

## 30<sup>th</sup> Anniversary of the Pennsylvania Safe Drinking Water Act (SDWA)

Lisa Daniels, Director, Bureau of Safe Drinking Water

This year marks the 30<sup>th</sup> anniversary of the Pennsylvania SDWA. Safe drinking water is vital to maintaining healthy and sustainable communities. Let's take a moment to remember the past, celebrate our accomplishments, and look to the future to the challenges that lay ahead.



**Remembering The Past:** Drinking water first came under regulation in Pennsylvania in 1905 with the passage of the Public Water Supply Law. The 1905 law was passed in response to widespread water-borne disease outbreaks associated with Cholera and Typhoid. These outbreaks were responsible for the deaths of thousands of people. Under the law, approximately 1,200 municipal and privately-owned water systems were regulated. The law covered about 20 contaminants for which the U.S. Public Health Service had established drinking water standards.

Under the 1905 law, Pennsylvania led the nation in waterborne disease outbreaks, averaging eight to ten outbreaks per year. From 1971 to 1980, Pennsylvania reported 20 percent of all U.S. outbreaks. The prevalence of *Giardiasis* outbreaks continued into the late 1980's.

Many of these outbreaks were attributed to unfiltered surface water and groundwater under the direct influence of surface water systems. More than 230 unfiltered water systems were in existence at the time, serving inadequately treated water to tens of thousands of people. Many smaller water systems also lacked adequate disinfection facilities for pathogen control. In addition, gaps existed within the coverage of the Public Water Supply Law, leading to several sectors of water systems not being regulated.

(Continued ...)

PA *Giardiasis* Outbreaks

Location	Date	Population	# Confirmed Cases
Bradford	9/1979	8,000	407
Houtzdale	11/1983	8,600	42
Pittston	12/1983	75,000	366
McKeesport	2/1984	45,000	349
Scranton	3/1984	175,000	49
Blossburg	5/1987	1,900	513
Clearfield	7/1988	14,900	172
Lemont	2/1991	3,000	13
TOTAL		331,400	1,911

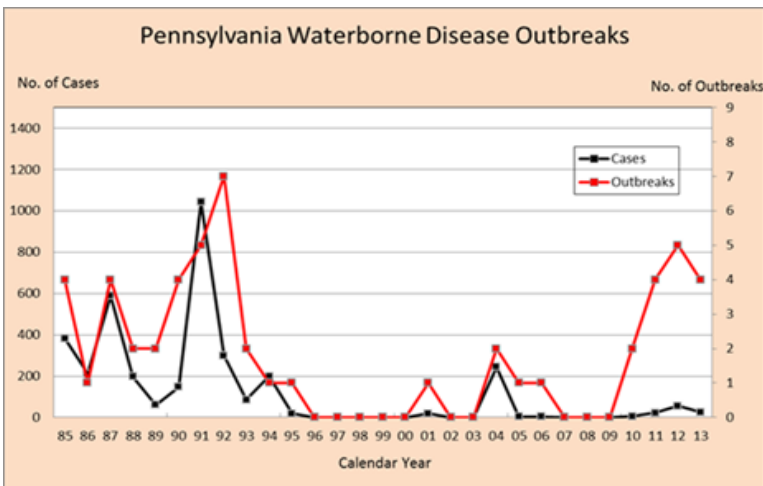
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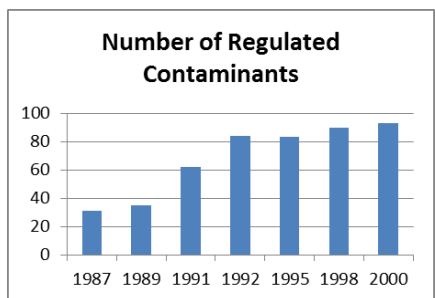
**Celebrating Our Accomplishments:** The Pennsylvania Safe Drinking Water Act (SDWA) was signed into law in 1984 in response to ongoing waterborne disease outbreaks. The act was passed to establish a comprehensive program to ensure safe drinking water through strengthened permitting and design standards, and enhanced surveillance, monitoring, compliance/enforcement and emergency preparedness requirements. The following year (1985), Pennsylvania promulgated the Safe Drinking Water regulations and was awarded primacy for the program under the federal SDWA, which passed in 1974.



There is much to celebrate since the passage of the SDWA. As a result of the Pennsylvania Filter Rule in 1989, and a series of revisions to the surface water treatment rules, the number of public water systems using unfiltered surface water sources decreased from a high of 277 systems in 1985 to just 13 systems in 2014. Pennsylvania has also seen a dramatic decline in

the health risks associated with waterborne disease organisms. Waterborne disease outbreaks are now a very infrequent occurrence in Pennsylvania's water systems.

With three decades and 16 new National Primary Drinking Water Regulations, such as the Lead and Copper Rule, the Disinfectants/Disinfection Byproducts Rules, the Ground Water Rule and the Revised Total Coliform Rule, the number of regulated contaminants has increased to 93.



Beginning in the mid 1990's, several programs were promulgated at the federal and state level to improve the technical, managerial and financial capacity of water systems. Through increased infrastructure funding, and the successful implementation of training, technical assistance and operator certification programs, water system sustainability and public health protection continue to be strengthened.

Today, nearly 9,000 Pennsylvania public water systems serve safe drinking water to more than 10.6 million people. Consumers, businesses and visitors are the beneficiaries of 30 years of dedicated service to public health protection and the delivery of safe drinking water.

**Looking To The Future:** While a great deal of progress has been made in public health protection, important challenges remain. Challenges for the next decade will include:

- Aging infrastructure
- Funding and resource gaps
- Increased risks to source water protection
- Resiliency, sustainability and emergency preparedness
- Complex health risks and simultaneous compliance issues
- Emerging contaminants, such as pharmaceuticals and *Legionella*

## Revised Total Coliform Rule

The Environmental Protection Agency published the Revised Total Coliform Rule (RTCR) in the Federal Register on Feb. 13, 2013. All public water systems will be required to comply with the RTCR beginning in April 2016. Until the new rule goes into effect, water systems are to continue complying with the current Total Coliform Rule (TCR).

DEP presented pre-draft proposed rulemaking to the Technical Assistance Center (TAC) for Small Water Systems on June 18, 2014. Information on the pre-draft proposed rulemaking and other information about TAC can be found at: [www.portal.state.pa.us/portal/server.pt/community/technical\\_assistance\\_center\\_tac/14016](http://www.portal.state.pa.us/portal/server.pt/community/technical_assistance_center_tac/14016). DEP expects to propose regulation to the Environmental Quality Board in early 2015. A public comment period will follow the publication of the draft regulations. The contact for this upcoming regulation is Jeff Allgyer (717-772-4015).

# Staying Safe Within a Confined Space

Renee Diehl, Compliance Assistance Specialist, SW Region

The Occupational Safety and Health Administration (OSHA) defines a confined space as: being large enough for a person to enter, having restricted means of entry or exit and not designed for continuous occupancy. In the water industry, meter pits, vaults, water tanks, pipe tunnels and chemical injection pits are all examples of confined spaces. Special care should be taken when working with confined spaces due to hazards such as:

- Oxygen Concentration – Either too much or not enough; the safe range is between 19.5 and 23.5 percent
- Explosive Gases or Vapors – These gases can be from natural breakdown of materials or a leaking gas main or gas tank
- Toxic Gases – Chemicals that might be stored within the confined space
- Physical Hazards – Equipment such as mixers or clarifier drives or falling due to changes in configuration of the confined space

Confined spaces are categorized into either “permit required” or “nonpermit required”. Permits to enter a confined space are required if it can be characterized by one or more elements:

- Contains or has the potential to contain hazardous atmosphere
- Contains a material that has the potential to engulf an entrant
- Has hazardous internal shape
- Contains any other recognized serious safety or health hazard



Confined spaces that are considered permit-required must first obtain a permit and all entrants must be trained before entering. Even if confined spaces are nonpermit required spaces, they can still pose serious safety risks and care should be taken when entering. All employees working in confined spaces should review and understand safety procedures; test and monitor for oxygen, flammability, toxicity or explosive hazards; use all required personal protection equipment; and maintain contact with a trained confined space attendant. For more information on training concerning confined spaces, check the Pennsylvania Department of Labor and Industry website for their latest course listings at: [www.dli.state.pa.us/portal/server.pt/community/training\\_calendar/21031](http://www.dli.state.pa.us/portal/server.pt/community/training_calendar/21031)

## Cyber Security for the Water Sector

EPA has released its letter to the White House related to cybersecurity within the water sector. See a letter from Director Peter Grevatt at: [www.water.epa.gov/infrastructure/watersecurity/upload/EO\\_13696\\_10-b-\\_EPA\\_response.pdf](http://www.water.epa.gov/infrastructure/watersecurity/upload/EO_13696_10-b-_EPA_response.pdf)

EPA will pursue a voluntary partnership model – rather than a regulatory approach – to manage cybersecurity risks at water utilities. If the voluntary partnership model is not successful in achieving widespread implementation of the Cybersecurity Framework or if warranted by a changing cybersecurity risk profile, the EPA can revisit the option of using general statutory authority to regulate cybersecurity in the Water and Wastewater Systems sector.



The AWWA guidance and tool, the Process Control System Security Guidance for the Water Sector and the supporting Use-Case Tool can be found at:

[www.awwa.org/resources-tools/water-utility-management/cybersecurity-guidance.aspx](http://www.awwa.org/resources-tools/water-utility-management/cybersecurity-guidance.aspx)

This is in keeping with EPA's elements of an active and effective protective program at a water utility and this requires a commitment to action as part of an all-hazards risk management strategy as recommended in ANSI/AWWA G430: Security Practices for Operations and Management.

# Routine Performance Monitoring

Jill Anderson, Compliance Assistance Specialist, SC Region

If your water system includes treatment for a specific parameter, your operation permit may contain a special condition requiring routine performance monitoring for that parameter using a field test method. Even if your permit does not contain a special condition, performance monitoring may be required under the Chapter 109 regulations. Performance monitoring serves many important purposes, including alerting the operator to potential problems with a treatment process, and/or identifying the need for follow up testing by an accredited laboratory. Nitrate, iron, manganese, fluoride, hardness and pH are examples of parameters that may need to be monitored.

Carefully review your operation permit to see if it contains special conditions requiring performance monitoring for a specific treatment process. During an inspection, your sanitarian will evaluate compliance with permit conditions. Failure to comply with a permit condition or to conduct all required monitoring are violations of the Chapter 109 regulations that could be documented during an inspection and may result in follow up compliance action.

Here are a few tips and questions to self-assess your routine performance monitoring:

- For any analytical procedure, it is essential to carefully read the method published by your instrument's manufacturer and follow each step exactly and without deviation. For example, does the method require a sample blank or reagent blank to zero the instrument? If there is a step that involves mixing after reagent addition, should you mix vigorously or gently? Does water temperature affect reaction time? For most methods, variations like these can make a significant difference in the final result.
- You should also follow the published method each time you conduct the analysis. It is easy to become complacent with a method that you use routinely. If you rely on memory to run the method, you might inadvertently omit a step, take a shortcut, or make some other simple mistake. Those mistakes may then be repeated each time you run the test, compromising the results. Are you confident that you are accurately following the published method for your performance monitoring?
- QA/QC is a key consideration with any analytical method. Analyzing a standard of known value can help verify the accuracy of your instrument; analyzing duplicate samples can show precision in your analytical technique. Following manufacturer recommended QA/QC procedures and frequencies helps ensure that your results are both accurate and precise. Do you have the recommended QA/QC standards for your instrument and method? When do they expire?
- Proper QA/QC also involves several issues that may seem obvious, but can be easily overlooked. Using clean glassware, using the correct reagents for the method and sample size, and confirming that reagents are not expired are fundamental for producing results that are valid and meaningful. Do your test kits include any expired reagents that should be properly disposed of and replaced?
- Documentation of your results is a crucial step for all performance monitoring. Use a logbook or other permanent record to document all analytical results. At a minimum, record the date, time, sample location, analyst's initials, and the result with units. Keep the logbook in a place that is easily accessible so that it can be reviewed by your sanitarian upon request during an inspection. Records of chemical analyses must be retained for a minimum of 12 years. Are you confident in your records?
- Finally, don't just collect data – use your performance monitoring results proactively to identify potential problems with the treatment process. Looking for trends in your results should give you an early warning of a minor problem, so you can take corrective action before it becomes a major issue. Using your results this way may help prevent a noncompliance situation at your water system. When is the last time you graphed your performance monitoring data to identify trends?

EXPIRATION  
DATE





# EPA-Approved Method for Free Chlorine Analysis

Justin Blashaw, Compliance Assistance Specialist, SC Region

Public water suppliers that use chlorine for disinfection are required to monitor for disinfectant residual in accordance with EPA requirements. To fulfill this obligation, free chlorine monitoring can be accomplished through grab samples analyzed on handheld and benchtop units or through continuous monitoring with inline analyzers. Regardless of the type of unit used, a common misconception concerning these monitoring requirements is that the instrument itself is EPA approved for reporting drinking water results. **It is actually the method used by the instrument that must be approved for regulatory analysis of disinfectant residual.**

When it comes to free chlorine analysis using a DPD (N,N-Diethyl-p-phenylenediamine)-based approach, the instrument is required to utilize Standard Method 4500-Cl G or equivalent as approved by EPA for drinking water compliance monitoring. While it is possible to perform DPD-based colorimetric analysis with other methods, only those specifically noted as being equivalent to SM 4500-Cl G are valid for regulatory reporting of free chlorine residuals at a public water supply (i.e., drinking water facilities).

One method that is often mistakenly utilized at drinking water treatment plants is EPA Method 330.5. This method is approved for reporting total chlorine residual at wastewater treatment facilities, but should not be used for chlorine monitoring in drinking water.



In addition to ensuring the method used by a particular instrument is EPA-approved for your specific application, it is critical that the reagents used for regulatory analysis are appropriate as well. Typically, the instrument manufacturer will provide clear guidance for purchasing DPD reagents for their specific models.

If you are unsure of the specific method your instrument uses, contact the manufacturer's technical support and request definitive information. Additionally, maintaining a copy of any documentation provided by the manufacturer will likely come in handy when your friendly neighborhood Sanitarian stops by for your next inspection.

As a reminder for systems utilizing continuous inline chlorine analyzers, both amperometric and colorimetric units are also subject to the QA/QC protocol outlined in EPA Method 334.0. In addition to recording the results of a comparative grab sample at least once every seven days, it is crucial that the instruments used are verified on a regular basis as well. The use of applicable primary and secondary standards is vital to ensuring the instrument used for comparative sampling is providing accurate measurements. Additional information regarding EPA Method 334.0 can be found at [www.epa.gov/safewater/methods/pdfs/methods/met334\\_0.pdf](http://www.epa.gov/safewater/methods/pdfs/methods/met334_0.pdf).

## Are You Sending Your Public Notices (PN) to the Right Places?

Tom Blair, Sanitarian Supervisor, NW Region

3906-FM-BSDW0484 8/2012  
Form  
COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF SAFE DRINKING WATER

**DRINKING WATER WARNING**

ESTE INFORME CONTIENE INFORMACION IMPORTANTE ACERCA DE SU AGUA POTABLE. HAGA QUE ALGUIEN LO TRADUZCA PARA USTED, O HABLE CON ALGUIEN QUE LO ENTIENDA.

\_\_\_\_\_ is experiencing operational conditions that compromise the water quality.

**BOIL YOUR WATER BEFORE USING**

On \_\_\_\_\_, operational plant conditions or deficiencies were identified at \_\_\_\_\_

These deficiencies include:

\_\_\_\_\_

There is an increased chance that the water may contain disease-causing organisms.

**What should I do?**

**DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.

We all know that public notices must be provided to persons served by the public water system, but there may also be a requirement to provide the notice to more than just your customers. This is especially true with Tier 1 Public Notices.

The Public Notification Rule requires the PWS to notify other recipients designated in their Emergency Response Plan (ERP). The recipient list includes government agencies including, but not limited to, the departments of Health and Agriculture. Community water systems that serve water to restaurants or other food/beverage facilities should be delivering Tier I PN notices directly to these facilities within 24 hours. The same is true for noncommunity water systems issuing Tier 1 PN.

ERP requirements include having the current contact names and numbers for these agencies and facilities readily available in case a public

notice needs to be issued, including contacts for local health department offices if applicable. These agencies should be receiving notices directly from the water system. Any notice that DEP sends to the Pennsylvania Emergency Management Agency should be considered a back-up or secondary notice.

# Cross-connection Control/ Backflow Prevention Corner

Steve Flannery, Compliance Assistance Specialist, SE Region

## Editor's Note:

This is the third in a series of articles exploring the subject of cross-connection control and backflow prevention.

This installment in the series on cross-connection control and backflow prevention explores the importance of a Cross-connection Control Plan. The examples presented in this article are not based on any actual occurrences; they are used to explain what could happen under specific conditions which may be present in your water supply system.

## Scenario Part 1:

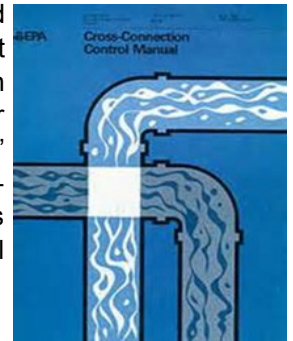
One of your customers is getting ready for work and, as they turn on the bathroom faucet to brush their teeth, they notice that the water coming out of the tap is clear for a few seconds and then changes to a white foamy substance which has a slight chemical odor to it. They turn off the faucet and think “what was that?” The telephone at the water system starts ringing a little while later.

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

With that definition in mind, the primary objective of the Cross-connection Control plan and its associated regulations is to protect your public water supply from actual or potential sources of contamination. It is in your best interest to provide the highest level of protection possible for your water supply. The best place to start is by taking a thorough and detailed look at your public water supply and actively seeking out and addressing any cross-connections or potential cross-connections which may exist in your distribution system. 25 Pa. Code Chapter 109.608 has been in effect since Dec. 8, 1984 and states that “A public water system may not be designed or constructed in a manner which creates a cross-connection.” This part of the Safe Drinking Water regulations is something that your sanitarian will be asking you about during routine complete inspections. So, if you don’t already have a Cross-connection Control Plan for your system, now would be a good time to start working on one. And if you do have a plan, now would be a good time to review and update it if necessary.

This regulation was put into effect 30 years ago, and a number of water systems were designed and constructed prior to its inception. If well-operated, these potential problems may not have made themselves known to you, but given time and the right setting they may bite when you least expect it. Seeking out and addressing those potential problems now before they have a chance to cause harm is a good proactive approach that your customers will welcome.

The DEP Public Water Supply Manual Part VII – *Cross-connection Control/Backflow Prevention* can be found at [www.elibrary.dep.state.pa.us/dsweb/Get/Document-47501/383-3100-111.pdf](http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-47501/383-3100-111.pdf). It provides the information necessary for any water system to establish an effective cross-connection control program. EPA also created a *Cross-connection Control Manual*, EPA ID: EPA 816-R-03-002, which can be found at [www.epa.gov/safewater](http://www.epa.gov/safewater). You can also reach out to other water suppliers in your area which have implemented a Cross-connection Control Plan for help in creating your own. As most water treatment plants are unique, your final plan may include items not covered in other systems’ plans due to the fact that certain things may not apply to your system where they apply to another system. Your final plan will depend on what you find once you start looking at the situations unique to your system. Don’t forget to contact your regional or district DEP office for additional guidance on the completion of your plan.



## Scenario Part 2:

Here’s a little more scenario information that should lead to the potential issue to be addressed. You recall hearing a news report the night before the water system’s phone started to ring. It was about fire truck activity in your water system’s service area. The activity was fairly close to an industrial park that has several businesses that work with various chemicals. A fire had broken out in one of those facilities. Think how this could factor into the situation.

*Continued ...*

Now let's look at some of the situations you should look for when surveying your system for cross-connections. You first want to take a close look at your most recent distribution maps and identify locations where utilities (gas, sewer, storm sewer, etc.) cross-over one another. These locations are where you have the most control in correcting problems and providing protection to your water lines. Your water mains should always be located above any sewer or other utility lines.

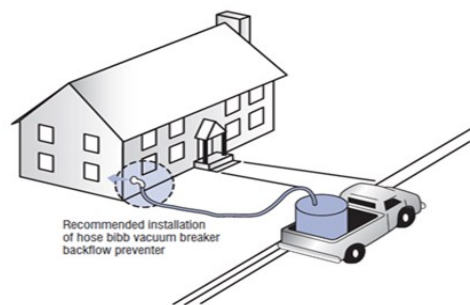
Next identify any commercial, industrial or institutional facilities which may work with chemicals or other fluids from which your water supply should be protected. These will be identified as high hazard service connections, and given the highest level of protection. All other service connections (such as residential, schools, churches and restaurants) will be identified as low hazard and will require protection that is less complicated than the high hazard devices. The appropriate type of cross-connection control devices is based on the level of hazard involved at the service connection and whether or not the service connection requires simple isolation protection or more involved containment protection. Isolation protection consists of protecting a building or other service connection from the water system where backflow prevention will effectively cut-off or "isolate" the service connection from the water mains. Containment protection consists of protection inside the building at all water outlets or connections. This effectively protects the users inside the building and all components that are connected to the water piping in the building.



The next item to keep in mind when conducting a survey for cross-connections is whether or not the cross-connection is actual (always present) or potential (not always present). The most common location for potential cross-connections will be found at hose bibbs where garden hoses may be left connected without any protection installed. Actual cross-connections should be easier to identify and address. Potential cross-connections, on the other hand, are possible at any location at any time in your water system, and as such more difficult to prevent. The other thing about potential and actual cross-connections is that actual cross-connections can have both back-pressure and backsiphonage backflow incidents, while the potentials can only have backsiphonage backflow incidents occur at their sites.

Another set of terms that you will see when identifying your cross-connections is direct and indirect. Direct cross-connections are the actual (or always present) type. Indirect cross-connections are associated with the potential type. They may be harder to find as well, which is why it's good to have an open line of communication with the facilities you need to inspect to find out what activities they conduct, and when, that could cause a cross-connection. For instance, a facility may only conduct an activity such as golf course irrigation or sprinkler system testing in the summer due to weather conditions.

When determining the appropriate level of hazard at a service connection, it is important to determine whether a pollutant or contaminant is in use at that facility. Pollutants are associated with low hazard facilities and will not lead to a potential health threat. Contaminants will cause a potential health threat to the water supply users. A contaminant could be a hazardous/poisonous chemical which is being used in an industrial process. When in doubt, consult with Material Safety Data Sheet or call the manufacturers of the material in question.



### Scenario Part 3:

Now back to our scenario. A couple of things coincided to create the conditions for the situation to occur. The first was a fire that required the use of fire foam to effectively extinguish the blaze. In all the chaos of the situation, some construction contractors excavating between your customer's home and the site of the fire hit a water line while the fire was being fought causing a backflow situation. The fire foam was sucked into the water mains prior to the problem being identified and was subsequently suctioned into a section of the water distribution system. This led to the water system having to issue a Do Not Use water warning, which remained in effect until the situation was corrected and the system cleared.

Again, this scenario is not based on any reported incident, although this could happen anywhere. It's something to think about and possibly get things moving towards the creation of a Cross-Connection Control Plan for your system to prevent something like this from ever happening in your water system.

**Previous Topic in the Series— Part 2: Breaking Down Backflow**

**Up Next - Part 4: Selection of Devices and Assemblies**

"We never know the worth of water till the well is dry."

- Benjamin Franklin

**Effective July 1, 2014, the DEP 24-hour toll free Emergency Response number for the Southcentral Regional Office is: 866-825-0208.**



**If you are located in Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry or York counties, this is the ER number you should use.**

**\* Please take a few minutes to update your Emergency Response Plans, cell phone contact numbers, etc. and to post the new number throughout your plant.**

## NSF Certification of Drinking Water Chemicals

Tom Blair, Sanitarian Supervisor, NW Region

25 Pa. Code Chapter 109.606 requires that chemicals used in water treatment must be acceptable to DEP. ANSI/NSF Standard 60 certification is a critical component of this requirement. The National Sanitation Foundation (NSF) is an independent, not-for-profit organization that develops product standards and certifies products used in the water and food industries. Even though a product may have the same chemical name as an NSF certified product, it does not make that chemical acceptable for drinking water use. For example, sodium hypochlorite used as a cleaning product is not manufactured to the same standards as sodium hypochlorite used to disinfect drinking water.

Chapter 109.606 also requires that the NSF mark/label be placed on each container of the chemical. A paper copy of the NSF certification is only acceptable for bulk shipments. Just because the supplier provides a paper certification does not mean the supplier is authorized to repackage the bulk chemical into smaller containers. Part of the NSF certification is a verification of how the material is repackaged. A supplier must be authorized to repackage for each container size in which he supplies product. A distributor that is certified to supply five gallon containers is not automatically authorized to supply material in one gallon containers. Specific repackaging requirements are why each container must bear the NSF certification mark. A water system should have readily available proof that the chemicals they used meet DEP regulations, so the chemical supplier should be supplying that proof with each delivery. Also remember that just because a product was certified in the past does not mean it is still certified today. NSF certifications expire and it is important for a water system to verify that a chemical's certification is still valid.

Chemical suppliers can obtain certification through Underwriters Laboratories (UL) so if the container is marked UL certified to ANSI/NSF 60 that is also acceptable. If a container does not bear any type of NSF seal, the material is likely not properly NSF certified. Chemical suppliers may also supply a Material Safety Data Sheet (MSDS) for a chemical or show an EPA registration on the container, but neither one is a substitute for NSF certification marked on the container.

If you have questions about a product's certification, look at the NSF website ([www.NSF.org](http://www.NSF.org)). If a product is certified through UL, it will show on the UL website ([www.UL.com](http://www.UL.com)), not the NSF website. See the article on page 10 for ideas on creating a chemical delivery protocol for your water system.



An NSF mark/label should be visible on every chemical container.

## CCR Certification Forms Due by Oct. 1

The CCR Rule requires a community water system to certify to DEP that the CCR has been distributed to its customers, and that the information is correct and consistent with the compliance monitoring data previously submitted to the department. CCRs are required to be sent no later than July 1 of each year and the certification must be sent to DEP within three months of CCR distribution each year.

Community water systems are reminded that CCRs and CCR Certification Forms should be submitted to the local DEP office. A CCR certification form can be found at [www.elibrary.dep.state.pa.us/dsweb/Get/Document-99551/3900-FM-BSDW](http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-99551/3900-FM-BSDW).



# Protecting a Small Community Water System Well

Cathy Port, Source Water Protection Coordinator, SC Region

## **Regional Source Water Protection Coordinators**

### **NWRO - 814-332-6410**

#### **Christopher Berkey**

(Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren Counties)

### **SWRO - 412-442-4212**

#### **Tom McCaffrey**

(Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland Counties)

### **NCRO - 570-327-3422**

#### **Mark Stephens**

(Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union Counties)

### **SCRO - 717-705-4913**

#### **Cathy Port**

(Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York Counties)

### **NERO - 570-830-3101**

#### **Andrew Augustine**

(Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming Counties)

### **SERO - 484-250-5131**

#### **Kevin Smith**

(Bucks, Chester, Delaware, Montgomery and Philadelphia Counties)

The recent chemical spill that cut off water supplied to more than 300,000 people in West Virginia for several days has a lot of water systems wondering what they should do to protect their drinking water source from contamination.

If you operate a small community water system with a ground water well, here are some small but effective steps that other small community water suppliers have taken to protect their investment, preventing the potential need for costly treatment:

- Make sure the well is properly constructed with a raised casing and a locking sanitary seal (vermin proof) cap.
- Keep at least a 100 foot buffer around the well clear of any potential source of contamination – pets, vehicles, lawn and maintenance chemicals, liquid fuel storage, etc.



- Make sure the local municipal manager and emergency responders know where wells are located, so they can make sure accidental spills are cleaned up promptly and properly in a way that protects the drinking water aquifer.
- Use a brochure, bill insert or newspaper article to educate residents on what they can do to protect drinking water such as:
  - Taking advantage of drug takeback days and household hazardous waste collections (tell them when and where);
  - Disposing of used motor oil at a collection center (tell them where);
  - Maintaining septic systems and home heating oil tanks (tell them how).
- Know about potential contaminants in the wellhead protection area and conduct periodic inspections to be sure there are no contaminant releases.

If you would like to learn more about protecting your drinking water sources, contact your regional Source Water Protection Coordinator.

# Treatment Chemical Delivery Steps to Consider

Ed Chescattie, Capability Enhancement Chief, SC Region

As the article on page 8 explains, it's important to use properly certified chemicals at your water treatment facility. Once you've carefully placed an order for specific chemicals with a reputable supplier and delivery is scheduled, consider the benefits of implementing steps similar to the following:

1. Contact the chemical supplier to request the name of the delivery driver, and verify specifications of the scheduled delivery...chemical type, percent strength, overall quantity, individual container sizes, ANSI/NSF certifications, etc.
2. When the truck arrives at the gate, verify the driver's credentials.
3. Before the chemicals are unloaded, carefully review all paperwork, MSDS sheets, and chemical packaging to verify that what is in the truck is exactly what you ordered and is ANSI/NSF certified.



A water system site-specific standard protocol should be developed which clearly outlines steps for accepting a chemical delivery at that site. It may also include conducting testing of certain chemical products if it's feasible to do so in a timely manner using on-site lab/testing capabilities.

Even if you've become familiar with a particular chemical supplier and delivery driver, don't assume that what they are delivering is consistent with what you ordered. Mistakes can happen; products can change. Implementing the above steps should help insure that you identify problems before they result in the introduction of the wrong chemical into your treatment building and water supply.

## We're So Glad You Asked



*DEP receives a lot of good questions from water system operators and officials, so we thought we'd share some of the most common questions in hopes of helping more water systems and certified laboratories.*

### Q: Why is sample chain of custody so important?

A: When a sample is taken, the documentation for the sample type, the time, location and other information is listed on the chain of custody form. It is very important that this information is accurate since what is listed on the chain of custody is expected to carry over to the official sample analysis and ultimately to the sample file. The need for accuracy is one reason each person who handles the sample signs the chain of custody form indicating the information is correct. If there is a mistake on the chain of custody or if necessary information is missing, it is very difficult to justify changing it later. An accurate chain of custody is very important whether a system collects its own samples or if the laboratory collects the samples.

### Q: Is it true that DEP's Emergency Response phone number has changed for the Southcentral Region?

A: Yes! Effective July 1, 2014, the 24-hour toll free DEP Emergency Response number for Southcentral Region is: 866-825-0208. If you are located in Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry or York counties, this is the ER number you should use. Please take a few minutes to update your ER Plans, cell phone contact numbers, etc.

### Q: My water system has received numerous "paperwork" violations for things like late reports and missed monitoring. Why is this a big deal?

A: What you believe are minor paperwork violations are significant problems. Missed monitoring is definitely not a "paperwork" issue. If you fail to monitor during specified periods, you have no way of knowing if the water is safe or not. Since you didn't monitor correctly, you are required to issue a Tier 3 Public Notice to your customers.

Late reports create a lot of unnecessary work for sanitarians and the water system. Failure to submit the monitoring results on time causes a violation to be automatically generated. If the late report shows any type of MCL exceedance, action to resolve the problem is delayed. Other problems that can result from late reporting are increased monitoring frequencies and possible enforcement actions and penalties.

### Q: My water system recently changed operators. How do I notify DEP?

A: Per 25 Pa. Code Chapter 302.1202(c), Administration of the Water and Wastewater Systems Operators' Certification Program, "A system owner shall notify the Department in writing within 10 calendar days of the addition, loss, change or replacement of an available operator. The owner shall provide at that time the name, client ID, and class and subclassification of all operator changes."

Available Operator Report updates can be made at [www.depweb.state.pa.us/portal/server.pt/community/drinking\\_and\\_wastewater\\_systems/21156](http://www.depweb.state.pa.us/portal/server.pt/community/drinking_and_wastewater_systems/21156). Then select "Change of Available Operator Form" from the sidebar menu.