

December 2018

The Pennsylvania Department of Environmental Protection (DEP) Bureau of Safe Drinking Water is pleased to provide you with this edition of the Drinking Water News. It contains information, explanations, and reminders on:

- New Regulatory Provisions to Put on Your Radar for 2019
- New Safe Drinking Water Annual Fee
- Proper Reporting of Weekly Distribution Disinfection Residuals
- Three Simple Steps to Eliminate Reporting Violations
- Baffling Facts About Baffling Factors
- Operator Outreach--A Capacity Development Tool in PA
- Reporting for Round 2 of the Long-term 2 Enhanced Surface Water Treatment Rule (LT2)
- One-hour Reporting and Public Notification When Calculating Giardia and Virus Inactivation
- Giardia Inactivation Calculation Spreadsheet
- Revised Safe Drinking Water Permit Fees
- We're So Glad You Asked!

Your feedback and suggestions are always welcome. They can be submitted to jonardone@pa.gov.

New Regulatory Provisions to Put on Your Radar for 2019

The Safe Drinking Water General Update and Fees Rule was published as final on August 18, 2018. The full text of the regulation can be found at: <https://pabulletin.com/secure/data/vol48/48-33/index.html>. A mailing and email notifications were sent to water systems in October 2018 with details from the regulations but here are a few provisions that you should put on your radar because they will go into effect in 2019.

By August 20, 2019

>> ALL filter plants (regardless of type and size) must have monitoring that is CONTINUOUS (and recorded every 15 minutes) for both individual filter effluent (IFE) and combined filter effluent (CFE) turbidity. The reduced turbidity monitoring frequency for water systems with populations less than 500 will no longer be allowed after August 19, 2019.

>> ALL filter plants must be equipped with alarm capabilities (for entry point disinfectant residual, IFE/CFE and minimum water level needed for Giardia inactivation); plants that are not staffed continuously while in operation must ALSO have shut-down capabilities.

>> ALL community water systems (CWSs) and nontransient noncommunity (NTNC) water systems must develop and submit a Comprehensive Monitoring Plan.

>> ALL water systems with reserve sources must identify those sources in their Operation Permit (with specific permit conditions) and must notify DEP and get written approval prior to using their reserve sources since additional monitoring is required before/during use.

>> ALL CWSs must complete an Uninterrupted System Service Plan (USSP) and submit certification to DEP (between August of 2019 and August 2021, based on system size). CWSs may demonstrate resiliency through auxiliary power, storage, interconnections or combination of resources.

Training on the new provisions for DEP staff and water suppliers is being developed.

New Safe Drinking Water Annual Fee

Dawn Hissner, Operations, Monitoring & Compliance Division, Central Office

By now, most water systems should have received a letter outlining several changes to the Chapter 109, Safe Drinking Water (SDW) regulations. The purpose of these changes is to provide for increased public health protection by updating and clarifying several parts of the SDW regulations. They will also help to ensure that DEP has adequate funding to enforce the applicable drinking water laws, meet State and Federal program elements and retain primary enforcement authority. Pennsylvania has more than 8,300 public water systems (PWSs) across the Commonwealth and is ranked 3rd in the nation for

the number of PWSs. DEP is responsible for regulating all PWSs in the Commonwealth and ensuring that safe and potable drinking water is continuously supplied to the 10.7 million customers they serve.

The new annual fee is necessary to ensure sufficient funding for DEP to carry out responsibilities under the State and Federal SDWAs. **Starting in 2019**, a SDW Annual Fee will be assessed on all PWSs. Each PWS will receive a system-specific invoice at the beginning the appropriate calendar quarter in which their fee payment is due. The annual fee payment due dates are based on the population served:

Population Served	Annual Payment Due Date
3,301 or more	March 31
501 – 3,300	June 30
101 – 500	September 30
100 or less	December 31

The annual fee amount will also be shown on each invoice and is based on both population served and PWS type (Community-CWS, nontransient noncommunity-NTNC or transient noncommunity-TNC).

Community Water System Annual Fees					
Population Served	Fee	Population Served	Fee	Population Served	Fee
100 or less	\$250	2,001 – 3,300	\$4,000	25,001 – 50,000	\$25,000
101 – 500	\$500	3,301 – 5,000	\$6,500	50,001 – 75,000	\$30,000
501 – 1,000	\$1,000	5,001 – 10,000	\$10,000	75,001 – 100,000	\$35,000
1,001 – 2,000	\$2,000	10,001 – 25,000	\$20,000	100,001 or more	\$40,000

Noncommunity Water System Annual Fees		
Population Served	NTNC Fee	TNC Fee
100 or less	\$100	\$50
101 – 500	\$250	\$100
501 – 1,000	\$500	\$200
1,001 – 3,300	\$750	\$500
3,301 or more	\$1,000	\$500

To check DEP's record of the population served by your PWS, visit the Drinking Water Reporting System (DWRS) website at: <http://www.drinkingwater.state.pa.us/dwrs/HTM/SelectionCriteria.html>. You can search this database by PWS ID# or PWS name. The population served is under the Inventory Information, then Basic Information.

Ensuring that Pennsylvanians have access to safe, clean drinking water is one of DEP's most important roles. These new and adjusted fees will assist DEP to continue to provide the services necessary to administer the SDWA and its regulations. These services include monitoring and inspection; maintaining an inventory of PWSs; conducting systematic sanitary surveys of PWSs; assuring the availability of laboratories certified to analyze drinking water for all contaminants specified in the drinking water standards; reviewing and approving plans and specifications for the design and construction of new or substantially modified PWSs to deliver water that complies with drinking water standards with sufficient volume and pressure to users of the systems; and issuing orders and taking other actions necessary and appropriate for enforcement of drinking water standards.

Please plan to join a webinar on the SDW Fees on Tuesday, January 8, 2019.

The webinar will begin at 9 AM. No preregistration is needed. Details on connecting to the webinar are noted below.

Topic: SDW Fees Webinar

Date and Time: Tuesday, January 8, 2019 at 9:00 am

Event Number: 640 535 122 / Event Password: SDWfees19! / Access Code: 640 535 122

To join the online event [click here](#) or copy and paste the following link to a browser:

<https://copa.webex.com/copa/onstage/g.php?MTID=e4671d417aae40e07176d84bb0d5c59a2> and click on "Join Now".

To join the conference with audio only, dial 1-650-479-3208 (this is toll number).

[Can't join the event?](#) This link might help: <https://collaborationhelp.cisco.com/article/en-us/kwmj5eb>

IMPORTANT NOTICE: This webinar will be recorded which will allow all audio and any documents and other materials exchanged or viewed during the session to be recorded. If you do not want your participation recorded for any reason, you may want to access the recorded webinar when it is made available on a future date.

Disinfection Requirements Rule: Proper Reporting of Weekly Distribution Disinfection Residuals

Sheryl Martin, Compliance Specialist, Southcentral Region

The Disinfection Requirements Rule (DRR) will protect public health by guarding against microbial contamination through ensuring adequate treatment in drinking water distribution systems. The disinfectant residual requirements in the distribution system applies to all community water systems, all nontransient noncommunity water systems with chemical disinfection, and all transient noncommunity water systems with filtration of SW or GUDI sources or 4-log disinfection of GW sources.

Beginning April 29, 2019, the three types of public water systems listed above will begin monitoring in accordance with their DRR sample siting plan and will need to



*Hand-held
Colorimeter*

maintain a minimal disinfection level of 0.2 mg/L throughout their distribution system. Systems will be required to sample the residual disinfectant concentration in their distribution system at least once per week and properly report those individual results.

All systems will continue to measure the residual disinfectant concentration at the same time and location as total coliform samples.

Please visit our website for additional information on the DRR:

<https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/Proposed-Disinfection-Requirements-Rule--.aspx>

Currently systems or their contracted labs are reporting the distribution disinfection residuals that are taken in conjunction with total coliform samples on a SDWA-1 form. As of April 29, 2019, weekly distribution disinfectant residuals will need to be taken and reported. A system may choose to:

- **Collect and report** all distribution disinfectant residuals for the month.
- **Collect and report** distribution disinfectant results on the weeks a coliform sample is not collected.
- **Collect** distribution disinfectant results and ask your **lab to report** them for you. This will require advance coordination with your lab. If you choose this option, you will still need your own lab ID. (see *Step 1 for instructions*)
- Have the **lab or circuit rider collect and report** weekly results.



Systems may want to report the residuals for the other weeks when their lab is not taking them. So how does a system report their own results? Data is reported to the Department into the Drinking Water Electronic Laboratory Reporting system or DWELR. In order to electronically submit data there are a few steps necessary to obtain access to DWELR.

Step 1. The system needs to get a laboratory ID (if the system doesn't already have one). There is a one-time fee of \$50 to become a registered laboratory. Complete the Environmental Laboratory Registration Application which can found on our website:

http://files.dep.state.pa.us/AboutDEP/Labs/LabsPortalFiles/Registration_Application_2016_06.pdf

Submit the application with the registration fee to the address in the instructions. In a few weeks you will receive a letter back with your laboratory ID that has been assigned.

Step 2. Each person at the system who would be entering data should self-register for their own DEP Greenport account. Go to the Greenport website and "click here to self-register".

<http://www.depgreenport.state.pa.us/>

Be sure to remember your Greenport ID (user name) and password.

Step 3. Each person requiring DWELR access would then need to submit the DWELR registration form. In order to complete the form, you will need your Greenport ID and your systems 5-digit lab ID. Complete and submit the DWELR registration form by mail or fax per the instructions. See the link below for this form:

<http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=10021&DocName=DWELR%20%26amp%3B%20WEBOAS%20REGISTRATION%20FORM%20AND%20INSTRUCTIONS.PDF%20>

Once your DWELR registration is processed, you will receive an email notification. Then when you log into Greenport you will see a DWELR button on the screen. You are then ready to be able to enter your system's data electronically.

For additional information on DWELR and reporting please visit our website for written guides and video tutorials:

<https://www.dep.pa.gov/citizens/my-water/publicdrinkingwater/pages/electronic-reporting-system.aspx>

Keep in mind the following items for proper reporting of individual distribution disinfectant residuals:

- Report all results on the **SDWA-1** form.
- Record the sample **analysis date** and **time**.
- Record the proper **location ID**, as found on the DRR sample site plan.
- Use the proper **contaminant ID: Free Chlorine is 1013** or **Total Chlorine is 1000**.
- Use the appropriate **Analysis Method Code**. (see our weblink:
<http://files.dep.state.pa.us/Water/BSDW/DrinkingWaterManagement/Regulations/DRR%20Chlorine%20Reporting%20Instructions.pdf>)
- Use the appropriate **Sample Type**:
 - **D** for distribution chlorine residuals / residuals for routine or check RTCR samples.
 - **S** for residuals analyzed with total coliform samples to lift a Boil Water Advisory or for RTCR seasonal start up.

Remember to always review your data in DWELR and save a printer-friendly version for your records. For any questions or assistance with the above steps please contact our Drinking Water Data Management Section in Harrisburg at 717-772-4018.

DWELR Best Practices - Three Simple Steps to Eliminate Reporting Violations

Cathy Port, Water Program Specialist, Central Office

The Safe Drinking Water Program in the United States and the Commonwealth of Pennsylvania is based on self-monitoring and reporting of data. Compliance with Safe Drinking Water regulations is determined after an evaluation of the data that you submit, or that your certified drinking water laboratory submits on your behalf. Our Data Management Section has developed electronic tools to assist you with reporting your data correctly, determining your monitoring schedules, and providing information to the public. The data you or your laboratory report is what tells us and your customers that your water is properly treated and meets established drinking water standards.

We receive over 170,000 records per month. To determine compliance with drinking water rules, develop monitoring schedules, and meet our EPA reporting obligations, we use an automated data evaluation process. Making efforts to ensure data is reported correctly will help you avoid violations.

Correct data reporting is your responsibility. **Remember, you have until midnight on the 10th of the reporting month to make corrections in the DWELR application.** Correct data reporting is also under your control through our Drinking Water Electronic Laboratory Reporting (DWELR) Application. These three easy steps can help you to significantly reduce or eliminate reporting violations.

1. **Check Error Report after Pressing Submit.** There are two ways to do this:
 - a. Review your **Submission Confirmation** page as below.

Safe Drinking Water Act



Submission Confirmation

Thank you for your submission. Please note: You will also receive an email as additional confirmation of your submission.
Your submission included 1 record(s); **1 record(s) had errors or warnings.**

SDWA Form	This Submission		All Submissions This Reporting Period
	# Records	# Records with Errors/Warnings	# Records with Errors/Warnings
SDWA1	1	1	49
SDWA1	1	1	1

- b. Access the **Error Report** through the **Main Menu**.

Click on the form that shows errors, make corrections and resubmit before the 10th of the month. Our data validation checks will often give you a description of the error. If you need assistance, just give us a call at 717-772-4018.

- Add New Records
- Upload File
- View and Edit Records
- Error Report
- Search Records
- Inbox
- Copy of Record
- Instructions and Messages

2. **Proofread Your Data.** Our data validation checks catch a lot of errors, but not everything. So, after you correct any errors, be sure to get a Printer-Friendly version of your submission and carefully proofread it to make sure you have reported the correct dates, locations, and results. Make corrections as necessary. Re-check the **Submission Confirmation** and/or **Error Report** to make sure you have no errors.

- Add New Records
- Upload File
- View and Edit Records
- Error Report
- Search Records
- Inbox
- Copy of Record
- Instructions and Messages
- Trading Partner Agreement
- Quality Assurance Procedure
- Exit

VIEW and EDIT RECORDS
Click [here](#) for a Printer Friendly Version
[View a Monitoring Calendar](#)

3. **Review Lab Reporting.** At this point, you may be thinking ... my laboratory reports on my behalf and I have no way of making sure my results are reported correctly and on time. This is not true. The DWELR application allows you to review what the lab has reported on your behalf. Just enter the application through **VIEW ACCESS** and choose **View and Edit Records** from the **Main Menu**. If your account does not have **VIEW ACCESS**, it's easy to request (even if you don't report data through DWELR). Just call us at 717-772-4018. You can also request that your lab provide you with a Printer-Friendly version of your DWELR report.

The account you used to log in has multiple associated DWELR IDs. Before proceeding you must first choose the Lab DWELR ID to enter information or choose the PWS DWELR ID for which you wish to view information.

Please choose a DWELR ID from the following list of possible IDs:

OL00002 - (SUBMIT ACCESS) TEST

 C P1234567 (VIEW ACCESS) EXAMPLE WATER COMPANY

- Check sample dates, sample times, sample locations, sample types and results.
- If the records on the DWELR Report do not match your Chain-of-Custody or lab report, contact your lab and request a correction before the 10th of the month.

Using these three easy steps when reporting through DWELER will help you reduce or eliminate reporting violations. For assistance with reporting and correcting errors in DWELR, call us at 717-772-4018.

Baffling Facts About Baffling Factors

John Cairnes, Compliance Specialist, Southeast Region

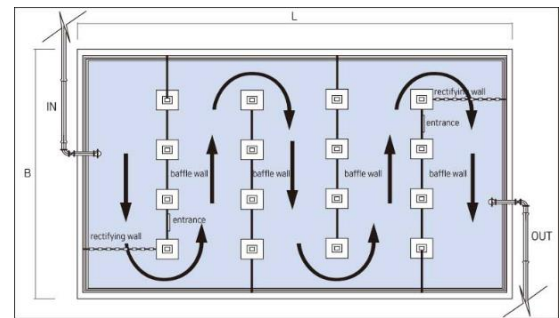
The chemical disinfection of a water supply – eliminating or inactivating bacteria and other micro-organisms to ensure the potability of the water - is a process reliant on both the concentration of the disinfecting chemical, and the available contact time provided by the design of a water system's storage facilities. Whether the system uses a clearwell, storage tank, or contact piping, an insufficient amount of contact time can hinder the effectiveness of the disinfection process. In most cases, storage tanks and mains located after the entry point cannot be used to calculate contact time for disinfection.

Most water suppliers know that storage facilities require a minimum volume to provide effective disinfection. As of April 29, 2019, DEP will require filter plants to have alarms installed in clearwells to maintain a minimum volume to achieve adequate disinfection and inactivation time for micro-organisms. But the size of the tank or clearwell, or the volume of water contained within it, is not the only factor in

determining if the water has sufficient contact time. Every water storage facility has a physical characteristic called a baffling factor which measures the amount of short circuiting that occurs when water is flowing into and out of the storage facility. Short circuiting is the ability of a slug of moving water to pass quickly through a larger volume of relatively quiescent water with minimal mixing, shortening the effective disinfection contact time.

The ideal condition to maximize the baffling factor is called plug flow. Plug flow occurs when the velocity and direction of water moving through a storage facility is constant and the fluid viscosity that causes short circuiting in large volumes of water is overcome by the structure of the facility. Plug flow is difficult to achieve outside of contact mains and the mains must have a length-to-diameter ratio of at least 40 to 1 to achieve it. In other words, a 12-inch water main would need to be at least 40 feet long to achieve plug flow with a maximum baffling factor of 1.0.

Since most tanks and clearwells cannot achieve plug flow conditions, the baffling factor must be determined carefully and factored into all calculations used for measuring effective contact time. Some tanks contain internal baffles – structures designed to maximize utilization of the tank’s volume and minimize short circuiting. A pre-baffled tank may have a specific baffling factor already calculated by its manufacturer or a consulting engineer. In most cases, a water supplier will need to determine a storage facility’s baffling factor before calculating the effective contact time for the water contained within.



Schematic of Baffles in a Clearwell

When calculating contact time for disinfection, it is essential that the baffling factor is correct and up-to-date. Do not rely solely on the dimensions and shape of the tank. They can vary widely. Placement of the inlet and outlet pipes can also affect the baffling factor. Be wary of vendors who claim that mixers installed in tanks and clearwells will increase their baffling factor. While mixers may be effective in maintaining uniform water quality within a tank, the agitation they cause can actually increase short circuiting and reduce a tank’s baffling factor.

The best way to determine the baffling factor for a facility is to use a tracer study to measure the degree of short circuiting within the facility. A tracer study involves injecting a water-soluble fluorescent dye into a tank through the inlet and observing its motion through the volume of water present within the tank to determine its effective contact time. Tracer studies at Pennsylvania water plants should be conducted by a professional engineer and must be approved by DEP’s Technical Services Division.

Operator Outreach--A Capacity Development Tool in PA

Dennis Harney, Outreach Assistance Provider Program Coordinator

Under the 1996 Amendments to the Safe Drinking Water Act (SDWA), in recognition of the fact that not all drinking water problems can be solved through new or improved infrastructure, EPA allowed states to set aside a portion of their annual spending to help public water systems develop their technical, managerial, and financial (TMF) capabilities. This process is referred to as capacity development, or capability enhancement, and its goal is to help public water systems provide safe drinking water consistently, reliably, and cost effectively with greater long-term compliance with drinking water regulations.

DEP's Outreach Assistance Provider (OAP) Program is available to help public water systems improve their TMF capabilities by pairing up experienced drinking water operators and managers with systems interested in improving their TMF capabilities. DEP's team of 'outreach operators' have extensive knowledge and experience in many areas of water system operation and management.

Outreach provided by the program may take the form of on-site assistance or small group workshops, or it may be customized depending on the need. Some of the assistance recently offered by the program included: treatment optimization, jar test training, chemical feed pump calibration, filter inspection training, emergency response plan development, asset management planning, water loss auditing, and planning for water system consolidation.

Operators or managers interested in receiving technical assistance through the Outreach Assistance Provider Program should contact Dennis Harney at dharney@pa.gov or 717-705-4913.

Long-term 2 Enhanced Surface Water Treatment Rule (LT2) Round 2 Reporting Requirements for Small Systems

Tina McCafferty, Compliance Specialist, Northcentral Region



Surface Water Source Retention Basin and Intake Structure

Many small systems (defined as <10,000 for LT2) have completed their second round of E. coli sampling required under LT2 Rule and are preparing to submit their results. Here is a short summary of what should be submitted to your regional DEP Safe Drinking Water Program staff.

Using official letterhead, report the following data elements for each E. coli analysis:

- PWS ID
- Source ID
- Sample collection date
- Analytical method number
- Method type
- Source type (flowing stream, lake/reservoir, GUDI)
- *E. coli*/100 mL

Systems will also need to submit a proposed bin classification of 1 for all sources having an annual mean *E. coli* concentration of ≤ 100 *E.coli*/100 mL or submit a *Cryptosporidium* sampling plan for all sources having an annual mean *E.coli* concentration of > 100 *E.coli*/100 mL. *Cryptosporidium* sampling plans should be submitted to DEP by December 31, 2018. Proposed bin classifications should be submitted to DEP by April 1, 2019, unless an earlier date was assigned to you by DEP.

One-hour Reporting and Public Notification Requirements When Calculating Giardia and Virus Inactivation

Jamie Estep, Compliance Specialist, Southwest Region

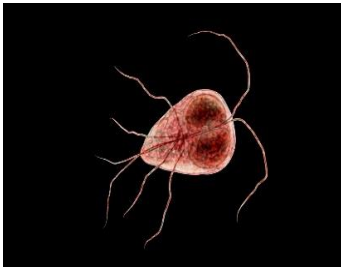


Illustration of Giardia Protozoan

New provisions to the Safe Drinking Water Regulations now require public water systems which utilize filtration plants to calculate and report daily log inactivation for Giardia and viruses. These results are used to show that each filtration plant can achieve at least 1.0-log inactivation of Giardia and 3.0-log inactivation of viruses through the disinfection process alone. These provisions also now require that filtration plants now maintain a minimum residual disinfectant concentration of 0.20 mg/L at the entry point as opposed to the previous requirement of 0.2 mg/L.

Public water systems utilizing filtration plants are required to calculate log inactivation “at least one per day” and waiting until the end of the month to complete the calculations is not acceptable.

Water systems utilizing filtration plants and calculating daily log inactivation are required to notify the Department within 1 hour of water system personnel becoming aware of the following instances:

- System fails to maintain 1-log inactivation of Giardia or 4-log inactivation of viruses
- System fails to maintain the minimum entry point disinfectant residual of 0.20 mg/L
- System has an instantaneous breakdown in disinfection treatment for any amount of time

Water systems utilizing filtration plants and calculating daily log inactivation are required to issue the following public notifications pertaining to entry point residuals and log inactivation:

Tier 1 Public Notice

- System fails to maintain 1-log inactivation of Giardia or 4-log inactivation of viruses for more than 4 hours
- System fails to maintain the minimum entry point disinfectant residual of 0.20 mg/L for more than 4 hours and fails to calculate the log inactivation in accordance with §109.301(1)(v) and (vi)
- System fails to maintain the minimum entry point disinfectant residual of 0.20 mg/L for more than 4 hours and fails to meet the minimum log inactivation requirements for more than 4 hours
- *System has an instantaneous breakdown in disinfection treatment that results in “zero” chlorine residual for any amount of time*

Tier 2 Public Notice

- System fails to maintain the minimum entry point disinfectant residual of 0.20 mg/L for more than 4 hours but maintains the minimum log inactivation requirements

Tier 3 Public Notice

- System fails to calculate and report minimum daily log inactivation
- System fails to record and report entry point daily minimum entry point disinfection residual

Operator training on log inactivation calculations and the regulatory requirements will be coming soon!

Giardia Inactivation Calculation Spreadsheet

Gina Kellett, Compliance Specialist, Northeast Region

Giardia is a parasite commonly found in surface water and, if consumed by humans, can cause intestinal illness. It's important to treat all drinking water from surface water sources prior to delivery and consumption by the public. The treatment effectiveness is calculated through log-inactivation.

Log-inactivation calculations use plant data (such as peak hourly flow rate, disinfection section volume, disinfection segment baffling factor, disinfectant residual, temperature, pH, contact time, etc.) to determine what percentage of Giardia cysts are inactivated by the utilized treatment. Since there are numerous factors involved in calculating log-inactivation of Giardia, it is noted that a change in these factors can affect the effectiveness of the treatment and therefore affect the log-inactivation. It is important that operators understand that these factors (temperature, pH, volume, etc.) can impact Giardia inactivation and use the calculations to establish a plan of action to prevent violations.

An Excel spreadsheet was developed to assist operators with their calculations by allowing them to input "real time" and "worst case scenario" plant data to see if Giardia log-inactivation is achieved. The spreadsheet can be found on DEP's webpage covering the Disinfection Requirements Rule at: <https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/Proposed-Disinfection-Requirements-Rule--.aspx>

To use the spreadsheet, the system operator needs to input the baffling factor for the treatment stage (disinfectant segment), the treatment stage name (disinfectant segment), the disinfectant used, the disinfect residual, pH, temperature, peak flow, and volume of the disinfection segment. This seems like a lot of information, but it is simply plugging in a few words and numbers. The calculations are completed by the spreadsheet.

The spreadsheet calculates the log-inactivation quickly and easily and is a useful tool to use multiple times during the day to make treatment adjustments and to anticipate potential issues by plugging in hypothetical operating numbers. The operator can input information for optimal plant operation, average plant operation, worst case scenario plant operation, and everything in between. It is also a useful tool to help the operator see how factors such as temperature can affect the log-inactivation when the plant is running normally. With free chlorine, as the temperature drops, and the water gets colder, the log-inactivation decreases. To be proactive and ensure that the treatment is effective, it's recommended that the operator plug different temperatures into the spreadsheet to determine at which temperature to set a low log-inactivation alarm and at which temperature a violation of the log-inactivation would occur.

Although operators can do all these calculations manually, it is recommended that they make use of the available spreadsheet. Manual calculations are more time consuming, and the calculations are subject to operator error. Additionally, manual calculations are less accurate and will always result in a lower Giardia inactivation than achieved due to the rounding of values. The spreadsheet does not round data,

and therefore provides more accurate calculations to allow the operator to know what parameters to maintain to provide the proper log-inactivation and avoid violations.

Revised Safe Drinking Water Permit Fees

Dawn Hissner, Operations, Monitoring & Compliance Division, Central Office

The recent regulatory updates in the Safe Drinking Water Program included revisions to fees for permit and monitoring waiver applications. Water systems have always submitted a fee with a permit or monitoring waiver application, but the fees had not been updated in decades. The fee revisions were included with the workload analysis and when combined with the annual fees, are expected to address the \$7.5 million gap in SDW program funding. *The revised permit and monitoring waiver fees were effective in August 2018 (when the regulatory revisions were published in the Pennsylvania Bulletin).*

The updated Monitoring Waiver Fees are based on the type of waiver requested and whether there have been changes in land use or potential sources of contamination near the monitoring locations.:

Waiver Type	<u>NEW WAIVER</u> Fee	<u>RENEWAL WAIVER</u> Fee if changes in land use or potential sources of contamination HAVE occurred	<u>RENEWAL WAIVER</u> Fee if changes in land use or potential sources of contamination HAVE NOT occurred
IOC Waiver	\$100	\$100	\$50
VOC Use Waiver	\$100	\$100	\$50
SOC Use Waiver	\$100	\$100	\$50
SOC Susceptibility Waiver	\$100	\$100	\$50

The updated Permit Fees are based on the population served and whether the application is for a new water system, a feasibility or pilot study or if the proposed modification is a minor or major change:

Population Served	<u>PERMIT FEE</u> for a New Permit, Major Change or Feasibility or Pilot Study	<u>PERMIT FEE</u> for a Minor Change
100 or less	\$300	\$100
101 – 500	\$600	\$250
501 – 3,300	\$1,000	\$500
3,301 – 10,000	\$2,500	\$750
10,001 – 50,000	\$5,000	\$1,000
50,001 – 100,000	\$7,500	\$2,500
100,001 or more	\$10,000	\$5,000

The recent regulatory updates also affected a few other permitting fees:

Permit Action	Fee
General Permit <i>(not to exceed)</i>	\$500
Permit Transfer	\$100
Operations Permit (new or amended)	\$50
Emergency Permit	\$50
NCWS* 4-log Disinfection Permit	\$50
New NCWS* Approval	\$50

*NCWS = Noncommunity Water System

A webinar on the new and adjusted fees will be held on January 8, 2019. See the specifics in the article on Annual Fees above.



We're so glad you asked!

Q: I own a small community water system and my certified operator is preparing to retire next year. Where can I find information about my responsibilities as an owner of a public water system as well as what to look for when hiring a new operator?

A: The Bureau of Safe Drinking Water maintains an Operator Certification web page that provides links to many documents that will be useful to you. This page can be accessed at: <https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/OperatorCertification/Pages/default.aspx>

Of particular interest to public water systems owners are two documents that can be found in DEP's eLibrary. The first document is titled "Drinking Water and Wastewater Systems Operator Certification Program Handbook" (391-2300-001). This document explains both the responsibilities of system owners as well as the responsibilities of certified operators. You can access the 'Handbook' by following this link: <http://www.depgreenport.state.pa.us/elibrary/GetDocument?docId=7430&DocName=DRINKING%20WATER%20AND%20WASTEWATER%20SYSTEMS%20OPERATOR%20CERTIFICATION%20PROGRAM%20HANDBOOK.PDF%20%20%3Cspan%20style%3D%22color%3Ablue%3B%22%3E%3C%2Fspan%3E> or by going to eLibrary at <http://www.depgreenport.state.pa.us/elibrary> and looking in "Technical Guidance Final Documents," then "Safe Drinking Water" for the document's title or number.

The DEP Safe Drinking Water Program is currently working on the design and delivery of training on many of the topics addressed in this edition of the Drinking Water News.

Please put some reminders on your calendar to check the following webpages for training updates and schedules:

Disinfection Requirements Rule

<https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/Proposed-Disinfection-Requirements-Rule--.aspx>

General Update and Fees

<https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/DrinkingWaterMgmt/Regulations/Pages/Proposed%20General%20Update%20and%20Fees.aspx>