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The 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:

- EPA Method 334 Compliance
- Consideration When You Change Operators
- 2019 Lead and Copper Monitoring
- Emergency Response Plan Updates
- Laboratory and Water Supplier Notification Requirements

Your feedback and suggestions are always welcome. You can sign up to receive this newsletter electronically by contacting the editor at jonardone@pa.gov.

Is Your Water System EPA Method 334.0 Compliant?

Sabrina Haydt, Water Program Specialist, Central Office

In September 2009, the Environmental Protection Agency (EPA) published Method 334.0: Determination of Residual Chlorine in Drinking Water Using an On-Line Chlorine Analyzer (Method 334.0). The full method, which can be found on [EPA's website](#) by searching for document 815B09013, is intended for use by drinking water facilities for compliance with daily monitoring and

analysis of residual chlorine (free or total). Essentially, it is a quality control procedure used to ensure that results obtained for residual chlorine at drinking water systems are accurate and precise.



Does it apply to my water system?

Pennsylvania drinking water systems are expected to follow Method 334.0 if they use a handheld, benchtop or on-line chlorine analyzer for any of the following: compliance monitoring at both the entry point and in the distribution system; monitoring used to obtain results for calculating log inactivation; or chlorine monitoring required as part of a permit condition. In short, all community water systems and any noncommunity water system with surface water or 4- log treatment are required to follow Method 334.0.

How does my water system become Method 334.0 compliant?

Method 334.0 applies to both the analyst conducting chlorine monitoring and analysis, and the analyzer used to obtain results. The following portions of the method are required for a water system to become compliant with Method 334.0:

- The field sampler initial demonstration of capability (Method 334.0 Section 10.1.2) is required for any individual who conducts chlorine analysis at the water system. (DEP FORM ID: 3900-FM-BSDW0544)
- The initial calibration verification (Method 334.0 Section 10.1.1) is required for any handheld or benchtop analyzer used for chlorine analysis or used for comparison grab sampling within Method 334.0. (DEP FORM ID: 3900-FM-BSDW0545)
- Routine calibration verifications (Method 334.0 Section 11.1) are required quarterly for any handheld or benchtop analyzer used for chlorine analysis or used for comparison grab sampling within Method 334.0. (DEP FORM ID: 3900-FM-BSDW0545)

Note: The next two requirements are applicable to on-line analyzers only.

- An instrument initial demonstration of capability (Method 334.0 Section 10.2.2) is required for any on-line instrument used for compliance monitoring and analysis or to obtain results used for calculating log inactivation. (DEP FORM ID: 3900-FM-BSDW0545)
- Routine grab sample comparisons are required, at a minimum of once every seven days, between a Method 334.0 compliant handheld or benchtop analyzer and any on-line analyzer used for compliance monitoring and analysis or to obtain results used for calculating log inactivation. (DEP FORM ID: 3900-FM-BSDW0545)



In addition to the required portions of the method specified above, the use of secondary standards with the handheld or benchtop analyzers used for chlorine analysis and comparison sampling is

recommended by Method 334.0 (Method 334.0 Section 11) and highly encouraged by PA DEP (DEP FORM ID: 3900-FM-BSDW0547).

How do I document my water system's compliance with Method 334.0?

PA DEP has developed six forms for the five required and one recommended portions of Method 334.0 described above. These forms are available in DEP's eLibrary under [Safe Drinking Water forms](#). The DEP form numbers are listed next to each applicable portion of the method in the section above, or can be entered into the search function of eLibrary to be taken directly to each document.

What happens if my water system is not Method 334.0 compliant?

Since residual disinfectant concentration is an accreditation by rule parameter, it is required to be analyzed in accordance with analytical techniques adopted by EPA or approved by DEP, as specified in Chapter 109.304(a). Therefore, if DEP staff conduct an inspection at a water system that should be Method 334.0 compliant and find that it is not, they will document the violation on an inspection report and in a notice of violation. To avoid accruing violations, make sure that your water system begins following ALL REQUIRED PORTIONS of Method 334.0 now, if you haven't already done so.

Notification Requirements

Sheryl Martin, Compliance Assistance Specialist, Southcentral Region

Laboratory Requirements: Labs are to notify the public water supplier by telephone *within one hour* of determination of analysis results whenever a reportable drinking water sample result meets ANY of the following conditions:

- An individual sample result exceeds a Maximum Contaminant Level (MCL), Maximum Residual Disinfectant Level (MRDL), Performance Level Requirement (PLR), or Action Level (AL) value. An individual sample result requires the collection of a check or confirmation sample.
- Any check sample is total coliform-positive.
- Any sample collected by a seasonal system as part of a DEP-approved start-up procedure is total coliform-positive.
- Any source water sample collected under the Groundwater Rule is E. coli-positive.
- This notification is required regardless of the sample type (raw, entry point, distribution) or sample location.



If the lab cannot reach the water supplier *within one hour*, then the lab needs to contact DEP *within two hours* of determining the results. Labs also need to provide written notification to DEP within 24 hours of determining the results. The [Laboratory Notification Form for Drinking Water Results](#) can be found in DEP's eLibrary.

Remember, the laboratory conducting the analysis is responsible for all reporting requirements, including the 1-hour and 24-hour notifications to the water supplier and DEP.

Public Water Supplier Requirements: Public water suppliers need to contact their local DEP office *within one hour* of their lab notifying them any time a sample result meets any of the conditions noted above. (To allow the lab to provide prompt notification, it is important that water suppliers provide up-to-date after hours contact information.) Upon contacting DEP, your sanitarian can provide you with time-sensitive specifics on what you need to do and actions your system needs to take.

To help determine which situations require one-hour reporting, DEP has developed a poster for [Surface Water Systems](#) and a poster for [Ground Water Systems](#).

Notification Requirements to DEP - Who, What, When, Why, and How

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

Within the last few months, DEP staff have noticed an increase in the number of instances where labs have failed to properly notify water suppliers and DEP of sample result exceedances. As noted above, accredited labs are required to contact water suppliers within one hour (or contact DEP within two hours if the water supplier is unavailable) and provide written notification to DEP within 24 hours of any individual result that exceeds a compliance value or requires the collection of a confirmation or check sample (please read the Notification Requirements article for the complete list of conditions). This applies to all accredited and registered environmental labs for all reportable drinking water sample results.



Laboratories are required to be aware of the conditions that trigger 1-hour, 2-hour, and 24-hour notification, and act appropriately when any individual result meets any one of these conditions. Remember, the 24-hour notice is separate from the other reporting requirements and is required regardless of whom the lab initially contacted (the water supplier, DEP, or both).

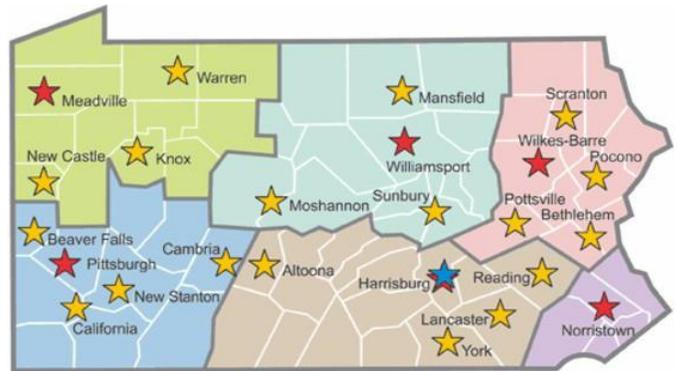
There continues to be confusion about the information that must be reported to DEP, especially regarding the analysis date. There are several steps involved in verifying a valid sample result for drinking water compliance purposes, and some of these steps take more than one day. To maintain their accreditation, labs must retain records detailing when the analysis is begun, when the analysis is completed, when the result is read and when the result is verified. Corrective actions, including check samples, are required within specific time frames that are based on the date/time when the result is

verified. Therefore, labs must provide specific information when reporting a result that meets the conditions triggering 1-hour, 2-hour and 24-hour notifications.

This information includes:

- the PWS ID# and name of the public water system the contaminant name and the analysis result
- the sample type and sample location
- the dates and times that the sample was collected and analyzed the Lab ID# and name of the lab that conducted the analysis
- the name and telephone number of a contact person at the laboratory the steps taken by the laboratory to contact the public water system

Accredited laboratories are also required to develop (and annually update) a standard operating procedure that includes the after-hours contact information for each of DEP's regional offices and that describes the steps undertaken by the laboratory when a drinking water result meets one of the conditions that trigger 1- hour, 2-hour and 24-hour notification.



To assist labs in reporting all required information correctly, DEP created a [Laboratory Notification Form for Drinking Water Results](#). The form has been revised in conjunction with the Lab Accreditation Program to include additional fields for reporting the various analysis dates and contact information for the lab and water supplier. Labs are encouraged, but are not required, to use this form but *any lab not using this form must ensure the same information noted on the form is reported to DEP*.

Water suppliers are also required to notify DEP within one hour of being notified of any individual result that exceeds a compliance value or requires the collection of a confirmation or check sample. All the information provided by the lab about the result should be conveyed by the water supplier to DEP.

The 1-hour (and 2-hour) notifications are made via a phone call because the lab (and water supplier) needs to speak to a person and not simply leave a voice mail message. The 24-hour notice may be done via a fax, a mailed paper copy, or *if approved by the local DEP office*, as an email attachment. If the 24-hour notice is submitted through email, the lab should send the message with a read receipt confirmation. And, if the email generates an out-of-office reply, the lab needs to fax the information to the appropriate DEP office.

All of these seemingly duplicate notifications are necessary to (1.) ensure that both the water supplier and DEP are aware of the results, (2.) ensure DEP has all necessary information when consulting with the water supplier so that all corrective actions are taken within the required time-frames, and (3.)

ensure that public health is protected.

Key Considerations When Your System Has a Change of Operator

Jill Anderson, Compliance Assistance Specialist, Southcentral Region

Any time a water system has a change of operator for any reason, there are several key things for system personnel to keep in mind. Probably most important is the official notification in writing to DEP. According to 302.1202(c) of the Chapter 302 Regulations for the 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."

Written notification to DEP is accomplished by making the applicable changes electronically on the [Change of Available Operator form](#). Information needed when completing this online form includes the water system name, PWSID, county, the name and client ID of any operators gained or lost, and the effective dates of any changes.

In addition to the required notification to DEP, there are few other important things to consider when experiencing a change of operator. For one, it is recommended that the new operator reach out to the local DEP field office to speak with the sanitarian assigned to the water system. This is a great way to open the lines of communication, and to directly provide updated contact information to the local office.



Also, a change of operator is going to trigger changes to various documents at the water system. It would be the perfect opportunity for water system staff to dust off their Operation and Maintenance (O&M) Plan, Emergency Response Plan (ERP), Standard Operating Procedures (SOPs), and any other important documents for review. In addition to updating operator and contact information, it would be an appropriate time to thoroughly review these documents to make sure they contain the most up-to-date system information as well.

Finally, consider whether any changes need to be made to permissions for electronic reporting. If the departing operator had access to the DEP Drinking Water Electronic Laboratory Reporting system (DWELR), it is important that someone else at the water system takes over electronic reporting responsibilities. It is NOT acceptable to simply continue to use the user name and password of the operator who left. Each person who uses DWELR is required to have his/her own

log-in credentials. For information on how to obtain DWELR access, refer to the [DWELR website](#). Further, consider removing DWELR access for any exiting operators. To protect data integrity, it is imperative that only current water system personnel have electronic reporting permission. Contact the DEP's Bureau of Safe Drinking Water, PADWIS Section, at 717-772-4018 for instructions on how to remove DWELR permissions.

Preparing for 2019 Lead and Copper Monitoring

Jaime Estep, Compliance Assistance Specialist, Southwest Region

2018 is a great time for community and nontransient noncommunity water systems to begin preparing for the next triennial round of Lead and Copper monitoring. Monitoring under the Lead and Copper Rule (LCR) can be a large undertaking and preparing now can save water systems a lot of time, frustration, and possibly money down the road.

LCR Sample Site Location Plan

Now is a great time to begin reviewing and, if needed, updating LCR Sample Site Location Plans. Complete plans should have at least the number of locations required for initial monitoring, but extra locations are always a good idea. All locations should be identified as Tier 1 locations. Systems that do not sample all Tier 1 locations should have completed a material survey of the entire distribution system and have justification as to why Tier 1 locations were not sampled. LCR Sample Site Location Plans should also include locations to monitor water quality parameters (WQPs). The plan should include at least the minimum number of WQP locations required during initial monitoring.

In order to develop an accurate LCR Sample Site Location Plan, systems should conduct a thorough and complete materials evaluation of the distribution system. The materials evaluation should be updated at least annually to document any changes in the distribution system such as line replacement projects, information collected during service connection inspections, etc. The materials evaluation is also needed in the event that a system is required to complete lead service line replacement.



Sampling Literature

Once you have your sampling plan complete, you should begin organizing all the materials needed to sample and report the sampling results. When water suppliers allow residents to perform sampling, they are required to provide customers with instructions on how to properly sample for lead and copper.

When samples are collected and the results are analyzed, water suppliers are required to notify customers of the lead sample results. Consumer Tap Notices must be distributed to persons served by the water system at the sampled sites within 30 days after the system learns of the tap monitoring results. Copies of these notices along with the certification form are due to the DEP within three months of the end of the monitoring period.

Public Education

When sampling results exceed the action level for Lead, public water suppliers are required to issue Public Education (PE). Public water suppliers can benefit greatly by developing a plan for initializing the PE process.

Water suppliers should become familiar with the PE requirements and begin gathering templates and other information needed to issue Lead PE. Water suppliers should have readily available contact information for the local board or department of health and records of all schools, childcare centers, preschools, Women, Infants and Children or Head Start Programs, hospitals and medical clinics, pediatricians, family planning clinics and welfare agencies located within the water system's service area.



Water suppliers should have plans in place for how they will include mandatory PE language on or in billing statements at least quarterly, instructions for posting PE on the water system's website (if required) and a process developed for issuing a press release to newspapers, radio and television stations (if required). Water suppliers will also need a plan to implement at least three of the following activities: public service announcements, paid advertisements, public area information displays, emails to customers, public meetings, household deliveries, targeted individual customer contacts, or direct distribution of education materials to all multifamily homes and institutions.

Water suppliers must submit copies of written PE materials to DEP prior to delivery and deliver PE materials to all customers within 60 days of the end of the monitoring period. Suppliers must then submit a letter to DEP demonstrating compliance with the PE program requirements within ten days.

Due to the many facets of the PE program process, it is important that certified operators, managers, and board members alike understand the requirements and assist with implementation. Having a plan that establishes a process, allocates responsibilities, and estimates cost will greatly benefit water suppliers in the event that PE must be issued.

The DEP Bureau of Safe Drinking Water has created a [Lead and Copper Rule webpage](#) that includes templates for sample site location plans, sampling procedures, customer tap notices, and public education.



Is Your Emergency Response Plan Up To Date?

Tina McCafferty, Compliance Assistance Specialist, Northcentral Region

All community water systems are required to develop and maintain an Emergency Response Plan (ERP) for their system. Back in the early 2000s, DEP developed an [ERP template](#) that can be used to help water systems formulate their plans.

We want to remind our community water suppliers that they are required to review and update ERPs at least annually, and as necessary, to reflect changes to communication procedures and contact information. As we are all aware in this technology-driven society, more and more contact information seems to be changed or added to our lives, such as phone numbers, addresses, and email addresses, so it is likely that you will find some numbers or contact information to be out of date.

One priority for public water supply Emergency Response Plans is a quick “go-to” list of customers that are considered “Sensitive Sub-Populations”. Examples of these include schools, day care facilities, and hospitals, just to name a few. These groups are prioritized because customers consuming the public drinking water at these establishments are considered more vulnerable to exposure to hazards or because their immune systems are either not fully developed due to age, or are compromised due to illness.



As a nation, there is nothing we hold nearer and dearer to our hearts than our children. In recent years, it has become evident that there are numerous childcare facilities that are serving a large enough population of children that they would be deemed a public water supply. Are these children drinking water that is properly treated to protect them from waterborne diseases? Is the facility being regulated by DEP to ensure the health and safety of children?

DEP is working with the Pennsylvania Department of Human Services (DHS) to identify which daycare facilities in Pennsylvania are served by public water supplies and which systems rely on private wells. Using the DHS list of certified childcare providers, DEP is sending out surveys to the facilities asking questions about the water used at their establishment. One of the questions on the survey asks the facilities if their water is supplied by a local or municipal water system and asks them to attach a copy of their water bill or some other confirmation of water service to their address. So, we wanted to let community water systems know that they may be getting calls from child care providers, or the owners of the property if it is leased, asking for confirmation that you provide water service to their facility’s address. The DHS list of all [Certified Child Care Providers in Pennsylvania](#) can be a valuable tool for identifying these sensitive subpopulations in your service area.





We're so glad you asked!

DEP receives a lot of good questions from water system operators and officials, so in each edition of our newsletter, we share some of the most common questions we receive in hopes of helping more water systems and certified laboratories.

Q: I thought I could deliver my CCR electronically, but my sanitarian told me that I couldn't just post it on our community website. She said I had to use a "direct URL." What does that mean?

A: Community water systems are required to "directly deliver" their Consumer Confidence Reports (CCR) to their customers. An electronic option that meets this requirement is a direct URL, or a web address which takes customers *directly* to the CCR without additional mouse clicks. A direct URL must be easy to type (such as www.systemname.com/2017CR) and may be provided to customers via a statement on the water bill, a bill insert, or a community newsletter. It may also be provided via email. A URL that sends customers to a general community webpage does *not* meet the direct delivery requirement, since customers would then need to search that webpage to find the CCR. Paper copies of the CCR should be available on request for individuals with limited internet access. *(Important reminder: Whether mailing the CCR or using electronic options, it must be directly delivered to your customers and to your local DEP office by July 1.)* You can learn more about [CCR Delivery Options](#) on EPA's website.

Q: Our water system has been receiving a lot of telephone calls and emails lately asking us to confirm that we provide service to a specific address in our service area especially relating to child care facilities. What's going on?

A: DEP is working with the Department of Human Services (DHS) to ensure that all child care facilities in the commonwealth are served by safe water. If a child care facility can produce a water bill with their address shown as the service address, DEP and DHS are assured that their water supply is safe and regulated. When a child care facility leases space and does not receive an actual water bill, DEP has recommended that the facility owner contact their water supplier to obtain written confirmation, such as an email, that their facility is supplied water by a regulated public water system. This written confirmation from you, their water system, assures DEP and DHS that the facility is receiving water from a regulated supplier.