

## Loss of Positive Pressure (LOPP) Situations and Contamination Risks

Jill Anderson, Compliance Assistance Specialist,  
Southcentral Region

The Winter 2014-2015 edition of *Drinking Water News* included an article titled “Important Points to Consider When Evaluating Potential Loss of Positive Pressure (LOPP) Situations in Your Distribution System.” This follow-up to that article will address determining whether a loss of positive pressure (LOPP) situation involves a high risk of contamination.

Chapter 109.701(a)(3)(iii)(G), requires public water suppliers to report to DEP within one hour of discovery of “a situation that causes a loss of positive water pressure in any portion of the distribution system where there is evidence of contamination or ... a high risk of contamination.” A few important questions to consider well in advance of a LOPP situation include:

- Which LOPP scenarios require one-hour reporting to DEP?
- What would constitute ‘evidence of contamination’?
- What conditions would potentially indicate a ‘high risk of contamination’?
- Who should be making those determinations?

The DEP guidance document [“Policy for Determining When Loss of Positive Pressure Situations in the Distribution System Require One-Hour Reporting to the Department and Issuing Tier 1 Public Notification”](#) is available to assist in the decision making during these scenarios.



According to the policy, **any LOPP caused by a situation other than a main break should be reported to DEP within one hour.** Examples include a power outage, pump failure, source outage, or depletion of storage. Situations like these are likely to result in impacts that increase the likelihood of possible contamination due to cross connections and backflow. It also makes it extremely difficult to effectively and fully evaluate the situation in order to rule out the possibility of a risk of contamination within all portions of the distribution system.

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# LOPP Situation High Risks of Contamination

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In addition, **one-hour reporting to DEP should occur if the LOPP is caused by a main break, repair or replacement and if there is evidence of contamination or a high risk of contamination.** The policy lists examples of evidence of contamination and conditions that may indicate a high risk of contamination during a main break or repair. Nevertheless, it is important to note that the examples listed in the policy are not intended to be an inclusive list of all possible scenarios. A responsible and conscientious Class E certified operator needs to evaluate every main repair situation on a case-by-case basis to determine whether evidence of, or high risk of, contamination exists.

According to the DEP policy, two specific **examples of evidence of contamination** include:

- Changes to the physical characteristics of the water. This may include discoloration or an unusual taste or odor.
- Changes to the water chemistry, as evidenced by field test results. A few examples of field tests that may reveal changes in water chemistry include free chlorine residual, pH and conductivity.

The policy also lists several **examples of conditions that may indicate a high risk of contamination**:

- A flooded trench where the water level is at or above the level of the pipe being repaired
- Leaking sewer lines near the site of the main break
- Failing on-lot septic systems near the site of the main break
- A cross connection or evidence of backflow near the site of the main break or other impacted area
- High unaccounted for water loss (>20%) due to leaks in the distribution system near the site of the main break
- Low system water storage resulting in loss of service to customers
- A stream or river crossing near the site of the main break
- Any condition that allows contaminated water to enter the distribution system



Any time any portion of a distribution system experiences a loss of positive pressure for any reason, **it is the responsibility of a properly certified distribution system operator with a Class E license to evaluate the situation and lead the decision making process.** The Class E-certified operator should be determining whether there is evidence of contamination or a high risk of contamination. In order to properly evaluate a situation, the Class E-certified operator should ideally be on site. At the very least, he or she must be available for consultation by phone with someone who is on site and who can clearly convey observations.



It's important to point out that **during a main repair, a LOPP may not always occur directly at the site of the main break.** A main repair that occurs under positive pressure may cause reduced operating pressure in the area immediately surrounding the break (same pressure zone). However, at higher elevations or within other lower pressure zones, the same main repair may result in a LOPP, water outages, and increased potential for contamination by backflow, backsiphonage or infiltration. Therefore, it is imperative for operators to consider the need to monitor pressure in areas of the distribution system other than the actual site of the break,

including lower pressure zones and higher elevations. If *any location* in the system experiences LOPP, a potential public health threat may exist.

# REMINDER: Clarification of Monitoring Requirements for PWSs with Multiple Sources

Dawn Hissner, Operations Section Chief, Central Office

On Jan. 1, 2017, DEP will begin requiring and tracking routine compliance monitoring at all permitted entry points (EPs) and associated sources. ***On-going, routine monitoring will be required for all EPs and associated sources even if they were historically used only in an interim, reserve or emergency capacity.*** To ensure this monitoring is completed, the interim, reserve and emergency designations will no longer be used. If a source, treatment facility or entry point is identified in the PWS operation permit, it will be considered a permanent facility.

Because both state and federal regulations require public water systems (PWSs) to monitor all of their EPs and associated sources during routine compliance monitoring, ***all permitted facilities should be routinely operated and evaluated to ensure compliance monitoring is conducted, public health is protected, and the facilities remain in good working order.*** Many states rely on the PWS to monitor and report when reserve or emergency facilities are used, and, as a result, neither EPA nor the states know the amount of risk that consumers may face if these facilities are placed into service without adequate monitoring or treatment.

PWSs (with more than one source) were notified about this change in August 2013 to provide sufficient time for water suppliers to make decisions about their sources of supply and operations. Eighteen months remain for water suppliers to make final decisions. Many PWSs have questions about what this will mean for them. Monitoring must be conducted during “normal operating conditions,” but what has been “normal” for several years may no longer be sufficient to ensure all permitted sources are adequately monitored.

Here are some issues you should be considering while evaluating the sources and treatment facilities listed in your operation permit:

- If multiple sources are/will be used at an EP, decisions will need to be made regarding how those sources will be operated.
  - ◇ If the sources will be alternated, multiple samples for that EP will be necessary to ensure each source is monitored.
  - ◇ If the sources will be blended, the blending ratio should remain fairly constant to ensure monitoring is representative of all sources. If the blending ratio fluctuates, multiple samples may be necessary to ensure each source is monitored.
- If an interim, reserve or emergency source will be retained in the operation permit and used routinely moving forward, an assessment must be conducted to ensure that existing treatment facilities are sufficient to meet all drinking water standards. For example:
  - ◇ Under the Long Term 2 Enhanced Surface Water Treatment Rule (LT2) and the Surface Water Treatment Rule (SWTR), unmonitored surface water and GUDI sources must be monitored prior to use to ensure the appropriate level of treatment.
  - ◇ Under the Ground Water Rule (GWR), the use of previously inactive sources may affect the system's ability to meet 4-log inactivation requirements.
- If the water supplier has any knowledge of previous water quality concerns, these concerns should be discussed with DEP prior to using the source(s). If a source/treatment facility has not been used within the last three years, the water supplier should consult with DEP to determine any additional monitoring requirements. Source water samples will be necessary to determine whether source water quality has changed since the source was permitted or last monitored.



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# Monitoring for PWSs with Multiple Sources

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- If any sources currently listed in a permit are not going to be used, the PWS will need to submit a permit amendment to remove these sources and any associated treatment facilities from the operation permit.
- Any sources not listed in the PWS permit must be physically disconnected from the water system and cannot be used in the future without prior DEP approval through an emergency permit.

You may have to develop a monitoring plan to document how your sources and treatment processes will be operated to ensure that entry point compliance monitoring includes all permitted sources and treatment facilities. The bottom line is that you should be evaluating the facilities currently listed in all your PWS permits for any source that has the potential to supply water to consumers in order to determine whether these facilities are still necessary to meet demand and what treatment and/or operational changes will be needed to establish water quality and a routine monitoring frequency.



## Operator Certification Annual Service Fee Requirement

H. Thomas Fridirici, Operations and Monitoring Division Chief,  
Central Office



The Water and Wastewater Systems Operators' Certification Program Chapter 302 Regulations became effective in September 2010. The regulations require public water system owners to pay an annual service fee for each Public Water Supply Identification (PWSID) Number. The annual fee is determined by the system's class size and is based on hydraulic design capacity.

System owners and operators should be aware of this requirement. They should review the annual service fee and available operator report (AOR) sections of Chapter 302, the Water and Wastewater Systems Operators regulations. The annual service fee requirements are found at 302.202, *Operator certification program fees*. The fee is authorized by the Operator's Certification Act and is used to pay

for the costs of administering the department's operator certification program. In July 2014, DEP mailed service fee invoices to 3,072 community and non-transient noncommunity water systems. The department issued Notice of Violation (NOVs) to 127 water systems in November and by February 2015 greater than 99 percent of water systems had complied with the requirement to submit the annual service fee. The remaining eight systems were referred to the Pennsylvania Office of Attorney General for collection of fee plus interest. The whole process starts over in July 2015.

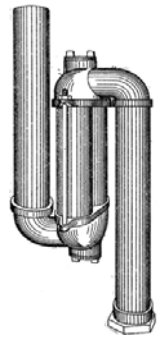
Operator verification is a mechanism for DEP to determine system and operator compliance. Upon written request, a system owner must report the system-specific information found at 302.1202(b) to DEP. Compliance information captured in the AOR includes identification of: systems that have not designated an available operator; systems that have designated an operator who is not appropriately certified to make process control decisions; systems managed by a circuit rider; changes in permittee/owner or contact information; and systems out of compliance with Chapter 302 submission of the AOR or annual service fees. This data is compiled and is provided to DEP regional and central office staff for review and use for inspections and investigations, permit/waiver requests, outreach assistance, and other program areas including PENNVEST financing of water infrastructure projects. Remember, a system owner must notify DEP within 10 calendar days of the addition, loss, change or replacement of an available operator.

Owners and operators should take a few moments to become familiar with the requirements found at Chapter 302.202 and 302.1202.

# Optimizing Sample Collection for Optimized Corrosion Control

John Cairnes, Compliance Assistance Specialist, Southeast Region

Sometimes a public water supplier can be confused about DEP monitoring requirements. Starting with a basic regulatory framework, there are circumstances that can lead to increased or decreased monitoring, waivers, check samples, performance monitoring, follow-ups and samples that are just regarded as “special.” But of all the state’s monitoring parameters, the most complex are those related to the Lead and Copper Rule. This rule’s purpose is to safeguard public health from contaminants caused by corrosion of man-made materials that are used to convey water to its users in addition to environmental conditions or intrusion from natural water sources. Distribution materials, and their vulnerability to corrosion, can vary - sometimes from one city block to the next. For these reasons, the collection of lead and copper samples, and the selection of appropriate sample sites, should be done with great care.



Every community water system, and every non-transient, noncommunity water system in Pennsylvania is required to have a lead and copper sample site plan. The number of routine samples required by a public water system is based on population and the sampling frequency is influenced by past sampling history and results. Sample sites are based on a materials evaluation to determine the locations with the highest potential risk.

A complete list of lead and copper monitoring requirements and sample site selection criteria may be found in Chapter 109, Subchapter K of Title 25 of the *Pennsylvania Code*. The purpose of this article is to provide some real-world practical considerations and tips on good sample site selection and sample collection for lead and copper monitoring. There are many varying factors in the sample collection process that can adversely affect the quality and integrity of the collected samples and lead to inaccurate results in laboratory analysis. Optimizing your sample site plan is as important as optimizing corrosion control.

## For Sample Site Selection:

- Keep a list of sample dates as well as sample sites. Systems on annual or triennial monitoring are required to collect samples between June 1 and September 30. Samples collected outside that date range will lead to monitoring violations.
- Do not use vacant or abandoned properties for sample sites. Lack of maintenance and usage can make the sample taps unreliable and produce inaccurate results.
- Give all sample sites a unique location ID number. If you replace a site with a new one, give the new site its own ID number instead of reusing the old one.
- Review your sample site plan annually, or prior to each sampling period. Ensure the quality of your site selection by verifying that all sample sites are active and accessible. Make changes if they are not.
- Remember that special monitoring, following sample results with a 90<sup>th</sup> percentile value in excess of the lead or copper action level, will include the same number of sample sites as used for initial monitoring
- Remember that there are specific selection criteria that must be used when selecting alternate or replacement sampling locations.

## For Sample Collection:



- Samples should be collected from taps that are regularly used. Oxidation (corrosion) of metal can occur in plumbing fixtures, leading to ion-heavy water that is not representative of the distribution system.
- Do not sample from locations employing devices such as filters or softeners. These devices should be removed prior to sample collection. Aerators should remain in place (so as not expose fresh metal).
- No more than one sample may be collected from a tap per day. If a public water system has fewer taps than the minimum number of samples required, samples may be collected from the same tap on consecutive days.
- Samples must be collected in 1-liter bottles.
- Sample taps must be given a standing time (a period during which the tap is unused) of at least six hours, but less than 24 hours.

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## Sample Collection for Corrosion Control

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- Use only cold water, indoor taps. A water heater may release metal ions into the water passing through it, creating a product that is not representative of the distribution system. Outdoor taps are subject to on-site oxidation in excess of what is occurring in the distribution mains.
- Take “first draw” samples – the first water to pass through the tap following the standing time.
- Record the sample date, time and location during sample collection, and pack the samples in ice for transport to your accredited lab. Samples may be collected by homeowners, provided they follow the written sampling procedures provided by the water supplier or its certified laboratory.
- As a public water supplier, it is essential that you do not let routine sample collection become “routine.” A careful consideration of the factors that affect the reliability of your drinking water samples will help obtain the most accurate results and keep you aware of how water quality can change over time.



## Proper Bacteriological Sampling

Renee Diehl, Compliance Specialist, Southwest Region



With the federal Revised Total Coliform Rule taking effect on April, 1, 2016, every public water system is focusing extra attention on their bacteriological samples. Using correct sampling procedures may help to avoid additional sampling, assessments and, possibly, public notifications.

Proper bacteriological sampling procedure begins with the bottle. The bottle should be sterilized and include a dechlorinating agent such as sodium thiosulfate. Sample bottles should be kept closed until reaching the sampling site. The use of disposable latex or nitrile gloves is recommended while sampling for bacteriologicals.

Once at the sampling site, be sure to remove the aerator if you are sampling from a faucet. Although not part of the method, you can sanitize the tap with 25 ppm free chlorine. Turn on the sample tap, and flush until the water temperature has stabilized (~ 5 min). The use of a thermometer can confirm the temperature has stabilized.

Decrease the flow of the tap to the diameter of a pencil. It is important not to change the flow of the sample tap while filling the sample bottle. Doing so may dislodge debris or bacteria from the piping.

Remove the cap from the sample bottle. Hold the cap by the edge with the opening down and do not set the cap on any surface. Be sure not to touch the inside of the cap or the bottle. Fill the sample bottle to the neck. If the bottle overflows, dechlorinating agent may be flushed out of the bottle. Once filled, cap the bottle and invert it to mix it well. Be sure to affix the label and fill out any chain of custody forms. Place the samples on ice. Icing

the sample and keeping the bottle away from direct sunlight will preserve the sample.

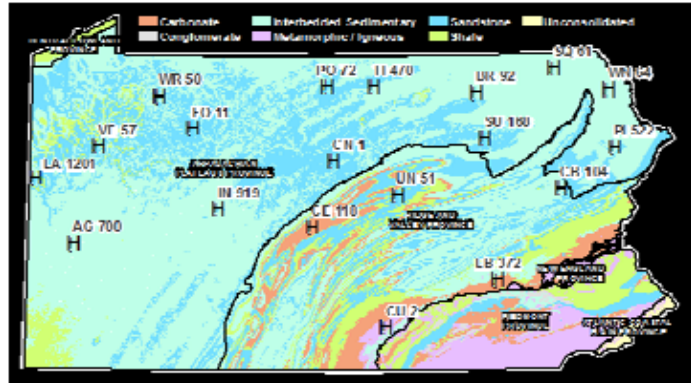
Keeping your staff trained and educated on proper sampling techniques is crucial for representative results.

# Statewide Ambient/Fixed Station Network for Groundwater Quality Monitoring

Chad Reisch, Geologic Specialist, Water Use Section, Central Office

Groundwater is Pennsylvania's "hidden" resource precisely because it's found underground. Since it can't be directly observed, except at a spring or a wellhead, some Pennsylvanians don't give much thought to the value of a high-quality, reliable groundwater supply. This is unfortunate because gaps in statewide water quality networks can result, where emphasis is placed on surface water monitoring.

Through a partnership with the United States Geological Survey (USGS), DEP has initiated a project to expand current groundwater monitoring efforts. Semi-annual samples are being collected by USGS scientists at select hydrogeologic locations across the state utilizing wells in the Pennsylvania Drought Monitoring Network (*see map*). The DEP Bureau of Laboratories performs chemical analyses for metals, ions, nutrients, dissolved gases, and volatile organic compounds. Results will be reported to the EPA national STORET database and the USGS National Water Information System database.



Current well sampling locations and associated geologic settings

Expansion of the network is anticipated as suitable wells are identified through a well selection procedure. As the monitoring program becomes more robust, the data will allow for better characterization and assessment of groundwater resources on a statewide scale. The outcome will allow water suppliers to make informed decisions regarding well site selection by providing representative ambient groundwater quality data for aquifers utilized for public water supply. The overall result is protection of public health and safety for the millions of Pennsylvania citizens who rely on groundwater for their drinking water. If you would like to learn more about groundwater quality monitoring efforts in Pennsylvania, please contact Chad Reisch at [creisch@pa.gov](mailto:creisch@pa.gov).

## New Water Audit Fact Sheet

Kristina Peacock-Jones, P.E., Water Use Section Chief, Central Office



There is a [new water audit fact sheet](#) available through the DEP eLibrary. The fact sheet was developed to assist public water suppliers in addressing water losses throughout their distribution systems.

Water utilities experience water loss for a variety of reasons such as pipe leakage, poor accounting and inaccurate or unmetered locations. There are many public water suppliers in Pennsylvania that have "unaccounted-for water" (UAF) over the maximum target of 20 percent. Some systems have a UAF of 50 percent or more.

The new fact sheet outlines the American Water Works Association's (AWWA) manual, *M36 Water Audits and Loss Control Programs*, which provides a set of tools for water utilities to assess and control losses in their systems. These tools help identify lost revenue from water losses and, more importantly, increase system data and knowledge, which leads to better water resources management for conservation, long-term planning, drought and other emergencies.

The [new water audit fact sheet](#) includes information on how to download free water audit software from AWWA.

# Using DWELR's "Printer Friendly" Report to Correct Record Errors

Jason Minnich, Monitoring Section Chief, Central Office

DEP's Drinking Water Electronic Lab Reporting (DWELR) web application enables the secure submittal of drinking water sample data over the Internet. The data can be submitted via uploading formatted files or entered using screen entry forms. The submitted data is checked and DWELR returns an error report that can be corrected immediately or recalled later for correction (prior to midnight on the 10<sup>th</sup> of the month).

Prior to midnight on the 10<sup>th</sup> of the every month, DWELR users can make their own corrections to erroneous records reported for the previous month by using the "Error Report" and "View/Edit" links on the navigation bar at the bottom of the screen.

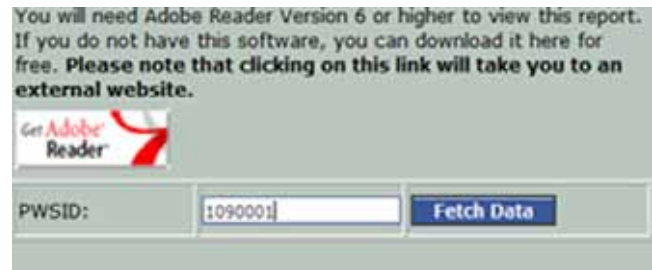
After the 10<sup>th</sup> of the month, the previous month's data is no longer available in DWELR for editing and all corrections to previously submitted data must be made in writing. See the [Sample Result Correction Instructions](#) in eLibrary for more information. Note that correction forms must be faxed or mailed to DEP. Emailed PDF files are not acceptable.

In addition to the [MS Word fillable and PDF Correction Forms in the eLibrary](#), DWELR users can use the DWELR "Printer Friendly" Report for corrections.

## Getting the "Printer Friendly" Report

Get the "Printer Friendly" report prior to midnight on the 10<sup>th</sup> of each month by the following these three easy steps:

1. After submitting data, click on the "Click [here](#) for a Printer Friendly Version" on the top of the "View and Edit Records" screen.
2. Enter the PWSID in dialog box and click the "Fetch Data" button. Note: if you leave the dialog box blank, the file will contain all the records you or anyone associated with your lab submitted during the reporting period.
3. A PDF file of the data submitted will appear. Print or save this file to your computer as a record of your submission.



## Making Corrections

On the document you created using the option in DWELR to print a "Printer Friendly Version," legibly mark the needed correction(s) using a fine point pen (use only black or blue ink) or pencil and initial the correction. Don't obliterate the data being changed. The data being corrected must be readable when the document is faxed to the department.

Legibly print "Correction" and the reason for the correction (be specific, i.e., change EP, change sample date, delete, etc.) somewhere near the correction in the margin. Include the name of the person making the correction(s) and their telephone number. Sign and date somewhere in the margin and fax or mail the document to DEP. The fax number for the DWELR staff in the Safe Drinking Water Program is 717-772-5630.

The next page includes examples of using a "Printer Friendly Version" report to correct a sample period end date, delete a duplicate record and delete records with the wrong PWSID.

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"When the well's dry, we know the worth of water."

~ Benjamin Franklin



# Correcting DWELR Errors

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Example A:

Correcting a Sample Period End Date and deleting a duplicate record.

*CORRECTION 10/15/14*  
*JOHN DOE*  
*717 123 4567*  
*John Doe*

**Department of Environmental Protection**  
 E-Government Application for Drinking Water Program  
 SAFE DRINKING WATER ACT  
 VIEW/EDIT RECORDS

*CORRECT END DATE & DELETE DUPLICATE*

**1090001: AQUA PA BRISTOL**  
**SDWAS**

PWSID	Contam ID	Contam	Analysis Meth	No. of Routine Samples Req'd	No. of Routine Samples Taken	No. of Routine Samples out of Compliance	No. of Check Samples out of Compliance	Sample Type	Last Sample Date	Lab ID	No. of Check Samples Taken	Loc/E P ID	Sample Period Begin Date	Sample Period End Date	Sample ID	Average Result	Record ID
1090001	0999	CHLORINE	301	1	1	1	0	D	053014	00003	3	101	040114	063014	123	0.4	HITCH OMI_642
1090001	0999	CHLORINE	301	1	1	1	0	D	071514	00002	4	101	070114	073114	12345	0.84	HITCH OMI_1011
1090001	0999	CHLORINE	301	1	1	1	1	D	072114	00002	5	101	070114	073114	12345	0.95	HITCH OMI_1033
1090001	0999	CHLORINE	301	2	2	1	0	D	091514	00002	5	101	090114	093014	123	0.95	HITCH OMI_1452
1090001	0999	CHLORINE	301	2	2	1	0	D	091514	00002	5	101	090114	093014	123	0.95	HITCH OMI_681
1090001	3100	TOTAL COLIFORM PRESENCE	323	1	5	0		D	053014	00003		102	040114	063014	345		HITCH

*DELETE JD*

Example B:

Deleting records with the wrong PWSID. If a record is submitted using the wrong PWSID, the lab will submit a correction form stating that the records were entered with the wrong PWSID and request that the records be deleted. The lab will then need to enter the records with the correct PWSID into DWELR.

*CORRECTION 5/15/15*  
*JOHN DOE*  
*717 123 4567*  
*John Doe*

**Department of Environmental Protection**  
 E-Government Application for Drinking Water Program  
 SAFE DRINKING WATER ACT  
 ERROR REPORT

*PLEASE DELETE/WRONG PWSID CORRECT 1090001 WILL SUBMIT CORRECT RECORDS INTO DWELR*

**1090010: COLONIAL HERITAGE MHP**  
**SDWA1**

PWSID	Contam ID	Contam	Analysis Method	Result	Analysis Date	Location ID 1	Location ID 2	Sample Date	Sample Type	Sample Time	Lab ID	Sample ID	Record ID
Inactive PWSID													
<del>1090010</del>	<del>0999</del>	<del>CHLORINE</del>	<del>301</del>	<del>1.1</del>	<del>030115</del>	<del>101</del>		<del>030115</del>	<del>E</del>	<del>0630</del>	<del>00002</del>		<del>HITCHOMI_1451</del>
Inactive PWSID													
1090010	0999	CHLORINE	301	1.0	030215	101		030215	E	0645	00002		HITCHOMI_1492
Inactive PWSID													
1090010	0999	CHLORINE	301	0.9	030315	101		030315	E	0650	00002		HITCHOMI_1493
Inactive PWSID													
1090010	0999	CHLORINE	301	0.9	030415	101		030415	E	0655	00002		HITCHOMI_1494
Inactive PWSID													
1090010	0999	CHLORINE	301	0.95	030515	101		030515	E	0655	00002		HITCHOMI_1495
Inactive PWSID													
1090010	0999	CHLORINE	301	0.9	030615	101		030615	E	0650	00002		HITCHOMI_1496

*DELETE JD*

## Compositing - the Good, the Bad, the Risks

Tom Blair, Sanitarian Supervisor, Northwest Region



Combining samples from a variety of water systems and entry points (compositing) is a means of potentially reducing monitoring costs but a water system must understand there are risks to compositing that may result in higher costs than if each sample was analyzed individually.

Compositing is allowed for VOC/SOC monitoring and for IOC monitoring either between entry points or, for small systems, between water systems. Up to five samples may be composited – potentially resulting in substantial cost savings. Dual samples are collected at each entry point. **Compositing is done in the lab** and involves taking an aliquot from each of the five samples and making a new composited sample. This sample is then analyzed.

For VOC/SOC composite samples, if no parameters are detected, the lab will report the result for each of the five PWSs and/or Entry Points. However, if the result indicates a parameter is detected, the lab must go back and analyze each of

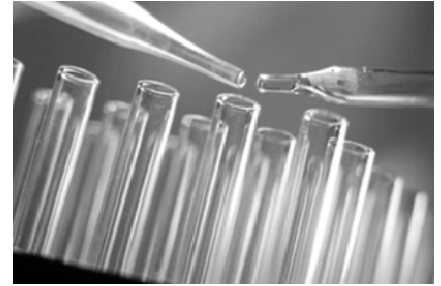
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# Compositing

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the five individual samples. Since the result must be a non-detect in order to realize cost savings, compositing should only be done if the PWS(s) reasonably expects the samples to be clean. For IOC composite samples, results are acceptable as long as results are below one-fifth of the MCL for that contaminant (it does not have to be a non-detect). Here are some other rules that also apply when compositing is being considered.

- If the system population is greater than 3300, compositing can only be done within that system.
- If the system population is less than 3300, compositing can be done among numerous systems, provided the five sample limit is maintained.
- If there is more than one PWS involved, all must be on the same monitoring frequency and VOC year.
- Groundwater samples cannot be composited with surface water samples.
- VOCs and SOCs cannot be composited if any of the entry points had a previous detect.
- Any entry point which is treated to meet a specific MCL cannot be composited with other samples being analyzed for that MCL.
- Compositing of radionuclide samples has its own special rules and is only allowed for new entry points or new PWSs.



Two important issues to understand when considering compositing are (1) The system(s) must fully understand the consequences if the composite sample has any detects; and (2) The system(s) must work directly with the lab before it collects the samples. The lab composites the samples and some labs are not completely familiar with compositing. Water suppliers may contact their DEP Sanitarian for more information about compositing.

## Revised Total Coliform Rule: Sample Siting Plan Training

EPA's Revised Total Coliform Rule (RTCR) will go into effect on April 1, 2016. RTCR will require all public water systems to submit a coliform sample siting plan and state approval of start-up procedures for seasonal water systems.

Both sample siting plan workshops and seasonal start-up plan workshops are being scheduled across the state for Fall 2015. The workshops will allow you to work on your system's plan during class. Please check the [RTCR website](#) for information on where and when the training will be offered.

## Operator Certification Program Survey



Have you ever wanted to tell DEP how you really feel about the Operator Certification Program, but you were hesitant to speak up? Now is your chance to give DEP feedback through an [anonymous Operator Certification Program survey!](#)

The survey takes less than 10 minutes to complete and will provide DEP will valuable insight for improvements in the program moving forward.

## We're So Glad You Asked



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

**Q: In the data for my annual Consumer Confidence Report, there is a violation because the laboratory reported a sample result late. Why do I need to include the violation in my CCR when it was the lab's fault?**

A: Reporting a sample more than 10 days after the end of the monitoring period or more than 10 days after the month in which the sample was analyzed, whichever is sooner, is a valid violation. All valid monitoring or reporting violations require a Public Notice which can be included in your Consumer Confidence Report if it's issued within a year of the violation. It is acceptable to note the late report by the lab was a valid violation but the sample was collected on time by your water system.

**Q: I collected a sample the day after the monitoring period ended. Why was I issued a violation for failure to monitor instead of a violation for a late report?**

A: If a sample is not collected within the monitoring period, it is a valid violation. There is no such thing as a makeup sample. A late report is when the sample was collected correctly during the monitoring period but it was not reported by the 10<sup>th</sup> of the following month.

**Q: The cap on my well looks fine but my Sanitarian suggested I replace it. Why?**

A: A standard aluminum well cap is often a source of problems. It's typically not held tightly to the casing or the bolts on the side have corroded to the point of being frozen. It fits poorly on the casing, leaving a small space near the conduit, where insects can enter the well casing.

There are ways to resolve problems with well caps. At a minimum, clean the underside of the well cap, place nylon screening between the cap and casing and tighten the bolts if possible. If the bolts are corroded, replace the cap and add the screening. A more effective option is to replace the standard well cap with a sanitary well cap, sometimes called a "bug proof cap." They only cost a little more than a standard well cap and do a better job of preventing insects or surface water from entering the casing because they have a ring that tightly fits the casing top and the cap bolts to the ring from the top. They

also come with a small screened vent to allow for air exchange, which is helpful if you are in an area where buildup of methane is a problem.

**Q: My DEP Sanitarian is concerned because my daily entry point chlorine readings are reported about the same time every day. Why is this a problem?**

A: The answer depends on your population and source. If your system is a groundwater system with a population of 3,300 or fewer, the daily grab sample for entry point chlorine is required to be taken when you anticipate it would be "during the hour of peak flow." If your system is a groundwater system with a population greater than 3,300, or if your system is a surface water system, you are required to continuously monitor the chlorine residual, record the results at least every 15 minutes and report the lowest chlorine reading for each day.

Since chlorine residual is influenced by a number of factors, including temperature and daily demand (weekday versus weekend too), it's unlikely that the lowest chlorine reading or the hour of peak flow would always occur at about the same time of day every day.

**Q: What is the difference between a "monthly" monitoring frequency and a "monthly, every 30 days" monitoring frequency?**

A: It depends on the parameter being monitored. For coliform monitoring, "monthly" means the samples can be taken any time in the month. For example - samples taken on Jan. 2, Feb. 28 & Mar. 17 would be in compliance. For the Stage 2 Disinfection Byproducts Rule parameters (TOC, bromate, TTHM / HAA5), "monthly, every 30 days" means that the samples should be collected at approximately the same time each month, so that there is an equal interval between sampling. For example, the second week of each month. This same intent applies to "quarterly, every 90 days." Samples should be collected at equal intervals each calendar quarter (e.g.: the second week of the third month each quarter).

**Q: I'm a certified Operator. How do I find out how many training hours I currently have?**

A: There is a lot of information on [operator certification on DEP's website](#). You may also find it useful to visit the continuing education training information included in the [Earthwise Academy](#). If you have questions at a time when you don't have access to a computer, you can call DEP staff who track Operator Certification requirements at 717-787-5236 or FAX them your questions at 717-772-3249.