

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart C. PROTECTION OF NATURAL RESOURCES

ARTICLE II. WATER RESOURCES

CHAPTER 109. SAFE DRINKING WATER

Subchapter A. GENERAL PROVISIONS

§ 109.1. Definitions.

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

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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.

Source water assessment – **An evaluation documented in writing of the contamination potential of a drinking water source used by a public water system which includes identifying the contributing area to the water source, an inventory of potential contaminant sources and a determination of the susceptibility of the water source to contamination.**

Source water protection area – **A surface water intake protection area, a wellhead protection area or both.**

Source water protection program – **A surface water intake protection program, a wellhead protection program or both.**

Spent filter backwash water—A stream containing particles dislodged from filter media when the filter is backwashed to clean the filter.

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 intake protection area – **The surface and subsurface area surrounding a surface-water intake supplying a public water system through which contaminants are reasonably likely to move toward and reach the water source. A surface water intake protection area shall consist of up to three zones:**

- (i) Zone A. A quarter-mile wide area inland from the edge of a waterway or surface water body and from an area one quarter-mile downstream of the intake to a five hour time-of-travel upstream.**
- (ii) Zone B. A two-mile wide area inland from the edge of a waterway or surface water body and extending upstream to the 25-hour time-of-travel.**

(iii) Zone C. For drainage basins greater than or equal to 100 square miles, the remainder of the upstream basin. Zone B and Zone C, if present, comprise the contributing area for the water source.

Surface water intake protection program – A comprehensive program designed to protect each surface water source used by a public water system from contamination.

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

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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] up to three** 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] As hydrogeologic conditions warrant, the** zone beyond Zone II that **[contributes surface water and groundwater to] provides groundwater recharge** to Zones I and II. **Zone II and Zone III, if present, comprise the contributing area for the water source.**

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

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§ 109.5. Organization of chapter.

(a) This subchapter and Subchapters **H and N** (relating to laboratory certification **and drinking water fees**) apply to all public water systems.

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Subchapter B. MCLs, MRDLs OR TREATMENT TECHNIQUE REQUIREMENTS

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

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

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

(A) *Conventional or direct filtration.*

(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).

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

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

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

(V) Beginning (Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), for all public water systems, the filtered water turbidity shall meet the following criteria:

(-a-) Be less than or equal to 0.30 NTU in at least 95% of the measurements taken each month under § 109.301(1).

(-b-) Be less than or equal to 1.0 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) Membrane filtration.

(I) Beginning (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), for all public water systems, the filtered water turbidity shall be less than or equal to 0.15 NTU in at least 95% of the measurements taken each month under § 109.301(1).

(II) Beginning (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), for all public water systems, the filtered water turbidity shall be less than or equal to 1.0 NTU at all times, measured under § 109.301(1).

(D) 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.

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

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(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:

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

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§ 109.204. Disinfection profiling and benchmarking.

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(b) Public water suppliers that did not conduct TTHM and HAA5 monitoring under this section because they served fewer than 10,000 persons when the monitoring was required, but serve 10,000 or more

persons before January 1, 2005, shall comply with this section. These suppliers shall also establish a disinfection benchmark [and consult with the Department for approval. A supplier that decides to make a significant change to its disinfection practice, as described in this section, shall consult with the Department before making such a change].

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(d) A public water supplier using surface water or GUDI sources that did not conduct disinfection profiling and benchmarking prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) shall conduct a disinfection profile and establish a disinfection benchmark 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 disinfection profiling data and benchmark must be submitted to the Department by _____ (Editor's Note: The blank refers to 18 months after the effective date of adoption of this rulemaking.).

(e) A public water supplier that obtains a permit or permit modification for filtration treatment for a surface water or GUDI source after _____ (Editor's Note: The blank refers to the effective date of adoption of this rulemaking.) shall conduct a disinfection profile and establish a disinfection benchmark 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 disinfection profiling data and benchmark must be submitted to the Department within 18 months after the permit is issued or amended.

(f) A public water supplier using surface water or GUDI sources shall consult with the Department before making a significant change to its disinfection practice or operating treatment processes in such a manner that may result in an inactivation level lower than its disinfection benchmark.

Subchapter C. MONITORING REQUIREMENTS

§ 109.301. General monitoring requirements.

Public water suppliers shall monitor for compliance with MCLs, MRDLs and treatment technique requirements in accordance with the requirements established by the EPA under the National Primary Drinking Water Regulations, 40 CFR Part 141 (relating to 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 subparagraph[s] (ii) [and (iii)] a public water supplier:

(A) Shall determine and record the turbidity level of representative samples of the system’s filtered water as follows until ***(Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)***:

(I) For systems that operate continuously, at least once every 4 hours that the system is in operation, except as provided in clause (B).

(II) For systems that do not operate continuously, at start-up, at least once every 4 hours that the system is in operation, and also prior to shutting down the plant, except as provided in clause (B).

(B) May substitute continuous turbidity monitoring and recording for grab sample monitoring and manual recording until ***(Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*** if it validates the continuous measurement for accuracy on a regular basis using a procedure specified by the manufacturer. At a minimum, calibration with an EPA-approved primary standard shall be conducted at least quarterly. For systems using slow sand filtration or filtration treatment other than conventional filtration, direct filtration or diatomaceous earth filtration, the Department may reduce the sampling frequency to once per day.

(C) Shall continuously monitor the turbidity level of the combined filter effluent beginning ***(Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)***, **using an analytical method specified in 40 CFR 141.74(a) and record the results at least every 15 minutes while the plant is operating. For systems that do not operate continuously, the turbidity level shall also be measured and recorded at start-up and immediately prior to shutting down the plant.**

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

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

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

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

2,501—3,300

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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)] Until *(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*, [F]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)](iii) A public water supplier providing conventional filtration treatment or direct filtration and serving 10,000 or more people and using surface water or GUDI sources shall, beginning January 1, 2002, conduct continuous monitoring of turbidity for each individual filter using an approved method under the EPA regulation in 40 CFR 141.74(a) (relating to analytical and monitoring requirements) and record the results at least every 15 minutes. Beginning January 1, 2005, public water suppliers providing conventional or direct filtration and serving fewer than 10,000 people and using surface water or GUDI sources shall conduct continuous monitoring of turbidity for each individual filter using an approved method under the EPA regulation in 40 CFR 141.74(a) and record the results at least every 15 minutes. Beginning *(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*, a public water supplier using surface water or GUDI sources and providing filtration treatment other than conventional or direct filtration shall conduct continuous monitoring of turbidity for each individual filter using an approved method under the EPA regulation in 40 CFR 141.74(a) and record the results at least every 15 minutes.

[(A) The water supplier shall calibrate turbidimeters using the procedure specified by the manufacturer. At a minimum, calibration with an EPA-approved primary standard shall be conducted at least quarterly.

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

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

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

(iv) In addition to the requirements of subparagraphs (i) – (iii), a public water supplier shall conduct grab sampling or manual recording, or both, every 4 hours in lieu of continuous monitoring or recording if there is a failure in the continuous monitoring or recording equipment, or both. The public water supplier shall notify the Department within 24 hours of the equipment failure. Grab sampling or manual recording may not be substituted for continuous monitoring for longer than 5 working days after the equipment fails unless a longer period of time is approved by the Department.

(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:

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(B) Shall measure the turbidity of a representative grab sample of the source water immediately prior to disinfection as follows until ***(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)***

(I) For systems that operate continuously, at least once every 4 hours that the system is in operation, except as provided in clause (C).

(II) For systems that do not operate continuously, at start-up, at least once every 4 hours that the system is in operation, and also prior to shutting down the plant, except as provided in clause (C).

(C) May substitute continuous turbidity monitoring for grab sample monitoring until ***(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*** if it validates the continuous measurement for accuracy on a regular basis using a procedure specified by the manufacturer. At a minimum, calibration with an EPA-approved primary standard shall be conducted at least quarterly.

(D) Shall continuously monitor and record the turbidity of the source water immediately prior to disinfection beginning ***(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*** **using an analytical method specified in 40 CFR 141.74(a) and record the results at least every 15 minutes while the source is operating. If there is a failure in the continuous turbidity monitoring or recording equipment, or both, the supplier shall conduct grab sampling or manual recording, or both, every 4 hours in lieu of continuous monitoring or recording. The public water supplier shall notify the Department within 24 hours of the equipment failure. Grab sampling or manual recording may not be substituted for continuous monitoring for longer than 5 working days after the equipment fails unless a longer period of time is approved by the Department.**

[(D)] (E) Shall continuously monitor and record 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 or recording equipment fails, the public water supplier may, upon notification of the Department under § 109.701(a)(3), substitute grab sampling or manual recording, or both, every 4 hours in lieu of continuous monitoring. Grab sampling or manual recording may not be substituted for continuous monitoring for longer than 5 days after the equipment fails.

[(E)] (F) 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) **Until** ***(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)***, **[For] 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 the residual disinfectant concentration approved under § 109.202(c)(1)(iii).

(iii) Until _____ (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), [For] 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.

* * * * *

(11) Monitoring requirements for entry points that do not provide water continuously.

(i) Entry points from which water is not provided during every quarter of the year shall monitor in accordance with paragraphs (5)—(7) **and (14)**, 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.

(ii) At a minimum, all entry points shall provide water to the public on an annual basis to ensure all sources and entry points are included in routine compliance monitoring.

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§ 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 **action level**, MCL, MRDL or treatment technique requirement for the contaminant.

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§ 109.303. Sampling requirements.

(a) The samples taken to determine a public water system’s compliance with MCLs, **[or] MRDLs or treatment technique requirements or** to determine compliance with monitoring requirements shall be taken at the locations identified in § § 109.301, **[and] 109.302, 109.1003, 109.1103, 109.1202 and 109.1303** (relating to general monitoring requirements; **[and]** special monitoring requirements;

monitoring requirements for bottled water and vended water systems, retail water facilities and bulk water hauling systems; monitoring requirements for lead and copper; and triggered monitoring requirements for groundwater sources, [or] **and** 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), **radionuclide contaminants listed by the EPA under 40 CFR 141.66 (relating to maximum contaminant levels for radionuclides)** and with the special monitoring requirements for unregulated contaminants under § 109.302(f) shall be taken at each entry point to the distribution system **which is representative of each source** 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] must** sample at the entry point **during periods of normal operating conditions** [where the] **when** water is representative of **[combined] all** sources being used **[during normal operating conditions]**. **If sources are blended at a consistent ratio prior to the entry point, a blended sample may be taken to determine compliance. If sources are not blended at a consistent ratio or if sources are alternated prior to the entry point, more than one sample must be taken to ensure that the samples are representative of all sources.**
 - (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) 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 an accredited laboratory for sample collection as well as analysis satisfies the requirements of this subsection.
- (d) Compliance monitoring samples for the VOCs listed under 40 CFR 141.61(a) shall be collected by a person properly trained by a laboratory accredited by the Department to conduct VOC or vinyl chloride analysis.

(e) Compliance monitoring samples for the contaminants listed under 40 CFR 141.40(n), 141.61(a) and (c), 141.62 and 141.88 may be composited in accordance with 40 CFR 141.23(a)(4), 141.24(f)(14), (g)(7) and (h)(10) and 141.88(a)(1)(iv) (relating to inorganic chemical sampling and analytical requirements; organic chemicals other than total trihalomethanes, sampling and analytical requirements; and monitoring requirements for lead and copper in source water) 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.

(f) 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.

(g) Samples taken to determine compliance with combined radium-226 and radium-228, gross alpha particle activity, or uranium under 40 CFR 141.66(b), (c) and (e) (relating to maximum contaminant levels for radionuclides) may be composited from a single entry point if the analysis is done within 1 year of the date of the collection of the first sample. The Department will treat analytical results from the composited sample as the average analytical result to determine compliance with the MCLs and the future monitoring frequency.

(1) If the analytical result from the composited sample is greater than one-half the MCL, the Department may direct the system to take additional quarterly samples before allowing the system to sample under a reduced monitoring schedule.

(2) Samples obtained from an entry point that contains water treated to specifically meet an MCL for a radionuclide contaminant listed under 40 CFR 141.66(b), (c) or (e) may not be composited.

(h) Samples taken to determine compliance with beta particle and photon radioactivity under 40 CFR 141.66(d) may be composited as follows:

(1) Monitoring for gross beta-particle activity may be based on the analysis of a composite of 3 monthly samples.

(2) Monitoring for strontium-90 and tritium may be based on the analysis of a composite of 4 consecutive quarterly samples.

(i) Samples taken to determine compliance with this chapter shall be taken in accordance with a written comprehensive monitoring plan as specified in § 109.716 (relating to comprehensive monitoring plan). These plans are subject to Department review and revision.

§ 109.304. Analytical requirements.

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(c) For the purpose of determining compliance with the monitoring and analytical requirements established under this subchapter and Subchapters K, L and M (relating to lead and copper; long-term 2 enhanced surface water treatment rule; and additional requirements for groundwater sources), the Department will consider only samples analyzed by a laboratory accredited by the Department, except that measurements for turbidity, fluoridation operation, residual disinfectant concentration, temperature, pH, alkalinity, orthophosphates, silica, calcium, conductivity, daily chlorite, and magnesium hardness may be performed by a person meeting one of the following requirements:

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(2) A person using a standard operating procedure as provided under authority of the Water and Wastewater Systems Operators' Certification Act (63 P.S. §§ 1001—1015.1) **and the regulations promulgated thereunder.**

* * * * *

(e) A water supplier shall calibrate all turbidimeters used for compliance monitoring using the procedure specified by the manufacturer. At a minimum, calibration with an EPA-approved primary standard shall be conducted at least every 90 days.

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§ 109.305. [Fees] **Reserved.**

[(a) *Data management fees.* Community water systems shall submit the following data management fees to the Department by December 31, 1995:

<i>System Size</i>	<i>Fee</i>
<i>(population served)</i>	
<100	\$ 120
100-1,000	\$ 120
1,001-3,300	\$ 240
3,301-10,000	\$ 360
10,001-50,000	\$ 600
>50,000	\$1,200

(b) *Waivers.* A request for a waiver from the monitoring requirements in § § 109.301 and 109.302 (relating to general monitoring requirements; and special monitoring requirements) shall be accompanied by the appropriate fee as follow:

<i>System Size</i> <i>(population served)</i>	<i>Fee</i>
<100	\$ 100
100-1,000	\$ 200
1,001-3,300	\$ 400
3,301-10,000	\$ 500
10,001-50,000	\$1,000
>50,000	\$2,000

Fees will be based on system size, taking into consideration the following conditions:

(1) For systems with one or more sources all in the same contribution area—for groundwater systems, the contribution area is the surface area overlying the portion of the aquifer through which water is diverted to a well or flows to a spring or infiltration gallery—the fee will be as indicated in this subsection.

(2) For systems with a single wellfield—one contribution area—the fee will be as indicated in this subsection.

(3) For systems with sources in two or more contribution areas, the fee will be as indicated in this subsection plus 1/2 of the system size fee as indicated in this subsection for each additional contribution area in which a source is located.]

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Subchapter D. PUBLIC NOTIFICATION

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§ 109.416. CCR requirements.

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

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

(i) Mail or otherwise directly deliver to each customer **[and to the Department]** one copy of the annual CCR no later than the date **[the water system is required to distribute the CCR to its customers] specified in paragraph (2).**

(ii) **Mail a paper copy to the Department of the annual CCR no later than the date the water system is required to distribute the CCR to its customers.**

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

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

* * * * *

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

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

* * * * *

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

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

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

Subchapter E. PERMIT REQUIREMENTS

§ 109.503. Public water system construction permits.

(a) *Permit application requirements.* An application for a public water system construction permit shall be submitted in writing on forms provided by the Department and shall be accompanied by plans, specifications, engineer's report, water quality analyses and other data, information or documentation reasonably necessary to enable the Department to determine compliance with the act and this chapter. The Department will make available to the applicant the Public Water Supply Manual, available from the Bureau of **[Water Standards and Facility Regulation] Safe Drinking Water**, Post Office Box **[8774] 8467**, Harrisburg, Pennsylvania 17105 which contains acceptable design standards and technical guidance. Water quality analyses shall be conducted by a laboratory accredited under this chapter.

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

* * * * *

(iii) *Information describing new sources.* **Information describing new sources must include the items specified in clauses (A) through (F). The information specified in clauses (C) and (D) may not be more than 2 years old from the date the permit application is submitted unless the Department approves the use of data more than 2 years old.** 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 must include:]**

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

(B) **[An evaluation of the quality of the raw water from each new source. This clause 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 must include analysis of the following:**

(I) 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(5)(i) (relating to general monitoring requirements) are detected. Samples for VOCs shall be collected in accordance with § 109.303(d) (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 the presence of *E. coli*.

(VI) SOCs.

(-a-) Except for SOCs that have been granted a Statewide waiver, SOCs for which MCLs have been established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.61(c).

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

(-c-) Polychlorinated biphenyls (PCBs) where there is a source of PCB contamination within 1,000 feet of a groundwater source or within 1 mile upstream of a surface water source.

(VII) Gross Alpha (α), radium-226, radium-228, uranium and Gross Beta (β).

(VIII) 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).

(IX) Alkalinity.

(X) Hardness.

(XI) Temperature.

(XII) For surface water or GUDI sources, *E. coli* or *Cryptosporidium*, or both, as specified in § 109.1202 (relating to monitoring requirements).

(XIII) Other contaminants that the Department determines necessary to evaluate the potability of the source.] A pre-drilling plan for a new groundwater source prepared and signed by a professional geologist licensed to practice in the Commonwealth. The pre-drilling plan must be submitted and approved prior to well construction and conducting an aquifer test. At a minimum, the pre-drilling plan must include preliminary results of the source water assessment, a hydrogeologic description, an aquifer test monitoring plan and the proposed well construction design.

(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] additional** information **[be submitted]** to evaluate the safe or sustainable yield of the source. The safe or sustainable 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.] An evaluation of the quality of the raw water from each new source. For groundwater sources, the evaluation shall be conducted at the conclusion of the constant rate aquifer test. This clause 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 must include analysis of the following:

(I) 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 in § 109.301(5)(i) (relating to general monitoring requirements) are detected. Samples for VOCs shall be collected in accordance with § 109.303(d) (relating to sampling requirements).

(II) IOCs, including asbestos, 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).

(III) Lead.

(IV) Copper.

(V) Total coliform and *E. coli* concentration.

(VI) SOCs, including dioxin and PCBs, for which MCLs have been established by the EPA under the National Primary Drinking Water Regulations in 40 CFR 141.61(c).

(VII) Gross Alpha (α), radium-226, radium-228, uranium and Gross Beta (β).

(VIII) 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).

(IX) Alkalinity.

(X) Hardness.

(XI) Temperature.

(XII) For surface water or GUDI sources, *E. coli* or *Cryptosporidium*, or both, as specified in § 109.1202 (relating to monitoring requirements).

(XIII) Turbidity.

(XIV) For groundwater sources, the monitoring specified in § 109.302(f) if the Department determines that the source is susceptible to surface water influence.

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

(E) A hydrogeologic report for a new groundwater source. For wells, springs or infiltration galleries, this information shall include a description of the geology of the area including the source aquifers, overlying formations, hydrogeologic boundaries, aquifer porosity estimates, water table contour or potentiometric surface maps depicting prepumping conditions and other information deemed necessary to evaluate the hydraulic characteristics of the aquifer and demonstrate the suitability of the proposed source and a Department approved delineation of the Zone I and Zone II wellhead protection areas. All information included in the source water assessment, in

addition to the results of the water quantity and quality evaluations as specified in clauses (C) and (D) must be included in a hydrogeological report prepared and signed by a professional geologist licensed to practice in the Commonwealth.

(F) A description of the watershed topography and land uses within the watershed for a new surface water source.

* * * * *

(c) *Permit fees.* **An application for a permit from the Department under this subchapter shall be accompanied by a fee in the amount specified in Subchapter N (relating to drinking water 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).]

* * * * *

§ 109.505. Requirements for noncommunity water systems.

(a) 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 **hypochlorite or ultraviolet light** disinfection to **reduce total coliform bacteria concentrations to undetectable levels in the finished water, and otherwise** 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**] **submits a noncommunity water system application**, including raw source **water** quality data, on forms acceptable to the Department, **and receives Department approval of the facilities prior to construction or operation**. [**Amendments to the system**] **The water supplier** shall [**be filed when a substantial**] **also submit a noncommunity water system application to the Department for proposed** modifications [**is made**] to the system **or a change of ownership, and receive Department approval prior to construction or operation**. [**Descriptions of new systems or modifications shall be submitted and approved by the Department prior to construction.**]

(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 must include analysis of the following:

- (A) Nitrate (as nitrogen) and nitrite (as nitrogen).
- (B) Total coliform concentration and, if total coliform-positive, analyze for the presence of *E. coli*.
- (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 must include the information required under [**§ 109.503(a)(1)(iii)(B)**] **§ 109.503(a)(1)(iii)(D)**.

(b) A noncommunity water system providing 4-log treatment of a groundwater source under § 109.1302(b) (relating to treatment technique requirements) that has not obtained a construction permit under § 109.503 (relating to public water system construction permits) and an operations permit under § 109.504 (relating to public water system operation permits) shall obtain a noncommunity water system 4-log treatment of groundwater permit under § 109.1306 (relating to information describing 4-log treatment and compliance monitoring) and comply with subsection (a)(2)(ii).

* * * * *

§ 109.511. General permits.

(a) The department may issue a general permit, in lieu of issuing a construction and operation permit under this subchapter, for a specific category of modifications if the following conditions are met:

(1) The modifications in the category are the same or substantially similar in nature.

(2) The modifications in the category are not prejudicial to the public health and can be adequately regulated utilizing standardized specifications and conditions.

(3) The modifications in the category will comply with the design and construction standards under Subchapter F (relating to design and construction standards).

(b) The department may suspend, revoke, modify, reissue or terminate a general permit under this chapter for noncompliance with a condition of the permit, or upon a finding of a condition prejudicial to the public health.

(c) Issuance of a general permit does not exempt a person from compliance with this chapter.

* * * * *

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 must 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 Subchapters B, **K**, L and M (relating to MCLs, MRDLs or treatment technique requirements; **lead and copper**; long-term 2 enhanced surface water treatment rule; and additional requirements for groundwater sources) except as further provided in this section.

* * * * *

(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, **MRDL** or treatment technique requirement.

(f) A public water system that provides filtration of surface water or GUDI sources must be equipped with alarm capabilities that meet the requirements of subsection (i) within 12 months of _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.).

(g) A public water system that provides filtration of surface water or GUDI sources and that is not staffed continuously while the plant is operating must be equipped with alarm and shutdown capabilities that meet the requirements of subsection (i) within 12 months of (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.).

(h) In addition to public water systems covered under subsections (f) or (g), the Department may require a public water system to meet the requirements of subsection (i), according to a schedule set forth in a permit or order issued by the Department.

(i) Alarm and shutdown capabilities must conform to the following:

(1) Be set forth in the water system's operation and maintenance plan and set at a level no less stringent than the level needed for the facility to continuously maintain compliance with applicable MCLs, MRDLs and treatment technique requirements.

(2) Be established for the following parameters, at a minimum:

(i) Individual filter effluent turbidity and combined filter effluent turbidity for filter plants treating surface water or GUDI sources.

(ii) Entry point disinfectant residual.

(iii) Clearwell water levels.

(iv) Any other operational parameter determined by the Department as necessary for the system to maintain compliance.

(3) Be capable of notifying the available operator on duty of events triggering an alarm or plant shutdown.

* * * * *

§ 109.606. Chemicals, materials and equipment.

(a) Chemicals **[or]**, materials **or equipment** which may come in contact with the water or affect the quality of the water may not be used unless the chemicals **[or]**, materials **or equipment** are acceptable to the Department.

* * * * *

(c) Materials **or equipment** used in the construction or modification of a public water system including, **but not limited to,** waterline extensions, **mechanical devices and drinking water treatment equipment** which may come into contact with or affect the quality of the water and which are certified for conformance with ANSI/NSF Standard 61 (Drinking Water System Components-Health Effects-National Sanitation Foundation) are deemed acceptable to the Department.

(d) Drinking water treatment equipment used in the construction or modification of a public water system which may come into contact with or affect the quality of the water and which are certified for inactivation, reduction or removal performance in conformance with NSF Guidelines for Public Drinking Water Equipment Performance (PDWEP) are deemed acceptable to the Department.

(d) (e) Acceptable certification under subsection (b), **[or]** (c) **or (d)** related to ANSI/NSF Standards 60 and 61 **or PDWEP** includes that performed by NSF International or other certification organization acceptable to the Department. To be acceptable to the Department, a certification organization shall be

accredited by ANSI as a third party certification organization and meet the following requirements. The organization shall:

* * * * *

(2) Require that a registered mark or seal be placed upon each product certified under ANSI/NSF Standard 60 or 61 or PDWEP, as applicable.

(3) Maintain an ongoing quality assurance and quality control program that includes, at a minimum, the following:

* * * * *

(iv) Maintenance of procedures for notification and recall of the use of the registered mark or seal for previously certified products which do not meet the certification requirements of ANSI/NSF Standards 60 and 61 or PDWEP.

(v) For equipment that is claimed to remove or reduce a specific contaminant, the name of the organization that meets the accreditation standards of the American National Standards Institute and that has certified the device to verify its inactivation, reduction or removal performance for that contaminant, the name of the testing protocol or standard used to test the device, a statement from the testing laboratory giving the date of the test, a summary of the results, and the date, if any, by which the device must be retested for verification of the removal or reduction performance to remain effective.

* * * * *

[(e)] (f) Facilities or equipment, including, but not limited to, pipes, pumping facilities and storage tanks, previously or currently used for the treatment, storage or transportation of wastewater, petroleum products or other nonfood products, except for facilities or equipment used to store or transport chemicals used in treating drinking water, may not be used for the treatment, transportation or storage of drinking water.

* * * * *

§ 109.612. POE devices.

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(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)] § 109.606(e) (relating to chemicals, materials and equipment) as applicable to ANSI/NSF standards for drinking water treatment devices.

Subchapter G. SYSTEM MANAGEMENT RESPONSIBILITIES

§ 109.701. Reporting and recordkeeping.

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

* * * * *

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

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

(A) For **the combined filter effluent** 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 0.5 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) Instead of subclauses (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 exceeding 1 NTU.

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

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

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

(VII) Instead of subclauses (III) and (IV), beginning January 1, 2002, for public water systems that serve 10,000 or more people and use other filtration technologies:

(-a-) The number of filtered water turbidity measurements that are less than or equal to 0.3 NTU or a more stringent turbidity performance level requirement that is based upon onsite studies and is specified by the Department.

(-b-) The date, time and values of any filtered water turbidity measurements exceeding 1 NTU or a more stringent turbidity performance level requirement that is based upon onsite studies and is specified by the Department.

(VIII) Instead of subclauses (III)-(VII), beginning _____ (Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), the number of filtered water turbidity measurements that are less than or equal to the following:

(-a-) 0.30 NTU for conventional or direct filtration technologies.

(-b-) 1.0 NTU for slow sand or diatomaceous earth filtration technologies.

(-c-) 0.15 NTU for membrane filtration technologies.

(-d-) 0.30 NTU for other filtration technologies unless a more stringent turbidity performance level requirement is specified by the Department.

(IX) Instead of subclauses (III)-(VII), beginning (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), the date, time and values of any filtered water turbidity measurements exceeding the following:

(-a-) 1.0 NTU for conventional, direct or membrane filtration technologies.

(-b-) 2.0 NTU for slow sand or diatomaceous earth filtration technologies.

(-c-) 1.0 NTU for other filtration technologies unless a more stringent turbidity performance level requirement is specified by the Department.

* * * * *

(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.

(III) Instead of subclauses (I)-(II), beginning (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.):

(-a-) The number of source water turbidity measurements taken each month.

(-b-) For measurements in which the source water turbidity is greater than 1.0 NTU, the date, time and value for each occurrence that the turbidity exceeds 1.0 NTU and the subsequent date, time and value that the turbidity is less than or equal to 1.0 NTU.

(-c-) The date, time and highest turbidity value for each day the source water turbidity remains less than or equal to 1.0 NTU.

* * * * *

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

* * * * *

(iii) Circumstances exist which may adversely affect the quality or quantity of drinking water including, but not limited to:

* * * * *

(B) A failure, [or] significant interruption **or breakdown** in key water treatment processes.

(C) A [natural] disaster that disrupts the water supply or distribution system.

* * * * *

(9) Reporting requirements for disinfection byproducts. In addition to the reporting requirements specified in paragraph (1), public water systems monitoring for disinfection byproducts under § 109.301(12) shall report the individual constituents for total trihalomethanes and haloacetic acids.

[(9)] (10) Noncompliance report. Except where a different reporting period is specified in this chapter, the water supplier shall report to the Department within 48 hours the failure to comply with any National Primary Drinking Water Regulation, including the failure to comply with any monitoring requirement set forth in this chapter.

* * * * *

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

* * * * *

(2) Public water systems required to perform individual monitoring **under § 109.301(1)(iii)** 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.

(v) Beginning (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), an individual filter has a measured turbidity level greater than 0.30 NTU for conventional, direct or other filtration technologies, 0.15 NTU for membrane filtration technologies or 1.0 NTU for slow sand or diatomaceous earth filtration technologies in two consecutive measurements taken 15 minutes apart.

(vi) Beginning (Editor’s Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.), an individual filter has a measured turbidity level of greater than 0.30 NTU for conventional, direct or other filtration technologies, 0.15 NTU for membrane filtration technologies or 1.0 NTU for slow sand or diatomaceous earth filtration technologies 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.

(vii) Beginning *(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*, an individual filter has a measured turbidity level greater than 0.30 NTU for conventional, direct or other filtration technologies, 0.15 NTU for membrane filtration technologies or 1.0 NTU for slow sand or diatomaceous earth filtration technologies in two consecutive measurements taken 15 minutes apart at any time in each of 3-consecutive months.

(viii) Beginning *(Editor's Note: The blank refers to 1 year after the effective date of adoption of this proposed rulemaking.)*, an individual filter has a measured turbidity level greater than 1.0 NTU for conventional, direct, membrane or other filtration technologies, or 2.0 NTU for slow sand or diatomaceous earth filtration technologies in two consecutive measurements taken 15 minutes apart at any time in each of 2-consecutive months.

* * * * *

§ 109.702. Operation and maintenance plan.

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

* * * * *

(13) An interconnect, valve, **[and]** blowoff, alarm and shutdown, **and auxiliary power equipment** exercise and testing program.

* * * * *

§ 109.703. Facilities operation.

* * * * *

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

(1) **[By July 1, 1990,]** **Water** suppliers using conventional or direct filtration shall, **[after filter backwash, and before putting the backwashed filter back on line] prior to returning a filter to service**, filter-to-waste **for one full filter volume and** until the filter bed effluent turbidity is less than **[0.5] 0.30** NTU at the normal production flow rate.

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

* * * * *

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

* * * * *

(5) [Except for public water systems covered under § 109.301(1)(iv) (relating to general monitoring requirements), a] 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] implement a filter bed evaluation program, acceptable to the Department, which includes, but is not limited to, an evaluation of filter media, filter bed expansion, 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)]. The results of the evaluation shall be maintained on file and submitted to the Department upon request.

(c) A public water supplier required to install alarm or shutdown capabilities or both under § 109.602 shall comply with the following:

(1) Test the alarm and shutdown capabilities at least quarterly and document the results in the plant's operational log.

(2) For any failures of alarm or shutdown equipment:

(i) Ensure the plant is adequately staffed until the equipment is operational.

(ii) Notify the Department as soon as possible of any failure that cannot be corrected within 24 hours.

(iii) Restore the equipment to operation within 5 working days of the failure unless a longer period of time is approved by the Department.

§ 109.704. Operator certification.

(a) Community and nontransient noncommunity water systems shall have personnel certified under the Water and Wastewater Systems Operators' Certification Act (63 P. S. § § 1001—1015.1) and the regulations promulgated thereunder to operate and maintain a public water system.

* * * * *

§ 109.705. Sanitary surveys.

(a) A community water supplier shall conduct a sanitary survey of the water system at least annually. The survey shall include the following activities:

(1) [Watershed surveillance consisting of an] An inspection of portions of the [drainage area or wellhead] source water protection area necessary to identify and evaluate actual and probable sources of contamination.

(i) An inspection of a [wellhead] source water protection area shall include a review of available information pertaining to possible sources of contamination such as underground storage tanks, onlot disposal systems and other activities that may have an adverse impact on water quality or quantity.

(ii) Specific hydrogeological studies of sources of contamination are not necessary unless required under § 109.4, § 109.602 or § 109.603 (relating to general requirements; acceptable design; and source quality and quantity) or other rules of the Department.

(iii) Revisions to the source water assessment if the inspection identified changes to actual or probable sources of contamination.

(2) Evaluation of [source protection,] intake structures and transmission facilities.

* * * * *

(6) The results of the annual system evaluation must be documented and made available to the Department upon request.

[(d) The following apply to significant deficiencies identified at public water systems supplied by a surface water source and public water systems supplied by a groundwater source under the direct influence of surface water:

(1) For sanitary surveys performed by the Department, a public water system shall respond in writing to significant deficiencies in sanitary survey reports no later than 45 days after receipt the report, indicating how and on what schedule the system will address significant deficiencies noted in the survey.

(2) A system shall correct significant deficiencies identified in sanitary survey reports, or according to the schedule approved by the Department, or if there is no approved schedule, according to the schedule reported under paragraph (1) if the deficiencies are within the control of the system.

(e) Significant deficiencies identified by the Department at public water systems using groundwater shall comply with § 109.1302(c) (relating to groundwater systems with significant deficiencies or source water *E. coli* contamination).]

§ 109.706 System [distribution] map.

(a) [The community] A public water supplier shall prepare and maintain on file a detailed map of the water [system's transmission and distribution facilities] system. A copy of the map must be submitted to the Department upon request.

(b) [A noncommunity water supplier shall submit a detailed map of the water system's transmission and distribution facilities at the request of the Department.] At a minimum the map must include:

(1) Source and treatment plant locations.

(2) Size and location of storage facilities.

(3) Pump station locations.

(4) Size, location and construction material of pipes.

(5) Pressure zones.

(6) Direction of flow.

(7) Interconnections with other public water systems.

(8) Monitoring locations.

(c) [The map shall include information sufficient to allow the Department to analyze the distribution system and determine quantity, pressure and direction of flow from the sources to the customers, and shall include the type and size of pipes within the distribution system.] The map shall be [updated] reviewed by the water supplier at least annually and updated as necessary.

* * * * *

§ 109.708. [Planned] System service [interruptions] and auxiliary power.

(a) System service. **No later than the dates specified in paragraphs (1) – (3), a community water supplier shall ensure operation of the sources, treatment and pumping facilities necessary to ensure that safe and potable water is continuously supplied to users in accordance with the requirements of subsection (b) or (c) or both. A continuous supply of safe and potable water is one that meets all applicable MCLs, MRDLs and treatment techniques specified in § 109.202 (relating to state MCLs, MRDLs and treatment technique requirements) and is sufficient to maintain system pressure as specified in § 109.607 (relating to pressures) throughout the distribution system.**

(1) By (insert date 12 months after effective date of the regulation) for systems serving 3,300 or fewer persons.

(2) By (insert date 24 months after effective date of the regulation) for systems serving 3,301-10,000 persons.

(3) by (insert date 36 months after effective date of the regulation) for systems serving greater than 10,000 persons.

(b) Auxiliary power. **System service must be provided through one or more of the following methods:**

(1) Connection to at least two independent power feeds from separate substations.

(i) The power feeds shall not be located in the same conduit or supported from the same utility pole.

(ii) If overhead power feeds are used, the power feeds may not cross or be located in an area where a single plausible occurrence (e.g., a fallen tree) could disrupt both power feeds.

(2) On-site auxiliary power sources (i.e. generators or engines).

(c) Alternate provisions. **The Department may approve alternate provisions, such as finished water storage capacity or interconnections with another public water system, to meet the requirements of subsection (a).**

(d) Planned service interruptions. The public water supplier shall give reasonable notice to the affected customers prior to a planned service interruption affecting quantity or quality of the water delivered to the customer. If the interruption is scheduled to exceed 8 hours and affect 15 or more service connections the water supplier shall also notify the Department.

* * * * *

§ 109.713. [Wellhead] Source water protection program.

(a) For water suppliers seeking to obtain Department approval for a **[wellhead] source water** protection program, the **[wellhead] source water** protection program shall, **at a minimum**, consist of the following **elements**:

(1) A steering committee composed of the necessary representatives, including, but not limited to, the water supplier, local government officials from the affected jurisdictions and potentially affected industry, to designate responsibilities for the planning and implementation of **[wellhead] source water** protection activities.

(2) Public participation and education activities to promote awareness and encourage local support of **[wellhead] source water** protection activities.

(3) [Zone II and Zone III wellhead protection area delineation performed in accordance with methodology provided by the Department. Methods applicable to that hydrogeologic setting shall be utilized and site-specific hydraulic and hydrogeologic information shall include, but is not limited to, pumping rate or yield, aquifer properties, water table or potentiometric surface configuration and hydrogeologic mapping.] A map depicting the source water protection areas that were delineated in accordance with the methodology provided by the Department.

(4) [Identification of existing and potential sources of contamination within each wellhead protection area.] A source water assessment for each source. If a source water assessment has not been previously conducted, identification of the source's susceptibility to potential and existing sources of contamination within each source's contributing area conducted in accordance with the methodology provided by the Department.

(5) Development and implementation of [wellhead] source water protection area management approaches to protect the water supply source from activities that may contaminate the source. These approaches may include, but are not limited to, one or more of the following actions:

- (i) Purchase of the [wellhead] source water protection area by the water system.
- (ii) Adoption of municipal ordinances or regulations controlling, limiting or prohibiting future potential sources of contamination within the [wellhead] source water protection area.
- (iii) Adoption of municipal ordinances or regulations establishing design and performance standards for potential sources of contamination within the [wellhead] source water protection area.
- (iv) Transfer of development rights within the [wellhead] source water protection area to land outside of the [wellhead] source water protection area.
- (v) [A] For groundwater sources, a groundwater monitoring network that serves as an early warning system.
- (vi) Public education programs.
- (vii) Other methods approved by the Department which will ensure an adequate degree of protection for the source.

(6) Contingency planning for the provision of alternate water supplies in the event of contamination of a [well, spring or infiltration gallery] source and emergency responses to incidents that may impact water supply source quality.

(7) [New water supply source siting provisions] Provisions to ensure the protection of sites identified for development as new [wells, springs or infiltration galleries] water sources.

(b) Water suppliers with an approved source water protection program shall review the program on an annual basis to ensure protection of sources and shall submit to the Department on forms provided by the Department an annual report on the status of the source water protection program activities.

* * * * *

§ 109.715. Significant deficiencies.

The following apply to significant deficiencies identified by the Department:

(1) Within 30 days of receiving written notification, the public water supplier shall consult with the Department regarding appropriate corrective actions unless the Department directs the system to implement a specific corrective action.

(2) The public water supplier shall respond in writing to significant deficiencies no later than 45 days after receipt of written notification from the Department, indicating how and on what schedule the system will address significant deficiencies.

(3) Corrective actions must be completed in accordance with applicable Department plan review processes or other Department guidance or direction, if any, including Department-specified interim measures.

(4) The public water supplier shall correct significant deficiencies identified within 120 days of receiving written notification from the Department, or earlier if directed by the Department, or according to the schedule approved by the Department.

(5) If the Department specifies interim measures for protection of the public health pending Department approval of the corrective action plan and schedule or pending completion of the corrective action plan, the public water supplier shall comply with these interim measures as well as with any schedule specified by the Department.

(6) The public water supplier shall request and obtain approval, in writing, from the Department for any subsequent modifications to a Department-approved corrective action plan and schedule.

§109.716. Comprehensive monitoring plan.

(a) A community or nontransient noncommunity water supplier shall develop a comprehensive monitoring plan to assure that all sources and entry points are included in routine compliance monitoring at the entry points and within the distribution system. The plan shall contain at least the following:

(1) A list of all sources and associated treatment plants and entry points. This list shall also include purchased interconnections.

(2) A schematic of all sources and associated treatment plants and entry points, purchased interconnections, and the relative locations of the points of entry into the distribution system.

(3) For each entry point, a description of system operations, including whether the entry point provides water continuously, whether each source provides water continuously, whether sources are alternated or blended and on what cycle or blending ratio, and whether the blending ratio is consistent.

(4) A description of how all sources and entry points are included in routine compliance monitoring.

(b) The plan shall include the sample siting plans and monitoring plans required under other sections of this chapter, including the total coliform sample siting plan required under § 109.701(a)(5); the monitoring plan for disinfectants, DBPs and DBP precursors required under § 109.701(g); the lead and copper sample site location plan required under § 109.1107(a)(1); and the source water sampling plan required under §109.1202(h).

(c) The water supplier shall review and update the plan at least annually and as necessary to reflect changes to facilities or operations. The date of each update shall be recorded on the plan.

(d) The water supplier shall submit the plan to the Department. These plans are subject to Department review and revision.

Subchapter H. LABORATORY CERTIFICATION

§ 109.810. Reporting and notification requirements.

* * * * *

(b) A laboratory accredited under Chapter 252 shall whenever the results of test measurements or analyses performed by the laboratory under this chapter indicate an MCL, MRDL or a treatment technique performance requirement under § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements) is exceeded, or **[an action level under] any individual tap sample result exceeds the action level value specified in** § 109.1102(a) (relating to lead and copper) **[is exceeded]**, or a sample result requires the collection of check or confirmation samples under § 109.301 (relating to general monitoring requirements), or a sample collected under Subchapter M (relating to additional requirements for groundwater sources) is *E. coli*-positive:

* * * * *

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

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§ 109.1003. Monitoring requirements.

* * * * *

(b) *Sampling requirements.*

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(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.] 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.**

* * * * *

§ 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).

* * * * *

(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:

* * * * *

(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:

* * * * *

(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)**] **§ 109.606(e)** as applicable to the appropriate ANSI/NSF standard for the treatment technology.

* * * * *

(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 Standards and Facility Regulation**] **Safe Drinking Water**, 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:

* * * * *

(i) *Permit fees.* **An application for a permit from the Department under this subchapter shall be accompanied by a fee in the amount specified in Subchapter N (relating to drinking water 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).]

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Subchapter K. LEAD AND COPPER

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§ 109.1105. Permit requirements.

* * * * *

(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 must comply with § 109.503 and contain the applicable information specified therein. The application must 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] Until _____ (*Editor’s Note: The blank refers to the effective date of adoption of this proposed rulemaking.*), a 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.

* * * * *

(2) *Nontransient noncommunity water system permits.* [The] Until _____ (*Editor’s Note: The blank refers to the effective date of adoption of this proposed rulemaking.*), a 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:

* * * * *

(3) Beginning _____ (*Editor’s Note: The blank refers to the effective date of adoption of this proposed rulemaking.*), **community water systems and nontransient noncommunity water systems required to install optimal corrosion control treatment in accordance with § 109.1102(b) shall obtain a construction and operations permit.**

* * * * *

§ 109.1107. System management responsibilities.

(a) *Reporting and recordkeeping.* Systems shall comply with the following requirements and otherwise comply with § 109.701 (relating to reporting and recordkeeping):

* * * * *

(2) *Reporting of monitoring results.* The water supplier shall assure that the results of analyses conducted in accordance with § 109.1103 are reported to the Department within the first 10 days following the end of each applicable monitoring period as stipulated by § 109.1103. Additional monitoring results beyond that required under § 109.1103 shall be kept on record by the water supplier and presented or submitted to the Department upon request.

(i) *Lead and copper tap monitoring results.* The following minimum information is required when reporting lead and copper tap monitoring results to the Department.

(A) The name, address and public water system identification number (PWSID) of the public water system from which the samples are taken.

(B) The contaminant ID.

(C) The parameter name.

(D) The sample period.

(E) The sample type.

(F) **[The number of samples required and the number of samples taken.]**

[(G)] (F) The analytical methods used.

[(H)] (G) The results of analyses conducted in accordance with this subchapter for lead and copper tap monitoring.

[(I)] (H) The sample location.

[(J) The 90th percentile result.]

[(K) Whether an action level has been exceeded.]

[(L)] (I) The name, address and identification number of the certified laboratory performing the analysis.

* * * * *

§ 109.1108. Fees.

[A system receiving permitting and related services from the Department under § 109.1105 (relating to permit requirements) for corrosion control treatment facilities shall pay the applicable fees in this section by a check in the amount specified in this section to the “Commonwealth of Pennsylvania.”

(1) An application for a construction permit or major permit amendment under § 109.1105(b) shall be accompanied by payment for the applicable fee as follows:

<i>System size</i>	<i>Fee</i>
Small...	\$ 250
Medium...	\$ 500
Large...	\$1,750

(2) A system not required to submit an application for a construction permit or major permit amendment under § 109.1105(b) shall submit payment for the applicable fee with its request for Department designation of optimal corrosion control treatment performance requirements in accordance with § 109.1102(b)(2) (relating to action levels and treatment technique requirements):

<i>System size</i>	<i>Fee</i>
Small...	\$ 125
Medium...	\$ 375
Large...	\$1,250]

An application for the review of a corrosion control treatment feasibility study under § 109.1102(b)(3) (relating to action levels and treatment technique requirements), a permit from the Department under this subchapter, or a Department designation of optimal corrosion control treatment performance requirements in accordance with § 109.1102(b)(2)(ii) shall be accompanied by a fee in the amount specified in Subchapter N (relating to drinking water fees).

* * * * *

Subchapter L. LONG-TERM 2 ENHANCED SURFACE WATER TREATMENT RULE

* * * * *

§ 109.1202. Monitoring requirements.

(a) *Initial round of source water monitoring.* A system shall conduct the following monitoring on the schedule in subsection (c) unless it meets the monitoring exemption criteria in subsection (d):

* * * * *

(l) *(editor’s note: this is a subsection) [Chemical treatment prior to sampling location] Source water sample locations for plants with chemical treatment.* Systems shall collect source water samples prior to chemical treatment, such as coagulants, oxidants and disinfectants.

* * * * *

(n) *[Bank filtration] Source water sample locations for systems with bank filtration.*

(1) Systems that receive *Cryptosporidium* treatment credit for bank filtration to meet existing treatment requirements of § 109.202(c) (relating to State MCLs, MRDLs and treatment technique requirements), as applicable, shall collect source water samples in the surface water prior to bank filtration.

* * * * *

(o) *[Multiple sources] Source water sample locations for systems with multiple sources.* Systems with plants that use multiple sources, including multiple surface water sources and blended surface water and groundwater sources, shall collect samples as specified in paragraph (1) or (2). The use of multiple sources during monitoring must be consistent with routine operational practice. Sources not adequately evaluated during the monitoring period will be considered new sources and the requirements under subsection (f) will apply. Systems must begin monitoring a new source as soon as a sampling schedule and plan have been approved by the Department.

* * * * *

§ 109.1203. Bin classification and treatment technique requirements.

* * * * *

(f) *Treatment and management options for filtered systems, microbial toolbox.*

* * * * *

(2) Systems using sources classified in Bin 3 and Bin 4 shall achieve at least 1-log of the additional *Cryptosporidium* treatment required under § 109.1204(a) using either one or a combination of the following: bag filters, bank filtration, cartridge filters, chlorine dioxide, membranes, ozone or UV, as described in [§ 109.1204 (b), (c) and (n)—(q)] § 109.1204 (relating to requirements for microbial toolbox components).

(g) *Failure to meet treatment credit.* Failure by a system in any month to achieve treatment credit by meeting criteria in [§ 109.1204 (b), (c) and (n)—(q)] § 109.1204 for microbial toolbox options that is at least equal to the level of treatment required in subsection (e) is a violation of the treatment technique requirement.

* * * * *

§ 109.1204. Requirements for microbial toolbox components.

* * * * *

(h) *Individual filter performance.* Systems using conventional filtration treatment or direct filtration treatment will receive 0.5-log *Cryptosporidium* treatment credit, which can be in addition to the 0.5-log credit under subsection (g), during any month the system meets the criteria in this subsection. Compliance with these criteria must be based on individual filter turbidity monitoring as described in [§ 109.301(1)(iv)] § 109.301(1)(ii) (relating to general monitoring requirements), as applicable.

* * * * *

§ 109.1206. Reporting and recordkeeping requirements.

* * * * *

(e) *Source water reporting data elements.* Systems shall report the applicable information in paragraphs (1) and (2) for the source water monitoring required under § 109.1202.

(1) *Cryptosporidium data elements.* Systems shall report data elements in subparagraphs (i)—[(vii)](viii) for each *Cryptosporidium* analysis. Systems shall report, in a form acceptable to the Department, data elements in subparagraphs [(viii)—(x)] (ix)—(xi) as applicable.

* * * * *

(viii) **The concentration of oocysts per Liter.**

[(viii)] (ix) For matrix spike samples, systems shall also report the sample volume spikes and estimated number of oocysts spiked. These data are not required for field samples.

[(ix)] (x) For samples in which less than 10 L is filtered or less than 100% of the sample volume is examined, systems shall also report the number of filters used and the packed pellet volume.

[(x)] (xi) For samples in which less than 100% of sample volume is examined, systems shall also report the volume of resuspended concentrate and volume of this resuspension processed through immunomagnetic separation.

* * * * *

Subchapter M. ADDITIONAL REQUIREMENTS FOR GROUNDWATER SOURCES

§ 109.1302. Treatment technique requirements.

(a) *Community groundwater systems.* Community groundwater systems are required to provide continuous disinfection under § 109.202(c)(2) (relating to state MCLs, MRDLs and treatment technique requirements) and in addition shall:

* * * * *

(c) *Groundwater systems with [significant deficiencies or] source water E. coli contamination or significant deficiencies.*

(1) A groundwater system with **[a significant deficiency or]** an *E. coli*-positive groundwater source sample collected under § 109.505(a)(3), § 109.1303(a) or § 109.1304(a) (relating to requirements for noncommunity water systems; triggered monitoring requirements for groundwater sources; and assessment source water monitoring) **[shall correct all significant deficiencies and, if directed by the Department,]** shall implement one or more of the following corrective actions:

(i) Provide an alternative source of water.

(ii) Eliminate the source of contamination.

(iii) Submit information required under § 109.1306 and provide treatment that reliably achieves at least 4-log treatment of viruses before the first customer for the groundwater source or sources and comply with compliance monitoring requirements under § 109.1305.

(2) A groundwater system with a significant deficiency or an *E. coli*-positive groundwater source sample collected under § 109.1303(a) or § 109.1304(a) will receive one of the following forms of notification:

(i) Written notice from the Department of a significant deficiency.

(ii) Notification from a laboratory under § 109.810(b) (relating to reporting and notification requirements) that a groundwater source sample collected under § 109.1303(a) or § 109.1304(a) was found to be *E. coli*-positive.

[(iii) Direction from the Department that an *E. coli* positive sample collected under § 109.1303(a) requires corrective action.]

(3) [Within 30 days of receiving initial notification under paragraph (2), the groundwater system shall consult with the Department regarding the appropriate corrective action unless the Department directs the groundwater system to implement a specific corrective action.] A groundwater system with a significant deficiency or an *E. coli*-positive source water sample collected under §§ 109.1303(a) or 109.1304(a) shall comply with the requirements of § 109.715 (relating to significant deficiencies).

[(4) Within 120 days of receiving initial notification under paragraph (2), or earlier if directed by the Department, the groundwater system shall correct all significant deficiencies if applicable and shall either:

(i) Have completed corrective action in accordance with applicable Department plan review processes or other Department guidance or direction, if any, including Department-specified interim measures.

(ii) Be in compliance with a Department-approved corrective action plan and schedule subject to the following conditions:

(A) The groundwater system shall request and obtain approval from the Department for any subsequent modifications to a Department-approved corrective action plan and schedule.

(B) If the Department specifies interim measures for protection of the public health pending Department approval of the corrective action plan and schedule or pending completion of the corrective action plan, the system shall comply with these interim measures as well as with any schedule specified by the Department.]

§ 109.1303. Triggered monitoring requirements for groundwater sources.

* * * * *

(h) For an *E. coli*-positive source water sample collected under subsection (a) that is not invalidated under subsection (g)[:], **the system shall comply with Tier 1 public notification requirements under § 109.408 (relating to Tier 1 public notice—category, timing and delivery of notice).**

[**(1) The Department may require a groundwater system to perform a corrective action as described under § 109.1302(c) (relating to treatment technique requirements).**

(2) If the Department does not require corrective action under § 109.1302(c), the system shall collect five additional source water samples from the same source within 24 hours of being notified of the *E. coli*-positive sample. If one of the additional samples collected under this paragraph is *E. coli*-positive, the groundwater system shall perform a corrective action as described under § 109.1302(c).

(3) The system shall comply with Tier 1 public notification requirements under § 109.408 (relating to Tier 1 category, timing and delivery of notice).]

* * * * *

§ 109.1305. Compliance monitoring.

(a) *Chemical disinfection.* Groundwater systems demonstrating at least 4-log treatment of viruses using chemical disinfection shall monitor for and maintain the Department-approved residual disinfection concentration every day the system serves the public from the groundwater source.

(1) A groundwater system serving greater than 3,300 people shall:

(i) Continuously monitor the residual disinfectant concentration at the entry point or other location approved by the Department and record the results at least every 15 minutes each day that water from the groundwater source is served to the public.

* * * * *

(iii) Conduct grab sampling every 4 hours until the continuous monitoring equipment is returned to service if there is a failure in the continuous monitoring equipment **and notify the Department within 24 hours of the equipment failure that grab sampling is being conducted.** [The system shall resume continuous residual disinfectant monitoring within 14 days]. **Grab sampling or manual recording may not be substituted for continuous monitoring for longer than 5 working days after the equipment fails unless a longer period of time is approved by the Department.**

(2) A groundwater system serving 3,300 or fewer people shall comply with one of the following subparagraphs:

(i) The groundwater system shall maintain the Department-approved minimum residual disinfectant concentration every day the public water system serves water from the groundwater source to the public. The groundwater system shall take a daily grab sample at the entry point or other location approved by the Department during the hour of peak flow or at any other time specified by the Department. If any daily grab sample measurement falls below the Department-approved minimum residual disinfectant concentration, the groundwater system shall take follow up samples every 4 hours **and record the results** until the residual disinfectant concentration is restored to the Department-approved minimum level.

* * * * *

§ 109.1306. Information describing 4-log treatment and compliance monitoring.

* * * * *

(b) A noncommunity water system not covered under subsection (a) demonstrating at least 4-log treatment of viruses under § 109.1302 (relating to treatment technique requirements) shall:

* * * * *

(3) Submit 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 Standards and Facility Regulation] Safe Drinking Water**, Post Office Box **[8774] 8467**, Harrisburg, Pennsylvania 17105 which contains acceptable design standards and technical guidance. Water quality analyses shall be conducted by a laboratory accredited under this chapter.

§ 109.1307. System management responsibilities.

(a) *Reporting.* Groundwater systems shall comply with the following requirements and otherwise comply with § 109.701 (relating to reporting and recordkeeping):

(1) A groundwater system conducting compliance monitoring under § 109.1305 (relating to compliance monitoring):

* * * * *

(ii) That experiences a breakdown in treatment shall notify the Department within 1 hour after the water system learns of the violation or the situation and provide public notice in accordance with § 109.408 (relating to Tier 1 public notice—categories, timing and delivery). A breakdown in treatment occurs whenever the system fails to meet, for greater than 4 **[continuous] hours of operation**, any Department-specified requirements relating to:

* * * * *

Subchapter N. DRINKING WATER FEES

§109.1401. General.

(a) This subchapter establishes fees for each public water system for services provided by the Department to implement the Safe Drinking Water Act, retain primacy and protect the public health and safety.

(b) This subchapter applies to each public water system.

§109.1402. Annual fees.

(a) Each public water system shall pay an annual fee as set forth in this section.

(1) For community water systems, the annual fees are as follows:

<i><u>Population Served</u></i>	<i><u>Fee</u></i>
<u>25 – 100</u>	<u>\$250</u>
<u>101 – 500</u>	<u>\$500</u>
<u>501 – 1,000</u>	<u>\$1,000</u>
<u>1,001 – 2,000</u>	<u>\$2,000</u>
<u>2,001 – 3,300</u>	<u>\$4,000</u>
<u>3,301 – 5,000</u>	<u>\$6,500</u>
<u>5,001 – 10,000</u>	<u>\$10,000</u>
<u>10,001 – 25,000</u>	<u>\$20,000</u>
<u>25,001 – 50,000</u>	<u>\$25,000</u>
<u>50,001 – 75,000</u>	<u>\$30,000</u>
<u>75,001 – 100,000</u>	<u>\$35,000</u>
<u>100,001 or more</u>	<u>\$40,000</u>

(2) For nontransient noncommunity water systems, the annual fees are as follows:

<i><u>Population Served</u></i>	<i><u>Fee</u></i>
<u>25 – 100</u>	<u>\$100</u>

<u>101 – 500</u>	<u>\$250</u>
<u>501 – 1,000</u>	<u>\$500</u>
<u>1,001 – 3,300</u>	<u>\$750</u>
<u>3,301</u>	<u>\$1,000</u>

(3) For transient noncommunity water systems, the annual fees are as follows:

<i><u>Population Served</u></i>	<i><u>Fee</u></i>
<u>25 – 100</u>	<u>\$50</u>
<u>101 – 500</u>	<u>\$100</u>
<u>501 – 1,000</u>	<u>\$200</u>
<u>1,001</u>	<u>\$500</u>

(4) For bottled water or vended water systems, retail water facilities, or bulk water hauling systems, the annual fees are as follows:

<i><u>Type</u></i>	<i><u>Fee</u></i>
<u>Bottled – In-state</u>	<u>\$2,500</u>
<u>Bottled – Out of state</u>	<u>\$2,500</u>
<u>Vended</u>	<u>\$1,000</u>
<u>Retail</u>	<u>\$1,000</u>
<u>Bulk</u>	<u>\$1,000</u>

(b) The “population served” shall be based on the Department’s public water system inventory at the time of billing.

(c) Payment of fees.

(1) All fees payable under this section shall be due according to the following schedule:

<i><u>Population Served</u></i>	<i><u>Submit annual fee by:</u></i>
<u>25 – 100</u>	<u>March 31</u>

<u>101 – 500</u>	<u>June 30</u>
<u>501 – 3,300</u>	<u>September 30</u>
<u>3,301 or more</u>	<u>December 31</u>

(2) New systems that begin operation after January 1 shall not be assessed an annual fee for partial calendar-year periods. Annual fees shall be payable on or before the date indicated in paragraph (1) of the next calendar year, and each year thereafter.

(3) For annual fees of \$10,000 or more, a public water system may request to divide its annual fee payment into equal quarterly installments by submitting a written request to the Department. Quarterly installments shall be due on March 31, June 30, September 30 and December 31.

§109.1403. Monitoring waiver fees.

(a) New waivers. An application for a new waiver from the monitoring requirements in §§ 109.301 and 109.302 (relating to general monitoring requirements; and special monitoring requirements) for a single source shall be accompanied by a fee as set forth below:

<u>Waiver Type</u>	<u>New Waiver Fee</u>
<u>VOC Use Waiver</u>	<u>\$100</u>
<u>SOC Use Waiver</u>	<u>\$100</u>
<u>SOC Susceptibility Waiver</u>	<u>\$300</u>
<u>IOC Waiver</u>	<u>\$100</u>

(b) Waiver renewals. An application for a waiver renewal from the monitoring requirements in §§ 109.301 and 109.302 for a single source shall be accompanied by the appropriate fee as follows:

(1) For renewal applications with no changes in land uses or potential sources of contamination, the fee will be \$50.

(2) For renewal applications with changes in land uses or potential sources of contamination, the fee will be based on the type of waiver and the fee for that waiver set forth in subsection (a).

(c) Waiver fees for systems with more than one source.

(1) For systems with multiple sources all in the same contributing area, the fee will be as indicated in subsection (a) or (b), as applicable. For groundwater systems, the contributing area is the surface area overlying the portion of the aquifer through which water is diverted to a well or flows to a spring or infiltration gallery.

(2) For systems with sources in two or more contributing areas, the fee will be as indicated in subsection (a) or (b), as applicable, for the first source, plus one-half of the applicable fee for each additional contributing area in which a source is located.

§109.1404. Community and noncommunity water system permitting fees.

(a) An application for a construction permit or a major construction permit amendment under subsection 109.503 (relating to public water system construction permits), except for an application for BVRB facilities under § 109.1005, shall be accompanied by a fee as set forth below:

<u>Population Served</u>	<u>Fee</u>
<u>25 – 100</u>	<u>\$300</u>
<u>101 – 500</u>	<u>\$600</u>
<u>501 – 3,300</u>	<u>\$1,000</u>
<u>3,301 – 10,000</u>	<u>\$2,500</u>
<u>10,001 – 50,000</u>	<u>\$5,000</u>
<u>50,001 – 100,000</u>	<u>\$7,500</u>
<u>100,001 or more</u>	<u>\$10,000</u>

(b) A written request for a minor construction permit amendment under subsection 109.503, except for a change in legal status (relating to paragraph 3), shall be accompanied by a fee as set forth below:

<u>Population Served</u>	<u>Fee</u>
<u>25 – 100</u>	<u>\$100</u>
<u>101 – 500</u>	<u>\$250</u>
<u>501 – 3,300</u>	<u>\$500</u>
<u>3,301 – 10,000</u>	<u>\$750</u>
<u>10,001 – 50,000</u>	<u>\$1,000</u>
<u>50,001 – 100,000</u>	<u>\$2,500</u>
<u>100,001 or more</u>	<u>\$5,000</u>

(c) A written request for a change in legal status, such as a transfer of ownership, incorporation or merger, shall be accompanied by a fee of \$100.

(d) A written request for a new or amended operations permit under section 109.504 (relating to public water system operating permits) shall be accompanied by a fee of \$50.

(e) A written request for an emergency permit shall be accompanied by a fee of \$100.

§109.1405. Permitting fees for general permits.

[Insert permit fee language]

§109.1406. Permitting fees for bottled water and vended water systems, retail water facilities, and bulk water hauling systems.

(a) An application for a construction permit or a major construction permit amendment under § 109.1005 (relating to permit requirements), except an out-of-state facility or system using finished water as its sole source of water, shall be accompanied by a fee as set forth below:

<u>System Type</u>	<u>Fee</u>
<u>Bottled Water System (population served)</u>	
<u>25 – 100</u>	<u>\$500</u>
<u>101 – 500</u>	<u>\$750</u>
<u>501 – 3,300</u>	<u>\$1,000</u>
<u>3,301 – 10,000</u>	<u>\$2,500</u>
<u>10,001 – 50,000</u>	<u>\$5,000</u>
<u>50,001 – 100,000</u>	<u>\$7,500</u>
<u>100,001 or more</u>	<u>\$10,000</u>
<u>Vended Water System</u>	<u>\$100</u>
<u>Retail Water Facilities</u>	<u>\$250</u>
<u>Bulk Water Hauling System</u>	<u>\$500</u>

(b) An application from a bottled water system, retail water facility or bulk water hauling system whose sole source of water is finished water purchased from another public water system shall be accompanied by a fee as set forth below:

<u>System Type</u>	<u>Fee</u>
<u>Bottled Water System (population served)</u>	
<u>25 – 100</u>	<u>\$100</u>
<u>101 – 500</u>	<u>\$250</u>
<u>501 – 3,300</u>	<u>\$500</u>
<u>3,301 – 10,000</u>	<u>\$750</u>
<u>10,001 – 50,000</u>	<u>\$1,000</u>
<u>50,001 – 100,000</u>	<u>\$2,500</u>
<u>100,001 or more</u>	<u>\$5,000</u>

<u>Retail Water Facilities</u>	<u>\$100</u>
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<u>Bulk Water Hauling System</u>	<u>\$100</u>
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(c) An application from an out-of-State bottled water system submitting proof of out-of-State approval under § 109.1005 shall be accompanied by a fee of \$1,000.

(d) A written request for a minor construction permit amendment under § 109.1005, except for a change in legal status, shall be accompanied by a fee as set forth below:

<u>System Type</u>	<u>Fee</u>
<u>Bottled Water System</u>	<u>\$1,000</u>
<u>Vended Water System</u>	<u>\$100</u>
<u>Retail Water Facilities</u>	<u>\$100</u>
<u>Bulk Water Hauling System</u>	<u>\$100</u>

(e) A request for a change in legal status, such as a transfer of ownership, incorporation or merger, shall be accompanied by a fee of \$100.

(f) A written request for a new or amended operations permit shall be accompanied by a fee of \$50.

(g) A written request for an emergency permit shall be accompanied by a fee of \$100.

§109.1407. Feasibility Study.

An application for a review of a feasibility study or pilot study shall be accompanied by a fee as set forth below:

<u>Population Served</u>	<u>Fee</u>
<u>25 – 100</u>	<u>\$300</u>
<u>101 – 500</u>	<u>\$600</u>
<u>501 – 3,300</u>	<u>\$1,000</u>

<u>3,301 – 10,000</u>	<u>\$2,500</u>
<u>10,001 – 50,000</u>	<u>\$5,000</u>
<u>50,001 – 100,000</u>	<u>\$7,500</u>
<u>100,001 or more</u>	<u>\$10,000</u>

§109.1408. Noncommunity Water System Application for Approval.

For a noncommunity water system that is released from the obligation to obtain a construction and an operation permit under § 109.505 (relating to requirements for noncommunity water systems), the application for approval required under § 109.505(a)(2)(ii) shall be accompanied by a fee of \$50.

§109.1409. Noncommunity Water System 4-Log Permit.

For noncommunity water systems demonstrating 4-log treatment of viruses under subchapter M (relating to Additional requirements for groundwater sources), the permit application shall be accompanied by a fee of \$50.

§109.1410. Payment of fees.

All fees under this subchapter shall be payable by a check to the “Commonwealth of Pennsylvania” or through a secure computer application provided by the Department.

§109.1411. Disposition of funds.

All fees shall be paid into the State Treasury into a special restricted revenue account in the General Fund known as the Safe Drinking Water Account administered by the department for use in protecting the public from the hazards of unsafe drinking water and which funds are hereby appropriated to the department for such purposes as are authorized in the act.

§109.1412. Failure to remit fees.

(a) If fees are not remitted as required under section 109.1402, interest shall accrue on the entire amount from the original date payment was due, at a rate of six percent (6%) per annum until payment is remitted.

(b) For any system delinquent in payment of fees in excess of one hundred and eighty (180) days, the Department may suspend technical services provided by the Department until payment is remitted.

§109.1413. Evaluation of fees.

At least every three years, the Department will provide the Environmental Quality Board with an evaluation of the fees in the Chapter and recommend regulatory changes to the Environmental Quality Board to address any disparity between the program income generated by the fees and the Department's cost of administering the program with the objective of ensuring fees meet all program costs and programs are self-sustaining. The evaluation will include an assessment of program complement and workload.