered public education materials during the most recent period for which the system was required to perform public education tasks.

(5) *Lead service line replacement reporting.*

(i) A water system that is required to initiate lead service line replacement in accordance with subsection (d)



shall, within the first 3 months of the first year of lead service line replacement, submit to the Department the following:

(A) Evidence that a materials evaluation of the system has been conducted in accordance with § 109.1103(g)(1).

(B) A schedule for replacing at least 7% of the lead service lines identified in the materials evaluation.

(C) The initial number of lead service lines in its distribution system and the portions owned by the system based on a materials evaluation, including the evaluation required under § 109.1103(g) and relevant legal authorities regarding the portion owned by the system.

(ii) For a system which is conducting lead service line replacement, the water supplier shall notify the Department in writing that the system has replaced at least 7% of the lead service lines identified in the materials evaluation, or that the results of lead sampling from individual lines scheduled for replacement do not exceed 0.015 mg/L. The notification shall be given by the end of each year of lead service line replacement and contain the following information:

(A) The name, address and public water system identification number of the public water system.

(B) The number of lead service lines scheduled for replacement during the previous year.

(C) The number and location of lead service lines actually replaced during the year.

(D) The date, location, the results of this sampling and method of sampling used, if lead service line sampling is completed in individual lead service lines.

(6) *Record maintenance.* The water supplier shall retain on the premises of the system or at a convenient location near the premises the following:

(i) Records of all monitoring results, which shall be kept for at least 12 years.

(ii) A copy of a current sample site location plan, which shall be kept for the life of the facility.

(iii) Copies of written correspondence with the Department relating to lead service line replacement, which shall be kept for at least 12 years after the completion of the replacement of applicable lead service lines.

(iv) Copies of written correspondence with the Department relating to the implementation of a public education program, which shall be kept for at least 12 years after the completion of the public education program.

(v) Copies of written correspondence with the Department relating to permitting, construction and operation of corrosion control treatment, including source water treatment, if applicable, which shall be kept for at least 12 years.

(vi) Plans, specifications and permits for water system facilities, which shall be kept for the life of the facility.

(b) *Operation and maintenance plan.*

(1) A community water system which completes construction or modification of corrosion control treatment facilities in accordance with this subchapter shall include in its operation and maintenance plan required under § 109.702 (relating to operation and maintenance plan) information concerning the new or modified corrosion control treatment.

(2) A nontransient noncommunity water system which completes construction or modification of corrosion control

treatment facilities in accordance with this subchapter shall develop an operation and maintenance plan for the facilities.

(3) The operation and maintenance plan for corrosion control treatment facilities shall conform to the requirements of § 109.702(b) and (c) and shall also contain at least the following information:

(i) A description of the facilities.

(ii) An explanation of startup and normal operation procedures.

(iii) A routine maintenance program.

(iv) A records and reporting system.

(v) Sampling and analysis program.

(vi) Staffing and training.

(vii) A safety program.

(viii) An emergency plan and operating procedures.

(ix) Manufacturers' manuals.

(c) *Operator certification and training.* Community water systems and nontransient noncommunity water systems which are required to construct or modify corrosion control treatment facilities in compliance with this subchapter shall comply with the following requirements:

(1) Prior to initiation of operation of the corrosion control treatment facilities, have personnel who have successfully completed Department-sponsored training relating to corrosion control treatment for lead and copper. The Department will expressly designate which training courses meet the requirements of this subsection.

(2) Within 3 years of initiation of operation of the corrosion control treatment facilities, have personnel certified under the Sewage Treatment Plant and Waterworks Operators' Certification Act (63 P. S. §§ 1001—1015). The minimum certification to operate corrosion control treatment facilities shall be a certificate to operate plants not utilizing filtration, but with chemical treatment, according to § 303.2 (relating to waterworks operators certificates).

(d) *Lead service line replacement.*

(1) *Initiation of lead service line replacement.* A system that exceeds the lead action level when conducting lead and copper tap monitoring in accordance with § 109.1103(c)(1) or (d)(1) after construction or modification of corrosion control treatment facilities shall initiate lead service line replacement. The first year of lead service line replacement begins with the next 6-month monitoring period following the action level exceedance.

(2) *Replacement schedule.* The water supplier shall replace annually at least 7% of the initial number of lead service lines in place at the beginning of the first year of replacement. The number of lead service lines shall be based on the materials evaluation conducted in accordance with § 109.1103(g)(1). The Department may require a system to replace lead service lines on a shorter schedule where, because of the number of lead service lines in the system, a shorter replacement schedule is feasible. The Department will notify the water supplier in writing within 6 months of the initiation of lead service line replacement of its decision to require a shorter replacement schedule.

(3) *Lead service line sampling.* The water supplier may sample an individual lead service line to determine whether the line is contributing sufficient lead to warrant its replacement. Lead service lines shall be sampled in

accordance with § 109.1103(h)(5). The water supplier is not required to replace a lead service line if none of the lead concentrations in any service line samples from that line exceeds 0.015 mg/L.

(4) *Conditions of replacement.* The water supplier shall replace the portion of the lead service line that it owns. In cases where the system does not own the entire lead service line, the system shall notify the owner of the line, or the owner's authorized agent, that the system will replace the portion of the service line that the system owns and shall offer to replace the owner's portion of the line. A system is not required to replace the line if the owner refuses to pay for the cost of replacement of the privately owned portion of the line, or if any laws prohibit this replacement. A system that does not replace the entire length of service line shall complete the following tasks:

(i) The system shall provide notice to residents of all buildings served by the line at least 45 days prior to commencing partial line replacement. The Department may allow a shorter time period for notification in the case of emergency repairs. The notice shall explain that residents may experience a temporary increase of lead levels in their drinking water, along with information on measures consumers can take to minimize their exposure to lead. Residents shall be informed that the system will, at the system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content in accordance with § 109.1103(h)(5) within 72 hours after the completion of the partial replacement of the service line.

(ii) The system shall collect the partial lead service line replacement sample and report the results of the analysis to the owner and the residents served by the line within 3 business days of receiving the results.

(iii) Information required under subparagraphs (i) and (ii) shall be provided by mail to the residents of individual dwellings. Systems have the option to post this information in a conspicuous location in those instances where multifamily dwellings are served by the line.

(5) *Discontinuation of lead service line replacement.* A water supplier may cease replacing lead service lines if the system meets the lead action level during two consecutive 6-month monitoring periods when conducting lead and copper tap monitoring. Thereafter, if the system exceeds the lead action level, the water supplier shall recommence replacing lead service lines in accordance with paragraph (2).

[Pa.B. Doc. No. 02-1372. Filed for public inspection August 9, 2002, 9:00 a.m.]

## Title 49—PROFESSIONAL AND VOCATIONAL STANDARDS

STATE BOARD OF PHYSICAL THERAPY

[49 PA. CODE CH. 40]

Sexual Misconduct

The State Board of Physical Therapy (Board) adopts regulations regarding sexual misconduct by adding §§ 40.301—40.304 to read as set forth in Annex A.

### A. *Effective Date*

The final-form rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

### B. *Statutory Authority*

The final-form rulemaking is adopted by the Board under the authority of section 3(a) of the Physical Therapy Practice Act (act) (63 P. S. § 1303(a)).

### C. *Background and Purpose*

The final-form rulemaking was proposed against a background of increasing complaints of sexual misconduct against health care professionals who are licensed by the Bureau of Professional and Occupational Affairs. This final-form rulemaking addresses issues concerning sexual misconduct in the context of the provision of physical therapy services.

The final-form rulemaking is intended to protect consumers of physical therapy services and to provide guidance to the profession by defining terms such as "patient," "professional relationship," "sexual impropriety" and "sexual violation." The final-form rulemaking guides licensees by informing them that conduct defined as a sexual violation or sexual impropriety with a patient during the course of a professional relationship violates standards of professional conduct for physical therapists (PT) and physical therapist assistants (PTA). The final-form rulemaking guides PTs and PTAs by informing them that their professional relationship with a patient exists for a time period beginning with the first professional contact or consultation and ends upon discharge from or discontinuance of services. The final-form rulemaking notifies PTs and PTAs that the consent of a patient to a sexual impropriety or violation cannot be a defense in a disciplinary proceeding before the Board and that a PT or PTA who engages in conduct prohibited by the final-form rulemaking will not be eligible for placement into an impaired professional program under the act.

### D. *Summary of Comments and Responses on Proposed Rulemaking*

Notice of proposed rulemaking was published at 31 Pa.B. 1470 (March 17, 2001). The Board received comments from the Independent Regulatory Review Commission (IRRC), the House Professional Licensure Committee (HPLC) and one public commentator, the Pennsylvania Physical Therapy Association (PPTA). The Senate Consumer Protection and Professional Licensure Committee did not submit comments. Responses to these comments are organized by subject as follows.

#### *Section 40.301. Definitions.*

Both the HPLC and IRRC recommended that the term "immediate family member" found in the definition of "patient" should also be defined. However, on further review, it appears that excluding the PT's other family members from the definition of "patient" seems unnecessary because the only family member with whom a PT may appropriately engage in sexual activities is the PT's spouse. To improve clarity, the Board has deleted the term "immediate family member" from the definition of "patient."

IRRC also commented that the definition of "sexual impropriety" contained the requirement that discussion of a patient's sexual practices and preferences must be fully documented in the patient's chart. IRRC noted that a substantive requirement should not be included in a definition and that furthermore, the sentence is unnecessary because the documentation requirement is contained

elsewhere in § 40.302(3) (relating to procedural matters). The Board agreed with IRRC's comment and deleted this sentence from the definition of "sexual impropriety" under subsection (iv).

The PPTA recommended that the definition of "professional relationship" be expanded to include language which clearly emphasizes the responsibility of the physical therapist to inform the patient of the purpose and nature of any examination or treatment technique, or both. The Board decided against adding this language for two reasons. First, it is a substantive requirement that does not belong in a definition. Second, § 40.302(3) already states that to apply the defense that the conduct complained of was necessary or appropriate to the treatment of any patient, it must be demonstrated that the conduct in question is relevant to the patient's condition or diagnosis. It is further required that appropriate discussions of sexual matters between a PT, a PTA and a patient shall be fully documented in patient records. Accordingly, the Board believes that this concern is adequately addressed under § 40.302(3).

On December 10, 2001, Governor Schweiker signed into law the act of December 10, 2001 (P. L. 859, No. 92) (Act 92) which gave the State Boards of Medicine and Osteopathic Medicine jurisdiction over certified athletic trainers (CATs) and repealed provisions of the act that were inconsistent with Act 92. Accordingly, since the Board no longer oversees CATs, it has deleted all references to CATs in the final-form rulemaking.

*Section 40.302. Procedural matters.*

IRRC questioned the intent of § 40.302(2) which permits the Board to consider sexual relationships between the PT or the PTA and the patient occurring prior to the professional relationship. IRRC questioned whether a sexual relationship occurring prior to the professional relationship could be used as a defense to sexual misconduct. IRRC also questioned whether this provision is in direct conflict with paragraph (1), which provides that consent is not a defense to any disciplinary charge for violation of the act or Chapter 40 (relating to State Board of Physical Therapy). The intent of the Board is that consent of a patient to any sexual impropriety or violation may not be used as a defense. However, evidence of a sexual relationship that occurred between the practitioner and the patient prior to the initiation of the professional relationship may be considered by the Board in mitigation of a sanction. The Board does not believe that these provisions are in conflict with each other. The Board believes the proposed amendments adequately reflect the Board's intent and, therefore, no change in this final-form rulemaking has been made.

*Section 40.304. Disciplinary action.*

Both the HPLC and IRRC recommended that the word "sexual" should be inserted before the word "violation" in the first sentence of § 40.304. The Board has adopted this recommendation by revising the final-form rulemaking. The Board has also inserted the word "sexual" in § 40.302(1).

*E. Compliance with Executive Order 1996-1, "Regulatory Review and Promulgation"*

The Board reviewed this final-form rulemaking and considered its purpose and likely impact on the public and the regulated population under the directives of Executive Order 1996-1.

*F. Fiscal Impact and Paperwork Requirements*

There should be no adverse fiscal impact or additional paperwork requirements incurred by the Board, political divisions or the private sector.

*G. Sunset Date*

The Board continuously monitors its regulations. Therefore, no sunset date has been assigned.

*H. Regulatory Review*

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on March 16, 2001, the Board submitted a copy of the notice of proposed rulemaking, published at 31 Pa.B. 1470, to IRRC and to the Chairpersons of the HPLC and the Senate Consumer Protection and Professional Licensure Committee 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 this final-form rulemaking, the Board has considered the comments received from IRRC, the Committees and the public.

Under section 5.1(d) of the Regulatory Review Act (71 P. S. § 745.5a(d)), on May 21, 2002, this final-form rulemaking was deemed approved by the Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on May 30, 2002, and approved the final-form rulemaking.

*I. Contact Person*

Interested persons may obtain information regarding the final-form rulemaking by writing to Robert Kline, Board Administrator, State Board of Physical Therapy, P. O. Box 2649, 116 Pine Street, Harrisburg, PA 17105-2649.

*J. 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 the regulations promulgated thereunder at 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 proposed rulemaking published at 31 Pa.B. 1470.

(4) The final-form rulemaking is necessary and appropriate for administration and enforcement of the authorizing act identified in Part B of this preamble.

*K. Order.*

The Board, acting under its authorizing statute, orders that:

(a) The regulations of the Board, 49 Pa. Code Chapter 40, are amended by adding §§ 40.301—40.304 to read as set forth in Annex A.

(b) The Board shall submit this order and annex to the Office of General Counsel and to the Office of Attorney General as required by law.

(c) The Board shall certify this order and annex A and deposit them with the Legislative Reference Bureau as required by law.

(d) This order shall take effect upon publication in the *Pennsylvania Bulletin*.

JAMES J. IRRGANG,  
*Chairperson*

(*Editor's Note:* For the text of the order of the Independent Regulatory Review Commission, relating to this document, see 32 Pa.B. 2954 (June 15, 2002).)

**Fiscal Note:** Fiscal Note 16A-656 remains valid for the final adoption of the subject regulations.

#### Annex A

### TITLE 49. PROFESSIONAL AND VOCATIONAL STANDARDS

#### PART I. DEPARTMENT OF STATE

#### Subpart A. PROFESSIONAL AND OCCUPATIONAL AFFAIRS

#### CHAPTER 40. STATE BOARD OF PHYSICAL THERAPY

#### Subchapter E. SEXUAL MISCONDUCT

Sec.

- 40.301. Definitions.  
40.302. Procedural matters.  
40.303. Impaired professional program.  
40.304. Disciplinary action.

#### § 40.301. Definitions.

The following words and terms, when used in this subchapter, have the following meanings, unless the context clearly indicates otherwise:

*Patient (includes resident and client)*—A person, other than the spouse of the physical therapist or physical therapist assistant, who receives professional services from the physical therapist or physical therapist assistant regardless of whether the services are provided for remuneration.

*Professional relationship*—For a physical therapist or physical therapist assistant, the relationship shall be deemed to exist for a period of time beginning with the first professional contact or consultation between a physical therapist or physical therapist assistant and a patient and ending upon discharge from or discontinuance of services provided by the physical therapist or physical therapist assistant.

*Sexual impropriety*—The term includes the following offenses:

- (i) Making sexually demeaning or sexually suggestive comments about or to a patient, including comments about a patient's body or undergarments.
- (ii) Unnecessarily exposing a patient's body or watching a patient dress or undress, unless for therapeutic purposes or the patient specifically requests assistance.
- (iii) Examining or touching genitals without the use of gloves when performing an otherwise appropriate examination.
- (iv) Discussing or commenting on a patient's potential sexual performance or requesting details of a patient's sexual history or preferences during an examination or consultation, except when the examination or consultation is pertinent to the issue of sexual function or dysfunction or reproductive health care.
- (v) Soliciting a date from a patient.
- (vi) Volunteering information to a patient about one's sexual problems, preferences or fantasies.

*Sexual violation*—The term includes the following offenses:

(i) Sexual intercourse between a physical therapist or physical therapist assistant and a patient during the professional relationship.

(ii) Genital to genital contact between a physical therapist or physical therapist assistant and a patient during the professional relationship.

(iii) Oral to genital contact between a physical therapist or physical therapist assistant and a patient during the professional relationship.

(iv) Touching breasts, the genitals, or any other part of the body of a patient in a sexual, erotic or romantic manner. Touching for the purpose of an appropriate examination or treatment does not constitute a sexual violation.

(v) Encouraging a patient to masturbate in the presence of the physical therapist or physical therapist assistant or masturbating while a patient is present.

(vi) Providing or offering to provide treatment in exchange for sexual favors.

#### § 40.302. Procedural matters.

(a) The consent of the patient to any sexual impropriety or sexual violation is not a defense to any disciplinary charge for violation of the act or this chapter.

(b) Evidence of specific instances, opinion evidence or reputation evidence of a patient's past sexual conduct is not admissible in proceedings brought under §§ 40.52 and 40.181 (relating to unprofessional conduct; physical therapists; and refusal, suspension or revocation of registration). The Board may consider sexual relationships between the physical therapist or the physical therapist assistant and the patient occurring prior to the professional relationship.

(c) A physical therapist or the physical therapist assistant who attempts to raise as a defense an argument that conduct prohibited as a sexual violation or sexual impropriety was necessary or appropriate to the treatment of any patient shall be required to demonstrate the relevancy of the conduct in question to the patient's condition or diagnosis. Appropriate discussions of sexual matters between a physical therapist or the physical therapist assistant and a patient shall be fully documented in patient records.

#### § 40.303. Impaired professional program.

When the Board is empowered to take disciplinary or corrective action against a physical therapist or the physical therapist assistant for conduct defined as a sexual violation or sexual impropriety, the physical therapist or physical therapist assistant will not be eligible for placement into an impaired professional program under section 13 of the act (63 P. S. § 1313).

#### § 40.304. Disciplinary action.

A physical therapist or physical therapist assistant who engages in sexual impropriety or sexual violation as defined in § 40.301 (relating to definitions) will be subject to disciplinary action under §§ 40.52 and 40.181(a)(6) (relating to unprofessional conduct; physical therapists; and refusal, suspension or revocation of registration) and section 11 of the act (63 P. S. § 1311).

[Pa.B. Doc. No. 02-1373. Filed for public inspection August 9, 2002, 9:00 a.m.]

# Title 58—RECREATION

## GAME COMMISSION

[58 PA. CODE CHS. 131, 139, 141 AND 143]

### Seasons and Bag Limits; Hunting Hours; Small Game; Elk Licenses

To effectively manage the wildlife resources of this Commonwealth, the Game Commission (Commission), at its April 9, 2002, meeting, adopted the following changes:

Amend § 131.2 (relating to definitions) by defining the terms “arrow,” “bow,” “broadhead” and “crossbow bolt” to help avoid confusion and misinterpretation.

Amend § 139.2 (relating to definitions) by redefining the terms “antlered deer,” defining “point” and “protected deer.”

Amend § 141.4 (relating to hunting hours) to specify when coyotes may be taken during deer or bear seasons; § 141.22(c) (relating to small game) to allow licensed furtakers to trap nuisance woodchucks for farmers; and § 141.48 (relating to elk management areas) by combining some of the elk management areas to provide fewer, but larger management areas.

Amend § 143.203 (relating to drawing) to eliminate reference to the 2001 license year and to establish that the number of licenses issued be set by the Commission.

This final-form rulemaking was adopted under 34 Pa.C.S. (relating to the Game and Wildlife Code) (code).

#### *Amendment to § 131.2*

##### 1. *Introduction*

Due to the many new technologies in the archery equipment field, the Commission believes it is necessary to define certain terms for regulatory purposes. The Commission, at its January 15, 2002, meeting proposed, and at its April 9, 2002, meeting finally adopted, adding definitions of “arrow,” “bow,” “broadhead” and “crossbow bolt” to § 131.2. This adoption is being made under section 2102 of the code (relating to regulations).

##### 2. *Purpose and Authority*

Advancements in technology and archery hunting techniques have made it apparent that certain terms need to be defined for regulatory purposes. The Commission has added the previously mentioned definitions to § 131.2. These definitions should help clarify regulatory requirements and avoid confusion.

Section 2102(a) of the code directs the Commission to “. . . promulgate such regulations as it deems necessary and appropriate concerning . . . the ways, manner, methods, and means of hunting or furtaking . . . .” Section 2102(d) of the code also directs the Commission to promulgate regulations stipulating “. . . the type of firearms and ammunition and other devices which may be used . . . .” The change was adopted under this authority.

##### 3. *Regulatory Requirements*

The additions merely define the terms “arrow,” “bow,” “broadhead” and “crossbow bolt.” These definitions may exclude the use of certain devices.

##### 4. *Persons Affected*

Individuals wishing to hunt using bows and arrows and crossbows will be affected by this final-form rulemaking.

##### 5. *Comment and Response Summary*

No official comments were received with regard to this final-form rulemaking.

#### *Amendment to § 139.2*

##### 1. *Introduction*

To more effectively manage the wildlife resources of this Commonwealth, the Commission, at its January 15, 2002, meeting proposed, and at its April 9, 2002, meeting finally adopted, changes to § 139.2 by adding the definitions of “protected deer” and “point” and amended the definition of “antlered deer.” These changes were proposed under section 322(c)(1) of the code (relating to powers and duties of the commission) and section 2102(b)(1) of the code.

##### 2. *Purpose and Authority*

The Commission is finally adopting that an antlered deer, legal for harvest, have four or more points to an antler in ten counties and three or more points to an antler in all other counties, except for the Special Regulations Areas and junior license holders, disabled person permit (to use a vehicle) holders and residents serving on active duty in the United States Armed Forces, or in the United States Coast Guard where it would have two or more points to one antler, or with one antler 3 inches or more in length. This requires changing the definition of “antlered deer” and defining the term “point.” This final-form rulemaking also creates a category of deer that do not meet the definition of “antlered deer” or “antlerless deer” and therefore must be defined as “protected deer” since they may not be legally taken in any deer season. The adopted additions to § 139.2 would accomplish this purpose.

The Commission is required to set hunting and furtaking seasons and bag limits on an annual basis. Section 322(c) of the code specifically empowers the Commission to “. . . fix seasons . . . and daily, seasons and possession limits for any species of game or wildlife.” Section 2102(b) of the code mandates that the Commission promulgates regulations relating to seasons and bag limits. These sections provide the authority for the adopted changes.

##### 3. *Regulatory Requirements*

The changes to “antlered deer” redefine what a legal antlered deer is. The addition of the definition of “point” will facilitate requiring deer hunters to identify points. The addition of the definition of “protected deer” provides for a deer that does not meet the definition of “antlered deer” or “antlerless deer.”

##### 4. *Persons Affected*

Individuals wishing to hunt deer will be affected by this adoption.

##### 5. *Comment and Response Summary*

A total of 7,049 official comments were received with regard to the definition of “antlered deer.” Those supporting cited several views including the opportunity to harvest deer in future seasons with larger antlers and improvement of overall health of this Commonwealth's deer herd. Those opposing did so because they feared difficulty in identifying or counting points in forest conditions; that antler restrictions would lead to a trophy hunting mentality and results in closing of private land; that any buck they had harvested in the past was a unique trophy.

No official comments were received with regard to the remaining adopted changes.

*Amendments to §§ 141.4 and 141.22*1. *Introduction*

To effectively manage the wildlife resources of this Commonwealth, the Commission, at its January 15, 2002, meeting proposed, and at its April 9, 2002, meeting finally adopted, changing § 141.4(1) by allowing coyotes to be taken during deer and bear season only by persons who are lawfully engaged in hunting deer or bear and who possess a valid tag, and by adding § 141.22(c) to allow licensed furtakers to trap nuisance woodchucks for farmers.

2. *Purpose and Authority*

The Commission has allowed hunters who possess a valid deer tag to hunt coyotes during deer season and to hunt coyotes during bear season regardless of tag. Coyote hunters taking advantage of this opportunity were not mandated to comply with fluorescent orange or hunting hour requirements. This change would allow hunters to take coyotes during the deer and bear season only while engaged in lawfully hunting deer and bear. Hunters would therefore have to possess a valid tag and comply with other restrictions pertaining to deer and bear hunting including wearing of fluorescent orange, or possess a valid furtaker's license and wear 250 square inches of daylight fluorescent orange-colored material on the head chest and back combined visible in a 360° arc from 2 hours before sunrise to 2 hours after sunset.

Woodchucks cause damage to farmer's fields, crops and equipment. Farmers have asked the Commission to allow furtakers to assist them in controlling nuisance woodchucks by allowing furtakers to trap woodchucks with the farmer's permission.

Section 2102(a) of the code authorizes the Commission to promulgate regulations relating to the hunting of game or wildlife in this Commonwealth. The changes were adopted under this authority.

3. *Regulatory Requirements*

The adopted changes would relax the requirements for taking woodchucks, and further restrict coyote hunters.

4. *Persons Affected*

Farmers, furtakers and coyote hunters would be affected.

5. *Comment and Response Summary*

No official comments were received with regard to these adopted changes.

*Amendments to §§ 141.48 and 143.203*1. *Introduction*

To effectively manage the Commonwealth's growing elk herd, the Commission, at its January 15, 2002, meeting proposed, and at its April 9, 2002, meeting finally adopted, changing § 141.48 by combining some of the elk management areas to provide fewer, but larger management areas and changing § 143.203 to eliminate the reference to the 2001 license year and to have the number of elk licenses issued set by the Commission.

2. *Purpose and Authority*

In the 2001-2002 license year, the Commission issued 30 licenses to allow hunters to harvest elk for the first time in this Commonwealth since 1932. After reviewing harvest data, biologists have determined that the Commission can more effectively manage the elk herd by creating fewer but larger management areas, which requires changing § 141.48.

Section 143.203(e) needs to be changed to eliminate the reference to the year 2001 and to establish that the number of licenses issued are set by the Commission. This section currently states the number shall be set by the Bureau of Wildlife Management with concurrence of the Executive Director.

Section 2102(a) of the code authorizes the Commission to "... promulgate such regulations as it deems necessary and appropriate concerning game or wildlife and hunting..."

Section 2705(15) of the code (relating to classes of licenses) provides that: "To ensure sound management of the wild elk population of this Commonwealth, the Commission may promulgate regulations to establish a limited number of licenses."

These provisions provide the statutory authority for the adopted changes.

3. *Regulatory Requirements*

The amendments would create fewer, larger elk management areas and require that the Commission set the number of elk licenses issued.

4. *Persons Affected*

Individuals wishing to hunt elk will be affected.

5. *Comment and Response Summary*

No official comments were received with regard to these adopted changes.

*Cost and Paperwork Requirements*

The adopted changes should not result in any additional cost or paperwork.

*Effective Dates*

The adopted changes will be effective upon final publication in the *Pennsylvania Bulletin* and will remain in effect until changed by the Commission.

*Contact Person*

For further information regarding these changes, contact David E. Overcash, Director, Bureau of Law Enforcement, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797, (717) 783-6526.

*Findings*

The Commission finds that:

(1) Public notice of intention to adopt the administrative amendments adopted by this order has been 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 the regulations thereunder, 1 Pa. Code §§ 7.1 and 7.2.

(2) The adoption of the amendments of the Commission in the manner provided in this order is necessary and appropriate for the administration and enforcement of the authorizing statute.

*Order*

The Commission, acting under authorizing statute, orders that:

(a) The regulations of the Commission, 58 Pa. Code Chapters 131, 139, 141 and 143, are amended by amending §§ 131.2, 139.2, 141.4, 141.22, 141.48 and Appendix F and § 143.203 to read as set forth in Annex A.

(b) The Executive Director of the Commission shall submit this order and Annex A and deposit them with the Legislative Reference Bureau as required by law.

(c) This order shall become effective upon final publication in the *Pennsylvania Bulletin*.

VERNON R. ROSS,  
*Executive Director*

**Fiscal Note:** Fiscal Note 48-139 remains valid for the final adoption of the subject regulations.

**Annex A**

**TITLE 58. RECREATION**

**PART III. GAME COMMISSION**

**CHAPTER 131. PRELIMINARY PROVISIONS**

**§ 131.2. Definitions.**

In addition to the definitions contained in section 102 of the act (relating to definitions), the following words and terms, when used in this part or in the act, have the following meanings, unless the context clearly indicates otherwise:

*Act*—Title 34 of the *Pennsylvania Consolidated Statutes* (relating to the Game and Wildlife Code).

*Arrow*—A projectile shot from a bow with an overall length exceeding the brace height of the bow with a fletching designed only for guidance at the aft end and a broadhead mounted on the fore end. No electronic device may be a part of or attached to the arrow. No device, material or system capable of causing damage or injury to the animal in excess of that inflicted by the cutting edges of the broadhead may be a part of or attached to any arrow.

*Beekeeper's agent*—A person who accepts the responsibility of bees, hives and related equipment in the absence of the owner, and who is willing and able to reset disrupted hives, maintain fencing where present and report damage done by bears to the nearest available Commission officer as soon as practical, but, in any event, within 10 days of the damage. The agent shall be domiciled within 300 yards of the beehives.

*Bow*—In addition to the definition in section 102 of the act, a device for launching an arrow, which derives its propulsive energy solely from the bending and recovery of two limbs. The energy used to propel the arrow may not be derived from another source. These limitations may not exclude the mechanical leverage advantage provided by eccentric wheels or cams so long as the available energy stored in the bent limbs of the bow is the sole result of a single, continuous and direct pulling effort by the shooter. A track, trough, channel or other device capable of mechanically holding the bow at full or partial draw may not be attached to the bow. The bowstring shall be drawn, held and released as a direct and conscious action of the shooter. Release shall be accomplished by either relaxing the tension of the fingers or triggering the release action of a manually held release aid. A bow shall have a peak draw weight not less than 35 pounds.

*Broadhead*—Shall have an outside diameter or width of at least 7/8 inch with no less than two cutting edges. Cutting edges shall be in the same plane throughout the length of the cutting surface. Broadheads may not exceed 3 inches in length measured from the tip of the broadhead to the point that fits against the arrow shaft.

*Commission*—The Game Commission of the Commonwealth.

*Crossbow*—A device consisting of a bow fixed transversely on a stock, the string of which is released by a trigger mechanism, has a mechanical safety and propels an arrow.

*Crossbow bolt*—An arrow propelled by a crossbow.

*Deputy Game Commission officer*—A deputy wildlife conservation officer.

*Director*—The Executive Director of the Commission.

*Driving*—An act accomplished when one or more persons chase or flush, or attempt to chase or flush, wildlife towards or in the general direction of other persons, or when two or more persons travel in the same general direction to chase or flush, or attempt to chase or flush, wildlife into view.

*Game Commission officer*—A wildlife conservation officer.

*Import*—To bring or have transported into this Commonwealth.

*Institutions of higher learning*—Colleges and universities accredited by the Department of Education.

*Protected birds*—See § 133.2 (relating to protected birds).

*Protected mammals*—See § 133.1 (relating to protected mammals).

*Sustained yield*—As used in section 546(b)(2) of the act (relating to limitation on expenditures for deterrent fencing), continuous and planned forest production through accepted forestry management practices.

**CHAPTER 139. SEASONS AND BAG LIMITS**

**§ 139.2. Definitions.**

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

*Antlered deer*—

(i) In the counties of Armstrong, Beaver, Butler, Crawford, Erie, Indiana, Lawrence, Mercer, Washington and Westmoreland a deer having four or more points to one antler.

(ii) In the counties of Allegheny, Bucks, Chester, Delaware, Montgomery and Philadelphia a deer having two or more points to one antler, or with one antler 3 inches or more in length.

(iii) In all other counties, a deer having three or more points to one antler.

(iv) In all counties, only junior license holders, disabled person permit (to use a vehicle) holders and residents serving on active duty in the United States Armed Forces, or in the United States Coast Guard, a deer having two or more points to one antler, or with one antler 3 inches or more in length.

*Antlered elk*—An elk having at least one spike visible above the hairline.

*Antlerless deer*—A deer without antlers, or a deer with antlers both of which are less than 3 inches in length.

*Antlerless elk*—An elk without antlers, or an elk with no visible spike above the hairline.

*Client*—A person who receives the services of a guide.

*Closed season*—Periods of the calendar year and hours during which it is unlawful to take game or wildlife.

*Daily limit*—The maximum number permitted to be taken by one person in 1 day during the open season.

*Early small game hunting season*—A designated period when only squirrels and grouse may be hunted and taken.

*Field possession limit*—The maximum number of legally taken wildlife of a species which a person may legally possess or transport between the place of taking and the person's permanent place of residence.

*Field possession limit—deer*—When multiple harvests of deer per day are authorized, only one deer at a time may be harvested. Before harvesting additional deer, the deer previously harvested shall be lawfully tagged.

*Guide*—A person who assists another person to hunt or take game by locating game, calling game or directing another to game.

*Hunting hours*—The period each day of the open season, Sundays excepted, when game and wildlife may be lawfully taken.

*Point*—An antler projection at least 1 inch in length from base to tip, the brow tine and main beam tip shall be counted as points regardless of length.

*Protected deer*—A deer not defined as an antlered deer or an antlerless deer.

*Regular firearms deer season*—The designated period of time when deer may be hunted and taken by a person who possesses a general hunting license or a general hunting license and antlerless license only.

*Regular small game hunting season*—The designated period of time when resident small game species may be hunted and taken.

*Season limits*—The maximum number of wildlife, which may be taken during a designated open season or license year.

*Special firearms deer season*—Any firearms deer season, except muzzleloader season, that precedes the regular firearms deer season.

## CHAPTER 141. HUNTING AND TRAPPING

### Subchapter A. GENERAL

#### § 141.4. Hunting hours.

During open hunting seasons, wild birds and animals may be taken 1/2 hour before sunrise to sunset unless further restricted.

(1) During the regular antlered and antlerless deer seasons, it is unlawful to take or attempt to take other wild birds or mammals from 1/2 hour before sunrise to sunset. Game birds on regulated hunting grounds and migratory waterfowl are excepted. Coyotes may be taken from the first day to the last day inclusive of any deer or bear season only by persons who possess a valid furtaker's license and wear 250 square inches of daylight fluorescent orange-colored material on the head, chest

and back combined visible in a 360° arc from 2 hours before sunrise to 2 hours after sunset or by persons lawfully engaged in hunting deer or bear who have a valid tag.

(2) Raccoon, fox, skunk, opossum, coyote, bobcat and weasel may be taken any hour, day or night, except during restricted periods in paragraph (1), and woodchuck, coyote, opossum, skunk and weasel may not be hunted prior to 12 noon during the spring gobbler season.

(3) Turkey hunting hours are 1/2 hour before sunrise to 12 noon during the spring gobbler season.

(4) Mourning doves may be hunted from 12 noon to sunset from the first season opening date through the first season closing date.

### Subchapter B. SMALL GAME

#### § 141.22. Small game.

(a) *Unlawful activities.* It is unlawful to:

(1) Take small game, protected mammals or protected birds using shot larger than #4 lead, #4 Bismuth/tin or #2 steel.

(2) Take furbearers using shot larger than size BB lead, size BB Bismuth/tin or size T steel.

(3) Possess a firearm while hunting with a raptor.

(4) Use or possess single projectile ammunition or use or possess single projectile designed for use in a firearm while hunting small game during the muzzleloading firearms deer or bear season, except for a .22 caliber rimfire rifle. This exception does not apply to the Southeast Special Regulations Area. See § 141.1(b)(2) (relating to special regulations areas).

(5) Hunt in a party of more than six persons.

(6) Hunt for groundhogs without a cap or hat made of a daylight fluorescent orange material as a part of the requirements in section 2524 of the act (relating to protective material required).

(7) Hunt for or assist to hunt for other small game, except waterfowl, mourning doves and crows without wearing a minimum of 250 square inches of daylight fluorescent orange-colored material. The material shall be worn on the head, chest and back combined so it is visible in a 360° arc.

(b) *Definition.* For the purpose of enforcing section 2308(a)(4) of the act (relating to unlawful devices and methods), the term "plugged" means a magazine shotgun which is plugged with a one-piece filler, incapable of removal without disassembling the shotgun or magazine.

(c) *Permitted acts.* Woodchucks may be trapped by properly licensed furtakers with permission of the person in charge of the land from February 1 through September 30 and during the general furbearer trapping season. For the purposes of this subsection, a person means a person as defined in section 2121(c) of the act (relating to definition). Traps and methods shall comply with section 2361 of the act (relating to unlawful acts concerning taking of furbearers) except that traps shall be set within 5 feet of any woodchuck hole or den.



**Subchapter C. BIG GAME**

**§ 141.48. Elk management areas.**

(a) The divisional line between two or more elk management areas shall be the center of the highway, natural water course or other natural boundary.

(b) The outline map of Pennsylvania sets forth elk management areas. Elk management area 12 comprises all areas outside Areas 1-11 inclusive. See Appendix F.

*(Editor's Note: See map of Pennsylvania Elk Management Areas, 32 Pa.B. 3950 (August 10, 2002).)*

**CHAPTER 143. HUNTING AND FURTKER LICENSES**

**Subchapter K. ELK LICENSES**

**§ 143.203. Drawing.**

(a) The Executive Director will set the date and location for the random drawing of applications for the issuance of elk licenses. Incomplete, illegible or duplicate applications will not be included in the drawing.

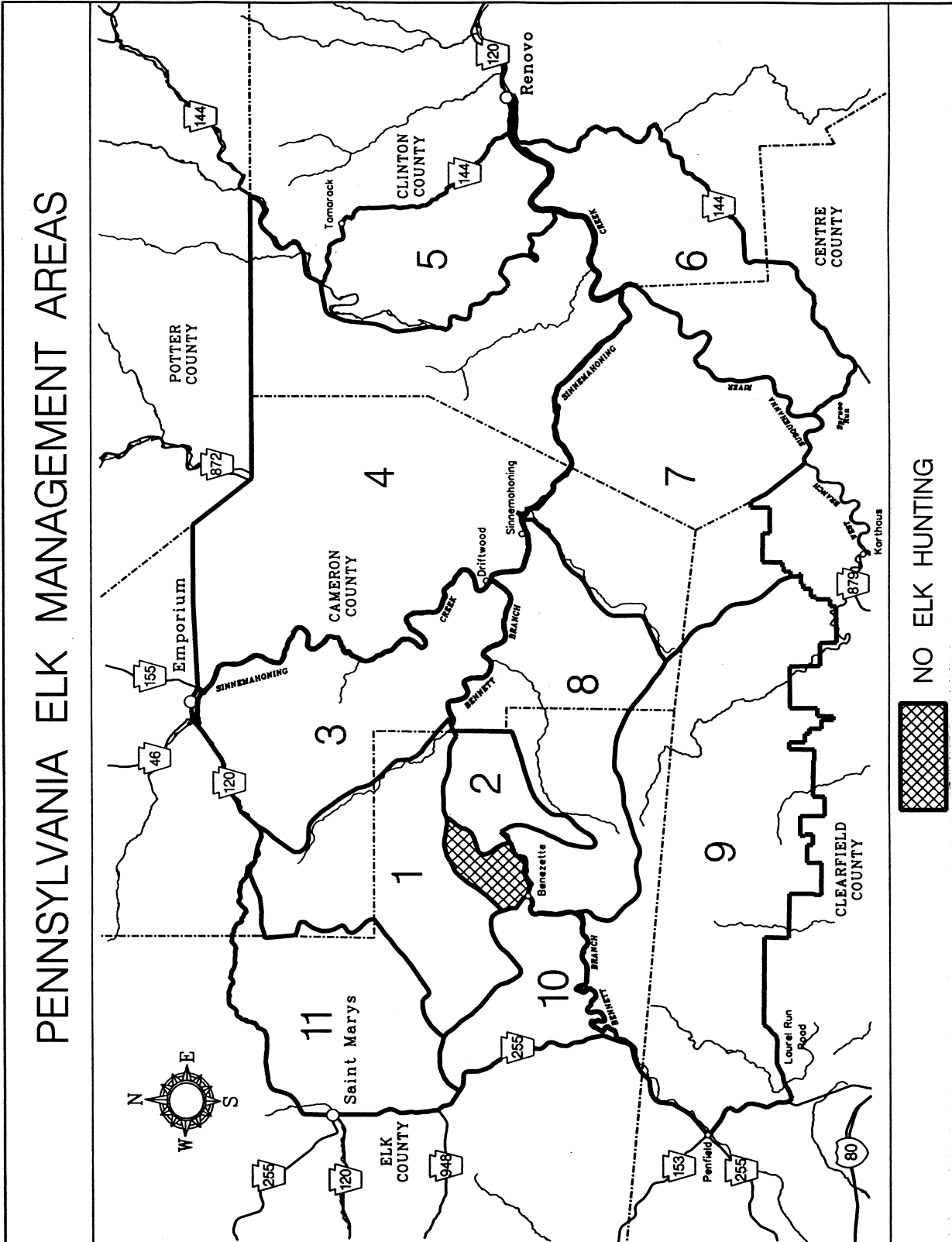
(b) In any given year, no more than 10% of the applications drawn and issued may be nonresident. A yearly cap on the number of nonresident applications that may be drawn and issued shall be based on the percentage of nonresident general hunting licenses issued the previous year.

(c) An applicant issued an antlered elk license is not permitted to apply for another elk license for 5 license years.

(d) Qualified applicants and alternates drawn for an elk license shall be required to obtain a regular hunting license prior to attending an orientation session sponsored by the Commission before the elk license is issued. Persons who are eligible for license and fee exemptions and meet the requirements in section 2706 of the act (relating to resident license and fee exemptions) are not required to purchase a regular hunting license.

(e) The number of licenses shall be limited to a number set by the Commission.

APPENDIX F



[Pa.B. Doc. No. 02-1374. Filed for public inspection August 9, 2002, 9:00 a.m.]