



pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Safe Drinking Water

Safe Drinking Water Regulatory Update

SRBC – PWS Assistance Program
Fall Workshop
October 18, 2018

Tom Wolf, Governor

Patrick McDonnell, Secretary

Today's Presentation

Provide an Overview of:

- Disinfection Requirements Rule (DRR)
- General Update and Fees Rule (GUFR)
- Other Safe Drinking Water (SDW) Initiatives

Disinfection Requirements Rule

- Disinfection Requirements Rule (DRR) was published in the *Pennsylvania Bulletin* on April 28, 2018.
- DRR affects these PWSs:
 - All CWSs.
 - Any NTNC water system that uses a chemical disinfectant.
 - Any TNC water system that uses SW/GUDI sources or that provides 4-log disinfection of GW sources.

▶ Disclaimer – Provisions NOT Changed

*NOTE: EP disinfection monitoring and reporting requirements have **NOT** changed.*

- Minimum EP residual required for 4-log disinfection of GW sources is 0.40* ppm
- Continuous monitoring (& recording at least every 15 minutes) of EP residual for:
 - SW/GUDI sources
 - GW sources at a PWS with a population > 3,300
- Monthly reporting of daily EP residual measurements

IMPORTANT NOTE!

Remember that chlorine residual is an Accreditation-by-Rule (ABR) parameter!

- Accurate disinfectant residual data is critical!
- Only the following individuals may conduct disinfectant residual measurements:
 - Accredited laboratory
 - Appropriately certified operator
 - Person using written SOP established by appropriately certified operator

▶ DRR Provisions Effective Immediately

Immediate provisions of the DRR:

- Require filter plants to maintain 0.20 mg/L residual at the entry point.
- Require filter plants to calculate Giardia log inactivation at least once/day and report this value to DEP to demonstrate compliance with the *existing* treatment technique.
- Require water systems with disinfection to report all *individual* distribution residual measurements.

COMPLIANCE TIP!

- Failure to maintain log inactivation for > 4 hours is a Tier 1 violation that requires 1 hour reporting to DEP and a Tier 1 PN.
- The MORE FREQUENTLY you calculate *Giardia* inactivation, the LESS LIKELY you will be to fall below 1 log inactivation for > 4 hour period.
- REMEMBER: If EP residual < 0.20 mg/L, must calculate log inactivation immediately and every 4 hours until EP residual > 0.20 mg/L

Distribution Disinfectant Requirements

Current distribution system disinfectant residual requirements (*effective through 4/28/2019*):

- CWSs must maintain an acceptable disinfectant residual throughout the distribution system.
- Any PWS with SW/GUDI sources or purchased SW/GUDI sources must:
 - Measure disinfectant residual at same time & location as coliform compliance samples.
 - Maintain a detectable residual of at least 0.02 ppm **OR** have HPC result < 500/ml.

DRR Provisions with Delayed Dates

- Require water systems with disinfection to maintain a minimum 0.2 mg/L disinfectant residual throughout the distribution system.
 - Measure residual at same time/location as coliform samples
 - Measure residual at least weekly; may repeat locations during the month
 - Residual may be measured by accredited lab, appropriately certified operator or person using written SOP
 - If any 1 location below 0.2 for 2 consecutive months, PWS must conduct investigation & submit report to DEP within 60 days
 - **Effective date is April 29, 2019**

DRR Provisions with Delayed Dates

- Require water systems with disinfection to develop a disinfection sample siting plan.
 - Must include representative locations & sample collection schedule; should be combined with RTCR sampling plan
 - Must include a location for a 5th week
 - Do **not** need to identify specific tap or specific dates
 - Do **not** need to use continuous analyzers for disinfectant residual measurements in the distribution system
 - **Must be submitted to DEP by Oct 29, 2018**

▶ DRR Provisions with Delayed Dates

Key provisions of the DRR:

- Require systems that provide chloraminated water to develop and implement a nitrification control plan.
 - Must conform to industry standards (AWWA's M56 Manual).
 - Must include a system-specific monitoring plan with expected water quality ranges and action levels
 - Must be retained on site, updated as needed, and made available to DEP upon request
 - **Effective date is April 29, 2019**

DRR Reporting Instructions

- SDWA-S form is eliminated.
- New contaminant codes and analysis method codes for disinfectant residuals.
 - Must begin using new method codes ASAP or data will be rejected.
 - Must begin using new contaminant codes now; as of Oct 1, code 0999 is no longer being accepted.
 - Reporting instructions available on DRR website.

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General Update and Fees (GUFR)

- The General Update and Fees regulation was published in the *Pennsylvania Bulletin* on August 18, 2018.
- There are some provisions in this regulation that affect all regulated public water systems.
- There are some provisions that are effective immediately and some that have delayed implementation dates.

General Update and Fees

- The full text of the GUFR can be found within the “Environmental Quality Board Rules & Regulations” section of the *Pennsylvania Bulletin* website:
<https://pabulletin.com/secure/data/vol48/48-33/index.html>.
- Please take time to carefully read these regulations in their entirety. Today’s presentation represents only a summary of some of the most significant requirements of this rule.

➤ Gen. Update Provisions - Immediate

- Clarified that CWSs must mail a paper copy* of the CCR to DEP. (§ 109.416)
- Any PWS with filtration must develop and implement a filter bed evaluation program. (§ 109.703)
- CWS/NTNC/TNC systems must develop and maintain a system map detailing treatment plants, storage facilities, pump stations, interconnections, monitoring locations, pressure zones and pipes. (§ 109.706)

➤ Gen. Update Provisions - Immediate

- Deleted the provision that allowed reduced frequency of EP disinfectant residual monitoring.
- Revised consultation and corrective action deadlines for significant deficiencies. (§ 109.717)
 - Consult with DEP within 30 days
 - Respond in writing within 45 days
 - Complete corrective actions within 120 days
 - Obtain written approval from DEP to modify an approved corrective action plan or schedule

➤ Gen. Update Provisions - Immediate

- Deleted the provision under the GWR that allowed 5 samples within 24 hours of an *E. coli*-positive triggered (GW) source sample.
- Individual THM and HAA parameter results must be reported *in addition to* the TTHM & HAA5 compliance values. [§ 109.701(a)(10)]
- Clarified that CWS/NTNC systems that have to install CCT must submit a permit application. (§ 109.1105)

➤ Gen. Update Provisions - Immediate

- Updated/clarified definitions for source water protection area for SW and GW sources. (§ 109.1)
- Updated requirements for PWSs with an approved source water protection program. (§ 109.713)
- Revised the permit requirements to clarify that the pre-drilling plan must be included in the permit application for a new source. (§ 109.503)
- DEP now has the regulatory basis to issue General Permits. (§ 109.511)

Gen. Update Provisions - Delayed

By August 20, 2019:

- CFE turbidity standards established for systems using membrane filtration. (§ 109.202)
- ALL filter plants must have *continuous* monitoring (& recording every 15 minutes) for both IFE and CFE turbidity. (§ 109.301)
- ALL filter plants must be equipped with alarms. Filter plants not staffed continuously must *also* have shut-down capabilities. (§ 109.602)

Gen. Update Provisions - Delayed

By August 20, 2019:

Filter plant alarms must be:

- Set at a level that results in compliance with applicable drinking water standards for:
 - IFE/CFE
 - EP disinfectant residual
 - Minimum water level needed for *Giardia* inactivation
- Capable of notifying the available operator on duty
- Tested at least quarterly

Gen. Update Provisions - Delayed

By August 20, 2019:

- All CWSs and NTNC systems must develop and submit a comprehensive monitoring plan (CMP) that includes: (§ 109.718)
 - Permitted sources (including purchased sources), TPs & EPs and availability status and the availability designation (permanent, reserve or emergency*) for each
 - Schematic (linking source to TP to EP)
 - Description of normal operating conditions & how sources will be included in monitoring

Gen. Update Provisions - Delayed

By August 20, 2019:

Requirements for using sources/TPs/EPs designated as “reserve”

- Must be identified in **operations permit** as “Reserve”
- Must notify DEP and get written approval prior to use
- Must monitor reserve entry points (or permanent Eps with reserve sources) at the initial frequencies for IOCs/VOCs/SOCs/RADs) while in use
- Must submit a quarterly report describing use
- Must notify DEP when reserve facility taken off-line

Gen. Update Provisions - Delayed

By August 2019/2020/2021:

- All CWSs must submit a certification to DEP that an Uninterrupted System Service Plan (USSP) has been completed. (§ 109.708)
 - Must use forms provided by DEP for both USSP and certification
 - USSP is to ensure system service can be maintained by using a combination of auxiliary power, finished water storage, interconnections, etc.

Fees

- Applies to ALL public water systems.
- Revised permit and monitoring waiver fees.
 - These revised fees are based on the PWS population.
 - These revised fees were effective immediately.
- New SDW annual fee is based on PWS population.
 - Per person costs range from \$0.35 to \$10 per year.
 - Annual fees start in 2019.

Monitoring Waiver Fees

- Fees for new waivers or renewals with changes in land use or potential sources of contamination:

<i>Waiver Type</i>	<i>Fee</i>
VOC use waiver	\$100
SOC use waiver	\$100
SOC susceptibility waiver	\$300
IOC waiver	\$100

- Fee for renewals with no changes in land use or potential sources of contamination is \$50.

Permit Fees – CWSs & NCWSs

- For a **new or major** permit amendment **OR** for a **feasibility/pilot study**, the fee is:

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

Permit Fees – CWSs & NCWSs

- For a **minor** permit amendment (*except for a change in legal status*), the fee is:

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

Permit Fees – CWSs & NCWSs

- The fee for a change in legal status is \$100.
- The fee for a new or amended operations permit is \$50.
- The fee for an emergency permit is \$50.
- The fee for a general permit will be established in the general permit and will not exceed \$500.
- The fee for a NCWS approval or for NCWS 4-log disinfection is \$50.

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Other Initiatives – PFASs

- PFAS = per- and polyfluoroalkyl substances. A group of manmade chemicals are resistant to heat, water & oil and persist in the environment & human body.
- Currently, there is no federal or state MCL for PFASs but EPA established a combined lifetime health advisory (HA) for PFOS/ PFOA of 0.07 $\mu\text{g}/\text{L}$ (70 ng/L).
- On May 8, 2017, the Delaware Riverkeeper Network submitted a petition to the EQB requesting they establish a drinking water MCL for PFOA not to exceed 6 parts per trillion (0.006 $\mu\text{g}/\text{L}$ or 6 ng/L).

Other Initiatives – PFASs

- On Sept. 21, 2018, Gov. Wolf established a PFAS Action Team to develop a comprehensive response to identify & eliminate sources of PFAS contamination.
- Gov. Wolf has directed DEP to develop a PFAS sampling plan to test public water systems across the state.
 - Water systems will be selected based on risk characteristics developed by DEP.
 - Sampling will be done by DEP or a DEP-contracted lab.

Other Initiatives – PFASs

For additional information, visit DEP's PFAS web page:



[DEP](#) > [Citizens](#) > [My Water](#) > [Drinking Water](#) > [Perfluorinated Chemicals – PFOA and PFOS – in Pennsylvania](#)

PFOA AND PFOS: WHAT THEY ARE

Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) are part of a larger group of chemicals referred to as perfluoroalkyl substances (PFAS). PFAS are not found naturally in the environment. PFOA and PFOS have been the most extensively produced and studied of these chemicals. They have been used to make cookware, carpets, clothing, fabrics for furniture, paper packaging for food, and other materials that are resistant to water, grease, or stains. They are also used in firefighting foams and in a number of industrial processes.

WHAT'S NEW

- [Press Release: Governor Wolf Takes Executive Action to Address PFAS Concerns and Protect Pennsylvanians](#)
- [Executive Order: Perfluoroalkyl and Polyfluoroalkyl Substances \(PFAS\) Action Team](#)
- [Letter to Members of Pennsylvania's Congressional Delegation from Governor Wolf](#)
- [Letter to EPA Acting Administrator Wheeler from Governor Wolf](#)

[Laboratories Capable of Sampling for PFCs](#)

RELATED INFORMATION

[PERFLUORINATED CHEMICALS – PFOA AND PFOS – IN PENNSYLVANIA](#)

[IMPACTS OF PFOA AND PFOS](#)

[PFOA & PFOS HEALTH ADVISORIES IN PENNSYLVANIA](#)

[DEP PROGRAM INVOLVEMENT](#)

[PFC SITES UNDER DEP INVESTIGATION](#)

[RIDGE RUN PFC SITE](#)

[EASTON ROAD PFC SITE](#)

[STATE MCL CONSIDERATIONS](#)

www.dep.pa.gov

Other Initiatives – Manganese

In August 2017, the Administrative Code was amended to require the EQB to promulgate regulations for a water quality standard for manganese.

- Current manganese standard is 1 mg/L at the point of discharge.
- The amendment moves the compliance point to the drinking water intake.
- SDW is working with Clean Water staff on the proposed regulation language.

Other Initiatives – Federal Rules

- UCMR4 monitoring occurs 2018-2020:
 - 30 contaminants on list: cyanotoxins (if using SW sources), metals, pesticides, disinfection byproducts, alcohols & VOCs
 - All CWS/NTNC system serving > 10,000 people must monitor (at own expense)
 - 800 randomly selected small systems must monitor (at EPA's expense)
- Federal long-term revisions to LCR not expected until February 2019.



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