RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

DEPARTMENT OF ENVIRONMENTAL PROTECTION

[25 PA. CODE CH. 93]

Corrective Amendment to 25 Pa. Code § 93.9f

The Department of Environmental Protection has discovered a discrepancy between the agency text of 25 Pa. Code § 93.9f (relating to Drainage List F) as deposited with the Legislative Reference Bureau and as published at 27 Pa.B. 3050, 3052 (June 28, 1997), and the official text as published in the *Pennsylvania Code Reporter* (Master Transmittal Sheet No. 274), and as currently appears in the *Pennsylvania Code*. When the amendments made by the Department at 27 Pa.B. 3050 were codified, the water quality standards for several streams were reflected incorrectly.

Therefore, under 45 Pa.C.S. § 901: The Department of Environmental Protection has deposited with the Legislative Reference Bureau a corrective amendment to 25 Pa. Code § 93.9f. The corrective amendment to 25 Pa. Code § 93.9f is effective as of September 6, 1997, the date the defective official text was announced in the *Pennsylvania Bulletin*.

The correct version of 25 Pa. Code § 93.9f appears in Annex A, with ellipses referring to the existing text of the regulation.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE II. WATER RESOURCES

CHAPTER 93. WATER QUALITY STANDARDS

§ 93.9g. Drainage List F.

Delaware River in Pennsylvania
Schuylkill River

Stream	Zone	County	Water Uses Protected	Exception To Specific Criteria
	* * * * *			
2—Schuylkill River	Main Stem, Little Schuylkill River to Head of Tide	Philadelphia	WWF, MF	None
3—Unnamed Tributaries to Schuylkill River	Basins, Little Schuylkill River to Berks-Chester-Montgomery County Border	Schuylkill-Berks	WWF	None
3—Mill Creek	Basin	Berks	TSF	None
3—Pigeon Creek	Basin	Berks	WWF	None
3—Irish Creek	Basin	Berks	WWF	None
3—Maiden Creek	Basin, Source to Pine Creek	Berks	CWF	None
4—Pine Creek	Basin, Source to Farthest Downstream Crossing of T 803	Berks	HQ-CWF	None
4—Pine Creek	Basin, Farthest Downstream Crossing of T 803 to Mouth	Berks	CWF	None
3—Maiden Creek	Main Stem, Pine Creek to Moselem Creek	Berks	TSF	None
4—Unnamed Tributaries to Maiden Creek	Basins, Pine Creek to Moselem Creek	Berks	TSF	None
4—Furnace Creek	Basin	Berks	TSF	None
4—Maiden Creek Tributary	Basin	Berks	TSF	None
4—Sacony Creek	Basin, Source to SR 1029 Bridge in Rockland Township	Berks	EV	None
4—Sacony Creek	Basin, SR 1029 Bridge in Rockland Township to SR 1029 Bridge in Kutztown	Berks	CWF	None
4—Sacony Creek	Basin, SR 1029 Bridge in Kutztown to Mouth	Berks	TSF	None

Stream	Zone	County	Water Uses Protected	Exception To Specific Criteria
4—Moselem Creek	Basin	Berks	HQ-CWF	None
3—Maiden Creek	Basin, Moselem Creek to Tailwaters of Lake Ontelaunee	Berks	WWF	None
3—Maiden Creek	Main Stem, Lake Ontelaunee	Berks	WWF	None
4—Unnamed Tributaries to Maiden Creek	Basins, Lake Ontelaunee	Berks	WWF	None
4—Bailey Creek	Basin	Berks	WWF	None
4—Peters Creek	Basin	Berks	EV	None
3—Maiden Creek	Basin, Lake Ontelaunee Dam to Willow Creek	Berks	WWF	None
4—Willow Creek	Basin	Berks	CWF	None
3—Maiden Creek	Basin, Willow Creek to Mouth	Berks	WWF	None
3—Laurel Run	Basin, Source to Upstream Border of Temple Borough	Berks	CWF, MF	None
3—Laurel Run	Basin, Upstream Border of Temple Borough to Mouth	Berks	WWF, MF	None
3—Bernhart Creek	Basin	Berks	WWF	None

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[Pa.B. Doc. No. 01-1302. Filed for public inspection July 20, 2001, 9:00 a.m.]

DEPARTMENT OF ENVIRONMENTAL PROTECTION

[25 PA. CODE CH. 93]

Corrective Amendment to 25 Pa. Code § 93.9g

The Department of Environmental Protection has discovered a discrepancy between the agency text of 25 Pa. Code § 93.9g (relating to Drainage List G), as deposited with the Legislative Reference Bureau and as published at 28 Pa.B. 4510 (September 5, 1998) and the official text as published in the *Pennsylvania Code Reporter* (Master Transmittal Sheet No. 288) and as currently appears in the *Pennsylvania Code*. When the amendments made by the Department at 28 Pa.B. 4510 were codified, an entry for the West Branch Brandywine Creek was inadvertently omitted.

Therefore, under 45 Pa.C.S. § 901: The Department of Environmental Protection has deposited with the Legislative Reference Bureau a corrective amendment to 25 Pa. Code § 93.9g. The corrective amendment to 25 Pa. Code § 93.9g is effective as of November 8, 1998, the date the defective official text was announced in the *Pennsylvania Bulletin*.

The correct version of 25 Pa. Code § 93.9g appears in Annex A, with ellipses referring to the existing text of the regulation.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE II. WATER RESOURCES

CHAPTER 93. WATER QUALITY STANDARDS

§ 93.9g. Drainage List G.

Stream	Zone	County	Water Uses Protected	Exception To Specific Criteria
* * * * *				
3—Brandywine Creek				
4—West Branch Brandywine Creek	Basin Source to T 437 Bridge	Chester	HQ-TSF, MF	None
4—West Branch Brandywine Creek	Main Stem, T 437 Bridge to Dam at Valley Station	Chester	TSF, MF	None

Stream	Zone	County	Water Uses Protected	Exception To Specific Criteria
5—Unnamed Tributaries to West Branch Brandywine Creek	Basins, T 437 Bridge to Dam at Valley Station (except those in West Brandywine Township)	Chester	TSF, MF	None
5—Unnamed Tributaries to West Branch Brandywine Creek	Basins, in West Brandywine Township	Chester	HQ-TSF, MF	None
5—Birch Run	Basin, Source to Hibernia Park Dam	Chester	HQ-CWF	None
5—Birch Run	Basin, Hibernia Park Dam to Mouth	Chester	TSF, MF	None
5—Unnamed Tributary to West Branch Brandywine Creek at RM 21.2 (UNT # 00215)	Basin	Chester	HQ-CWF, MF	None
5—Rock Run	Basin	Chester	TSF, MF	None

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[Pa.B. Doc. No. 01-1303. Filed for public inspection July 20, 2001, 9:00 a.m.]

ENVIRONMENTAL QUALITY BOARD
[25 PA. CODE CH. 109]
Disinfectants and Disinfection Byproducts Rule

The Environmental Quality Board (Board) by this order amends Chapter 109 (relating to safe drinking water). The amendments will establish maximum residual disinfectant levels (MRDLs) and monitoring requirements for free chlorine, combined chlorine and chlorine dioxide. Maximum contaminant levels (MCLs) and monitoring requirements will be established for five haloacetic acids, chlorite and bromate. The MCL for total trihalomethanes will be lowered. The amendments will also establish prefiltration treatment techniques for public water systems that use conventional filtration in order to reduce source water total organic carbon (TOC), which serves as a precursor to disinfection byproducts.

This order was adopted by the Board at its meeting of April 17, 2001.

A. *Effective Date*

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as 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 proposal is available electronically through the Department of Environmental Protection's (Department) website (http://www.dep.state.pa.us).

C. *Statutory Authority*

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

D. *Background of the Amendments*

The public health benefits of disinfection are significant and well-recognized. However, these very disinfection practices pose health risks of their own. Although disinfectants such as chlorine, hypochlorites and chlorine dioxide are effective in controlling many harmful microorganisms, they react with organic and inorganic matter in the water to form disinfection byproducts (DBPs), which pose health risks at certain levels.

The first DBPs discovered in public drinking water were halogenated methanes in 1974. As a result, the United States Environmental Protection Agency (EPA) promulgated an MCL for the composite sum of four individual DBP species: chloroform, bromodichloromethane, dibromochloromethane and bromoform. This composite sum was termed "Total Trihalomethanes" (TTHMs) and had an MCL of 0.1 mg/L which was applied only to community water systems serving at least 10,000 people. This MCL is currently in effect today.

Since the discovery of TTHMs in drinking water in 1974, other DBPs have been identified and studied for their health effects. Many of these studies have shown DBPs to be carcinogenic and/or to cause reproductive or developmental effects in laboratory animals. Studies have also shown that high levels of the disinfectants themselves may cause health problems over long periods of time, including damage to both the blood and the kidneys. While many of these studies have been conducted at high doses, the weight of the evidence indicates that DBPs present a potential public health problem that must be addressed.

In 1992, the EPA initiated a rulemaking process to address public health concerns associated with disinfectants, DBPs and microbial pathogens. As part of this rulemaking process, the EPA established a Regulatory Negotiation (Reg/Neg) Committee which included representatives of state and local health and regulatory agencies, public water systems, elected officials, consumer groups and environmental groups.

The EPA's most significant concern in developing regulations for disinfectants and DBPs was the need to ensure that adequate treatment be maintained for controlling risks from microbial pathogens. One of the major goals addressed in the rulemaking process was to develop an approach that would reduce the level of exposure from disinfectants and DBPs without undermining the control of microbial pathogens. The intention was to ensure that drinking water is microbiologically safe at the limits set for disinfectants and DBPs and that these chemicals do not pose an unacceptable health risk at these limits. Thus, the Reg/Neg Committee also considered a range of microbial issues and agreed that EPA should also propose a companion microbial rule, the Interim Enhanced Surface Water Treatment Rule (IESWTR).

Following months of intensive discussions and technical analysis, the Reg/Neg Committee recommended the development of three sets of rules: a two-stage rule to address disinfectants and DBPs (D/DBPs), the IESWTR and an Information Collection Rule (ICR). The approach used in developing these proposals considered the constraints of simultaneously treating water to control microbial contaminants, disinfectants and DBPs. The Reg/Neg Committee agreed that the schedule for the IESWTR should be linked to the schedule of the first stage of the D/DBP rule to assure simultaneous compliance and a balanced risk-risk based implementation. The Reg/Neg Committee also agreed that additional information on health risk, occurrence, treatment technologies and analytical methods needed to be developed to better understand the risk-risk tradeoff, and how to accomplish an overall reduction in health risks to both pathogens and D/DBPs. Finally the Reg/Neg Committee agreed that to develop a reasonable set of rules and to understand more fully the limitations of the current Federal Surface Water Treatment Rule, additional field data were critical. Thus, a key component of the regulation negotiation agreement was the promulgation of the ICR.

The Federal Disinfectants and Disinfection Byproducts Rule (D/DBPR) (40 CFR Parts 9, 141 and 142), which was promulgated on December 16, 1998, was developed based on the outcome of this rulemaking process, as well as a wide range of technical comments from stakeholders and members of the public. The D/DBPR is intended to regulate treatment practices at public water systems in order to eliminate or minimize disinfectant levels and disinfection byproducts that may cause harmful health effects. The D/DBPR is applicable to all community and nontransient noncommunity water systems that use a chemical disinfectant or oxidant, as well as to all transient noncommunity water systems that use chlorine dioxide. The D/DBPR will establish MRDLs for free chlorine, combined chlorine and chlorine dioxide. MCLs will also be established for five haloacetic acids, chlorite and bromate. The current MCL for TTHMs will be lowered from 0.1 mg/L to 0.08 mg/L and will be applied to all community and nontransient noncommunity water systems, regardless of the population that is served. The D/DBPR will also regulate prefiltration treatment techniques for public water systems that use conventional filtration in order to reduce source water TOC, which serves as a precursor to disinfection byproducts.

On January 16, 2001, the EPA promulgated corrective amendments to both the D/DBPR and the IESWTR. These corrective amendments are minor in nature (such as, change in compliance date from December 17, 2001, to January 1, 2002) and are reflected in this final-form rulemaking.

Other Federal rules will be promulgated in the future as a follow-up to both the D/DBPR and the IESWTR. These rules will be the Stage 2 D/DBPR, the Long Term 1 Enhanced Surface Water Treatment Rule (LT1), the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) and the Filter Backwash Rule (FBR). The LT1 and FBR rules are expected in 2001. The LT2 and Stage 2 D/DBPR rules are expected in 2002.

The Board proposes to incorporate the provisions of both the Federal D/DBPR and the January 16, 2001, Federal corrective amendments into Chapter109 to obtain primary enforcement responsibility (primacy) for this rule.

The proposed rulemaking was approved by the Board on July 18, 2000. The proposed rulemaking was published at 30 Pa.B. 4596 (September 2, 2000). The 30-day public comment period concluded on October 2, 2000. No public meetings or hearings were held on the proposed rulemaking.

The 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 WRAC reviewed and discussed the final regulation on January 10, 2001. The WRAC commented that the 30-day approval requirement in § 109.701(e) (relating to reporting and recordkeeping) for approving monitoring plans might be unrealistic. The WRAC suggested that the 30-day requirement be revised to either 60 or 90 days, or that the approval requirement be removed altogether. After discussion with the WRAC, the Department decided to remove the approval requirement. The WRAC then approved the final-form regulations for recommendation to the Board. TAC reviewed and discussed the final-form regulations on January 25, 2001. TAC had no comments and approved the final-form regulations for recommendation to the Board.

The Federal Safe Drinking Water Act (42 U.S.C.A. § 300g-2(a)) requires that primary enforcement responsibility states, such as the Commonwealth, adopt EPA regulations no later than 2 years after the 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 November 28, 2000, the Department submitted a primacy extension request to the EPA to adopt regulations implementing both the Federal IESWTR and the Federal D/DBPR by no later than August 31, 2001. It is expected that the EPA will grant the extension because the State is adopting two or more the EPA regulations at the same time, which is one of the criteria specified for the EPA to grant an extension. If EPA grants the August 31, 2001, extension, then failure to adopt the D/DBPR 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*

The amendments reflect, and are no more stringent than, both the new Federal D/DBPR requirements and the January 16, 2001, Federal corrective amendments.

§ 109.1. Definitions.

A commentator asked what an "unacceptable possibility of adverse health effects" is, as stated in the definition of "MRDL." The "unacceptable possibility of adverse health effects" is reflected by the actual value of the MRDL. This

value is derived from the appropriate risk assessment analysis that determines the "unacceptable" level.

Representatives of the bottled water industry expressed concern that a "consumer's tap," as stated in the definition of "MRDL," does not exist at a bottled water plant. The Board has decided to amend the definition of "MRDL" to clarify that, for bottled, vended, retail and bulk hauling water systems, the "consumer's tap" shall mean the entry point.

The definition of "sedimentation" was amended to be consistent with the Federal definition of "sedimentation" in 40 CFR 141.2.

The definition of "TTHM" was added because the term is used repeatedly throughout the text of the final-form regulations. The TTHM definition is consistent with the Federal definition in 40 CFR 141.2.

§ 109.202(a). Primary MCLs

Regarding the compliance date extension offered in § 109.202(a)(3), a commentator questioned how a water system would apply for an extension and what criteria would the Department use in granting this extension. Water systems are to apply for compliance date extensions through the appropriate Department regional office. The water system will need to propose a schedule for compliance and demonstrate to the Department's satisfaction that the appropriate technology is being installed for the appropriate purpose. In accordance with the Federal requirements at 40 CFR 141.64(b)(2), the Department must set a schedule for compliance, including any interim measures that the system must take. The Department will use both a permit amendment for the construction or installation of the technology and a consent order and agreement to set the compliance schedule on a case-by-case basis.

Representatives of the bottled water industry requested that § 109.202(a)(3) include language clarifying that compliance date extensions are also available to bottled water systems. The Board declined to make this amendment because it feels that the availability of compliance date extensions to bottled water systems is adequately conveyed by way of reference throughout §§ 109.1, 109.1002(a) and 109.1003(a), wherein bottled water systems are considered to be public water systems and are subject to the same requirements as public water systems.

Section 109.202(a)(3) was amended to correct a typographical error.

§ 109.202(g). Treatment technique requirements for disinfection byproduct precursors.

Regarding the enhanced coagulation requirements referenced in § 109.202(g)(1), a commentator questioned if negative TOC percent removal values were to be recorded as zero or as the actual negative value. The correct procedure is to record the actual negative value.

A commentator requested clarification on where the "finished water" sampling, as specified in § 109.202(g)(2)(ii)(F), is to be conducted. This sampling is to be conducted prior to the addition of any disinfectants or oxidants.

The Board has decided to delete § 109.202(g)(2). The Board feels that the language in this paragraph concerning alternative compliance criteria was potentially misleading to water systems with respect to compliance strategies. In addition, the Board feels that some of the sampling points that were specified in § 109.202(g)(2) could be potentially confusing to water systems. The Board feels that this information would be better presented by way of reference to the Federal regulations in 40 CFR 141.135, as well as in future guidance.

The deletion of § 109.202(g)(2) removes the "(1)" from § 109.202(g)(1) so that § 109.202(g) now simply contains a one-paragraph body.

§ 109.301. General monitoring requirements.

Representatives of the bottled water industry have interpreted that the January 1, 2004, D/DBPR compliance date stated in § 109.301(12) for systems using groundwater sources also applies to bottled water systems that use groundwater sources. This interpretation is correct.

Section 109.301(12)(i)(A)(I)(-a-) was amended to require quarterly sampling of TTHMs and haloacetic acids as opposed to monthly sampling. This section was also amended at the EPA's request to clarify that the non-maximum residence time samples need to collectively be representative of the entire distribution system. Both of these revisions are consistent with the Federal regulations in 40 CFR 141.132(b)(1)(i).

Section 109.301(12)(i)(B)(I)(-a-)—(-c-) were amended at the EPA's request to delete the language "Systems on reduced monitoring are not required to monitor source water TOC." This language was inconsistent with Federal requirements.

A commentator requested clarification on where the treated TOC sampling, as specified in § 109.301(12)(iv)(A) and (B), is to be conducted. The treated TOC samples may be taken at any location after sedimentation treatment. The combined filter effluent is the preferable location. Entry point sampling must first receive Department approval. Section 109.301(12)(iv)(A) and (B) were amended to clarify where treated TOC samples may be taken. These new locations reflect recent D/DBPR implementation decisions made by the EPA.

Section 109.301(13)(i) was amended to correct a typographical error.

§ 109.403(d). Description and content of notice.

The Board has deleted this proposed subsection. The EPA had informed the Department that the 40 CFR Subpart O references in this subsection had changed since the promulgation of the Federal D/DBPR. The EPA also informed the Department that this Federal requirement may be included in the Department's future Consumer Confidence Rule. The EPA stated that including this language in a future rulemaking would not jeopardize the Department's efforts to obtain primary enforcement responsibility for the D/DBPR.

§ 109.701(a). Reporting requirements for public water systems.

Section 109.701(a)(8) was amended at the EPA's request to include minor EPA reporting requirements that were omitted in the proposed rulemaking. The reporting requirements in this section are now consistent with the Federal requirements.

Section 109.701(a)(9)(ii)(A) was amended at the EPA's request to delete the "entry point" specification of sample results that are to be reported. The amended language is now consistent with the Federal requirements.

§ 109.701(e). Monitoring plans for disinfectants, disinfection byproducts and disinfection byproduct precursors.

This subsection was amended to specify a submittal deadline for monitoring plans of 30 days prior to the

established reporting deadline. This submittal deadline will provide both the Department and the water system time to discuss any questions or suggestions regarding the monitoring plan.

Section 109.701(e)(2) was amended to delete references to Department approval of the monitoring plan. The Department will not be approving monitoring plans. Approval of the monitoring plan is not required by the Federal D/DBPR.

§ 109.1003(a). General monitoring requirements.

Representatives of the bottled water industry requested clarification as to where the "entry point," as specified for monitoring in § 109.1003(a)(1), is for bottled water systems. They further recommended that a "product type" be designated as the "entry point" for bottling plants in order to be consistent with Federal Food and Drug Administration requirements. The Board declined to make this amendment because it feels that the entry point for bottled water systems is adequately defined in § 109.1003(c)(1) as being "each finished bottled water product."

Representatives of the bottled water industry questioned whether the entire D/DBPR is applicable to bottled water systems, or just the bromate monitoring provisions in § 109.1003(a)(1)(viii). They asserted that the requirements for chlorine-based DBPs should not apply to bottled water systems since chlorine is typically not used by bottled water systems. The Board has amended the monitoring section. If a bottled water system does not use chlorine-based chemicals and does not use a source that has been treated with chlorine-based chemicals, then that system will not need to comply with the monitoring requirements for TTHM and HAA5. Otherwise, all D/DBPR provisions will still apply to bottled water systems.

Representatives of the bottled water industry requested that routine monitoring for bromate be quarterly rather than monthly, as stated in § 109.1003(a)(1)(viii)(A). They also requested that reduced monitoring for bromate be annually rather than quarterly, as stated in § 109.1003(a)(1)(viii)(B). The Board declined to make this amendment because the bromate monitoring requirements are consistent with the Federal D/DBPR requirements.

The Board has decided to amend § 109.1003(a)(1) to include the monitoring requirements for TTHMs, haloacetic acids and chlorite in addition to the originally proposed bromate requirements. This will clarify the DBP monitoring requirements for bottled, vended, retail and bulk hauling water systems.

Representatives of the bottled water industry requested that D/DBPR compliance determination procedures be clarified in Chapter 109. The Board declined to make this amendment because it feels that the procedures for determining compliance for the various MCLs and MRDLs are adequately conveyed in § 109.1002(a) and § 109.1003(a) by way of reference to § 109.202 and § 109.301, respectively, which reference the Federal regulations.

§ 109.1003(c). Sampling requirements.

Section 109.1003(c)(1) was amended to correct a typographical error.

§ 109.1003(d). Repeat monitoring for microbiological contaminants.

Representatives of the bottled water industry requested that a more detailed check-sample procedure be developed for total-coliform positive samples for inclusion into § 109.1003(d)(3). The Board declined to make this amendment because it feels that an adequate check-sample procedure is required in § 109.1003(d)(1)(i).

§ 109.1009(c). Disinfectant residual requirements.

Representatives of the bottled water industry asserted that with the ongoing development of alternative disinfection technologies, such as ultraviolet light, and with the proper sealing of bottled water products, there is no need to mandate residual disinfectant levels in bottled water products. The MRDL requirements of the D/DBPR apply to bottled water systems if chlorine, chloramination or chlorine dioxide is used. If a bottled water system uses only ozone, then that system will not be subject to any MRDL requirements. While the MRDL sets a maximum disinfectant level, the Department determines the minimum acceptable residual on a case-by-case basis as per the provisions of § 109.1009(c).

F. *Benefits, Costs and Compliance*

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

Benefits

The public health benefits of disinfection practices are significant and well-recognized. Disinfection, however, poses its own health risks. The amendments will implement standards that will either minimize or eliminate harmful disinfectant levels and disinfection byproducts in public water systems.

The amendments will affect 2,565 public water systems that serve a total population of over 10.4 million Commonwealth residents. These 10.4 million people will benefit from a reduction in health risks associated with disinfection practices, such as bladder cancer and kidney damage.

The EPA has estimated that the Nation may realize a total annual benefit of up to $4 billion as a result of avoiding up to 2,232 cases of bladder cancer per year. In this Commonwealth, this translates into a total annual benefit of up to $175 million in avoiding up to 98 cases of bladder cancer per year.

Compliance Costs

The EPA has estimated that a total annual cost of almost $684 million will be borne by the regulated community, Nationwide, as a result of this rule. It is estimated that water systems in this Commonwealth will bear over $23 million of this total annual cost.

The $23 million estimate will include up-front capital costs associated with process modifications. These process modifications may involve the dose or type of disinfectant chemical, the process locations of disinfectant addition, technologies or treatment techniques that reduce source water TOC, technologies or treatment techniques that remove DBPs and new source development activities.

The $23 million estimate also includes ongoing costs associated with operations and maintenance. These costs will include maintenance activities of any new technologies or sources that are installed because of this rule. These costs will also include the routine compliance expenses of monitoring, reporting and recordkeeping.

Compliance Assistance Plan

The Safe Drinking Water Program utilizes the Commonwealth's PENNVEST Program to offer financial assistance to eligible public water systems. This assistance is in the form of a low-interest loan, with some augment-

ing grant funds for hardship cases. Eligibility is based upon factors such as public health impact, compliance necessity and project/operational affordability.

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 either program staff or the regulated community.

In addition to this network of training staff, the Bureau of Water Supply and Wastewater Management has a division dedicated to providing both training and outreach support services to public water system operators. The Department's Internet site also provides a link to the Drinking Water & Wastewater Treatment System Operator Information Center Internet site, which provides a bulletin board of timely, useful information for treatment plant operators.

Paperwork Requirements

The amendments will require that water systems comply with two to four new contaminant standards, as well as with one to three new disinfectant residual standards. In order to comply with these standards, the water system will need to monitor and report these contaminants and disinfectant residuals. Water systems which treat with conventional filtration will also need to monitor and report total organic carbon, both in the source water and in the treated water.

It is anticipated that this additional monitoring and reporting should be facilitated by Department's current data reporting forms and that little, if any, additional data forms or paperwork will be necessary.

G. *Sunset Review*

These final-form regulations 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 8, 2000, the Department submitted a copy of the notice of proposed rulemaking, published at 30 Pa.B. 4596, 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 May 29, 2001, 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 June 7, 2001, and approved the final-form regulations.

I. *Findings of the Board*

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 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) These final-form regulations do not enlarge the purpose of the proposal published at 30 Pa.B. 4596.

(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 of the Board*

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, 109.203, 109.301—109.304, 109.401—109.403, 109.503, 109.505—109.507, 109.602, 109.605, 109.611, 109.612, 109.701, 109.704, 109.710, 109.801, 109.810, 109.901, 109.903, 109.1002—109.1006, 109.1009 and 109.1105 to read as set forth in Annex A.

(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 of the order of the Independent Regulatory Review Cmmission, relating to this document, see 31 Pa.B. 3370 (June 23, 2001).)

Fiscal Note: Fiscal Note 7-359 remains valid for the final adoption of the subject regulations.

Annex A

TITLE 25. 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:

Act—The Pennsylvania Safe Drinking Water Act (35 P. S. §§ 721.1—721.17).

Administrator—The Administrator of the EPA.

ANSI—The American National Standards Institute, Inc. of New York, New York.

BAT—Best Available Technology—The best technology, treatment techniques or other means which the Administrator finds are available for achieving compliance with maximum contaminant levels.

Bottled water system—A public water system which provides water for bottling in sealed bottles or other sealed containers. The term includes, but is not limited

to, the sources of water and treatment, storage, bottling, manufacturing and distribution facilities. The term does not include a public water system which provides only a source of water supply for a bottled water system and excludes an entity providing only transportation, distribution or sale of bottled water in sealed bottles or other sealed containers.

Bulk water hauling system—A public water system which provides water piped into a carrier vehicle and withdrawn by a similar means into the user's storage facility or vessel. The term includes, but is not limited to, the sources of water, treatment, storage or distribution facilities. The term does not include a public water system which provides only a source of water supply for a bulk water hauling system.

CPE—Comprehensive performance evaluation—A thorough review and analysis of a treatment plant's performance-based capabilities and associated administrative, operation and maintenance practices.

(i) The CPE is conducted to identify factors that may be adversely impacting a plant's capability to achieve compliance and emphasizes approaches that can be implemented without significant capital improvements.

(ii) The CPE shall consist of at least the following components:

(A) Assessment of plant performance.

(B) Evaluation of major unit processes.

(C) Identification and prioritization of performance limiting factors.

(D) Assessment of the applicability of comprehensive technical assistance.

(E) Preparation of a CPE report.

CT—The product of residual disinfectant concentration (C) measured in mg/L in a representative sample of water prior to the first customer, and disinfectant contact time (T); that is, "C" x "T." If disinfectants are applied at more than one point prior to the first customer, the CT is determined for each disinfectant sequence prior to the first customer to determine the total percent inactivation achieved by disinfection prior to the first customer. In determining the total percent inactivation, the residual disinfectant concentration of each disinfection sequence and corresponding contact time before subsequent disinfection application points shall be determined.

Coagulation—A process using coagulant chemicals and mixing by which colloidal and suspended material are destabilized and agglomerated into settleable or filterable flocs, or both.

Collection—The parts of a public water system occurring prior to treatment, including source, transmission facilities and pretreatment storage facilities.

Community water system—A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

Compliance cycle—A 9-year calendar year cycle during which public water suppliers shall monitor for contaminants. The first compliance cycle begins January 1, 1993, and ends December 31, 2001.

Compliance period—A 3-year calendar year period within a compliance cycle. Each compliance cycle is made up of three 3-year compliance periods. Within the first compliance cycle, the first compliance period runs from January 1, 1993, through December 31, 1995.

Confluent growth—Bacterial growth, with or without sheen, covering the entire membrane filter, or a portion thereof, in which bacterial colonies are not discrete.

Consecutive water system—A public water system which obtains all of its water from another public water system and resells the water to a person, provides treatment to meet a primary MCL or provides drinking water to an interstate carrier. The term does not include bottled water and bulk water systems.

Contaminant—A physical, chemical, biological or radiological substance or matter in water.

Conventional filtration—The series of processes for the purpose of substantial particulate removal consisting of coagulation, flocculation, sedimentation and filtration.

Corrosion inhibitor—A substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

Cross-connection—An arrangement allowing either a direct or indirect connection through which backflow, including backsiphonage, can occur between the drinking water in a public water system and a system containing a source or potential source of contamination, or allowing treated water to be removed from any public water system, used for any purpose or routed through any device or pipes outside the public water system, and returned to the public water system. The term does not include connections to devices totally within the control of one or more public water systems and connections between water mains.

Diatomaceous earth filtration—A process for the purpose of substantial particulate removal in which a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum), and while the water is filtered by passing through the cake on the septum, additional filter media, known as body feed, is continuously added to the feed water, to maintain the permeability of the filter cake.

Direct filtration—A series of processes for the purpose of substantial particulate removal consisting of coagulation and filtration. The term normally includes flocculation after coagulation, but does not include sedimentation.

Disinfectant contact time—The time in minutes that it takes for water to move from the point of disinfectant application to the point where residual disinfectant concentration is measured. Contact time in pipelines is calculated based on plug flow by dividing the internal volume of the pipeline by the flow rate through that pipeline. Contact time within mixing basins and storage reservoirs is determined by tracer studies or an equivalent demonstration. Guidance for making these determinations appears in the "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources" (U. S. EPA, Office of Drinking Water, Criteria and Standards Division).

Disinfection—A process which inactivates pathogenic organisms in water by chemical oxidants or equivalent agents, such as ultraviolet light.

Disinfection profile—The summary of daily *Giardia lamblia* inactivation through the treatment plant as determined through procedures and measurement methods established by this chapter.

Enhanced coagulation—The addition of sufficient coagulant for improved removal of disinfection byproduct precusors by conventional filtration treatment.

Enhanced softening—The improved removal of disinfection byproduct precusors by precipitative softening.

Entry point—A point acceptable to the Department at which finished water representative of each source enters the distribution system.

Environmental acts—The Clean Streams Law (35 P. S. §§ 691.1—691.1001), the Air Pollution Control Act (35 P. S. §§ 4001—4015), the Radiation Protection Act (35 P. S. §§ 7110.101—7110.703), the Surface Mining Conservation and Reclamation Act (52 P. S. §§ 1396.1—1396.31), the Noncoal Surface Mining Conservation and Reclamation Act (52 P. S. §§ 3301—3326), section 1917-A of The Administrative Code of 1929 (71 P. S. § 510-17), the Dam Safety and Encroachment Act (32 P. S. §§ 693.1—693.27), the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003), the Plumbing System Lead Ban and Notification Act (35 P. S. §§ 723.1—723.17) and any other State or Federal statutes relating to environmental protection or to the protection of the public health, safety and welfare.

Facility—A part of a public water system used for collection, treatment, storage or distribution of drinking water.

Federal act—The Safe Drinking Water Act (42 U.S.C.A. §§ 300f—300j-10).

Federal regulations—The National Primary Drinking Water Regulations and the National Secondary Drinking Water Regulations.

Filter profile—A graphical representation of individual filter performance, based on continuous turbidity measurements or total particle counts versus time for an entire filter run, from startup to backwash inclusively, that includes an assessment of filter performance while another filter is being backwashed.

Filtration—A process for removing particulate matter from water by passage through porous media.

Finished water—Water that has been treated in compliance with the treatment technique requirements established in this chapter by a permitted public water system and is ready for consumption by the public.

First-draw sample—A 1-liter sample of tap water collected in accordance with § 109.1103 (relating to monitoring requirements), that has been standing in plumbing pipes at least 6 hours and is collected without flushing the tap.

Flocculation—A process to enhance agglomeration or collection of smaller floc particles into larger, more easily settleable or filterable particles through gentle stirring by hydraulic or mechanical means.

GUDI—Groundwater under the direct influence of surface water—

(i) Any water beneath the surface of the ground with the presence of insects or other macroorganisms, algae, organic debris or large diameter pathogens such as *Giardia lamblia* and *Cryptosporidium*, or significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity or pH which closely correlate to climatological or surface water conditions.

(ii) The term does not include finished water.

HAA5—Haloacetic acids (five)—The sum of the concentrations in milligrams per liter of the haloacetic compounds (monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid and dibromoacetic acid), rounded to two significant figures after addition.

IBWA—The International Bottled Water Association, Alexandria, Virginia 22314.

IOC—Inorganic chemical.

Initial compliance period-—The first full 3-year compliance period during which a public water supply is required to monitor for a contaminant.

Innovative technology—A method, process or equipment for the treatment of drinking water which is not designated as BAT under EPA regulations and the effectiveness of which has not been commercially demonstrated in the water supply industry.

Lead service line—A service line made of lead which connects a water main to a building inlet and a lead pigtail, gooseneck or other fitting which is connected to the lead line.

MCL—Maximum Contaminant Level—The maximum permissible level of a contaminant in water which is delivered to a user of a public water system, and includes the primary and secondary MCLs established under the Federal act, and MCLs adopted under the act. For MCLs incorporated into this chapter by reference, the term refers to the numerical value and the means of determining compliance with that value and does not refer to the EPA applications to specific types of public water systems or sources.

MRDL—Maximum Residual Disinfectant Level—The maximum permissible level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap without an unacceptable possibility of adverse health effects. The consumer's tap means the entry point for bottled water and vended water systems, retail water facilities and bulk water hauling systems.

Method detection limit—The amount of a substance which the EPA has determined to be the minimum concentration which can be measured and be reported with 99% confidence that the true value is greater than zero.

NAMA—The National Automatic Merchandising Association of Chicago, Illinois.

NSF—NSF International, Ann Arbor, Michigan 48105.

NTU—Nephelometric Turbidity Unit.

National Primary Drinking Water Regulations—Primary drinking water regulations and implementation regulations promulgated by the Administrator under the Federal act at 40 CFR Parts 141 and 142 (relating to national primary drinking water regulations; and national primary drinking water regulations implementation). The term includes interim, revised and final regulations.

National Secondary Drinking Water Regulations—Secondary drinking water regulations promulgated by the Administrator under the Federal act in 40 CFR 143.1—143.4.

New source—A source of water supply that is not covered by a valid permit issued under the act of April 22, 1905 (P. L. 260, No. 182) (35 P. S. §§ 711—716) (Repealed) or under this chapter as a regular source of supply for the public water system.

Noncommunity water system—A public water system which is not a community water system.

Nontransient noncommunity water system—A noncommunity water system that regularly serves at least 25 of the same persons over 6 months per year.

Person—An individual, partnership, association, company, corporation, municipality, municipal authority, political subdivision or an agency of Federal or State government. The term includes the officers, employees and agents of a partnership, association, company, corporation, municipality, municipal authority, political subdivision, or an agency of Federal or State government.

Point-of-entry (POE) device—A treatment device used as an alternative to central treatment that is installed on a public water line or service connection to a house, building or other facility for the purpose of reducing contaminants in the water distributed throughout the house, building or facility.

Public water supplier—A person who owns or operates a public water system.

Public water system—A system which provides water to the public for human consumption which has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. The term includes collection, treatment, storage and distribution facilities under control of the operator of the system and used in connection with the system. The term includes collection or pretreatment storage facilities not under control of the operator which are used in connection with the system. The term also includes a system which provides water for bottling or bulk hauling for human consumption. Water for human consumption includes water that is used for drinking, bathing and showering, cooking, dishwashing or maintaining oral hygiene.

Repeat compliance period—A subsequent compliance period after the initial compliance period.

Retail water facility—A public water system which provides water for bottling without the use of a water vending machine by dispensing unit servings of water in containers whether or not the containers are provided by the customers.

SOC—Synthetic Organic Chemical.

SUVA—Specific ultraviolet absorption at 254 nanometers (nm)—An indicator of the humic content of water. it is a calculated parameter obtained by dividing a sample's ultraviolet absorption at a wavelength of 254 nm (UV_{254}) (in m^{-1}) by its concentration of dissolved organic carbon (DOC) (in mg/L).

Sanitary survey—An onsite review and evaluation of a public water system's source, facilities and equipment and the operation and maintenance procedures used by a public water supplier for producing and distributing safe drinking water.

Sedimentation—A process for the removal of solids before filtration by gravity or separation.

Slow sand filtration—A process for the purpose of substantial particulate removal by physical and biological mechanisms during the passage of raw water through a bed of sand at low velocity—generally less than .4 meters per hour.

Source—The place from which water for a public water system originates or is derived, including, but not limited to, a well, spring, stream, reservoir, pond, lake or interconnection.

Substantial modification—A change in a public water system that may affect the quantity or quality of water served to the public or which may be prejudicial to the public health or safety and includes the addition of new sources; the expansion of existing facilities; changes in treatment processes; addition, removal, renovation or substitution of equipment or facilities; and interconnections.

Surface water—Water open to the atmosphere or subject to surface runoff. The term does not include finished water.

System—

(i) A group of facilities used to provide water for human consumption including facilities used for collection, treatment, storage and distribution. The facilities shall constitute a system if they are adjacent or geographically proximate to each other and meet at least one of the following criteria:

(A) The facilities provide water to the same establishment which is a business or commercial enterprise or an arrangement of residential or nonresidential structures having a common purpose and includes mobile home parks, multi-unit housing complexes, phased subdivisions, campgrounds and motels.

(B) The facilities are owned, managed or operated by the same person.

(C) The facilities have been regulated as a single public water system under the Federal act or the act.

(ii) This definition may not be interpreted to require two or more currently-regulated public water systems to become one system.

TOC—Total organic carbon—The total organic carbon in mg/L measured using heat, oxygen, ultraviolet irradiation, chemical oxidants or combinations of these oxidants that convert organic carbon to carbon dioxide, rounded to two significant figures.

TTHM—Total trihalomethanes—the sum of the concentrations in milligrams per liter of the trihalomethane compounds (trichloromethane, bromodichloromethane, dibromochloromethane and tribromomethane), rounded to two significant figures after addition.

Too numerous to count—Two hundred or more total bacterial colonies on a 47-mm diameter membrane filter.

Transient noncommunity water system—A public water system which is not a community, nontransient noncommunity, bottled or vended water system, nor a retail water facility or a bulk water hauling system.

Transmission—The movement of water from the source to a point of storage, treatment or distribution or from the point of treatment to the distribution system.

Treatment technique—A requirement which specifies a specific treatment method known to cause a reduction in the level of a contaminant which cannot practically be regulated by establishing an MCL. The term includes treatment technique requirements established under the Federal act, and treatment technique requirements adopted under the act.

Type of product—A particular kind of water for bottling characterized by its source or treatment process. Examples of the water include distilled water, mineral water, spring water and well water.

VOC—Volatile synthetic organic chemical.

Vended water system—A public water system which provides water for bottling through the use of one or more water vending machines.

Waterborne disease outbreak—An illness of the same etiology experienced by two or more persons and attributed to pathogenic organisms in which the public water system is implicated as the source of illness by the Department of Health.

Water for bottling—Artificial or natural mineral, spring or other water for bottling as drinking water.

Water vending machine—A self-contained, self-service device which, upon insertion of a coin, paper currency, token, card, key or other similar means or through manual operation, dispenses unit servings of water, either in bulk or in packages, without the necessity of replenishing the device between each vending operation.

Wellhead protection area—The surface and subsurface area surrounding a water well, well field, spring or infiltration gallery supplying a public water system, through which contaminants are reasonably likely to move toward and reach the water source. A wellhead protection area shall consist of the following zones:

(i) *Zone I*. The protective zone immediately surrounding a well, spring or infiltration gallery which shall be a 100-to-400-foot radius depending on site-specific source and aquifer characteristics.

(ii) *Zone II*. The zone encompassing the portion of the aquifer through which water is diverted to a well or flows to a spring or infiltration gallery. Zone II shall be a 1/2 mile radius around the source unless a more detailed delineation is approved.

(iii) *Zone III*. The zone beyond Zone II that contributes surface water and groundwater to Zones I and II.

Wellhead protection program—A comprehensive program designed to protect a well, spring or infiltration gallery used by a public water system from contamination.

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 under § 109.402 (relating to emergency public notification).

(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)(III), 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) (relating to reporting and recordkeeping) 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.

§ 109.203. Unregulated contaminants.

The Department may by order establish an MCL or treatment technique requirement on a case-by-case basis for a public water system in which an unregulated contaminant creates a health risk to the users of the public water system. An unregulated contaminant is one for which no MCL or treatment technique requirement has been established under § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements).

§ 109.204. Disinfection profiling and benchmarking.

The disinfection profiling and benchmarking requirements, established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.172 (relating to disinfection profiling and benchmarking) are incorporated by reference except as otherwise established by this chapter. The public water supplier shall conduct disinfection profiling in accordance with the procedures and methods in the most current edition of the *Disinfection Profiling and Benchmarking Guidance Manual* published by the EPA. The public water supplier required to conduct disinfection profiling shall submit the disinfection profiling data and the benchmark data to the Department by June 1, 2001, in a format acceptable to the Department.

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 § 109.402 (relating to emergency public notification), 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:

System Size (People)	*Samples/Day*
<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:

System Size (People)	*Samples/Week*
<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 § 109.402, 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 sup-

plied 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:

System Size (People)	*Samples/Day*
<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 § 109.402(1), notify the Department within 1 hour of when the system is first notified of the total coliform-positive sample result.

(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:

Population Served	*Minimum Number of Samples per Month*
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 groundwater 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 monitoring 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 Depart-

ment. 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. 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 trimalomethanes 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 monitoring 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) The special monitoring requirements for unregulated contaminants established by the EPA under 40 CFR 141.40 (relating to special monitoring for organic chemicals) are incorporated by reference. Community water systems andnontransient noncommunity water systems serving 150 or more service connections or 500 or more persons shall monitor for the unregulated contaminants listed by the EPA under 40 CFR 141.40(n)(11) in accordance with the initial monitoring schedule for SOCs in § 109.301(7), and for sulfate listed under 40 CFR 141.40(n)(12). For sulfate, one sample shall be taken at each entry point by December 31, 1995. The Department will grant a waiver from conducting monitoring for an unregulated contaminant under 40 CFR 141.40(n)(11) based on a determination that the contaminant was not previously used, transported, stored or disposed of in the watershed or wellhead protection area Zones I and II, or the source is not susceptible to contamination by the contaminant based on the factors listed under § 109.301(6)(v). Entry points obtaining finished water from another public water system are exempt from monitoring that finished water for the unregulated contaminants listed by the EPA under 40 CFR 141.40(n)(11) and (12).

(g) 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.

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

§ 109.303. Sampling requirements.

(a) The samples taken to determine a public water system's compliance with MCLs or MRDLs or to determine compliance with monitoring requirements shall be taken at the locations identified in §§ 109.301 and 109.302 (relating to general monitoring requirements; and special monitoring requirements), or as follows:

(1) Samples for determining compliance with the turbidity MCL shall be taken at each entry point associated with a surface water source that the Department has determined shall be filtered.

(2) Samples for determining compliance with the total coliform MCL shall be taken at regular intervals throughout the monitoring period at sites which are representative of water throughout the distribution system according to an approved written sample siting plan as specified under § 109.701(a)(5) (relating to reporting and recordkeeping).

(3) Samples for determining compliance with the fluoride MCL shall be taken at each entry point.

(4) Samples for determining compliance with MCLs for organic contaminants listed by the EPA under 40 CFR 141.61 (relating to maximum contaminant levels for organic contaminants) and inorganic contaminants listed by the EPA under 40 CFR 141.62 (relating to maximum contaminant levels (MCLs) for inorganic contaminants) and with the special monitoring requirements for unregulated contaminants under § 109.302(f) shall be taken at each entry point to the distribution system after an application of treatment during periods of normal operating conditions. If a system draws water from more than one source and the sources are combined prior to distribution, the system shall sample at the entry point where the water is representative of combined sources being used during normal operating conditions.

(5) Asbestos sampling points shall be at the distribution tap where asbestos contamination is expected to be

the greatest based on the presence of asbestos cement pipe and lack of optimum corrosion control treatment, and at the entry point for each source which the Department has reason to believe may contain asbestos, except that a collected distribution sample which is representative of a source may be substituted for a required entry point sample.

(b) The samples taken to determine a public water system's compliance with treatment technique and performance monitoring requirements shall be taken at a point that is as close as practicable to each treatment technique process and that is not influenced by subsequent treatment processes or appurtenances.

(c) For the purpose of determining compliance with the monitoring and analytical requirements established under this subchapter, and Subchapter K (relating to lead and copper), the Department will consider only samples analyzed by a laboratory certified by the Department, except that measurements for turbidity, fluoridation operation, residual disinfectant concentration, temperature, pH, alkalinity, orthophosphates, silica, calcium and conductivity may be performed by a person meeting the requirements of § 109.704 (relating to operator certification).

(d) 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.

(e) Compliance monitoring samples for the VOCs listed under 40 CFR 141.61(a) shall be collected by a person properly trained by a laboratory certified by the Department to conduct VOC or vinyl chloride analysis.

(f) Compliance monitoring samples for the contaminants listed under 40 CFR 141.40(n), 141.61(a) and (c) and 141.62 may be composited in accordance with 40 CFR 141.23(a)(4) and 141.24(f)(14), (g)(7) and (h)(10) (relating to inorganic chemical sampling and analytical requirements; and organic chemicals other than total trihalomethanes, sampling and analytical requirements) except:

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

(2) Samples used in compositing shall be collected in duplicate.

(3) If a contaminant listed under 40 CFR 141.61(a) or (c) is detected at an entry point, samples from that entry point may not be composited for subsequent or repeat monitoring requirements.

(4) Samples obtained from an entry point which contains water treated by a community water supplier or a nontransient noncommunity water supplier to specifically meet an MCL for an organic contaminant listed under 40 CFR 141.61(a) or (c) or an MCL for an inorganic contaminant listed under 40 CFR 141.62 may not be composited with other entry point samples.

(g) A compliance sample required under § 109.301(9) shall be taken at a free flowing tap in the house, building or facility where the POE device is located or at a monitoring point approved by the Department on the effluent side of the POE device.

§ 109.304. Analytical requirements.

(a) Sampling and analysis shall be performed in accordance with analytical techniques adopted by the EPA under the Federal act or methods approved by the Department.

(b) An alternate analytical technique may be employed with the written approval of the Department and the concurrence of the Administrator. An alternate technique will be accepted only if it is substantially equivalent to the prescribed test in both precision and accuracy as it relates to the determination of compliance with MCLs or MRDLs or treatment technique requirements. The use of the alternate analytical technique may not decrease the frequency of monitoring required by this subchapter.

Subchapter D. PUBLIC NOTIFICATION

§ 109.401. General public notification requirements.

For the purposes of this section, the term "acute violation" means a violation of the MCL for a contaminant or another condition that may pose an acute risk to human health. Acute violations include, but are not limited to: the MCL for nitrate or nitrite is exceeded, the turbidity performance level which is required to be measured to determine compliance with § 109.202(c) (relating to State MCLs, MRDLs and treatment technique requirements) or the turbidity level at an unfiltered surface water source exceeds 5 NTU, the MCL for total coliforms is exceeded due to the presence of fecal coliforms or E. coli in the water distribution system, the MRDL for chlorine dioxide is exceeded in the distribution system 1 day after an MRDL exceedance at the entry point, failure to monitor in the distribution system 1 day after a chlorine dioxide MRDL exceedance at the entry point, and the occurrence of a waterborne disease outbreak.

(1) The public water supplier shall give public notification in accordance with this section when one of the following occurs:

(i) The public water system is not in compliance with the applicable primary MCLs, MRDLs or treatment technique requirements in Subchapter B (relating to MCLs, MRDLs or treatment technique requirements).

(ii) The public water supplier fails to perform monitoring and analyses as required by Subchapter C (relating to monitoring requirements).

(iii) The public water system is subject to a variance or exemption granted under Subchapter I (relating to variances and exemptions issued by the Department).

(iv) The public water supplier fails to comply with the requirements prescribed by a variance or exemption.

(2) A community water supplier, except for violations involving POE devices, required to provide public notification shall, at a minimum, provide public notification in a form approved by the Department as follows:

(i) The water supplier shall publish the notice within 14 days on 3-consecutive days in a daily newspaper of general circulation within the area served by the community water system and at least once every 3 months so long as the violation, variance or exemption continues. If the area served by a community water system is not served by a daily newspaper of general circulation, the water supplier shall publish the notice on 3-consecutive weeks in a weekly newspaper of general circulation serving the area. If no weekly or daily newspaper of general circulation serves the area, notice shall be given

by posting or by hand delivery to each customer in accordance with the following:

(A) Within 72 hours after a water supplier learns of an acute violation.

(B) Within 14 days after the supplier learns of any other violation or is granted a variance or exemption.

(C) If posted, the following shall apply:

(I) The notice shall remain in place continuously so long as the violation, variance or exemption continues.

(II) If the violation has been corrected prior to the start of posting, the notice shall be posted for a minimum of 14 days.

(III) The notice shall be displayed in prominent public places within the area served by the community water system.

(ii) The water supplier by mail delivery, either by direct mail or with the water bill, or by hand delivery shall give direct written notice to each customer within 45 days after the water supplier learns of the violation or is granted a variance or exemption. Additional written notice shall be sent or hand delivered to each customer at least once every 3 months so long as the violation, variance or exemption continues.

(iii) In addition to the publication of the notice in accordance with paragraph (2)(i), the water supplier, except one required to post or hand deliver the notice under paragraph (2)(i)(A) or (B) shall furnish a copy of the notice to the radio and television stations serving the area after the supplier learns of an acute violation or another primary MCL or MRDL violation under paragraph (1)(i) in accordance with the following schedule:

(A) Within 72 hours of an acute violation.

(B) Within 7 days of a violation of another primary MCL or MRDL.

(iv) The water supplier having an outstanding violation if public notification is necessitated under paragraph (1)(i), (iii) or (iv) shall give a copy of the most recent public notification to new or transferred billing units or new hookups prior to or at the time service begins.

(v) If a water supplier required to provide public notification serves a billing unit, such as an apartment complex, school, hospital, nursing home or business, in which there are consumers who are not directly notified by the supplier, the following language shall be included in the notice:

> "If you, as our customer, have received this notice and there are consumers receiving water from you, such as tenants, residents, patients, students or employees, you should make this notice available to them by posting it in a conspicuous location and by direct hand or mail delivery."

(vi) A consecutive water supplier or a public water supplier that is receiving part of the water it serves from another public water system that experiences a condition described in paragraph (1)(i), (iii) or (iv) shall provide notice to its customers in accordance with this section on receipt of the notification from the public water system supplying the water. The requirements of paragraph (2)(i) and (iii) may be met for a public water supplier purchasing the water if the public water system that is supplying the water includes the name of the public water system being served in the public notification it issues to comply with paragraph (2)(i) and (iii).

(3) A noncommunity water supplier required to provide public notification shall, at a minimum:

(i) Post the notice in accordance with the following schedule:

(A) Within 72 hours after the supplier learns of an acute violation.

(B) Within 14 days after the supplier learns of another violation or is granted a variance or exemption.

(ii) The notice shall remain in place continuously so long as the violation, variance or exemption continues or for a minimum of 14 days, if the violation has been corrected prior to the start of posting.

(iii) The water supplier shall post the notice in conspicuous locations where it can be seen by its customers.

(4) Public water suppliers that have a violation under paragraph (1)(i) or (ii) involving a POE device shall provide public notification in a form approved by the Department as follows:

(i) Community water suppliers shall, within 7 days after learning of the violation, provide direct written notice to each customer where a violation has occurred and provide written notices at least once every 2 months for as long as the violation continues.

(ii) Noncommunity water suppliers, including nontransient, noncommunity water suppliers, shall post a notice in a prominent public place within the areas served by the POE devices. The notice shall be posted continuously for as long as the violation continues.

§ 109.402. Emergency public notification.

In addition to the requirements of § 109.401 (relating to general public notification requirements), the Department may require public notice by providing a water supply warning to be given if conditions in a public water system present an imminent hazard to the public health.

(1) A public water supplier who knows that a primary MCL or MRDL has been exceeded or a 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 circumstance to the Department within 1 hour of discovery of the problem.

(2) If the Department determines, based upon information provided by the public water supplier or other information available to the Department, that the circumstances present an imminent hazard to the public health, the public water supplier shall issue a water supply warning approved by the Department under this subsection. The public water supplier is 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 public 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 public water supplier shall also notify key public officials as designated in the public water system's emergency response plan.

(ii) The Department may require the public 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 toward 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 cancelling the water supply warning. The public water supplier shall be responsible for disseminating the cancellation of the water supply warning in a manner similar to the issuance of the warning.

(v) If a noncommunity water system is a place in which persons 17 years of age and under are cared for or educated, such as a school or day care center, notice issued under this subsection shall also be disseminated individually to the parent or guardian of those persons.

(3) If nitrate or nitrite sampling results exceed the MCL, and when the water supplier does not take a confirmation sample within 24 hours as required by § 109.303(7)(ii)(C)(V) (relating to sampling requirements), it will be considered that an imminent hazard is present and the supplier shall issue a water supply warning in accordance with paragraph (2).

§ 109.403. Description and content of notice.

(a) Notice given under this subchapter shall be written in a manner reasonably designed to fully inform the users of the system.

(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, an MRDL or a treatment technique requirement has been violated and the 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, the necessity for seeking alternative supplies, guidance on safeguards and alternatives available to users and the results of additional sampling.

(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.

(b) If appropriate or as designated by the Department, bilingual or multilingual notice shall be given.

(c) In all notices, except for those required by § 109.401(1)(ii) (relating to general public notification requirements), when providing the information on potential adverse health effects required by subsection (a)(3), the water supplier shall include language that is presently or may be established by the EPA for the contaminant under 40 CFR 141.32(e) (relating to mandatory health effects language) or 40 CFR 143.5(b) (relating to public notices for fluoride) which are incorporated by reference.

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 informa-

tion 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 byphenyls (PCBs) and simazine unless the Department determines in writing that monitoring for one or more of the substances specified in this clause 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 souce of dioxin contamination within 1,000 feet of a groundwater source or within 1 mile upstream of a surface water source.

(VII) Gross Alpha (α) and Gross Beta (β).

(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).

(3) Applications for permits or major permit amendments submitted to satisfy the requirements of Subchapter B (relating to MCLs, MRDLs or treatment technique requirements) for removal of VOCs and SOCs through the construction of treatment facilities designed to achieve greater removal of contaminants than would be achieved by conventional filtration shall be accompanied by a fee of $2,500.

(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.

§ 109.505. Requirements for noncommunity water systems.

A noncommunity water system shall obtain a construction permit under § 109.503 (relating to public water system construction permits) and an operation permit under § 109.504 (relating to public water system operation permits), unless the noncommunity water system satisfies paragraph (1) or (2). The Department retains the right to require a noncommunity water system that meets the requirements of paragraph (1) or (2) to obtain a construction and an operation permit, if, in the judgment of the Department, the noncommunity water system cannot be adequately regulated through standardized specifications and conditions. A noncommunity water system which is released from the obligation to obtain a construction and an operation permit shall comply with the other requirements of this chapter, including design, construction and operation requirements described in Subchapters F and G (relating to design and construction standards; and system management responsibilities).

(1) A noncommunity water system which holds a valid permit or license issued after December 8, 1984, under one or more of the following acts satisfies the permit requirement under the act. The licensing authority will review the drinking water facilities under this chapter when issuing permits under the following acts:

(i) The act of May 23, 1945 (P. L. 926, No. 369) (35 P. S. §§ 655.1—655.13).

(ii) The Seasonal Farm Labor Act (43 P. S. §§ 1301.101—1301.606).

(iii) The Public Bathing Law (35 P. S. §§ 672—680d).

(2) A noncommunity water system not covered under paragraph (1) is not required to obtain a construction and an operation permit if it satisfies the following specifications and conditions:

(i) The sources of supply for the system are groundwater sources requiring treatment no greater than disinfection to provide water of a quality that meets the primary MCLs established under Subchapter B (relating to MCLs, MRDLs or treatment technique requirements).

(ii) The water supplier files a brief description of the system, including raw source quality data, on forms acceptable to the Department. Amendments to the system description shall be filed when a substantial modification is made to the system. Descriptions of new systems or modifications may be filed prior to construction if the water supplier desires technical assistance, but shall be filed within 30 days of initiation of operation of the system or modification.

(3) A noncommunity water system which satisfies the requirements of paragraphs (1) and (2) shall provide the Department with the following information describing new sources, including an evaluation of the quality of the raw water from each new source. Water quality analyses shall be conducted by a laboratory certified under this chapter. This paragraph does not apply when the new source is finished water obtained from an existing permitted community water system or an existing permitted or approved noncommunity water system unless the Department provides written notice that one or more of the provisions of this paragraph apply.

(i) For transient noncommunity water systems, the evaluation shall include analysis of the following:

(A) Nitrate (as nitrogen) and nitrite (as nitrogen).

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

(C) Any other contaminant which the Department determines is necessary to evaluate the potability of the source or which the Department has reason to believe is present in the source water and presents a health risk to the users of the system.

(ii) For nontransient noncommunity water systems, the evaluation shall include the information required under § 109.503(a)(1)(iii)(B).

§ 109.506. Emergency permits.

(a) In emergency circumstances, the Department may issue permits for construction, operation or modifications to a public water system as the Department determines may be necessary to assure that potable drinking water is available to the public. Emergency permits shall be limited in duration and at the Department's discretion be

conditioned on additional monitoring, reporting and implementation of appropriate emergency response measures. The Department may revoke an emergency permit if it finds the public water system is not complying with drinking water standards or the terms or conditions of the permit. Authorization for construction, operation or modifications obtained under an emergency permit will not extend beyond the expiration of the permit.

(b) State and Federal agencies conducting emergency response bulk water hauling operations are not required to obtain a permit under this subchapter, if a Department approved source is utilized and adequate monitoring is conducted to assure compliance with the microbiological MCL specified in § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements).

(c) Water suppliers having to comply with § 109.603(b) (relating to source quality and quantity) because of chronic water quantity problems shall apply for an amendment to their construction permit in accordance with § 109.503(b) (relating to public water system construction permits) to incorporate additional sources.

§ 109.507. Permits for innovative technology.

The Department may consider proposals for innovative water treatment processes, methods or equipment and may issue an innovative technology construction or operation permit if the applicant demonstrates to the Department's satisfaction that the proposal will provide drinking water that complies with Subchapter B (relating to MCLs, MRDLs or treatment technique requirements). Applications for innovative technology construction permits shall satisfy the requirements of § 109.503 (relating to public water system construction permits). The Department may condition innovative technology operation permits on duration, additional monitoring, reporting or other requirements as it deems necessary to protect the public health. The Department may revoke an innovative technology construction or operation permit if it finds the public water system is not complying with drinking water standards or the terms or conditions of the permit or if there is a significant change in the source water quality which could affect the reliability and operability of the treatment facility. Authorization for construction, operation or modifications obtained under an innovative technology permit will not extend beyond the expiration date of the permit.

Subchapter F. DESIGN AND CONSTRUCTION STANDARDS

§ 109.602. Acceptable design.

(a) A public water system shall be designed to provide an adequate and reliable quantity and quality of water to the public. The design shall ensure that the system will, upon completion, be capable of providing water that complies with the primary and secondary MCLs, MRDLs and treatment techniques established in Subchapter B (relating to MCLs, MRDLs or treatment technique requirements) except as further provided in this section.

(1) The Department may approve control techniques such as nonremoval processes, which abate the problems associated with a secondary contaminant and achieve the objective of the secondary MCL.

(2) The Department may approve a design which may cause an exceedance of a secondary MCL if the exceedance directly results from a treatment method used to achieve compliance with a primary MCL, the level of the secondary contaminant in the finished water does not represent an unreasonable risk to health nor otherwise adversely affect the normal uses of the finished water.

(b) Designs of public water facilities shall conform to accepted standards of engineering and design in the water supply industry and shall provide protection from failures of source, treatment, equipment, structures or power supply.

(c) The Department's *Public Water Supply Manual* sets forth design standards which the Department finds to be acceptable designs. Other designs may be approved by the Department if the applicant demonstrates the alternate design is capable of providing an adequate and reliable quantity and quality of water to the public.

(d) Filtration facilities permitted after May 16, 1992, unless otherwise authorized under § 109.507 (relating to permits for innovative technology), shall be designed to include individual sampling ports or turbidimeters on the raw source water line, on the influent line to the filters and on the effluent lines for each filter bed.

(e) Point-of-use devices which are treatment devices applied to a single tap are not an acceptable treatment method for complying with an MCL or treatment technique requirement.

§ 109.605. Minimum treatment design standards.

The level of treatment required for raw water depends upon the characteristics of the raw water, the nature of the public water system and the likelihood of contamination. The following minimum treatment design standards apply to new facilities and major changes to existing facilities:

(1) For surface water and GUDI sources, the minimum treatment design standard for filtration technologies is a 99% removal of *Giardia* cysts, a 99% removal of *Crytosporidium* oocycsts and a 99% removal of viruses. The determination of the appropriate filtration technology to be used shall be based on the following:

(i) Conventional filtration designed and operated in accordance with standards established in the Department's *Public Water Supply Manual* can be expected to achieve the minimum treatment design standard and shall be considered the best treatment for most surface water sources in this Commonwealth because of the multiple barriers of protection that it provides.

(ii) Direct filtration, slow sand filtration and diatomaceous earth filtration may be permitted if studies, including pilot studies where appropriate, approved by the Department are conducted and demonstrate, through achievement of the turbidity performance standards specified in § 109.202(c)(1)(i) (relating to State MCLs, MRDLs and treatment technique requirements), that the minimum treatment design standard can be achieved consistently, reliably and practically under appropriate design and operating conditions.

(iii) Other filtration technologies may be permitted after onsite studies, including pilot plant studies where appropriate, using seeded indicator organisms in the raw water or other equivalent means as approved by the Department, that demonstrate that the technology can consistently achieve the minimum treatment design standard.

(2) For surface water and GUDI sources, the minimum treatment design standard for disinfection technologies utilized prior to the first user of the system is a total of 99.9% inactivation of Giardia cysts and a 99.99% inactivation of viruses. Total treatment system disinfection capa-

bility will be credited toward this design standard. The CT factors and measurement methods established by the EPA are the criteria to be used in determining compliance with this minimum treatment design standard.

§ 109.611. Disinfection.

Disinfection facilities shall be designed to provide the dosage rate and contact time prior to the first customer sufficient to provide a quality of water that complies with the microbiological MCL and the appropriate MRDL, specified in § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements).

§ 109.612. POE devices.

(a) POE devices may be approved by the Department for use only by a public water supplier serving 100 or fewer individuals for the treatment of sources permitted prior to May 16, 1992.

(b) POE devices used by a public water supplier shall be tested and certified by the NSF or other certification organization acceptable to the Department against ANSI/NSF standards established for drinking water treatment devices. To be acceptable to the Department a certification organization other than NSF shall have a program at least as stringent as the NSF program and meet the requirements under § 109.606(d) (relating to chemicals, materials and equipment) as applicable to ANSI/NSF standards for drinking water treatment devices.

(c) A public water supplier using POE devices as a means of treatment shall install a POE device on the service line to customers, except for customers who are provided with water that meets the requirements of Subchapter B (relating to MCLs, MRDLs or treatment technique requirements) without the use of a POE device.

(d) The design, installation and operation of a POE device shall be of a type that the microbiological safety of the water is maintained.

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)(l)(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.* The water supplier shall report to the Department within 48 hours failure to comply with Subchapter C (relating to monitoring requirements), except that emergency notification shall be made under § 109.402 (relating to emergency public notification).

(4) *Notice.* The water supplier shall, within 10 days of completion of each public notification required under Subchapter D (relating to public notification), submit to the Department a representative copy of each type of notice and a description of the publication, distribution, posting or other 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 this 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 system 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).

(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 amonitoring plan shall be submitted in written form to the Department within 30 days of notifying the Department of the revisions.

§ 109.703. Facilities operation.

(a) Public water system facilities approved by written permit from the Department shall be operated in a manner consistent with the terms and conditions of the permit to achieve the level of treatment for which the facilities were designed.

(b) For surface water or GUDI sources, a public water supplier using filtration shall comply with the following requirements:

(1) By July 1, 1990, suppliers using conventional or direct filtration shall, after filter backwash, and before putting the backwashed filter back on line, filter-to-waste until one of the following occurs:

(i) The filter bed effluent turbidity is less than .5 NTU at the normal production flow rate.

(ii) When source water turbidity is less than 1.0 NTU, a 50% reduction in turbidity is achieved.

(2) Beginning May 16, 1992, a supplier using slow sand filtration shall, following sanding, scraping or resanding of slow sand filters, filter-to-waste until one of the following occurs:

(i) The filter bed effluent turbidity is less than 1.0 NTU at the normal production flow rate.

(ii) A reduction in turbidity is achieved when the source water turbidity is less than 1.0 NTU.

(3) Beginning May 16, 1992, a supplier using diatomaceous earth filtration shall, following backwashing and recoating of diatomaceous earth filters, filter-to-waste until one of the following occurs:

(i) The filter bed effluent turbidity is less than 1.0 NTU at the normal production flow rate.

(ii) A reduction in turbidity is achieved when the source water turbidity is less than 1.0 NTU.

(4) For a conventional or direct filtration facility permitted prior to March 25, 1989, without filter-to-waste capability, the Department, upon the supplier's request, may allow the supplier to utilize other operating techniques which minimize the initial increased turbidity peak when a filter is initially placed back into service after backwashing. The technique, which may include filter settling periods, ramping open the effluent valve or use of a coagulant in the backwash water, shall be justified by a filter performance study approved by the Department.

(5) Except for public water systems covered under § 109.301(1)(iv) (relating to general monitoring requirements), a system with conventional or direct filtration facilities permitted prior to March 25, 1989, without individual filter bed turbidity monitoring capabilities shall conduct an annual filter bed evaluation program, acceptable to the Department, which includes an evaluation of filter media, valves, surface sweep and sampling of filter turbidities over one entire filter run; and shall submit to the Department, with the Annual Water Supply Report, a study that demonstrates that the water supplier's filter-to-waste or alternate approved operating procedures are meeting the operating conditions under paragraph (1) or (4).

§ 109.704. Operator certification.

(a) Community water systems shall have personnel certified under the Sewage Treatment Plant and Waterworks Operators' Certification Act (63 P. S. §§ 1001—1015) and qualified by experience and education to operate and maintain a public water system.

(b) Noncommunity water systems shall have competent personnel qualified to operate and maintain the system's facilities.

(c) Beginning July 21, 2004, nontransient noncommunity water systems that provide water that contains a chemical disinfectant shall be operated by qualified personnel certified under the Sewage Treatment Plant and Waterworks Operators' Certification Act (63 P. S. §§ 1001—1015). The minimum certification to operate these facilities shall be a certificate to operate plants with disinfection only, under § 303.2 (relating to waterworks operators certificates).

§ 109.710. Disinfectant residual in the distribution system.

(a) A disinfectant residual acceptable to the Department shall be maintained throughout the distribution system of the community water system sufficient to assure compliance with the microbiological MCLs and the treatment technique requirements specified in § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements). The Department will determine the acceptable residual of the disinfectant considering factors such as type and form of disinfectant, temperature and pH of the water, and other characteristics of the water system.

(b) A public water system that uses surface water or GUDI sources or obtains finished water from another permitted public water system using surface water or GUDI sources shall comply with the following requirements:

(1) As a minimum, a detectable residual disinfectant concentration of 0.02 mg/L measured as total chlorine, combined chlorine or chlorine dioxide shall be maintained throughout the distribution system as demonstrated by monitoring conducted under § 109.301(1) and (2) or (7)(v) (relating to general monitoring requirements).

(2) Sampling points with nondetectable disinfectant residuals which have heterotrophic plate count (HPC) measurements of less than 500/ml are deemed to be in compliance with paragraph (1).

(3) When the requirements of paragraph (1) or (2) cannot be achieved, the supplier shall initiate an investigation under the Department's direction to determine the cause, potential health risks and appropriate remedial measures.

(c) Public water systems may increase residual chlorine or chloramine, but not chlorine dioxide, disinfectant levels in the distribution system to a level that exceeds the MRDL for that disinfectant and for a time necessary to protect public health or to address specific microbiological contamination problems caused by circumstances such as, but not limited to, distribution line breaks, storm runoff events, source water contamination events or cross-connection events.

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

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

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

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

(i) Assessment of filter performance.

(ii) Development of a filter profile.

(iii) Identification and prioritization of factors limiting filter performance.

(iv) Assessment of the applicability of corrections.

(v) Preparation of a filter self-assessment report.

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

(i) Notify the Department within 24 hours of the turbidity level exceedance.

(ii) Arrange for the conduction of a CPE by the Department no later than 30 days following the turbidity level exceedance.

(iii) Ensure that the CPE is completed and submitted to the Department no later than 90 days following the turbidity level exceedance.

Subchapter H. LABORATORY CERTIFICATION

§ 109.801. Certification requirement.

A laboratory shall be certified under this subchapter to perform analyses acceptable to the Department for the purposes of ascertaining drinking water quality and demonstrating compliance with monitoring requirements established in Subchapter C (relating to monitoring requirements).

(1) The drinking water quality parameters for which general monitoring is prescribed under Subchapter C are divided into the certification categories of microbiological contaminants, inorganic chemicals, organic chemicals and radionuclides. The categories are further divided into subcategories.

(2) A laboratory may apply for and obtain certification in one or more of the certification categories or subcategories. The laboratory shall demonstrate competence to analyze all parameters in the category or subcategory for which certification is sought.

(3) A parameter of drinking water quality for which no MCL, MRDL or monitoring requirement of general applicability has been established may be part of a certification subcategory.

§ 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.

§ 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 the Department cannot be reached due to an occurrence during weekend, holiday or evening hours, notify the Department by phone within 2 hours of the beginning of the next business day.

(2) Notify the Department 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.

(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 existing certification for a category of certification.

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

Subchapter I. VARIANCES AND EXEMPTIONS ISSUED BY THE DEPARTMENT

§ 109.901. Requirements for a variance.

(a) The Department may grant one or more variances to a public water system from a requirement respecting a MCL upon finding that:

(1) The public water system has installed and is using the best treatment technology, treatment methods or other means that the Department in concurrence with the Administrator finds are generally available to reduce the level of the contaminant.

(2) The water supplier has demonstrated to the Department that, because of characteristics of the raw water sources which are reasonably available to the system, the system cannot meet the requirements respecting the MCLs.

(3) The granting of a variance will not result in an unreasonable risk to the health of persons served by the system.

(b) The Department may grant one or more variances to a public water system from a treatment technique requirement upon a finding that the public water supplier applying for the variance has demonstrated that, because of the nature of the raw water source of the system the treatment technique is not necessary to protect the health of the persons served by the system. The treatment technique requirements established under § 109.202(c) (relating to State MCLs, MRDLs and treatment techniques requirements) and treatment technique requirements established under § 109.1102(b) (relating to action levels and treatment technique requirements) are not eligible for a variance.

§ 109.903. Requirements for an exemption.

(a) The Department may exempt a public water system from an MCL or treatment technique requirement upon finding that:

(1) Due to compelling factors, the public water system is unable to comply with the contaminant level or treatment technique requirement.

(2) The public water system was in operation on the effective date of the contaminant level or treatment technique requirement or, for a system that was not in operation by that date, only if no reasonable alternative source of drinking water is available to the new system.

(3) The granting of the exemption will not result in an unreasonable risk to health.

(b) The treatment technique requirements established under § 109.202(c) (relating to State MCLs, MRDLs and treatment technique requirements) and treatment technique requirements established under § 109.1102(b) (relating to action levels and treatment technique requirements) are not eligible for an exemption.

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

§ 109.1002. MCLs, MRDLs or treatment techniques.

(a) Bottled water and vended water systems, retail water facilities and bulk water hauling systems shall supply drinking water that complies with the MCLs, MRDLs and treatment technique requirements under §§ 109.202 and 109.203 (relating to State MCLs, MRDLs and treatment technique requirements; and unregulated contaminants). Bottled water systems, vended water systems, retail water facilities and bulk water hauling systems shall provide continuous disinfection for groundwater sources. Water for bottling labeled as mineral water, under § 109.1007 (relating to labeling requirements for bottled water systems, vended water systems and retail water facilities) shall comply with the MCLs except that mineral water may exceed the MCL for total dissolved solids.

(b) Bottled water and vended water systems, retail water facilities and bulk water hauling systems shall supply drinking water that contains no more than 0.005 mg/L of lead and no more than 1.0 mg/L copper.

§ 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 quar-

terly 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 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) (relating to permit requirements), 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) *Special monitoring requirements for unregulated contaminants.* Bottled water and vended water systems, retail water facilities and bulk water hauling systems, except vended water systems permitted by rule, shall monitor for the unregulated contaminants in accordance with the initial monitoring schedule for VOCs as prescribed in subsection (a).

(c) *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), and for the unregulated contaminants as required under subsection (b), shall be collected by a person properly trained by a laboratory certifed by the Department to conduct VOC or vinyl chloride analysis.

(5) Compliance monitoring samples required under subsections (a)(1)(iii) and (b) 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.

(d) *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 3 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, vended water, retail water or bulk water supplier shall give public notification in accordance with this section. In addition, a bulk water supplier shall give public notification in accordance with §§ 109.401(a) and 109.406(b) (relating to general public notification requirements; and public notice requirements for unregulated contaminants).

(1) A bottled water, vended water, retail water or bulk 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, vended water, retail water or bulk 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 and vended water systems, retail water facilities and bulk water hauling system 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, except for those required by § 109.401(a)(2), 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 under 40 CFR 141.32(e) (relating to mandatory health effects language) or 40 CFR 143.5(b) (relating to public notices 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.

§ 109.1005. Permit requirements.

(a) *General permit requirement.* A person may not construct or operate a bottled water or vended water

system, retail water facility or bulk water hauling system without first having obtained a public water system permit under subsection (b) or (e).

(b) *Special permit by rule requirement for vended water systems.*

(1) A person constructing and operating a vended water system shall obtain a separate and distinct permit under subsection (d) for each water vending machine owned by the same person unless the vended water system satisfies the conditions in this subsection. A separate and distinct permit by rule will be required for each Department region in which the water vending machines are located. The Department retains the right to require a vended water system that meets the requirements of this subsection to obtain a permit, if, in the judgment of the Department, the vended water system cannot be adequately regulated through the standardized specifications and conditions. A vended water system which is released from the obligation to obtain a permit shall comply with the other requirements of this subchapter, including design, construction and operation requirements.

(i) A vended water system in which all water vending machines are located in the same Department region.

(ii) A vended water system which has as its sole source of water, finished water from existing permitted community water systems and uses only NAMA approved water vending machines satisfies the permit requirement of the act.

(2) A vended water system covered under this subsection shall register with the Department on forms provided by the Department. Amendments to the registration shall be filed when a substantial modification is made to the system. Descriptions of modifications shall be filed within 30 days of operation of the modification.

(c) *Special permit by rule requirement for bottled water systems.* A person owning or operating a bottled water system in this Commonwealth permitted under this chapter shall obtain an amended permit before making substantial modifications to the processing and bottling facilities unless the bottled water system satisfies the conditions in paragraphs (1)—(5). The permit-by-rule does not apply to the collection facilities. The Department retains the right to require a bottled water system that meets the requirements of paragraphs (1)—(5) to obtain a permit, if, in the judgment of the Department, the bottled water system cannot be adequately regulated through the standardized specifications and conditions. A bottled water system which is released from the obligation to obtain a permit shall comply with the other requirements of this subchapter, including design, construction and operation requirements. The following are the conditions for a permit-by-rule:

(1) The bottled water system has as its sole source of water permitted groundwater sources which are not under the direct influence of surface water as determined through the Department's *Guidance for Surface Water Identification* protocol or finished water from a Department approved community water system.

(2) The water quality of the sources does not exceed the Food and Drug Administration quality standards for primary (that is, health-related) chemical and radiological contaminants specified in 21 CFR 165.110 (relating to bottled water) as determined under sampling conducted under subsection (e)(4)(ii) and requires treatment no greater than disinfection to provide water of a quality that meets the primary MCLs established under Subchapter B (relating to MCLs and treatment techniques).

(3) Proof that the facilities meet the standards of the Food and Drug Administration in 21 CFR Parts 110, 129 and 165 (relating to current good manufacturing practice in manufacturing, packing, or holding human food; processing and bottling of bottled drinking water; and beverages) and the IBWA *Model Bottled Water Code* as determined by an onsite evaluation conducted by a Nationally recognized, independent, not-for-profit third-party organization such as NSF or other organization acceptable to the Department. The onsite evaluation shall be conducted annually. The proof shall consist of the report issued by the organization which shall be submitted to the Department within 30 days following the completion of the onsite evaluation. To be acceptable to the Department, the organization shall:

(i) Be accredited by ANSI as a third-party inspection/evaluation organization.

(ii) Have well developed, documented policies, procedures and contracts to support Department enforcement actions for meeting compliance objectives.

(4) A bottled water system intending to operate under this subsection shall submit written notification to the Department with documentation that the system complies with paragraphs (1)—(3).

(5) A bottled water system operating under this subsection shall file descriptions of substantial modifications made to the system to the Department within 30 days of operation of the modification. The description shall include documentation that the modification meets the following requirements as applicable:

(i) Compliance with the product water-contact materials and treatment chemical additives toxicological requirements of § 109.606 (relating to chemicals, materials and equipment) or alternatively, the Food and Drug Administration standards in 21 CFR Part 129.

(ii) Validated treatment technologies for the reduction of contaminants. Validated treatment technologies are those that have been permitted by the Department under this chapter at the bottled water system operating under the permit by rule or certified to an applicable ANSI/NSF standard by NSF or other certification organization acceptable to the Department or verified under the EPA Environmental Technology Verification Program. To be acceptable to the Department, a certification organization other than NSF shall be accredited by ANSI as a third-party certification organization and meet the requirements under § 109.606(d) as applicable to the appropriate ANSI/NSF standard for the treatment technology.

(6) The Department will publish a notice in the *Pennsylvania Bulletin* of its determination that a bottled water system has complied with paragraphs (1)—(4) and is operating under the permit by rule. The Department will publish a notice in the *Pennsylvania Bulletin* of descriptions submitted under paragraph (5) of substantial modifications made by a bottled water system operating under the permit-by-rule.

(d) *Permit amendments.* A person may not substantially modify a bottled water or vended water system, retail water facility or bulk water hauling system operated under a public water system permit without obtaining a permit amendment from the Department or otherwise complying with subsection (f).

(e) *Permit applications.* An application for a public water system permit for a bottled water or vended water system, retail water facility or bulk water hauling system 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 Management, Post Office Box 8467, Harrisburg, Pennsylvania 17105-8467 which contains acceptable design standards and technical guidance. Water quality analyses shall be conducted by a laboratory certified under this chapter. An application for a public water system permit for a bottled water or vended water system, retail water facility or bulk water hauling system shall include:

(1) The signature of the appropriate individual identified in § 109.503(a)(1)(i) (relating to public water system construction permits).

(2) Plans, specifications and engineer's report or modules prepared by or under the supervision of a professional engineer registered to practice in this Commonwealth, or in the state in which the water system is located, except that manufacturer's drawings and specifications for equipment or vending machines may be submitted in lieu of plans and specifications, as prescribed in this section, for the equipment or machines.

(3) The front cover or flyleaf of each set of drawings, and of each copy of the specifications and engineer's report, except for manufacturer's drawings and specifications, shall bear the signature and imprint of the seal of the registered professional engineer. Each drawing shall bear an imprint or a legible facsimile of the seal.

(4) Information describing new sources as follows:

(i) A comprehensive sanitary survey of the physical surroundings of each new source of raw water.

(ii) An evaluation of the quantity and quality of the raw water available from each new source. The evaluation shall include data for each primary and secondary contaminant and other contaminants the Department determines necessary to evaluate potability of the source. When a new source is finished water from another public water system, the most recent quality data if in compliance with the monitoring requirements of this chapter, obtained from the public water system supplying the finished water may be submitted.

(5) An erosion and sedimentation control plan which meets the requirements in Chapter 102 (relating to erosion and sediment control) when earthmoving activities are involved.

(6) In lieu of compliance with paragraphs (2)—(5), the Department may accept approval of an out-of-State systems' source and facilities by the agency having jurisdiction over drinking water in that state if the supplier submits proof of the approval by the other State agency.

(7) In addition to the information required under paragraphs (1)—(6), an application for a bottled water system permit shall include:

(i) An analysis of the quality of the manufactured water for each bottled water product. The analysis shall include data for each primary and secondary contaminant under § 109.1002 (relating to MCLs, MRDLs or treatment techniques).

(ii) A copy of each label of identification to be affixed to each type of bottled water product and trade name distributed by the public water system.

(iii) Proof that the system is in compliance with the standards of the Food and Drug Administration contained in 21 CFR Part 129.

(A) For out-of-State bottled water systems, the proof shall consist of the report issued by a Nationally recognized organization which inspects bottled water systems for compliance with 21 CFR Part 129, such as NSF, or another organization, state or country which utilizes an inspection protocol as stringent as NSF's protocol.

(B) For in-State bottled water systems, the proof shall consist of an inspection report issued by the Department.

(8) In addition to the information required under paragraphs (1)—(6), an application for a bulk water hauling system shall include:

(i) A detailed description of each water transportation tank, fill connection, outlet valve, hose, pump and other appurtenances including the manner in which they will be protected from contamination.

(ii) A description of the exact location where withdrawals will be made from each source of supply.

(9) In addition to the information required under paragraphs (1)—(6), an application for a vended water system shall include:

(i) A description of the exact location of each water vending machine.

(ii) A copy of the system's operation and maintenance plan detailing machine maintenance schedules.

(iii) A copy of the NAMA certification for each type of machine, if a certification has been issued.

(10) In addition to the information required under paragraphs (1)—(6), an application for a retail water facility shall include:

(i) A copy of NSF certificates, when applicable, for system components.

(ii) A copy of product labels, when applicable.

(f) *Permit amendment applications.* A bottled water or vended water system, retail water facility or bulk water hauling system operating under a public water system permit shall obtain a permit amendment before making a substantial modification to the public water system.

(1) A water supplier shall submit an application for a major permit amendment in accordance with subsection (e), if the proposed modification constitutes a major change to the public water system.

(i) For bottled water systems and retail water facilities, typical modifications which may be considered major changes are proposed new sources, additions or deletions of treatment techniques or processes and new types of products.

(ii) For bulk water hauling systems 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.

(iii) For vended water systems, typical modifications which may be considered major changes are proposed additions or deletions of treatment techniques or processes, new product lines or types of products and the addition to the system of machines not certified by

NAMA. For new sources, the supplier shall obtain a separate and distinct permit in accordance with subsection (e) unless the system qualifies for a permit-by-rule under subsection (b).

(2) A water supplier shall submit a written request to the Department for a minor permit amendment if the proposed modification constitutes a relatively minor change to the public water system. A request for a permit amendment under this paragraph shall describe the proposed change in sufficient detail to allow the Department to adequately evaluate the proposal.

(i) For bottled water systems and retail water facilities, typical modifications which can generally be accomplished under this paragraph include:

(A) Changes in treatment chemicals.

(B) Construction of storage tanks designed to standard specifications.

(C) Installation of replacement equipment.

(D) Changes in legal status, such as transfers of ownership, incorporation or mergers.

(ii) For bulk water hauling systems, typical modifications which can generally be accomplished under this paragraph include:

(A) Changes in treatment chemicals.

(B) Replacement of tank or reservoir linings or similar materials in contact with the water supply.

(C) Additions and modifications to water carrier vehicles and standpipes designed to standard specifications.

(D) Transmission mains.

(E) Changes in legal status, such as transfers of ownership, incorporation or mergers.

(iii) For vended water systems, typical modifications which can generally be accomplished under this paragraph include changes in treatment chemicals, repair or replacement of machines, and the addition of new NAMA certified machines to a permitted vended water system.

(3) The Department determines whether a particular modification requires a permit amendment under subsection (f)(1) or a permit amendment under subsection (f)(2). The Department's determination will include consideration of the magnitude and complexity of the proposed change and the compliance history of the public water system.

(g) *Emergency permits.* In emergency circumstances, the Department may issue permits for construction, operation or modification to a bottled water or bulk water hauling system, which the Department determines may be necessary to assure that potable drinking water is available to the public.

(1) Emergency permits shall be limited in duration and may be conditioned on additional monitoring, reporting and the implementation of appropriate emergency response measures. The Department may revoke an emergency permit if it finds the water system is not complying with drinking water standards or the terms or conditions of the permit. An authorization for construction, operation or modifications obtained under an emergency permit will not extend beyond the expiration of the emergency permit unless the public water system receives a permit or permit amendment under subsection (e) or (f) for the construction, operation or modification initiated during the emergency.

(2) State and Federal agencies conducting emergency response bulk water hauling operations need not obtain a permit under this subchapter, if a Department-approved source is utilized and adequate monitoring specified by the Department is conducted to assure compliance with the microbiological MCL specified in § 109.1002.

(h) *Department's review.* Applications for public water system permits and permit amendments for bottled water and vended water systems, retail water facilities and bulk water hauling systems will be reviewed in accordance with the following procedures:

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

(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 the information specified in this chapter and other information necessary for the Department to ensure compliance with this chapter.

(3) As a condition of receiving a public water system permit, a bottled water system shall comply with the standards of the Food and Drug Administration contained in 21 CFR Part 129. Evidence shall be presented demonstrating compliance with subsection (e)(7)(iii).

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

(i) Adherence to standards of the Department in Subchapter F (relating to design and construction standards) and § 109.1006 (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.

(i) *Permit fees.*

(1) An application for a new permit or major permit amendment under subsection (f)(1) for a bottled water or vended water system, retail water facility or bulk water hauling system shall be accompanied by a check in the amount of $750 payable to the "Commonwealth of Pennsylvania," except that:

(i) An application from an out-of-State bottled water system submitting proof of out-of-State approval under subsection (e)(6) shall be accompanied by a fee of $100.

(ii) An application from a bottled water system, retail water facility or bulk water hauling system purchasing finished water, as its sole source of water, from a public water system operating under a permit issued under this chapter, and a vended water system permitted by rule, shall submit a fee of $300.

(2) A fee is not required for an emergency permit under subsection (g) or a minor permit amendment under subsection (f)(2).

§ 109.1006. Design and construction standards.

(a) *Application of standards.* Standards in this section apply to design and construction or modification of bottled water and vended water systems, retail water facilities and bulk water hauling systems regardless of whether a Department permit or permit amendment is required. The standards apply to new facilities and facility modifications unless otherwise specifically indicated.

(b) *Acceptable design.* Bottled water and vended water systems, retail water facilities and bulk water hauling systems shall be designed to provide an adequate quality of water to the public. The design shall ensure that the system will, upon completion, be capable of providing water that complies with the primary and secondary MCLs, MRDLs and treatment techniques established in § 109.1002 (relating to MCLs, MRDLs or treatment techniques). The Department may approve control techniques, such as nonremoval processes, which abate the problems associated with a secondary contaminant, and achieve the objective of the secondary MCL.

(1) Designs of bottled water and vended water systems, retail water facilities and bulk water hauling systems shall conform to accepted standards of engineering and design in the water supply, bottled water, retail water or bulk water hauling industry, as applicable.

(2) Designs of bottled water and vended water systems, retail water facilities and bulk water hauling systems shall be in accordance with Subchapter F (relating to design and construction standards) except that § 109.607 (relating to pressures) does not apply.

§ 109.1009. System operational requirements.

(a) *General facilities operation.* Facilities of bottled water and vended water systems, retail water facilities and bulk water hauling systems approved by written permit from the Department shall be operated in a manner consistent with the terms and conditions of the permit to achieve the level of treatment for which the facilities were designed.

(b) *Special bottled water system requirements.* Bottled water systems shall be operated in accordance with the standards of the Food and Drug Administration in 21 CFR Part 129 (relating to processing and bottling of bottled drinking water). Proof of this determination shall be submitted to the Department annually under § 109.1008(a)(1)(ii) (relating to system management responsibilities).

(c) *Disinfectant residual requirements.* A disinfectant residual acceptable to the Department shall be maintained at the entry point of the bottled water or vended water system, retail water facility or bulk water hauling system sufficient to assure compliance with the microbiological MCL specified in § 109.1002 (relating to MCLs, MRDLs or treatment techniques). The Department will determine the acceptable residual of the disinfectant considering factors such as type and form of disinfectant, temperature and pH of the water, and other characteristics of the water system.

(d) *Disinfection of facilities following construction, modification or repair.* After repairing, constructing or modifying a bottled water, vended water, retail water or bulk water hauling facility and before the facility is placed in service, it shall be properly cleaned and disinfected. Cleaning shall be in accordance with 21 CFR 129.80(c) and (d) (relating to processes and controls) and disinfection shall be with 50 ppm chlorine for 1 minute at 75°F or the equivalent.

(e) *Dedicated equipment.* Bottled water, vended water, retail water and bulk water may not be transported, stored or processed through equipment or lines used for any nonfood product. Bottled water, vended water, retail water and bulk water transported, stored or processed through equipment used for a food product other than water shall comply with the following cleaning and disinfection procedures:

(1) When foods other than milk or dairy products have been transported, stored, processed or bottled, each time before water is transported, stored, processed or bottled through the same lines or equipment, product contact surfaces shall be thoroughly cleaned and disinfected in accordance with subsection (d).

(2) When milk or other dairy products are transported, stored or processed or bottled through the same lines or equipment as bottled water, vended water, retail water and bulk water, the feed line used to convey water to the filler shall be dedicated to water only. Each time before water is transported, stored or processed or bottled, other product contact surfaces shall be disassembled and cleaned in accordance with subsection (d).

(f) *Special operational requirements for bottled water systems and retail water facilities.*

(1) Bottled water systems and retail water facilities using ozone as a final disinfectant shall maintain an ozone residual of 0.1—0.4 ppm in the bottle immediately after filling.

(2) When ozone is used as a disinfectant for bottled water or retail water, gaskets, o-rings and similar flexible material shall be made of silicone rubber, teflon or other ozone-resistant material. These flexible parts shall be replaced when they show evidence of surface deterioration.

(g) *Special operational requirements for water vending machine systems.*

(1) Each vending machine shall be cleaned, serviced and sanitized in accordance with the manufacturer's service manuals, but at least once every 2 weeks. A record of all cleaning and maintenance operations for each machine shall be kept by the operator with a copy retained in the interior of the machine.

(2) A notice to consumers listing the industry's recommendations for the care, cleaning and type of container suitable for use with the water vending machine shall be posted at each water vending machine.

(h) *Special operational requirements for bulk water hauling systems.*

(1) Transportation tanks or containers shall be sealed at all times except when being cleaned, filled or when water is being delivered.

(2) Hoses, pumps, connections and fittings shall be sanitized prior to delivering water using a disinfectant solution containing at least 50 ppm of chlorine at 75°F for 1 minute or the equivalent.

(3) Hoses, pumps, connections and fittings used for loading and delivering potable water shall be stored, capped or covered and used so as to be protected from contamination at all times.

(4) A record of cleaning and sanitizing activities conducted on the interior of the transportation tank or transfer equipment shall be maintained with the vehicle and shall be available to the Department upon request.

Subchapter K. LEAD AND COPPER

§ 109.1105. Permit requirements.

(a) *General permit requirements.* A person may not construct, substantially modify or operate corrosion control treatment facilities to comply with this subchapter without having obtained the appropriate permit approvals under Subchapter E (relating to permit requirements) and this section.

(b) *Construction permits and permit amendments.* The water supplier shall submit an application for a public water system construction permit for a newly-created system or an amended construction permit for a currently-permitted system for corrosion control treatment facilities by the applicable deadline established in § 109.1102(b)(2) (relating to action levels and treatment technique requirements), unless the system complies with paragraph (1) or (2) or otherwise qualifies for a minor permit amendment under § 109.503(b) (relating to public water system construction permits). The permit application shall comply with § 109.503 and contain the applicable information specified therein. The application shall include recommended water quality parameter performance requirements for optimal corrosion control treatment as specified in § 109.1102(b)(5) and other data, information or documentation necessary to enable the Department to consider the application for a permit for construction of the facilities.

(1) *Community water system minor permit amendments.* The community water supplier may submit a written request for an amended construction permit to the Department if the system satisfies the conditions under subparagraphs (i)—(iv). 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.

(i) The system is a small water system.

(ii) The sources of supply for the system are not surface water sources.

(iii) Except for corrosion control treatment, the sources require treatment no greater than disinfection to provide water of a quality that meets the MCLs and treatment technique requirements established under Subchapter B (relating to MCLs, MRDLs or treatment technique requirements).

(iv) The proposed corrosion control treatment is limited to alkalinity or pH adjustment, or both.

(2) *Nontransient noncommunity water system permits.* The nontransient noncommunity water supplier is not required to obtain a construction permit or permit amendment under subsection (b) if the system satisfies the following specifications and conditions:

(i) The system is a small water system.

(ii) The sources of supply for the system are not surface water sources.

(iii) Except for corrosion control treatment, the sources require treatment no greater than disinfection to provide water of a quality that meets the MCLs and treatment technique requirements established under Subchapter B.

(iv) The proposed corrosion control treatment is limited to alkalinity or pH adjustment, or both.

(v) The water supplier files a brief description of the proposed treatment, including recommended water quality parameter performance requirements for optimal corrosion control treatment as specified in § 109.1102(b)(5), on forms acceptable to the Department. Descriptions of modifications may be filed prior to construction if the water supplier desires technical assistance, but shall be filed within 30 days of initiation of operation of the modification.

(c) *Operation permits.* Except for nontransient noncommunity water systems complying with subsection (b)(2), the water supplier shall obtain an operation permit or amended operation permit following completion of construction and prior to initiation of operation of corrosion control treatment facilities. The permit will be issued in accordance with § 109.504 (relating to public water system operation permits). The Department will not issue an operation permit under this subchapter unless the water system complies with the operation and maintenance plan requirements under § 109.1107(b) (relating to system management responsibilities) and the operator certification and training requirements under § 109.1107(c). The water supplier for a community water system or nontransient noncommunity water system shall submit a request for Department designation of optimal corrosion control treatment performance requirements in accordance with § 109.1102(b)(2) and the Department will issue an amended operation permit designating the performance requirements as specified in § 109.1102(b)(5).

[Pa.B. Doc. No. 01-1304. Filed for public inspection July 20, 2001, 9:00 a.m.]

[25 PA. CODE CH. 109]

Interim Enhanced Surface Water Treatment Rule

The Environmental Quality Board (Board) by this order amends Chapter 109 (relating to safe drinking water). The amendments pertain to filtration systems that serve at least 10,000 people and that use either surface water sources or groundwater sources that are under the direct influence of surface water. The amendments establish a 99% removal of *Cryptosporidium*; strengthened combined filter effluent turbidity standards and individual filter turbidity provisions; and disinfection benchmark provisions to assure continued levels of microbial protection while facilities take the necessary steps to comply with new disinfection byproduct standards.

This order was adopted by the Board at its meeting of April 17, 2001.

A. *Effective Date*

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as 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 rulemaking is available electronically through the Department of Environmental Protection's (Department) website (http://www.dep.state.pa.us).

C. *Statutory Authority*

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

D. *Background of the Amendments*

The Board promulgated the Pennsylvania Filter Rule in March of 1989 to address the rising number of

waterborne disease outbreaks in this Commonwealth. The rule required public water systems with surface water sources to filter and disinfect, cover finished water reservoirs, perform treatment performance and water quality compliance monitoring, and provide public notification of violations. The rule also established design and performance standards for the filtration and disinfection treatment techniques intended to protect against the adverse health effects of exposure to *Giardia lamblia*, viruses and legionella, as well as many other pathogenic organisms. The Pennsylvania Filter Rule was promulgated in anticipation of the *Federal Surface Water Treatment Rule* (SWTR), which was promulgated by the United States Environmental Protection Agency (EPA) in 1989 under the Federal Safe Drinking Water Act.

The Federal SWTR did not specifically address the protozoan *Cryptosporidium parvum*. In terms of occurrence, *Cryptosporidium* is common in the environment. Most surface water sources may contain, or are vulnerable to, *Cryptosporidium* contamination. Since some people are carriers, *Cryptosporidium* may enter the water via treated or untreated sewage. Other sources of *Cryptosporidium* contamination are those animals that live in or near water. Livestock are notorious carriers of *Cryptosporidium*. Runoff from watersheds allows transport of this pathogen into water bodies used as sources for drinking water treatment plants. Complicating this matter is *Cryptosporidium's* resistance to standard disinfection practices.

In humans, *Cryptosporidium* may cause a severe gastrointestinal infection, termed cryptosporidiosis, that can last several weeks. It may cause death for individuals who have weakened immune systems due to age, cancer treatment, AIDS and antirejection organ replacement drugs. In 1993, *Cryptosporidium* caused over 400,000 people in Milwaukee to experience serious intestinal illness. More than 4,000 were hospitalized and at least 50 deaths were attributed to the cryptosporidiosis outbreak. There has also been cryptosporidiosis outbreaks in Nevada, Oregon and Georgia over the past several years.

In 1992, the EPA initiated a rulemaking process to address public health concerns associated with disinfectants, disinfection byproducts (DBPs) and microbial pathogens. As part of this rulemaking process, the EPA established a Regulatory Negotiation (Reg/Neg) Committee which included representatives of state and local health and regulatory agencies, public water systems, elected officials, consumer groups and environmental groups.

The EPA's most significant concern in developing regulations for disinfectants and DBPs was the need to ensure that adequate treatment be maintained for controlling risks from microbial pathogens, such as *Cryptosporidium*. One of the major goals addressed in the rulemaking process was to develop an approach that would reduce the level of exposure from disinfectants and DBPs without undermining the control of microbial pathogens. The intention was to ensure that drinking water is microbiologically safe at the limits set for disinfectants and DBPs and that these chemicals do not pose an unacceptable health risk at these limits. Thus, the Reg/Neg Committee also considered a range of microbial issues and agreed that the EPA should also propose a companion microbial rule to the disinfection rule.

Following months of intensive discussions and technical analysis, the Reg/Neg Committee recommended the development of three sets of rules: a two-stage rule to address disinfectants and DBPs (D/DBPs), the interim enhanced surface water treatment rule (IESWTR) and an Information Collection Rule (ICR). The approach used in developing these proposals considered the constraints of simultaneously treating water to control microbial contaminants, disinfectants and DBPs. The Reg/Neg Committee agreed that the schedule for the IESWTR should be linked to the schedule of the first stage of the D/DBP rule to assure simultaneous compliance and a balanced risk-risk based implementation. The Reg/Neg Committee also agreed that additional information on health risk, occurrence, treatment technologies, analytical methods needed to be developed in order to better understand the risk-risk tradeoff and how to accomplish an overall reduction in health risks to both pathogens and D/DBPs. Finally the Reg/Neg Committee agreed that to develop a reasonable set of rules and to understand more fully the limitations of the current Federal SWTR, additional field data were critical. Thus, a key component of the regulation negotiation agreement was the promulgation of the ICR.

The Federal IESWTR (40 CFR Parts 9, 141 and 142) was promulgated on December 16, 1998, by the EPA. This rule is intended to improve the control of microbial pathogens, specifically the protozoan *Cryptosporidium parvum*, in drinking water. The Federal IESWTR applies to public water systems serving at least 10,000 people and which use either surface water sources or ground water sources that are under the direct influence of surface water. Key provisions of the Federal IESWTR include a 99% *Cryptosporidium* removal requirement for water systems that provide filtration; combined filter effluent turbidity standards that are more stringent than current standards; individual filter requirements that are designed to bring attention to filter plant optimization; and disinfection profiling/benchmarking provisions that are designed to assure continued levels of microbial protection while systems take the necessary steps to comply with new disinfection byproduct standards. Published concurrently with the IESWTR is the Federal D/DBPR. The D/DBPR is intended to regulate disinfection practices at public water systems in order to eliminate or minimize disinfectant levels and disinfection byproducts that may cause harmful health effects. The approach used in developing both the IESWTR and the D/DBPR considered the constraints of simultaneously treating water to control microbial contaminants, disinfectants and disinfection byproducts.

On January 16, 2001, the EPA promulgated corrective amendments to both the D/DBPR and IESWTR. These corrective amendments are minor in nature (such as, change in compliance date from December 17, 2001, to January 1, 2002) and are reflected in this final-form rulemaking.

Other Federal rules will be promulgated in the future as a follow-up to both the D/DBPR and the IESWTR. These rules will be the Stage 2 D/DBPR, the Long Term 1 Enhanced Surface Water Treatment Rule (LT1), the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) and the Filter Backwash Rule (FBR). The LT1 and FBR rules are expected in 2001. The LT2 and Stage 2 D/DBPR rules are expected in 2002.

The Board proposes to incorporate the provisions of both the Federal IESWTR and the January 16, 2001, Federal corrective amendments into Chapter 109 to obtain primary enforcement responsibility (primacy) for this rule.

The proposed rulemaking was approved by the Board on July 18, 2000. The proposed rulemaking was at 30 Pa.B. 4611 (September 2, 2000). The 30-day public com-

ment period concluded on October 2, 2000. No public meetings or hearings were held on the proposed rulemaking.

The 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 WRAC reviewed and discussed the final-form regulation on January 10, 2001. The WRAC had no comments and approved the final-form regulations for recommendation to the Board. The TAC reviewed and discussed the final-form regulations on January 25, 2001. TAC had no comments and approved the final-form regulations for recommendation to the Board.

The Federal Safe Drinking Water Act (42 U.S.C.A. § 300g-2(a)) requires that primary enforcement responsibility states, such as the Commonwealth, adopt 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 November 28, 2000, the Department submitted a primacy extension request to the EPA to adopt regulations implementing both the Federal IESWTR and the Federal D/DBPR by no later than August 31, 2001. It is expected that the EPA will grant the extension because the Commonwealth is adopting two or more EPA regulations at the same time, which is one of the criteria specified for the EPA to grant an extension. If the EPA grants the August 31, 2001, extension, then failure to adopt the IESWTR by this extension date may result in the Commonwealth losing its primary enforcement responsibility.

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

The amendments reflect, and are no more stringent than, both the new Federal IESWTR requirements and the January 16, 2001, Federal corrective amendments.

§ 109.1. Definitions.

A commentator asserted that the definition of "CPE" contains substantive provisions that should be moved to proposed § 109.205 (relating to filter profile, filter self-assessment and comprehensive performance evaluations). The Board declined to make this amendment because the definition is identical to the Federal definition of "CPE" in 40 CFR 141.2. The Board feels that amending the definition would jeopardize the Department's goal of obtaining primary enforcement responsibility for the IESWTR.

A commentator requested clarification in the definition of "disinfection profile." Specifically, the commentator requested that an exact reference to the EPA "procedures and measurement methods" be provided in the definition. The Board has amended the definition of "disinfection profile" to replace the EPA reference with a Chapter 109 reference. Since Chapter 109 contains references to the aforementioned EPA "procedures and measurement methods," the Board feels that this amendment is sufficient and appropriate.

The definition of "GUDI" was amended to correct a typographical error.

§ 109.202(c). Treatment technique requirements for pathogenic bacteria, viruses and protozoan cysts.

A commentator asked what the circumstances would be for the Department to require water systems using "other filtration technologies" to comply with performance criteria that is more stringent than the criteria for conventional and direct filtration plants, as specified in § 109.202(c)(1)(i)(C). The Department will specify more stringent performance criteria when it deems that the results of pilot plant or onsite studies support action. The Board has amended § 109.202(c)(1)(i)(C) to clarify this basis of onsite studies.

§ 109.204. Disinfection profiling and benchmarking.

A commentator asked what format is acceptable to the Department for submitting disinfection profiling and benchmarking data, as specified in § 109.204. The format for the submission of disinfection profiling and benchmarking data is specified by the Department field offices and through Department-issued guidance and policy.

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

The Board has deleted this section. The Board feels that the provisions of this section were inappropriate for Subchapter B (relating to MCLs or treatment technique requirements). The Board also feels that this section was redundant with the addition of § 109.714 (relating to filter profile, filter self-assessment and comprehensive performance evaluations) and was unnecessary. To ensure that no provisions are lost from the deletion of this section, the Board has also amended § 109.714 to include all the provisions that were contained in proposed § 109.205.

§ 109.301. General monitoring requirements.

A commentator requested that § 109.301(1)(iv) be amended to account for the fact that continuous turbidity monitors can record turbidity more frequently than every 15 minutes. The commentator suggested that the individual filter turbidity results be recorded "... at least every 15 minutes." The Board agrees and has amended § 109.301(1)(iv) accordingly.

The EPA questioned why the proposed regulation does not include the provision of 40 CFR 141.173(a)(3) which allows turbidity samples from lime softening plants to be acidified using an approved protocol. The Department provides for this option by way of reference in § 109.304 wherein the Department requires that sampling, monitoring and analytical techniques be acceptable to either the EPA or the Department.

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

A commentator questioned if the records that are required under § 109.701(e) are subject to the recordkeeping requirements of § 109.701(d). The commentator also questioned if the requirements of § 109.701(d) meet EPA requirements. The records that are required under § 109.701(e) are subject to the specific recordkeeping requirements of § 109.701(d)(2). The requirements of § 109.701(d)(2) meet the EPA requirements.

The EPA requested that § 109.701(e) be amended to include the Federal requirement that systems conducting individual filter monitoring must maintain this data for at least 3 years. The Board declined to make this amendment because the existing provisions in § 109.701(d)(2) already require that water systems retain monitoring records for a minimum of 3 years. These monitoring records will include individual filter monitoring data.

Section 109.701(e) was amended at EPA's request to include the requirement that systems conducting individual filter monitoring must report that they have conducted this monitoring within 10 days following the end of each month. The amended language is now consistent with the Federal requirements. Sections 109.701(e)(1) and (2) were then renumbered to § 109.701(e)(2) and (3), respectively, due to the inclusion of this amendment. Several text references in § 109.701(e)(3) (formerly § 109.701(e)(2)) were changed due to this renumbering.

Section 109.701(e)(2) (formerly § 109.701(e)(1)) was amended to specify that water systems required to perform individual filter monitoring were subject to the provisions of this paragraph, not water systems providing filtration and disinfection. Accordingly, the phrase "providing filtration and disinfection of surface sources" was deleted and replaced with the phrase "required to perform individual monitoring." The amended language is now consistent with the Federal requirements.

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

The EPA requested that this section should include the requirement that the comprehensive performance evaluation (CPE) be completed within 90 days of the triggering event. The Board decided to amend this entire section in order to both clarify it and to capture all of the associated provisions that were deleted with proposed § 109.205. One of these provisions was the 90-day completion deadline for CPEs. Accordingly, the amended language contains this 90-day completion deadline, as well as all other Federal requirements.

A commentator expressed confusion over the 30-day CPE deadline and the 90-day CPE deadline. Systems must make arrangements with the Department within 30 days following the CPE triggering event. These arrangements are for the planning of the CPE. The system must then ensure that the CPE has been completed by no later than 90 days following the CPE triggering event.

F. *Benefits, Costs and Compliance*

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

Benefits

The amendments will benefit customers of public water systems serving at least 10,000 people and which use either surface water sources or ground water sources that are under the influence of surface water. Currently, there are almost 120 systems in this Commonwealth serving water to over 8.1 million people that meet these criteria.

The economic benefits of the IESWTR will derive from the increased level of protection to public health. The primary goal of the amendments is to improve public health by increasing the level of protection from exposure to *Cryptosporidium* and other pathogens (that is, *Giardia*, or other waterborne bacteria or viral pathogens) in drinking water supplies through improvements in filtration at water systems. The amendments are expected to reduce the level of *Cryptosporidium* and other pathogenic contamination in finished drinking water supplies through improvements in filtration at water systems, such as revised turbidity requirements. In this case, benefits will accrue due to the decreased likelihood of endemic incidences of cryptosporidiosis, giardiasis and other waterborne diseases, and the avoidance of resulting health costs. The provisions are expected to reduce the likelihood of the occurrence of cryptosporidiosis outbreaks and their associated economic costs.

Compliance Costs

Approximately 120 public water systems will be affected by these amendments. These systems will incur increased costs as a result of improved turbidity treatment and disinfection benchmark monitoring. The customers of these affected water systems may experience higher water rates as a result of these increased costs. The actual increase in water rates will depend on a number of factors, including population served and the filtration technology utilized. According to EPA studies conducted Nationally, 92% of the households affected by the rule will incur a cost of less than $1 per month. Seven percent of the affected households will face an increase in cost of $1 to $5 per month. The highest increase in cost will be approximately $8 per month and will be faced by approximately 23,000 households Nationally.

The assumptions and structure of the EPA's analysis tend to overestimate the highest costs. To incur these higher costs, a system would have to implement all, or almost all, of the treatment activities. These systems, however, might seek less costly alternatives, such as connecting to a larger regional water system.

The estimated total annual cost that will be borne by the regulated community in this Commonwealth will be about $10.3 million. Many filtration plants evaluated in this Commonwealth currently meet the IESWTR turbidity requirements and, possibly, may not incur additional expense for improved turbidity removal. The benefits that may result from this rulemaking in this Commonwealth may range from $20 to $100 million per year using a valuation of $2,000 in health damages avoided per cryptosporidiosis illness prevented.

Compliance Assistance Plan

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

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 either program staff or the regulated community.

In addition to this network of training staff, the Bureau of Water Supply and Wastewater Management has a division dedicated to providing both training and outreach support services to public water system operators. The Department's Internet site also contains the Drinking Water & Wastewater Treatment System Operator Information Center Internet site, which provides a bulletin board of timely, useful information for treatment plant operators.

Paperwork Requirements

The amendments will require public water systems to monitor and report individual filter turbidity. It is anticipated that the Department's current data reporting forms

should facilitate this additional monitoring and reporting and that little, if any, additional data or paperwork will be necessary.

G. *Sunset Review*

These final-form regulations 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 8, 2000, the Department submitted a copy of the notice of proposed rulemaking, published at 30 Pa.B. 4611 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 May 29, 2001, 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 June 7, 2001, and approved the final-form regulations.

I. *Findings of the Board*

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 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) These final-form regulations do not enlarge the purpose of the proposal published at 30 Pa.B. 4611.

(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 of the Board*

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, 109.605, 109.701, 109.703 and 109.710; and by adding §§ 109.204 and 109.714, to read as set forth in Annex A published at 31 Pa.B. 3895 (July 21, 2001).

(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, relating to this document, see 31 Pa.B. 3370 (June 23, 2001.)

Fiscal Note: Fiscal Note 7-358 remains valid for the final adoption of the subject regulations.

[Pa.B. Doc. No. 01-1305. Filed for public inspection July 20, 2001, 9:00 a.m.]

DEPARTMENT OF ENVIRONMENTAL PROTECTION

[25 PA. CODE CH. 284]

Corrective Amendment to 25 Pa. Code § 284.320

The Department of Environmental Protection has discovered a discrepancy between the agency text of 25 Pa. Code § 284.320 (relating to operating permits) as deposited with the Legislative Reference Bureau and as published at 30 Pa.B. 6685, 6834 (December 23, 2000), and the official text as published in the *Pennsylvania Code Reporter* (Master Transmittal Sheet No. 316) and as currently appearing in the *Pennsylvania Code*. An error was made which incorrectly listed a series of sections with which compliance is required.

Therefore, under 45 Pa.C.S. § 901: The Department of Environmental Protection has deposited with the Legislative Reference Bureau a corrective amendment to 25 Pa. Code § 284.320. The corrective amendment to 25 Pa. Code § 284.320 is effective as of March 3, 2001, the date the defective official text was announced in the *Pennsylvania Bulletin*.

The correct version of 25 Pa. Code § 284.320 appears in Annex A.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VIII. MUNICIPAL WASTE

CHAPTER 284. INFECTIOUS AND CHEMOTHERAPEUTIC WASTE

Subchapter D. PROCESSING FACILITIES

§ 284.320. Operating requirements.

A person or municipality that operates a processing facility shall comply with §§ 283.201, 283.202, 283.211—283.223, 283.231—283.234, 283.241, 283.242, 283.251—283.253, 283.261, 283.262, 283.271 and 283.272.

[Pa.B. Doc. No. 01-1306. Filed for public inspection July 20, 2001, 9:00 a.m.]

Title 52—PUBLIC UTILITIES

PENNSYLVANIA PUBLIC UTILITY COMMISSION

[52 PA. CODE CHS. 3 AND 62]

[L-00000150]

Licensing Requirements for Natural Gas Suppliers

The Pennsylvania Public Utility Commission (Commission) on April 19, 2001, adopted a final-form rulemaking order establishing licensing requirements for natural gas suppliers (NGS). The contact persons are Robert Bennett, Bureau of Fixed Utility Services, (717) 787-5553 and Patricia Krise Burket, Law Bureau, (717) 787-3464.

Executive Summary

On June 22, 1999, Governor Thomas J. Ridge signed into law the Natural Gas Choice and Competition Act (66 Pa.C.S. §§ 2201—2212) (act). Under the act, beginning on November 1, 1999, retail customers have had the ability to choose their NGS. Previously, consumers procured their natural gas supply requirements as a package from the jurisdictional public utility. The package, previously mentioned, included what are now the basic components of competitive natural gas supply service, commodity, capacity and storage, balancing and aggregation services of the natural gas utility.

On July 15, 1999, the Commission issued a Final Order which adopted interim licensing procedures and a license application. These interim licensing procedures were to be temporary in nature, and would be replaced by regulations. As the first step in promulgating these final-form regulations, on April 13, 2000, the Commission adopted a proposed rulemaking order establishing licensing requirements for NGSs. Comments regarding the proposed licensing regulations were filed. The Commission amended the regulations accordingly, and has put forth the final-form rulemaking.

Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on June 2, 2000, the Commission submitted a copy of the notice of proposed rulemaking, published at 30 Pa.B. 3073 (June 17, 2000), to the Independent Regulatory Review Commission (IRRC) and to the Chairpersons of the House and Senate 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 Commission 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 May 23, 2001, 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 June 7, 2001, and approved the final-form regulations.

Commissioners Present: John M. Quain, Chairperson; Robert K. Bloom, Vice Chairperson; Nora Mead Brownell; Aaron Wilson, Jr.; Terrance J. Fitzpatrick

Public Meeting held
April 19, 2001

Final Rulemaking Order

On June 22, 1999, Governor Thomas J. Ridge signed into law the Natural Gas Choice and Competition Act (66 Pa.C.S. §§ 2201—2212) (act). Under the act, beginning on November 1, 1999, retail customers have had the ability to choose their NGS.

Section 2208(a) of the act (relating to requirements for natural gas suppliers) requires that no entity engage in the business of an NGS unless it holds a license issued by the Commission. See section 2208(a) of the act. An NGS is defined as:

> [a]n entity other than a natural gas distribution company, but including natural gas distribution company marketing affiliates, which provides natural gas supply services to retail gas customers utilizing the jurisdictional facilities of a natural gas distribution company. The term includes a natural gas distribution company that provides natural gas supply outside its certificated service territories. The term includes a municipal corporation, its affiliates or any joint venture, to the extent that it chooses to provide natural gas supply services to retail customers located outside of its corporate or municipal limits, as applicable, other than:
>
> (i) as provided prior to the effective date of this chapter, pursuant to a certificate of public convenience if required under this title;
>
> (ii) total natural gas supply services in de minimis amounts;
>
> (iii) natural gas supply services requested by, or provided with the consent of, the public utility in whose certificated territory the services are provided; or
>
> (iv) natural gas supply services provided to the municipal corporation itself or its tenants on land it owns or leases, or is subject to an agreement of sale or pending condemnation, as of September 1, 1999, to the extent permitted by applicable law independent of this chapter.
>
> The term excludes an entity to the extent that it provides free gas to end-users under the terms of an oil or gas lease. Notwithstanding any other provision of this title, a natural gas supplier that is not a natural gas distribution company is not a public utility as defined in section 102 (relating to definitions) to the extent that the natural gas supplier is utilizing the jurisdictional distribution facilities of a natural gas distribution company or is providing other services authorized by the Commission.

66 Pa.C.S. § 2202.

As used in the previous definition of an NGS the term natural gas supply services includes (i) the sale or arrangement of the sale of natural gas to retail customers; and (ii) services that may be unbundled by the Commission under section 2203(3) of the act (relating to standards for restructuring of the natural gas utility industry). Natural gas supply service does not include distribution service. See section 2202 of the act.

On July 15, 1999, the Commission issued a Final Order that adopted interim licensing procedures and a license application for NGSs. These interim licensing procedures were temporary in nature, and would be replaced by regulations.

On April 13, 2000, the Commission adopted an order in which it revised its interim licensing procedures and redrafted them as proposed regulations. This proposed rulemaking order was published for comment at 30 Pa.B. 3073.

Comments regarding the proposed licensing regulations were filed by the Office of Consumer Advocate (OCA), the

Pennsylvania Gas and Oil Association, Pennsylvania Independent Oil and Gas Association (IOGA), Amerada Hess Corporation and TXU Energy Services (Hess), National Energy Marketers Association (NEM) and UGI Energy Services d/b/a GASMARK (GASMARK). IRRC also submitted comments. Letters in support of various commenters were submitted by T.W. Phillips Energy and Open Flow Gas Supply Corporation. On February 6, 2001, Kevin J. Moody, Esq. submitted late-filed comments in the form of a White Paper entitled "Pennsylvania Public Utility Commission Assessments in a Deregulated Energy Industry" (White Paper).

We thank the commentators for their input and will address the comments in relation to the applicable regulation.

I. Section 62.101. Definitions.

This section provides a list of definitions relevant to this subchapter.

"Marketing Services Consultant" and "Nontraditional Marketer"

In regard to the definition of "Marketing Services Consultant" and "Nontraditional Marketer," IRRC notes that both definitions include commercial entities. IRRC comments that we should clarify the definitions to account for any distinctions between these two terms.

OCA in its comments supports the Commission's determination to exempt nontraditional marketers and marketing services consultants from licensing requirements.

Resolution

"Marketing services consultants" can be distinguished from "nontraditional marketers" in that nontraditional marketers are business, civic and social community-based organizations whose main activity is not the sale of natural gas supply services. They are not commercial entities as are "marketing services consultants" that provide support services such as telemarketing and direct mail service, to licensed NGSs. For clarity, we will eliminate the term "commercial entity" from the definition of "nontraditional marketer" to further distinguish the two groups.

We will also amend the definition of "marketing services consultants" to include those commercial entities that act as energy consultants for consumers. The rationale for this addition is discussed in § 62.102 (relating to scope of licensure).

Natural Gas Distribution Company; Natural Gas Supply Services; and Retail Gas Customer

IRRC comments that the definitions of these terms in the regulation differ from the definitions of the same terms in the act. IRRC recommends that the definitions of these terms in the final-form regulation should conform to the statutory definitions or reference the act.

Resolution

The Commission agrees with IRRC's comments that the definitions should be consistent with those provided in the act. Thus, we will revise those definitions by reference to the definitions in the act.

NGS—Natural Gas Supplier

IRRC comments that the definition of this term in the proposed regulation differs from the definition of the same term in the act. Specifically, the definition in the regulation does not include the entire last paragraph of the act's definition.

In its comments, POGAM argues that the Commission does not have the authority to regulate NGSs as public utilities, and suggests the addition of a sentence that states that an NGS is not a public utility.

Resolution

In response to IRRC's comments, we will amend the definition of "natural gas supplier" by referencing the definition in the act. We believe by doing so, we have satisfied the matter raised by POGAM in its comments.

II. Section 62.102. Scope of licensure.

This section identifies the entities that need to be licensed by the Commission. Subsections (d) and (e) exempt nontraditional marketers and marketing services consultants from the licensure requirement. The act defines a "natural gas supplier," in part, as an entity that "provides natural gas supply services to retail customers." "Natural gas supply services" are defined in the act to include "the sale or arrangement of the sale of natural gas to retail customers."

IRRC comments that it appears that both nontraditional marketers and marketing services consultants "arrange the sale of natural gas" between the NGS and the customer and would seem to fall within the definition. IRRC requests that the Commission explain its statutory authority for the exemptions in subsections (d) and (e).

NEM suggests that the Commission strike this section. It urges the Commission to regulate with a light-hand and expresses concern that the reporting requirements involving an NGS's relationship with nontraditional marketers would reveal proprietary information. It also states that the added costs of reporting requirements will increase the cost of energy to consumers.

GASMARK opposes the exemption of nontraditional marketers and consultants. GASMARK states that the typical nontraditional marketer—community groups, buyers cooperatives and trade associations—derive profit from decision-making consumers in the same way as "traditional" marketers do. GASMARK also claims that the exemption of nontraditional marketers and consultants from licensing discriminates against those who must be licensed and will deter marketer participation in customer choice. GASMARK concludes that all service providers working with gas consumers should be subject to the same regulatory requirements.

Hess states that the Commission has no authority over nontraditional natural gas marketers and that no other marketing or sales relationship is required to be revealed to the Commission. Hess sees no reason for imposing these reporting requirements on this unique approach to the market. Hess claims that there is sufficient protection for consumers through the natural gas distribution company's (NGDC) requirements for supplier financial fitness and other operating requirements in the supplier tariff. Hess suggests striking subsections (d) and (e).

Resolution

Initially we note that as the agency responsible for implementing and enforcing the Public Utility Code and the act, we are afforded great deference by the courts in our interpretation of the law. When a statute is interpreted by the agency charged with the responsibility for its administration, interpretation shall be accorded great weight and shall not be overturned unless such construction is "clearly erroneous." *Cherry v. Pennsylvania Higher Education Assistance Agency*, 620 A.2d 687, 691 (Pa. Cmwlth. 1993); *Hawkins v. Pennsylvania Housing Finance Agency*, 595 A.2d 712 (Pa. Cmwlth. 1991). This is

particularly true when the interpretation involves construction of a statutory mandate in a new regulatory environment. *Barasch v. Pennsylvania Public Utility Commission*, 521 A.2d 482 (Pa. Cmwlth. 1987).

Under our authority to interpret our enabling legislation, the Commission is authorized to interpret the definitions of "natural gas supplier" and "natural gas supply services" that are referenced in the definition for "natural gas supplier." Generally, under the act, an NGS is an entity engaged in the provision at retail of natural gas supply services. Natural gas supply services are defined in general as "the sale or the arrangement of the sale of natural gas to retail consumers." In interpreting "natural gas supply services," it is not clearly erroneous for us to distinguish certain activities that would fall within that definition from those activities that would fall outside of that definition. Based on an entity's activities, it is not clearly erroneous for this Commission to identify entities who are not engaged in providing natural gas supply services to retail customers, and to exempt those entities from licensing requirements.

In this instance, the Commission defined for exemption from the licensing requirement at section 2208 of the act, the marketing services consultant, entities that are engaged in providing marketing and sales support services to licensed NGSs under a contract. Marketing service consultants would include commercial businesses involved in telemarketing, direct mail service or information dissemination through auction-type or information only websites and electronic newsletters. Based on their activities, the marketing services consultants are indistinguishable from the NGS's own employees, who would not be required to be individually licensed under the act. Accordingly, it is not clearly erroneous for us to identify this group as falling outside the definition of "natural gas supplier."

Nontraditional marketers such as fraternal organizations, unions, civic organizations or governmental organizations may provide endorsements of an NGS's service to its membership or constituency. In these types of affiliations, the sole role of the nontraditional marketer is to make the endorsement that its members are free to accept or reject on its merits. If the member decides to accept the service offered, the transaction is between the contracting member and the licensed NGS. The nontraditional marketer is not involved in the financial transaction between the licensed supplier and the customer. Under this scenario, the nontraditional marketer is not engaged in providing natural gas supply services to retail customers.

Additionally, as the competitive energy marketplace has developed over the previous 4 years, the Commission staff has received a number of requests to exempt from licensing those entities who act, not on behalf of licensees, but on behalf of retail customers as energy consultants. These energy consultants gather and evaluate information about various energy supply offerings and then make recommendations to the consumer regarding the best offer available. These consultants are not generally involved in the actual transaction for the gas supply services in that they are not responsible for paying the producer, the supplier or the NGDC for costs related to gas supply service and they are not responsible for the procurement or the scheduling for transport of natural gas supplies.

Based on their activities, it is our interpretation that energy consultants are not engaged in the sale or arranging the sale of natural gas supply services to retail consumers. Thus, they would fall outside the definition of an NGS at section 2202 of the act. We believe that our interpretation on this point is not clearly erroneous, and that the exemption from licensing of these energy consultants would not be detrimental to the public interest because consumers would be transacting business through a licensed supplier. Accordingly, we will revise our definition of "marketing services consultant" to include those entities who act as energy advisors to consumers.

The Commission has considered the comments regarding the filing of agreements between suppliers and nontraditional marketers and marketing services consultants. Our major concern is customer confusion in the situation where a customer deals with an agent of the licensee and not an employee of the licensee. Because the licensed supplier is responsible for any violations of law committed by its agent, our purpose in requiring that these agreements be submitted is to identify those entities that had partnered with licensed suppliers to provide marketing or other sales support services. The Commission believed that this information will assist the Commission and its staff in answering consumers' questions and resolving customer complaints.

Upon consideration of the comments, however, we will revise the requirement. In light of the purpose to be achieved, it appears that it is sufficient that a licensed supplier disclose the names and addresses of nontraditional marketers and marketing services consultants with whom it has arranged for service. Thus, we will require the licensee[1] to make this disclosure as part of the annual reporting requirements in § 62.111 (relating to bonds or other security).

We have revised the regulation accordingly.

III. Section 62.103. Application process.

This section outlines the process an applicant must follow in order to apply for a license.

IRRC comments that subsection (c) requires that copies of completed applications, with supporting documentation, be served upon five specified State regulators and each NGDC in whose service territory the applicant intends to provide natural gas supply services. However, subsection (e) provides that an applicant may designate those items, in the application, that it believes are confidential and privileged. IRRC inquires as to whether the confidentiality provisions apply to copies provided under subsection (c). If the confidentiality provision applies, IRRC suggests the addition of an introductory qualifying clause to subsection (c) that makes the disclosure of information subject to the limitations of subsection (e).

IRRC also recommends that the reference to ". . . each NGDC in whose service territory the applicant intends to provide natural gas supply services" be made a new paragraph (6) under subsection (c).

Resolution

We will accept IRRC's suggestions for revision of this section and clarify that the copies provided to OCA, the Office of Small Business Advocacy (OSBA), Office of Attorney General (OAG) Bureau of Consumer Protection (Bureau), the Department of Revenue and relevant NGDCs will be subject to applicant requests for confidentiality under subsection (e).

[1] We note because the customer has selected the energy adviser, there is a personal relationship between the two so that little or no possibility of customer confusion would exist. For this reason and the fact that we have determined that they are not to be regulated as NGSs, the annual reporting requirement is not applicable to the energy consultant.

We will also accept IRRC's suggestion to separate the text referencing "each Natural Gas Distribution Company" in a new subparagraph, numbered 5. This change is necessitated by our revision that consolidates the OAG and the Bureau into one item in subparagraph, numbered 3. This revision was necessitated by an error introduced in editing the Commission's order for publication.

IV. Section 62.104. Application form.

This section describes the information an applicant must supply in order for the Commission to evaluate the applicant's financial and technical fitness to render service in this Commonwealth.

IRRC comments that subsection (a)(6) requires an applicant for a license to provide financial information that is "sufficient to demonstrate financial fitness." Additionally, the regulation provides examples of the type of information that "may" be submitted. IRRC states that it is unclear how the Commission will determine if the financial information is "sufficient." To improve clarity, IRRC suggests that the minimum documentation that is required or the criteria it will use to determine if the information submitted is "sufficient" be listed.

NEM comments that § 62.104(a)(7) should not be implemented as it is burdensome. NEM also claims that the reporting requirements in subsection (a)(8) are also burdensome and add to energy costs for consumers. NEM claims that subsection (a)(9) reporting requirements are unnecessary and pose barriers for the formation of a competitive market. NEM also states that § 62.104(b)(5) and (6) should be eliminated because the number of Commonwealth employees and the Commonwealth assets of an NGS are not related to the technical or financial fitness of marketers or the degree of protection afforded to Commonwealth customers. Hess agrees with NEM that only Commonwealth affiliates should be identified.

GASMARK also comments that subsection (a)(7) and (8) should be eliminated because requiring an applicant to provide information on competency and regulatory experience is invasive, burdensome and unrelated to the requirements of the act. GASMARK also claims that the requested information is commercially sensitive and divulging it in the application, even under confidentiality provisions, is detrimental to suppliers.

Hess suggests revisions to the language in subsection (a)(7). Hess suggests that the evidence that must be produced in support of the application should be qualified as being "structured depending on the classes of customers the applicant wishes to serve." The rationale for this change, Hess reveals, is that the technical competence needed to serve a discreet number of industrial customers is different from that needed to serve hundreds of residential customers.

Also in regard to subsection (a)(7), Hess proposes the elimination of the specific types of evidence of technical fitness that may be submitted in support of the application and the substitution of evidence of a more general nature: "proposed and/or existing marketing, operational and back office capabilities." Hess's rationale for the change is that the listed evidence will be out of date before the application is processed and the information has nothing to do with proving technical competence. Hess also proposes similar language changes as those discussed for subsections (a)(7), (a)(8)—(9).

Hess comments that subsection (b)(5) and (6) should be eliminated. Hess claims that the number of Commonwealth employees and the Commonwealth assets of NGSs have nothing to do with either technical or financial fitness of marketers, and data may be misleading with respect to marketer competence.

Resolution

In answer to IRRC's comments, Commission staff works closely with each license applicant to ensure completion of the application and the filing of "sufficient" financial fitness documentation. The proposed regulations provide guidance without requiring specificity in order to diminish the costs incurred to seek a license.

In addition, the Commission intentionally avoided specifying creditworthiness measures as a means to encourage new applicants who may not be able to produce historical financial information that would be available only from long-term established energy suppliers or other entities. The Commission would, of course, accept for evaluation any measures of creditworthiness that the applicant might offer. These would include credit reports, bank references, audited financial statements, annual reports, 10K or 10Q filings prepared in past 12 months, confirmation that the applicant is not operating under bankruptcy or insolvency law, confirmation that no significant lawsuits or judgments are outstanding, confirmation that the applicant is not aware of any adverse condition which could cause a material change in its financial condition, a list of its parent company and other affiliates, three trade references, additional financial information, Dun & Bradstreet financial credit ratings or access to unused lines of credit.

Concerning the comments of NEM, GASMARK and Hess to subsection (a)(7)—(9), the Commission notes that it has consistently taken into consideration the specific services proposed to be provided in determining the information that an applicant must provide. This proposed regulation is in fact required by section 2208(b) of the act that reads as follows:

> [a] license shall be issued to any applicant, off arising the whole or any part of the service covered by the application, if it is found that the applicant is fit, willing and able *to perform properly the services proposed* and to conform to the applicable provisions of this title and the orders and regulations of the commission, including those concerning standards and billing practices, and that the proposed service, to the extent authorized by the license, will be consistent with the public interest. Otherwise, such application shall be denied.

66 Pa.C.S. § 2208(b) (emphasis added).

Accordingly, each applicant must demonstrate its technical and financial fitness to provide services to the consumers it wishes to serve. The proposed regulations provide examples of information that "may" be filed to meet the requirements of the act in order to be granted a license.

As to NEM and Hess recommendations that subsection (b)(5) and (6) be eliminated because it has nothing to do with either the technical or financial fitness of the marketer and may provide misleading information, the Commission disagrees. The Commission believes that information concerning the applicant's assets and employees located in this Commonwealth is useful in the evaluation of technical fitness of the supplier to perform the service for which it has sought to be licensed.

The additional information required by this section would not seem to be difficult to obtain nor excessively invasive into the applicant's operations. If an applicant is

concerned that the information being provided is confidential, it may request confidential treatment under § 62.103(e).

Finally, we have several revisions to subsection (7)(iii) and (iv), (8), 8(iii) and 8(iv) to correct errors that were introduced in editing the proposed regulation for publication.

V. Section 62.105. Change in organizational or operational status.

This section outlines what is considered to be a material change in the organizational structure or operation that affects an applicant's or a licensee's operation in this Commonwealth.

NEM suggests that the clauses be modified to add "in Pennsylvania" to each clause. NEM states that the scope of the Commission's concerns should be limited to the companies that it regulates. Hess has submitted a similar comment on this regulation.

Resolution

The Commission will not accept NEM and Hess's suggested revisions to this regulation as we do not find them to be persuasive. With the convergence of the electric and natural gas industries and the regionalization of the energy market, it is essential that the Commission understand the relationships between a supplier licensed to provide service in this Commonwealth and its affiliates, both in-State and out-of-State, and any changes that affect those relationships. Depending on the dynamics of the regional and National energy markets, affiliates can become sources of supply for the licensed supplier serving in this Commonwealth, or they can become competitors for that same supply source. Considering that the Commission is charged with monitoring the gas market for reliability and anticompetitive activity, the need for this information far outweighs the burden of its production.

VI. Section 62.106. Open and nondiscriminatory access.

This section references the standards for open and nondiscriminatory access that must be demonstrated before a municipal corporation is permitted to provide natural gas supply services as a licensed NGS. IRRC states that for clarity, the final-form regulation should specifically cite the relevant sections of the act. IRRC also states that the criteria that will be used to determine if a municipal corporation is providing open and nondiscriminatory access to its gas distribution system should be clarified.

Resolution

In response to the request for clarification by IRRC, the Commission refers to section 2208(g) of the act. Section 2208(g) requires that prior to allowing a municipal corporation to become a licensed NGS, it must be able to provide open and nondiscriminatory access to other suppliers to its distribution system. Specifically, this section of the law states that the Commission will make a determination of the openness of a municipal corporation's system "taking into consideration the particular circumstances of the municipal corporation's ownership and/or operation of the gas distribution system." From this language, it is clear that the Legislature intended that this determination be made on a case by case basis. Therefore, the Commission does not believe that it is possible or appropriate to identify specific criteria that it will utilize in such fact-intensive proceedings. However, we will reference in this section the relevant provision of section 2208(g) of the act.

VII. Section 62.107. Publication of notice of filing.

Subsection (b)(2) requires a notice of filing an application to be provided to the Commission in an "acceptable electronic format." IRRC states that the term "acceptable" is vague. IRRC recommends that the regulation be amended to make this clarification, or direct an applicant to the location or phone number for the information.

Hess and NEM both suggest the elimination of the second sentence in § 62.107(b). Hess states that allowing a third party to protest an application is inappropriate in a competitive market as it will delay the application process and cause increased costs for the applicant. Hess also states that the ability of a third party to have access to meaningful financial information beyond that which is publicly distributed is not likely.

NEM states that it supports Hess's argument that allowing a third party to protest an applicant's technical or financial fitness will hamper the growth of the competitive energy market.

Resolution

The Commission believes that it is in the public interest to provide public notice and opportunity to be heard concerning a proposed application to become a licensed NGS. In processing over 200 applications for electric generation supplier (EGS) licenses and interim NGS licenses, we have not seen that the opportunity for protest delays the application process. Moreover, competitive protests are not permitted, and where an entity abuses the protest process, penalties may be imposed. In addition, with the ability of the applicant to request that proprietary information be held confidential, we see no reason to accept NEM and Hess's comment.

In regard to subsection (b)(2), IRRC has requested clarification concerning what is an "acceptable electronic format." At present, the Commission utilizes Word® software, but as software choices are apt to change over time, we will revise the regulation to direct inquiries about software use to the Commission's Forms Officer.

VIII. Section 62.108. Protests to applications.

Subsection (c)(3) states: "If a protest is sufficiently documented, the application will be transferred to the Office of Administrative Law Judge for hearings or mediation as deemed appropriate." IRRC inquires as to whether there is some criteria that will be used to determine which protests will result in hearings and which will result in mediation. IRRC recommends that the Commission explain the process and criteria for establishing whether a protest goes to a hearing or to mediation. It also recommends the deletion of the phrase "as deemed appropriate."

NEM suggests the elimination of this section because it believes that allowing a third party to protest the applicant's technical or financial fitness will hamper the growth of the competitive market. Allowing a competitor or similarly disposed parties an opportunity to delay or increase the costs of the applicant is not advisable.

Resolution

NEM and Hess cited concerns of allowing a competitor an opportunity to delay or increase the cost of an application and the detrimental effects this could have on the development of a competitive marketplace. Under the proposed regulation, Commission staff members perform a cursory review of protests filed against pending applications in order to eliminate unsupported protests that are not in compliance with the Commission's regulation in

§ 5.52(a) (relating to content of a protest to an application). This regulation requires that the protest identify the right or interest that is sought to be protected so as to establish the standing of the protestant to participate in the proceeding, and the grounds for the protest with supporting facts.

Only those protests that meet this preliminary test are sent to the Office of Administrative Law Judge for hearing or mediation. Accordingly, there is little risk that a frivolous protest will be allowed to proceed further and little risk that an application will be delayed or the costs to the applicant will be increased as a result of allowing for the opportunity for protest. As already discussed, penalties will be imposed on any entity that abuses the protest process.

As to IRRC's concern regarding whether a protest is sent for mediation or hearing, the Commission's regulation at § 69.392 (relating to availability of mediation process) states that that decision rests with the Office of Administrative Law Judge. Moreover, the treatment of a protest depends on a number of individual factors. These include, inter alia, the issues raised by the protest, the involvement of other parties and most importantly, the willingness of the parties to enter into mediation to settle their differences. This is especially true of the protestant who has the burden of proof in regard to the protest and who must consent to the mediation. See § 69.392(d). The Commission therefore declines to accept IRRC's suggestion to delete the phrase "as deemed appropriate" from subsection (c)(3).

IX. Section 62.109. Approval.

Section 62.109 summarizes the terms under which a license will be issued and notes that the completed applications will be processed within 45 days after acceptance by the Commission and will be deemed approved if not acted on within that time period unless the consideration period is extended. An applicant must comply with requirements of Chapter 56 (relating to standards and billing practices for residential utility service) to obtain a license to provide service to residential customers.

In its comments, Hess suggests the addition of the clause "if applicant indicates potential service to such customers" at the end of subsection (a)(1). Hess's rationale is that customers who do not serve residential customers do not have to comply with Chapter 56.

Resolution

The Commission does not agree to the amendment as Chapter 56 regulations are applicable to some small commercial customers.[2] The Commission notes, however, that it does not require an applicant who proposes to serve industrial and large commercial customers to demonstrate its compliance with Chapter 56.

X. Section 62.110. Regulatory assessments.

Proposed § 62.110 (a) requires licensed NGSs to pay assessments to defray regulatory costs, under section 510 of the Public Utility Code (66 Pa.C.S. § 510). IRRC questions whether the Commission has the statutory authority to collect assessments from NGSs. IRRC states that section 510 only authorizes the Commission to collect regulatory assessments from public utilities, and the definition of "natural gas supplier" in section 2202 of the act states: "*Notwithstanding any other provision of this title,* a natural gas supplier . . . *is not a public utility* as defined in Section 102 (relating to definitions). . ." (emphasis added). IRRC states that the Commission should explain its statutory authority for collecting assessments from NGSs under section 510 or delete subsection (a).

Hess proposes eliminating this section based on its interpretation of the Commission's statutory authority to regulate NGSs. IOGA has presented legal arguments to the effect that the Commission lacks statutory authority to assess suppliers. IOGA suggests assessing regulated transportation service of the utility because all customers would then bear the appropriate level of costs relating to the volume of gas delivered. Open Flow and TW Phillips also support the elimination of this section related to assessments. POGAM suggests language which would make assessments applicable only to city natural gas distribution operations (PGW) consistent with its argument that the act only provides the Commission with the authority to assess that entity for regulatory costs.

On February 6, 2001, late-filed comments in the form of a White Paper were filed for consideration in this rulemaking. The White Paper concludes that the current assessment process needs to be changed if nonutility entities are to share in the payment of the Commission's operating budget. It recommends that the Commission explore with other industry groups potential changes to the current assessment system. It also recommends that the Commission consider requesting that the Governor create a blue ribbon committee to craft legislation that would adapt the Commission funding process to the realities of competition. Furthermore, it recommended that to preclude further deleterious impacts on the fragile state of gas markets, the current system in which gas marketers are not assessed should be continued. The White Paper proposes three alternatives. The first alternative is to assess public utilities only. The second alternative is to assess public utilities and collect user fees for marketers. The third alternative is to abandon the assessment process and fund the Commission from the General Fund.

Resolution

On April 5, 2001, the Commission entered an order in the proceeding, *Objections of the Pennsylvania Telephone Association on Behalf of its Members and Individually, to the Fiscal Year July 1, 1997 through June 30, 1998, General Assessment; Objections of the PTA to the Fiscal Year July 1, 1998 through June 30, 1999, General Assessment,* at Docket No. M-00970994, et al. In this order, we recognized that the regulatory environment for electric, gas, telecommunications and motor carrier industries has dramatically changed over the last 5 years, and we directed that a Collaborative be convened for each industry to discuss the assessment process as it relates to its respective competitive environment. In light of the upcoming Collaborative on the natural gas industry, we believe that it is premature to promulgate a final-form regulation relating to the assessment of NGSs. Therefore, we will delete this section of the regulation and original § 62.114(a)(1). We will renumber the remaining sections as required.

XI. Section 62.111. Reporting requirements.

This section describes the information that a licensee is required to file with the Commission annually.

NEM suggests the elimination of subsection (1). NEM states that the reporting of gross receipts from the sales of natural gas by licensees implies an intent to tax or assess. NEM believes that this issue should be put on hold pending the promulgation of supplier of last resort regulations.

[2] "Residential service" at § 56.2 is defined as utility service supplied to a dwelling, including service provided to a commercial establishment if concurrent service is provided to a residential dwelling attached thereto. Utility service provided to a hotel or motel is not considered "residential service."

Also, Hess proposes elimination of subsection (1). It states that requiring customers to report annually the number of residential customers served, by NGDC, will assist the Commission in monitoring market power.

Resolution

The reporting of annual gross receipts is being proposed to provide information about the development of the competitive natural gas market in this Commonwealth. Under the act, the Commission has a duty to ensure the development of the market and the availability to all customers of a variety of natural gas supply services offered by suppliers. See 66 Pa.C.S. § 2203. This gross receipts information will provide a basis to examine competitiveness among the suppliers.

The Commission notes that the commenters have not indicated that the requested information to be reported was burdensome to produce or that the provision allowing for the confidential treatment of information upon request was inadequate. Under the circumstances, the Commission believes that the reporting requirements are reasonable and will not revise this section of the regulations.

XII. Section 62.112. Bonds or other security.

This section requires an NGS to post a bond or other security to receive a license to conduct business in this Commonwealth. This section also outlines the criteria to be used to determine the amount and the form of the security needed to ensure the licensee's financial responsibility.

IRRC has a number of concerns with this section. First, IRRC comments that it does not include a prioritization of claims for payment under a bond or other security if an NGS defaults. Establishing this priority of claimants would be consistent with the EGS licensure regulations at § 54.40(f)(3) (relating to bonds or other security).

Second, IRRC examines subsection (c) that states: "The amount and form of the security . . . shall be reasonably based on the criteria established in this section." IRRC indicates that the term "reasonably" is unnecessary, and it should be deleted from this subsection.

Finally, IRRC comments that subsection (e) includes the phrase "unreasonable service." IRRC states that the phrase is unclear, and suggests that the Commission either define it or provide examples of "unreasonable service" in this section.

In its comments, OCA submits that the Commission should modify this rulemaking to include a bonding requirement for consumer protection and to ensure compliance with the Commission's orders and regulations. OCA notes that the bonding requirement for EGSs at § 54.40 contains a purpose and recommends using that regulation as the framework for establishing a regulation for NGSs. OCA notes that elements regarding the Gross Receipts Tax would not be applicable to NGS licensing since the act eliminated this tax.

GASMARK comments that it does not oppose the language in this section and encourages the Commission to be sure that all NGDC bonding requirements are reasonably implemented in the future.

Resolution

In addressing IRRC's first comment, we note that the provisions relating to the security requirement of the act and the Electric Customer Choice and Competition Act (Electric Choice Act), are markedly different and those differences account for the differences in the regulations for EGSs and NGSs.

In the restructuring of the electric industry, the Commission found it necessary to set forth a priority for the claims to be paid because of the multiple purposes for the security.

According to 66 Pa.C.S. § 2809(c)(i) (relating to requirements for electric generation suppliers), the purpose of the bond was to ensure the financial responsibility of the EGS and the supply of electricity at retail in accordance with contracts, agreements or arrangements. One aspect of the supplier's financial responsibility involved the payment of Gross Receipts Tax. Under the electric restructuring legislation, a customer may pay Gross Receipts Taxes to its licensed EGS. In the event that the licensed EGS fails to remit the appropriate Gross Receipts Taxes, the Department of Revenue is authorized to collect these taxes from the electric distribution company (EDC), who in turn can collect them from the customer. In order to alleviate the potential for customers to pay these taxes twice, the Commission established the payment of Gross Receipts Taxes as the first priority for payment under the bond. The second priority is the reimbursement for the payment of Gross Receipts Taxes by the EDC and the third is other individuals who may have a claim because of failure of the EGS to supply electric generation in accordance with contracts, agreements and arrangements.

In contrast, under the act, the purpose of the security is to ensure the safety and reliability of the natural gas supply in this Commonwealth. We believe that this is a more general requirement and have interpreted this provision to establish a purpose of the bond for the security is to afford natural gas distribution companies some financial protection for the costs of natural gas supplies in the event of supplier default on its obligation to provide supply for its customers or supplier bankruptcy. Gross Receipts Tax was eliminated for gas supply services. Thus, it is unnecessary to delineate specific priority for the payment of claims as the sole beneficiary by statute is the natural gas distribution company.

As to IRRC's other comment, we agree that the word "reasonably" is unnecessary in this subsection and we will delete it.

The OCA requests that the security include consumer protection provisions and provisions ensuring compliance with the Commission's orders and regulations. However, the request is without foundation in the act. As discussed, the purpose of the security requirement in the act is the financial protection of the NGDC and the supplier of last resort in the event of supplier default or bankruptcy. Unlike the Electric Choice Act, the act does not require the security to ensure the supply of natural gas supply service at retail in accordance with contracts, arrangements and agreements. Based on this difference in the legislation, we decline to grant OCA's request.

In regard to IRRC's comment to subsection (e), the term "unreasonable service" refers to a determination made by the Commission upon complaint for unreasonable or inadequate service provided by the NGS. See 66 Pa.C.S. § 1501 (relating to character of service and facilities). The purpose of this subsection was to note that the provision of a bond or other security did not limit an NGS's financial exposure to penalties resulting from the adjudication of complaints. The term "unreasonable service" is not easily defined as it is a determination made by the Commission based on the facts of record established in each complaint proceeding. However, to clarify the regula-

tion we will eliminate the phrase "for unreasonable service, or" leaving the reference to violations of the Public Utility Code.

XIII. Section 62.113. Transfer or abandonment of license.

This section provides that a license shall not be transferred without prior Commission approval. No license shall be abandoned without 90 days written notice to the Commission, the licensee's customers and the affected distribution utilities and suppliers of last resort.

Petition and application

In this section, two steps are required for a license transfer. IRRC comments that the order of the steps is unclear. As written, the regulation implies that the Commission approves license transfers before receiving the financial and technical fitness application. IRRC recommends that the regulation be amended to clarify the chronology of document submittal and whether both the petition and an application are necessary.

Resolution

The Commission agrees with IRRC's comments as it does appear that a two-step process must be followed for a license transfer. For clarity, we will amend the proposed regulation to require that a license application be filed by the transferee at the same time as the petition for transfer is filed.

Abandonment of service

IRRC states that subsection (b) contains the phrase: "A licensee may not abandon service. . . ." IRRC questions whether "abandon service" means that an NGS surrenders its license or that the NGS fails to renew or cancels a customer contract. IRRC suggests that the Commission should clarify "abandon service" in the final-form regulation.

OCA comments that the Commission should make it clear that this provision applies if the NGS is abandoning service to any customer or customer class for any period of time whether or not the NGS is abandoning its license overall. OCA states that this revision is necessary to ensure that customers have adequate time to shop for another NGS. Without adequate notice, customers would be returned to suppliers of last resort even though they wished to continue with alternate suppliers. Additionally, if an alternate supplier is abandoning a large number of customers, the supplier of last resort may require 90 days notice in order to properly plan and procure supply. OCA also states that the regulation should be clarified by expanding the heading to include "abandonment of service."

GASMARK claims that the 90-day notice requirement exceeds the Commission's statutory authority and that the requirements of contractual termination between nonutility parties must be reserved to private negotiations and judicial enforcement. GASMARK also provides practical reasons that it opposes this section. First, the 90-day notice requirement is overly broad and may directly conflict with the terms of the contract. GASMARK also states that the economics of market service fluctuate constantly and customers and suppliers may agree on termination clauses requiring notification of 1 month or less. A 90-day notice removes flexibility for suppliers and creates a barrier to customer choice.

Hess proposes to revise subsection (b) to apply to instances where the licensee ceases business with respect to all of its customers in a particular utility jurisdiction, and to shorten the 90-day notice period to a 45-day notice period. It also proposes written notice be given to individuals as provided for in the service contract. Hess states that it is important that the Commission know what happens to large numbers of customers, but that shouldn't interfere with an individual company's business plans and legal obligations.

Resolution

We agree with IRRC and OCA comments that the term "abandon service" fails to convey the circumstances which the Commission wishes to address. The Commission is addressing a situation in which the NGS ceases business and abandons its license. The Commission is not addressing a circumstance under which the NGS is no longer offering service to potential customers or withdrawing from further offerings to customers in a certain customer class. Therefore we will amend the language in the proposed regulation.

The Commission believes that objections raised by GASMARK and Hess concerning the proposed 90-day notice period are premised upon the belief that the Commission is attempting to address the termination of a particular customer's contract with a licensed NGS. This proposed regulation does not address individual customer contracts. The purpose of this section was to address the notice to be provided when a licensee abandons its license and no longer serves all its existing customers. The Commission believes that a 90-day notice requirement for the abandonment of a license is not unreasonable. The Commission, the customers and the suppliers of last resort all require significant lead times in order to prepare for the potential transfer of services.

XIV. Section 62.114. License suspension; license revocation.

If the licensee fails to comply with the various Commission requirements, regulations and orders outlined in this section, a license may be suspended or revoked and fines may be imposed against the licensee. Section 62.114(a)(1) provides that the license of an NGS may be suspended or revoked for failure to pay an assessment.

In its comments, IRRC again questions the Commission's statutory authority to assess NGSs under section 510 of the Public Utility Code for the same reasons it previously cited. IRRC again recommends deleting subsection (a)(1) from the final-form regulation.

Also, NEM and POGAM also urge that this subsection be eliminated because the Commission is exceeding its statutory authority by assessing marketers who seek to maintain a license as a NGS.

Resolution

The Commission believes that it is appropriate to delineate several specific conditions that would result in the revocation of an NGS's license. However, consistent with our decision to delete § 62.110, we will likewise delete § 62.114(a)(1). We will renumber the subsections as required.

Accordingly, under 66 Pa.C.S. §§ 501, 2203(12) and 2208, the act of July 31, 1968 (P. L. 769, No. 240) (45 P. S. §§ 1201—1208) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1—7.4, we amend the regulations in §§ 3.551 and 62.101—62.114 as previously noted and as set forth in Annex A; *Therefore,*

It Is Ordered that:

1. The regulations of the Commission, 52 Pa. Code Chapters 3 and 62, are amended by amending § 3.551,

and by adding §§ 62.101—62.114 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

2. The Secretary shall submit this order and Annex A to the Office of Attorney General for approval as to form and legality.

3. The Secretary shall submit a copy of this order, together with Annex A, to the Governor's Budget Office for review of fiscal impact.

4. The Secretary shall submit this order and Annex A for formal review by the designated standing committees of both Houses of the General Assembly, and for formal review and approval by IRRC.

5. The Secretary shall certify this order and Annex A and deposit them with the Legislative Reference Bureau for publication in the *Pennsylvania Bulletin*.

6. A copy of this order and Annex A be served on the OCA, the OSBA, all persons who submitted comments, all NGDCs and all licensed NGSs and be provided to all interested persons.

7. The regulations adopted with this order are effective upon publication in the *Pennsylvania Bulletin*.

JAMES J. MCNULTY,
Secretary

Fiscal Note: 57-127. Fiscal note 57-127 remains valid for the final adoption of the subject regulations.

(*Editor's Note*: For the text of the order of the Independent Regulatory Review Commission, relating to this document, see 31 Pa.B. 3370 (June 23, 2001).)

Annex A

TITLE 52. PUBLIC UTILITIES

PART I. PUBLIC UTILITY COMMISSION

Subpart A. GENERAL PROVISIONS

CHAPTER 3. SPECIAL PROVISIONS

Subchapter H. FORMS

§ 3.551. Official forms.

The following is a list of forms which may be obtained from the Office of the Secretary of the Commission.

* * * * *

(16) Application for natural gas supplier license.

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Subpart C. FIXED SERVICE UTILITIES

CHAPTER 62. NATURAL GAS SUPPLY CUSTOMER CHOICE

Subchapter D. LICENSING REQUIREMENTS FOR NATURAL GAS SUPPLIERS

§ 62.101. Definitions.

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

Act—The Natural Gas Choice and Competition Act (66 Pa.C.S. §§ 2201—2212).

Applicant—A person or entity seeking to obtain a license to supply retail natural gas supply services to retail customers.

City natural gas distribution operation—A collection of real and personal assets used for distributing natural gas to retail gas customers owned by a city or a municipal authority, nonprofit corporation or public corporation formed under section 2212(m) of the act (relating to city natural gas distribution operations).

License—A license granted to an NGS under this subchapter.

Licensee—A person or entity that has obtained a license to provide natural gas supply services to retail customers.

Marketing—The publication, dissemination or distribution of informational and advertising materials regarding the NGS's services and products to the public by personal contact, print, broadcast, electronic media, direct mail or by telecommunication.

Marketing services consultant—A commercial entity, such as a telemarketing firm or auction-type website, or energy consultant, that under contract to a licensee or a retail customer, may act as an agent to market natural gas supply services to retail gas customers for the licensee or may act as an agent to recommend the acceptance of offers to provide service to retail customers. A marketing services consultant:

(i) Does not collect natural gas supply costs directly from retail customers.

(ii) Is not responsible for the scheduling of natural gas supplies.

(iii) Is not responsible for the payment of the costs of the natural gas to suppliers, producers, or NGDCs.

NGDC—Natural gas distribution company—As defined in section 2202 of the act (relating to definitions).

NGS—Natural gas supplier—As defined in section 2202 of the act.

Natural gas supply services—As defined in section 2202 of the act.

Nontraditional marketer—A community-based organization, civic, fraternal or business association, or common interest group that works with a licensed supplier as an agent to market natural gas supply services to its members or constituents. A nontraditional marketer:

(i) Conducts its transactions through a licensed NGS.

(ii) Does not collect revenues directly from retail customers.

(iii) Does not require its members or constituents to obtain its natural gas service through the nontraditional marketer or a specific licensed NGS.

(iv) Is not responsible for the scheduling of natural gas supplies.

(v) Is not responsible for the payment of the costs of the natural gas to its suppliers or producers.

Offer to provide service—The extension of an offer to provide services or products communicated orally or in writing to a customer.

Retail gas customer—As defined in section 2202 of the act.

Supplier of last resort—A supplier approved by the Commission under section 2207(a) of the act (relating to obligation to serve) to provide natural gas supply services to customers who contracted for natural gas that was not delivered, or who did not select an alternative NGS, or who are not eligible to obtain competitive natural gas supply, or who return to the supplier of last resort after having obtained competitive natural gas supply.

§ 62.102. Scope of licensure.

(a) An NGS may not engage in marketing, or may not offer to provide, or provide natural gas supply services to retail customers until it is granted a license by the Commission.

(b) An NGDC acting within its certified service territory as a supplier of last resort is not required to obtain a license.

(c) The owners/operators of a building or facility that manages the internal distribution system supplying a building or facility and supply natural gas and other related services to occupants of the building or the facility where the owners/operators, and not the occupants, are the direct purchasers of the natural gas supply services are not required to obtain a license.

(d) A nontraditional marketer is not required to obtain a license. The licensed NGS shall be responsible for violations of 66 Pa.C.S. (relating to the Public Utility Code), and applicable regulations of this title, orders and directives committed by the nontraditional marketer and fraudulent, deceptive or other unlawful marketing or billing acts committed by the nontraditional marketer.

(e) A marketing services consultant is not required to obtain a license. The licensed NGS shall be responsible for violations of 66 Pa.C.S. and applicable regulations of this title, orders and directives committed by the marketing services consultant and fraudulent, deceptive or other unlawful marketing or billing acts committed by the marketing services consultant.

§ 62.103. Application process.

(a) An application for a license shall be made on the form provided by the Commission. A copy of the application can be obtained from the Commission's Secretary. The application form is also available on the Commission's Internet web site. An application shall be verified by an oath or affirmation as required in § 1.36 (relating to verification). See section 2208(b) of the act (relating to requirements for natural gas suppliers).

(b) An original and eight copies of the completed application and supporting attachments shall be filed. An electronic copy of the application shall also be filed. An application for a license shall be accompanied by the application fee as established in § 1.43 (relating to schedule of fees payable to the Commission).

(c) Subject to subsection (e), copies of the completed applications with supporting documentation shall be served on the following:

(1) The Office of Consumer Advocate.

(2) The Office of Small Business Advocate.

(3) The Office of Attorney General, Bureau of Consumer Protection.

(4) The Department of Revenue.

(5) Each NGDC in whose service territory the applicant intends to provide natural gas supply services.

(d) Incomplete applications and those without supporting attachments, if needed, will be rejected without prejudice. The license application, with supporting attachments, shall be completed in its entirety.

(e) When an answer on the application requires the disclosure of privileged or confidential information not otherwise available to the public, the applicant may designate at each point in the application where information is disclosed that is confidential and privileged. One copy of this confidential or privileged information conspicuously marked at the top as "CONFIDENTIAL" may be submitted to the Office of the Secretary with the application.

(1) An applicant must provide reasons for protecting this information.

(2) The request for confidentiality will be treated as a petition for protective order and will be ruled on by the Commission in conjunction with the license application.

(3) Pending disposition, the information will be used solely for the purpose of evaluating the license application, and the confidentiality of this information will be maintained consistent with the Commission's rules and regulations pertaining to confidentiality.

§ 62.104. Application form.

(a) The application form includes information that will be used in the evaluation of the financial fitness and technical fitness to render service. Information includes:

(1) Identification of the geographic area that the applicant proposes to serve.

(2) Identification of the type of service that the applicant proposes to furnish.

(3) Identification of the class of customers to which the applicant proposes to provide these services.

(4) Identification of the applicant's utility affiliates.

(5) Description of the applicant's business structure.

(6) Financial information sufficient to demonstrate financial fitness. This information may include credit ratings and history, audited financial statements, and insurance pertinent to the conduct of the applicant's business as an NGS.

(7) Evidence of competency and experience in providing the scope and nature of the applicant's proposed services. This evidence may include:

(i) Descriptions of the applicant's prior experience.

(ii) Proposed staffing and employee training commitments.

(iii) Business plans.

(iv) Agreements, arrangements and contracts for natural gas supply procurement, transmission and related services.

(8) Evidence demonstrating the applicant's ability to comply with applicable Commission requirements concerning customer billing, customer education, billing and terms of service, and customer information. This evidence may include:

(i) Prior regulatory experience of the applicant.

(ii) Prior business experience in energy or other service-oriented industries.

(iii) Staffing and staff training commitments.

(iv) Agreements, arrangements and contracts for customer education and information service.

(v) Customer satisfaction survey results.

(vi) Government agency reports.

(vii) Complaint statistics compiled by the Better Business Bureau or similar business organizations.

(9) Certification that notice of the application was published in accordance with § 54.35 (relating to publication of notice of filing) shall be filed with the Commis-

sion's Secretary. The certification shall be notarized and include a photostatic copy of the notices as published. An application will not be considered complete for Commission review without this certification.

(b) Additional information that shall be submitted in support of the application includes:

(1) The name, address, telephone number, electronic numbers and addresses used to transmit tax and related information of the persons responsible for preparing and filing the applicant's Pennsylvania tax returns.

(2) The trade names or fictitious names used by the applicant.

(3) The type of business association (for example, sole proprietor, partnership or corporation).

(4) The names of the owners, general partners or corporate officers.

(5) The number of the applicant's current and anticipated employees working in this Commonwealth.

(6) An identification of the applicant's assets in this Commonwealth.

(7) The principal office in this Commonwealth or of its registered agent.

(8) The applicant's Department of Revenue tax identification numbers including Sales Tax license number, employer identification number and corporate box number.

§ 62.105. Change in organizational structure or operational status.

(a) The applicant is under a duty to inform the Commission of a material change in the information provided in the application during the pendency of the application, or while the licensee is operating in this Commonwealth.

(b) A material change in the organizational structure or operation that affects an applicant's or a licensee's operation in this Commonwealth shall be reported to the Commission within 30 days of the date of the change. Specifically, notification shall be given to the Commission of a change in the following:

(1) Affiliation with an NGDC.

(2) Affiliation with an entity that has a franchised service area.

(3) Affiliation with another NGS.

(4) Affiliation with a licensed electric generation supplier.

(5) Office location.

(6) Chief executive officer or operating partners.

(7) Customer classes served expanded to include residential and small commercial customers.

(c) Unless directed otherwise by the Commission, the licensee does not need to file an amended application with the Commission.

§ 62.106. Open and nondiscriminatory access.

A municipal corporation shall, before it is permitted to provide natural gas supply services as a licensed NGS, demonstrate, and the Commission will determine, that by the date of the issuance of the license, it will provide other NGSs open and nondiscriminatory access to its gas distribution system under standards that are comparable to those found in the act, taking into consideration the particular circumstances of the municipal corporation's ownership or operation, or both, of its natural gas distribution system. See section 2208(g) of the act (relating to open and nondiscriminatory access).

§ 62.107. Publication of notice of filing.

(a) Notice of filing an application shall be published in newspapers of general circulation covering each county in which the applicant intends to provide service as required by § 5.14(a)(2) (relating to applications requiring notice). Applicants may contact the Commission's Press Secretary to confirm the identity of the newspapers of general circulation in which notice shall be published.

(b) The notice shall be written in plain language and include the name, address and telephone number of the applicant, a description of the proposed services to be provided and the geographic area to be served.

(1) The notice shall include the application docket number and a statement that protests related to the technical or financial fitness of the applicant shall be filed within 15 days of the publication date of the notice with the Commission's Secretary, Public Utility Commission, P. O. Box 3265, Harrisburg, PA 17105-3265.

(2) The notice in an acceptable electronic format shall be submitted to the Commission's Secretary for posting on the Commission's Internet web site. Inquiries concerning the electronic format may be directed to the Commission's Forms Officer.

§ 62.108. Protests to applications.

(a) Consistent with § 5.14(b) (relating to applications requiring notice), a 15-day protest period commences on the date notice of the application filing is published in newspapers. An interested party may file a protest to an application in compliance with § 5.52(a) (relating to content of a protest to an application) and shall set out clearly and concisely the facts upon which challenge to the fitness of the applicant is based. An applicant may file an answer to the protest within 10 days of when the protest is filed. Protests which do not fully comply with § 5.52(a) (relating to content of a protest to an application) will be rejected.

(b) Protests may challenge only the applicant's financial and technical fitness to provide the service for which a license is requested. Consistent with the requirements of due process, sanctions, such as revocation or suspension of a supplier's license or the imposition of a fine, may be imposed on parties who intentionally misuse the protest process by repeated filing of competitive protests.

(c) A protest to the applicant's technical or financial fitness to provide service will be assigned to Commission staff for review. Staff will determine if the protest fully complies with § 5.52(a) and sets out clearly and concisely the facts upon which the challenge to the fitness of the applicant is based.

(1) Staff will determine if the protest is sufficiently documented.

(2) If a protest is not sufficiently documented, Commission staff will prepare a recommendation for Commission consideration dismissing the protest and granting the application.

(3) If a protest is sufficiently documented, the application will be transferred to the Office of Administrative Law Judge for hearings or mediation as deemed appropriate.

§ 62.109. Approval.

(a) A license will be issued, authorizing the whole or any part of service requested, if the Commission finds that:

(1) The applicant is fit, willing and able to properly perform the service proposed in conformance with applicable provisions of 66 Pa.C.S. (relating to the Public Utility Code) and the lawful Commission orders and regulations, specifically including Chapter 56 (relating to standards and billing practices for residential utility service).

(2) The proposed service is consistent with the public interest and the policy declared in the act (See section 2208(b) of the act (relating to requirements for natural gas suppliers)).

(b) Completed applications, with all supporting documentation, including any documentation or clarifying information requested by Commission staff, if unprotested, will be processed within 45 days after acceptance by the Commission. If the application is not processed within the time period, the application will be deemed approved. The review period may be extended for a reasonable period of time by Secretarial Letter.

§ 62.110. Reporting requirements.

(a) A licensee shall file an annual report on or before April 30 of each year, for the previous calendar year. The annual report shall contain the following information:

(1) The total amount of gross receipts from the sales of natural gas supply services for the preceding calendar year.

(2) The total amount of natural gas sold during the preceding calendar year.

(3) The names and addresses of nontraditional marketers and marketing services consultants who are currently or will be acting as agents for the licensee in the upcoming year.

(b) A licensee shall be required to meet periodic reporting requirements issued by the Commission to fulfill the Commission's duty under the act pertaining to reliability and to inform the Governor and General Assembly of the progress to a fully competitive natural gas market.

(c) The information requested in this section will be made available for public review upon request to the Commission subject to any rulings on confidentiality made by the Commission.

§ 62.111. Bonds or other security.

(a) A license will not be issued or remain in force until the licensee furnishes proof of a bond or other security. See section 2208(c)(1)(i) of the act (relating to requirements for natural gas suppliers).

(b) The purpose of the security requirement is to ensure the licensee's financial responsibility. See section 2208(c)(1)(i) of the act.

(c) The amount and the form of the security, if not mutually agreed upon by the NGDC and the licensee, shall be based on the criteria established in this section. The criteria shall be applied in a nondiscriminatory manner. The Commission will periodically review the established criteria upon petition by any party.

(1) The amount of the security should be reasonably related to the financial exposure imposed on the NGDC or supplier of last resort resulting from the default or bankruptcy of the licensee. At a minimum, the amount of security should materially reflect the difference between the cost of gas incurred and the supplier's charges, if any, incurred by the NGDC or supplier of last resort during one billing cycle.

(i) The amount of security established under this paragraph may be modified based on one or more of the following:

(A) The licensee's past operating history, including the length of time that the licensee operated on the NGDC's system, the number of customers served and past supply reliability problems.

(B) The licensee's credit reports.

(C) The number and class of customers being served.

(D) Information that materially affects a licensee's creditworthiness.

(E) The licensee's demonstrated capability to provide the volume of natural gas necessary for its customers' needs.

(ii) The amount of the security may be adjusted, but not more often than every 6 months. The adjustments shall be reasonable and based on one or more of the following criteria:

(A) Changes in a licensee's recent operating history on the NGDC's system.

(B) Changes in a licensee's credit reports.

(C) Changes in the number or class of customers being served by the licensee.

(D) Changes in circumstances that materially affect a licensee's creditworthiness.

(E) The licensee's demonstrated capability to provide the volume of natural gas necessary for its customers' needs.

(2) The following legal and financial instruments and property shall be acceptable as security:

(i) Bond.

(ii) Irrevocable letter of credit.

(iii) Corporate, parental or other third-party guaranty.

(3) In addition to the requirements in this section, small suppliers with annual operating revenues of less than $1 million may utilize real or personal property with the following supporting documentation acceptable as security:

(i) A verified statement from the licensee that it has clear title to the property and that the property has not been pledged as collateral, or otherwise encumbered in regard to any other legal or financial transaction.

(ii) A current appraisal report of the market value of the property.

(d) The licensee shall submit to the Commission documentation demonstrating that it has complied with the bonding or security requirement. One copy of each bond, letter of credit, or other financial or legal instrument or document evidencing an agreement between the licensee and the NGDC shall be submitted to the Commission.

(e) Licensee liability for violations of 66 Pa.C.S. (relating to the Public Utility Code) and Commission orders and regulations is not limited by these security requirements.

§ 62.112. Transfer or abandonment of license.

(a) A license may not be transferred without prior Commission approval. See section 2208(d) of the act (relating to requirements for natural gas suppliers). Approval for transfer shall be obtained by petition to the

Commission. A license application shall be filed by the transferee at the same time that the petition for transfer is filed and demonstrate the transferee's financial and technical fitness to render service under the transferred license.

(b) A licensee may not abandon its license without providing 90 days prior written notice to the Commission, the licensee's customers, the affected distribution utilities and suppliers of last resort. The licensee shall provide written individual notice to its customers at approximately 90 days and 60 days preceding the effective date of the abandonment.

§ 62.113. License suspension; license revocation.

(a) A licensee shall comply with the applicable requirements of 66 Pa.C.S. (relating to the Public Utility Code) and Commission regulations and orders. Consistent with due process, a license may be suspended or revoked, and fines may be imposed against the licensee for:

(1) Failure to furnish and maintain a bond or other security.

(2) Failure to comply with the rules, regulations, orders or directives of the Department of Revenue.

(3) Failure to provide the address of its current principal office in this Commonwealth or of its registered agent.

(4) Failure to follow the principles in § 62.115 (relating to standards of conduct and disclosure for licensees).

(5) Violation of applicable provisions of 66 Pa.C.S., Commission regulations and lawful Commission orders. See section 2208(c)(2) of the act (relating to requirements for natural gas suppliers).

(6) Violation of Pennsylvania consumer protection law.

(b) The unauthorized transfer by an NGDC, or its affiliate, of a customer's NGS without the customer's express consent will result in a fine, or the suspension, or the revocation of the license of that NGDC's affiliated NGS. See section 2206(b) of the act (relating to consumer protection and customer service).

(c) The unauthorized transfer by a licensed NGS, or its affiliate, of a customer's NGS without the customer's express consent will result in a fine, or the suspension, or the revocation of the license of that NGS.

§ 62.114. Standards of conduct and disclosure for licensees.

To protect the consumers of this Commonwealth, licensees shall adhere to the following principles in the provision of natural gas service:

(1) A licensee shall provide accurate information about its natural gas services using plain language and common terms in communications with consumers. When new terms are used, the terms shall be defined again using plain language.

(2) A licensee shall provide notification of change in conditions of service, intent to cease operation as an NGS, explanation of denial of service, proper handling of deposits and proper handling of complaints in accordance with this title.

(3) A licensee shall maintain the confidentiality of a consumer's personal information including name, address and telephone number, and historic payment information, and provide the right of access by the consumer to the consumer's own load and billing information.

(4) A licensee may not discriminate in the provision of natural gas as to availability and terms of service based on race, color, religion, national origin, sex, marital status, age, receipt of public assistance income, and exercise of rights under the Consumer Credit Protection Act (15 U.S.C.A. §§ 1601—1693c). See 15 U.S.C.A. §§ 1691—1691f (relating to equal credit opportunity); and 12 CFR Part 202 (relating to equal credit opportunity)(Regulation B).

(e) A licensee is responsible for any fraudulent, deceptive or other unlawful marketing or billing acts performed by the licensee, its employees, agents or representatives. A licensee shall inform consumers of State consumer protection laws that govern the cancellation or rescission of natural gas supply contracts. See section 7 of the Unfair Trade Practices and Consumer Protection Law (73 P. S. § 201-7).

(f) A licensee shall comply with relevant Commission regulations, orders and directives that may be adopted.

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