EPA REGION 8 DRINKING WATER PROGRAM

TRIBAL SYSTEMS NEWSLETTER

February 2020

United States Environmental Protection Agency—Region 8
1595 Wynkoop Street
Denver, CO. 80202-1129
Phone: 1-800-227-8917
Fax: 1-877-876-9101
Web: https://www.epa.gov/region8-waterops

IN THIS ISSUE

NEW AFTER-HOURS EMERGENCY PHONE NUMBER

The Region 8 Drinking Water Program has a new after-hours emergency phone number! If you experience an emergency situation during non-workday hours or the weekend, such as an issue that disrupts your water supply or the water is contaminated with *E coli* bacteria or other contaminants, please call **303-312-6327** for assistance. During Monday-Friday working hours please contact one of our staff members for assistance.

STAFFING CHANGES IN EPA REGION 8's DRINKING WATER PROGRAM

Matthew Langenfeld started as the Groundwater Rule Manager in April 2019. He has been with EPA for 20 years and has 36 years of professional environmental experience with industry, consulting, and government. He previously worked for the Wyoming DEQ in the Groundwater Pollution and Control Program. Please feel free to contact him regarding correction of Significant Deficiencies or triggered groundwater monitoring at Langenfeld.matthew@epa.gov or 303-312-6284.

Please welcome Bolor Bertelmann as the Regulatory Oversight Coordinator. Bolor joined the EPA in January of this year and is responsible for managing our inventory of regulated water systems, including processing changes and activating new systems. Bolor comes to us from the private sector where she has extensive experience in the National Pollutant Discharge Elimination System. She has a Bachelor's and a Master's degree in Environmental Sciences and can be reached at Bertelmann.bolor@epa.gov or 303-312-6233. Please contact her with system changes you may have (e.g., source or treatment changes).

Natalie Cannon, the current Lead and Copper Rule Manager, has served on the drinking water team for 10 years. Beginning March 1, 2020 Natalie will be joining the Chemical Safety & Environmental Stewardship Branch at EPA Region 8 to work towards the removal of PCBs in the environment. We are currently in the hiring process for Natalie's replacement and hope to have an update soon.

Barb Burkland retired from EPA on January 31, 2020. Barb was a devoted advocate for safe drinking water in Indian country, focusing her EPA career on providing compliance assistance to tribal water systems in Montana. EPA will backfill Barb position in the coming months. For the time being, questions from Montana tribal water systems may be directed to Nate Delano (303-312-6318; delano.nathaniel@epa.gov).

Please see the revised Contact List on Region 8's WaterOps website for a full run-down on our staff.

LEAD AND COPPER RULE PROPOSED REVISIONS

The EPA's comment period on the proposed Lead and Copper Rule Revisions (LCRR) closes on February 13, 2020. Please remember that there is **no need to change what you are currently doing** for lead and copper compliance monitoring or corrosion control treatment. The LCRR is a proposed rule change and is not yet effective. For additional information, please visit https://www.epa.gov/ground-water-and-drinking-water/proposed-revisions-lead-and-copper-rule.

REGION 8 DRINKING WATER WEBSITE

Do you know EPA has a Drinking Water Website?

We do! EPA Region 8 has a website for drinking water system operations in Wyoming and on Tribal lands and it has many resources you may need or find helpful. The website is divided into six sections: (1) Water Systems, (2) Emergency Preparedness, (3) Reporting Water System Results, (4) Regulations and Compliance, (5) Monitoring and Sampling, and (6) Operations and Assistance.

Some key highlights of the website by section include the following:

Water Systems

- Access to Drinking Water Watch, the tool that enables you and the public to view data EPA maintains about your water system

Emergency Preparedness

- What to do if you have a loss of pressure
- Access to a boil water advisory template when an *E.coli* maximum contaminant level (MCL) exceedance occurs

Reporting Water System Results

- Access to reporting forms for changes to: water source, treatment, water system facilities, system contacts and/or management, as well as seasonal operations
- Access to consumer confidence report certification forms, emergency response plan templates, lead and copper tap sample site plan template, basic information form for new systems, sampling forms, public notification templates, and many other forms

Regulations and Compliance

- EPA's regulated analytes list
- Tips to stay in compliance

Monitoring and Sampling

- List of certified laboratories
- Sample collection guide

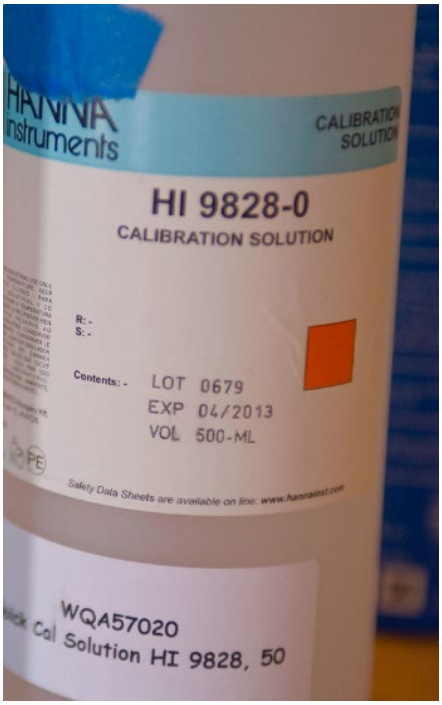
Operations and Assistance

- Preparing for a sanitary survey and tech tips
- Presentations from training conferences

Our staff contact list is available in the yellow "Need Help" box on the right-hand side of the home screen.

Please take a look and contact us about any other needs!

WHAT'S IN A SAMPLE BOTTLE NAME?



The way you label your water samples tells EPA a lot about the sample. It also determines whether your sample results will be credited to your water system, or if you end up with a monitoring violation as a result of not clearly indicating including the correct sampling location. Every year, around mid-February, EPA sends out the annual Monitoring and Reporting Requirements ("To Do" lists), along with a "schematic" of your water system. The schematic is an overly simplified, not-to-scale diagram of your water system. Instead of showing individual buildings and streets as your distribution system, it has a large pound sign or hash-tag, that looks like this #. There is also at least one red star and blue arrow indicating where a sample should be collected for Nitrate-Nitrite, other Inorganic Compounds (IOCs), Synthetic Organic Compounds (SOCs), Volatile Organic Compounds (VOCs), and Radionuclides (RADS) (if required). In most cases, this is NOT the sampling point for total coliform, disinfection byproducts, lead or copper. There is a note on the schematic that says "Sample Points (SP) shown on the schematic are **ONLY** for Nitrates, RADs, IOCs, SOCs, and VOCs. If you sample for other contaminants, please refer to your individual Site Sampling or Monitoring Plans."

The following information on labeling requirements are **only for total coliform, nitrate-nitrite, and triggered Ground Water Rule (TG GWR) samples.** The information is applicable to all public water systems (PWSs) but there is no discussion on how to label samples for lead, copper, disinfection byproducts, chemicals, asbestos, radionuclides or any other parameters that may be required.

Nitrate/Nitrite Monitoring Location

If your system is required to sample for nitrate-nitrite per your Monitoring and Reporting Requirements, the sampling point on the schematic is marked as SPxx (e.g., SP01 or SP04) with a description of sample point location (e.g., storage tank). The EPA database will only accept samples labeled with a sampling point and sample point description for nitrate-nitrite, The SPxx designation tells EPA that a water sample was collected AFTER any water treatment processes and BEFORE it reaches the first consumer and is from the location we call "the entry point to the distribution system." Please note that you may have more than one sampling point for nitrate-nitrite due to the number of entry points to the distribution system representing separate sources of water. Please use a certified lab of your choice to analyze the samples. It is the responsibility of the PWS to make sure that the lab analyzing your sample(s) for compliance is State or EPA certified for the specific analyte and method being requested. Make sure the sampling point and sample point description (the SPxx number previously mentioned) is clearly noted on the lab's chain of custody or other form that is submitted with your water sample(s). This will ensure that the sample result is accurately recorded in the EPA database as a sample for compliance. Without the correct sample point location, your PWS will get a nitrate-nitrite failure to monitor (FTM) violation.

Total Coliform Monitoring Location

Total coliform water sample(s) must be labeled with a sample location

name that clearly indicates that it is in the distribution system, preferably with the letters "DIST" and according to your Revised Total Coliform Rule (RTCR) Sample Siting Plan. For example, "men's restroom-DIST" or "DIST 123 Main St." Total coliform samples must be collected within the distribution system where the water is used (not at the storage tank or pump house). If you write on your sample bottle or laboratory chain of custody form that a total coliform sample was collected at SPxx the sample will be rejected and you will receive a total coliform failure to monitor (FTM) violation. Note that these instructions are different than the nitrate/nitrite instructions.

Ground Water Rule (GWR) (Source) Monitoring Locations

If your water source is a well or spring, you are required to collect a groundwater source sample at the well or spring if your PWS has a *routine* RTCR total coliform positive (TC+) result. Samples must be collected from <u>all</u> groundwater sources that were in use during the collection of the *routine* RTCR TC+ sample, and they must be analyzed for total coliforms and *E. coli*. If you only have a surface water source this requirement does not apply to your PWS. If you purchase water from another system this requirement does not apply to you. However, you must notify the PWS that you purchase water from, so that they can take their source water sample to meet the GWR sampling requirement.

Collect the source sample(s) at the groundwater source(s) (well or spring) BEFORE any treatment. You are required to have a designated sample tap at a location that allows testing from the water source. If there is no sample tap on your well(s), you may collect the source sample from the faucet or tank inlet closest to the well, and then install a more appropriate sample tap at the source. If your groundwater sources combine before treatment, you may take a combined source sample, but make sure to mark the sample location as "combined" and note the groundwater sources facility codes that were combined (e.g., Combined WL01, WL02, and WL03). This sample must be labeled as the Triggered Monitoring Ground Water Rule sample (or "TG GWR" for short). You must indicate that it is a source sample, or collected from the well or spring so that we know it is not one of the required RTCR repeat samples from the distribution system. Remember: this sample is <u>only</u> required if you use groundwater for your source water, and have a routine total coliform positive result.

What if SPxx and/or DIST and/or TG GWR are the same location?

What if your PWS does not have a way to collect a sample from the source (for the TG GWR), or from the entry point to the distribution system (for the SPxx for nitrate/nitrite)? Please discuss this situation with EPA, and EPA may designate the first tap within the distribution system as the same sampling location for all three water samples, the TG GWR, the nitrate-nitrite, and the total coliform routine sample. If this is the case, you will need to remember to label each sample bottle differently according to the naming conventions described above. **Even though the sample location is the same, the EPA database will not accept samples that are labeled improperly**.

If a nitrate/nitrite sample is labeled as being in the distribution system and says DIST, you will get a nitrate FTM violation. If the water sample from the same location is labeled as "TG GWR", and you intended it to be a routine total coliform sample, it will not be accepted as such, and you will get a monthly total coliform FTM violation. If a total coliform sample is labeled as being from SPxx, you will get a total coliform FTM violation since the database will think the total coliform sample was collected from the entry point to the distribution system and not from the distribution system itself. Although it sounds confusing, if you print out your Monitoring and Reporting Requirements, and keep the form(s) with the correct sample point code(s) with your sample bottles, then you can always refer to them for the proper way to label your samples. We also recommend keeping your RTCR Sample Siting Plan close by so that you remember where to collect your sample(s) each month and the proper sample naming convention to write on your

sample bottles and laboratory chain of custody.

If you do not have an agreement with your lab to send sample results to EPA, then please send ALL lab reports to R8DWU@epa.gov as soon as you receive them from the lab. You must include your public water system identification number (PWS ID# – begins with 08 or WY560 or WY568) and the contaminant that was analyzed in the email subject line. If you are unsure which of your monitoring requirements you have fulfilled already, please take a look at your water system on Drinking Water Watch (https://sdwisr8.epa.gov/Region8DWWPUB/). Simply type in your PWS ID# to search for your water system. Click on your PWS ID# to bring up your water system profile. On the left-hand side of the profile you will see an option to view the contaminants that were analyzed

Information for labeling Nitrate-Nitrite, Total Coliform and Ground Water Rule triggered samples			
EPA Regulation	**Contaminant Analyzed**	**Physical Sample Location**	**Sample Site Name**
Nitrate-Nitrite Rule	Nitrate, Nitrite, or Nitrate-Nitrite	Entry point to the distribution system, after treatment*	Example: SP01 – storage tank, SP04 – pressure tank
Revised Total Coliform Rule	Total Coliform and *E. coli*	Within the distribution system*	Example: DIST – Men's restroom, or DIST-123 Main Street
Ground Water Rule	*E. coli*	Directly from the well or spring, before treatment*	Example: TG GWR – WLO1 - source
* If the sample location is the same for all 3 regulations please collect your samples and label each bottle according to the naming convention above.			

REQUIRED INFORMATION FOR TOTAL COLIFORM LAB REPORTS FOR THE REVISED TOTAL COLIFORM RULE (RTCR)

The EPA Region 8 is required to maintain a considerable amount of information about each Wyoming and Region 8 Tribal public water system (PWS), including records of tests, measurements, analyses, decisions, and considerations to determine compliance with the national primary drinking water regulations. This is spelled out in the federal regulations at 40 CFR §142.14.

That means that if the EPA doesn't get correct and complete information from the water system or the lab on each water sample report from the lab, we need to ask for revisions of the report. This causes additional work for the EPA, the lab and YOU, the water system! It may even lead to a monitoring violation if we don't receive that information.

Here is a list of the required information we need on the lab report in order to process your total coliform sample results for the Revised Total Coliform Rule (RTCR):

1. Public Water System Identification Number (PWSID)
2. Date and time the total coliform sample was collected
3. Date and time the total coliform sample was received by the lab
4. Sample location (i.e., street address, building name, or room name)
5. Sample type (i.e., Routine, Repeat or Special)
6. Total coliform (TC) and *E. Coli* (EC) analytical method
7. Water sample analysis result

The following will explain why these elements are required.

1. The **Public Water System ID Number (PWSID)** is required for a few reasons:
    a. PWS's may change names or owners but the PWSID stays the same. For the EPA to track the ongoing water quality at a site we must have the PWSID on all lab reports.
    b. If a PWS has an arrangement with a lab to have their lab results sent electronically to the EPA, we may not receive the data if there is no PWSID on the chain of custody form. In this case the PWS will get a monitoring violation when in fact the sample was collected. *Remember: It is the responsibility of the Public Water System, not the lab, to ensure that data arrive at the EPA by the date they are due.
    c. The customer name listed on the lab report is sometimes not the PWS name that we have in the EPA's database. Instead a consultant or a parent company is listed on the form. So, without a PWSID, the EPA can't tell which PWS collected the water sample.
2. The **date and time the total coliform sample was collected** informs the EPA of the correct monitoring period for the sample. For example: a sample collected on October 1 cannot be counted for the September monitoring period.
3. The **date and time the total coliform sample was received by the lab** is also required for determining compliance with the Revised Total Coliform Rule since the lab methods only allow 30 hours from the time the sample was collected to the time the lab starts the analysis on the water sample. If a sample was collected on September 23 and the lab doesn't receive the sample until September 25 then that is over 30 hours and the lab will reject the sample. The water system is required to collect another sample before September 30 to avoid a monitoring violation.
4. The **sample location (i.e., street address, building name, or room name)** is required for comparison with the Sample Siting Plan and to determine where in the distribution system a total coliform or *E. coli* positive sample result(s) may have occurred.
5. The **sample type (i.e., Routine, Repeat, or Special)** is required to determine if the required samples were collected that may trigger an Assessment or a monitoring violation. If a Routine sample was marked Special, then it will not be counted towards compliance and the PWS will get a monitoring violation. If a Repeat sample is marked Routine, then the PWS will trigger an Assessment. For more information about the correct way to label your water samples for the Revised Total Coliform Rule (and the Ground Water Rule) please see https://www.epa.gov/region8-waterops/rtcr-and-gwr-sample-labeling-instructions.
6. The **analytical method** is the test the lab uses to analyze your water samples. There is a list of approved testing methods that labs are required to use for total coliform samples. If a lab uses an unapproved method, the EPA will reject the sample and the water system will get a monitoring violation. Please check with your lab to make sure they are using an EPA approved test method.
7. The **Water sample analysis result**, whether positive or negative is critical to determine compliance with the regulation. If a sample was total coliform positive but *E. coli* was not analyzed it can trigger further actions or even a violation.

WATER SYSTEM RESPONSIBILITY

Ultimately, it is **your** responsibility to make sure you use an EPA certified lab and that the correct information is on all of your chain of custody forms and sample bottles when they are submitted to the lab.

BE SURE TO WRITE CLEARLY AND NEATLY ON YOUR BOTTLES AND LAB FORMS!!!

Take a few minutes before you collect your sample or before you drop it off at the lab to ensure the correct boxes are checked and your 2s don't look like 6s or 1s don't look like 7s, etc. Likewise, when you receive your sample results you should look over the lab report and make sure all 7 items described above are on the lab report.

How to Correct A Mistake in a Lab Report for the EPA

If you see a mistake or something missing from your lab report, please work with the lab to get the information corrected and (re)sent to the EPA. In some cases, it is ok to write the correction on the lab report and then date and initial the correction. This is okay if a PWSID is missing or the sample location is missing. However, once you receive a lab report you cannot change the sample type from Routine to Special, especially if the result is total coliform positive (TC+).

If you are revising a lab report, you must include documentation and an explanation as to what the revision was and why it was necessary. Communication is a large component to keeping your water system in compliance!

REMEMBER: It is MUCH easier to fix a mistake BEFORE a sample is analyzed than after you receive a violation!

A GUIDE TO READING YOUR REVISED TOTAL COLIFORM RULE (RTCR) LEVEL 2 ASSESSMENT

A Level 2 Assessment can be required if a water system has multiple total coliform positive (TC+) sample results or a combination of routine and repeat TC+ and *E. coli* positive (EC+) sample results. A Level 2 Assessment includes an on-site visit by a contractor (paid for by the EPA) or EPA employee to evaluate different components of your water system. Sometimes a second pair of eyes can help determine what the source of contamination may be. You must make yourself available to walk through the system with the contractor helping identify possible issues. Part of your responsibility during the Assessment is to discuss possible due dates for correcting any problems that could be allowing bacteria into the water supply. If the corrective action section of the Assessment is incomplete, the EPA may assign certain actions and due dates that you will be responsible for completing.

At this point, you may be thinking to yourself, "This sounds an awful lot like a Sanitary Survey that we have every 3-5 years! How is it different?"

In a nutshell, a Level 2 Assessment is RE-ACTIVE & a Sanitary Survey is PRO-ACTIVE!

This table highlights some of the differences between a Level 2 Assessment and a Sanitary Survey.

Related EPA Regulations	Revised Total Coliform Rule (RTCR)	Ground Water Rule (GWR) / Surface Water Treatment Rule (SWTR)
Name of On-Site Evaluation	Level 2 Assessment	Sanitary Survey
Name of Issues Identified During the Evaluation that Require Correction	Sanitary Defect	Significant Deficiency
EPA Rule Manager	Jamie Harris	Matt Langenfeld (GWR) Jake Crosby (SWTR)
Triggering Event	Total Coliform and/or *E. coli* positive samples in the distribution system may trigger a Level 2 Assessment.	Sanitary surveys are conducted every 3 years (Community systems) or 5 years (Non-Community systems).
Purpose	Identify and eliminate contamination pathways that may be the cause of the positive bacteriological samples that currently exist in the water supply.	Routine review of the water system's design, operation and maintenance to identify failures, malfunctions or other issues that are causing or have the potential to cause contamination of the finished water.

Timeline for Completing Corrective Actions	30 days or a schedule approved by the EPA	6 months or a schedule approved by the EPA
Area of Focus During the Evaluation	Various situations at the water system that could provide a path for microbial contaminants to enter the distribution system **OR** indicates an existing failure or imminent failure in a protective barrier (for example, treatment, well seal or screen) that is already in place.	A review of the entire water system including the following elements: water source, treatment, distribution system, finished water storage, pump facilities and controls, monitoring and reporting and data verification, system management and operation, and operator compliance.

The Level 2 Assessment Process

After the Level 2 Assessment evaluation, the contractor sends the EPA their draft report and then the EPA determines the final Sanitary Defects and corrective actions. The EPA finalizes the assessment report and mails a paper copy via certified mail to the PWS Administrative Contact in the EPA database. A copy is also emailed to the system's Operator, Owner, Legal Entity,.

The Level 2 Assessment Report Packet

There are potentially six parts to the Level 2 Assessment Packet:

- **Part 1:** A cover letter with background information about the Level 2 Assessment such as the triggering sample event and important dates.
- **Part 2:** A table of the Sanitary Defects found during the Assessment and the required and recommended corrective actions and due dates proposed by the water system and those required by the EPA.
- **Part 3:** The finalized Level 2 Assessment Report that was completed with the contractor on site.
- **Part 4:** Photos that were taken during the Level 2 Assessment to document any possible Sanitary Defects.
- **Part 5:** A blank Sanitary Defect Correction Notice to be completed by the water system representative to document the completed corrective actions and the dates each action was taken and indicates if photo documentation was included. This must be submitted to the EPA as the corrective actions are completed.
- **Part 6** (Optional): Supplemental Documents like the Sample Siting Plan template or the Storage Tank Cleaning Checklist.

How to Read the Level 2 Assessment Report Packet

Once you receive the Assessment Report Packet, you should review each section. You should read through the Assessment Report (Part 3) and look at the photos that are referenced (Part 4) for clarification of the issue. Then review the Sanitary Defect corrective actions and due dates (Part 2) and make sure that you understand each requirement and due date. If you cannot meet any of the due dates listed, it is your responsibility to notify the EPA in writing **BEFORE** the due date and request an extension. In the written request you should identify a revised due date and a schedule of actions needed to meet the requested due date, along with a justification for why an extension is needed. Depending on the severity of the issue, the EPA may accept or negotiate a different due date.

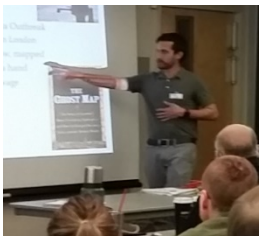
FAILURE TO REQUEST AN EXTENSION OR MEET A DUE DATE WILL RESULT IN A VIOLATION.

Everyone has the same goal when a Level 2 Assessment is triggered, to ensure the water system gets back to serving water free of bacteria! Communication with the EPA is the best way to reach that goal!!

2020 SPRING WORKSHOPS FOR TRANSIENT WATER SYSTEM OPERATORS AND OWNERS

2020 Spring Workshops for Transient Water System Operators and Owners (For Camps, Lodges, Gas Stations, Restaurants, Rest Areas and Other Transient Non-Community Water Systems)

Consider attending a no cost, half-day workshop hosted by EPA Region 8 that will specifically address issues faced by Transient System operators. The focus of the training will be understanding the drinking water regulations that apply to your water system (the Revised Total Coliform Rule, the Nitrate Rule and sanitary surveys) with hands-on learning exercises. The interactive training will include topics such as creating total coliform sample siting plans, seasonal start-up activities, following up on positive samples, on-site assessments, and how to prepare for a sanitary survey. We will also make time to answer your questions!



Do not risk your reputation or profits by failing to monitor according to drinking water regulations. Providing unsafe drinking water could sicken your customers and result in lawsuits, penalties and more. We are still working on dates and locations for two workshops. We will send an email invitation once the details are worked out. Stay tuned! If you are an operator at a Non-community water system and are interested in having EPA come to your area please let us know by sending an email to R8DWU@epa.gov and include the words 'TNC training request' in the subject of the email.

AMERICA'S WATER INFRASTRUCTURE ACT: NEW REQUIREMENTS FOR RISK ASSESSMENTS AND EMERGENCY RESPONSE PLANS

On October 23, 2018, America's Water Infrastructure Act (AWIA) was signed into law by the US Congress. AWIA Section 2013 requires community drinking water systems serving more than 3,300 people to develop or update risk assessments and emergency response plans (ERPs). The law specifies the components that the risk assessments and ERPs must address, and establishes deadlines by which water systems must certify to EPA that their risk assessment and ERP is complete. Important: only the certification of completion is required to be sent to the EPA, not the documents themselves. New certifications will be required every five years.

Certification Deadlines

Population Served	Risk and Resilience Assessment	Emergency Response Plan
≥100,000	March 31, 2020	September 30, 2020
50,000-99,999	December 31, 2020	June 30, 2021
3,301-49,999	June 30, 2021	December 31, 2021

Risk and Resilience Assessment Requirements and Assistance Resources

Each community water system serving a population of greater than 3,300 persons shall assess the risks to, and resilience of, its system. Such an assessment shall include:

1. the risk to the system from malevolent acts and natural hazards;
2. the resilience of the pipes and constructed conveyances, physical barriers, source water, water collection and intake, pretreatment, treatment, storage and distribution facilities, electronic, computer, or other automated systems (including the security of such systems) which are utilized by the system;
3. the monitoring practices of the system;
4. the financial infrastructure of the system;
5. the use, storage, or handling of various chemicals by the system; and
6. the operation and maintenance of the system.

The assessment may include an evaluation of capital and operational needs for risk and resilience management for the system.

Emergency Response Plan Requirements

No later than six months after certifying completion of its risk and resilience assessment, each system must prepare or revise, where necessary, an emergency response plan that incorporates the findings of the assessment. The plan shall include:

1. strategies and resources to improve the resilience of the system, including the physical security and cybersecurity of the system;
2. plans and procedures that can be implemented, and identification of equipment that can be utilized, in the event of a malevolent act or natural hazard that threatens the ability of the community water system to deliver safe drinking water;
3. actions, procedures and equipment which can obviate or significantly lessen the impact of a malevolent act or natural hazard on the public health and the safety and supply of drinking water provided to communities and individuals, including the development of alternative source water options, relocation of water intakes and construction of flood protection barriers; and
4. strategies that can be used to aid in the detection of malevolent acts or natural hazards that threaten the security or resilience of the system.

Community water systems shall to the extent possible coordinate with local emergency planning committees established under the Emergency Planning and Community Right-To-Know Act of 1986 when preparing or revising an assessment or emergency response plan under the AWIA. Further, systems must maintain a copy of the assessment and emergency response plan for five years after certifying the plan to the EPA.

Where to start to meet the requirements?

Visit the EPA Water Resilience Website and take a look at the tools and resources created by EPA to meet these requirements. These tools and resources include templates, interactive web software tools, incident action checklists, and many more. Please visit the website at https://www.epa.gov/waterresilience.

Work with your Local Emergency Planning Committees (LEPCs) to see if there is information available that can be used for the required documents. Under the Emergency Planning and Community Right-to-Know Act (EPCRA), LEPCs must develop an emergency response plan, review the plan at least annually, and provide information about chemicals in the community to residents and water systems.

If you submitted a vulnerability assessment under the Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act), that older document may be a useful starting point for this new effort. You can ask EPA to return your community's 2002 vulnerability assessment by sending an email to WSD-Outreach@epa.gov. Otherwise EPA will retire these older documents by the deadline dates listed above.

Contact Kyle St. Clair, EPA Region 8 Water Security Coordinator for questions or concerns about these requirements. Phone: 303-312-6791 Email: stclair.kyle@epa.gov.

CHANGES TO CHEMICAL SAMPLING REQUIREMENTS: INORGANIC AND SYNTHETIC ORGANIC CHEMICAL MONITORING AND THE NEW REQUIREMENTS TO SAMPLE FOR TOTAL POLYCHLORINATED BIPHENYLS (PCBs)

Your community water system or non-transient non-community water system may have previously (since 2002 or 2011) been granted a waiver from EPA that allowed reduced monitoring for the inorganic chemicals (IOCs, which are mostly metals) and/or the synthetic organic chemicals (SOCs, which are primarily semi-volatile organics and pesticides). The reduced monitoring allowed sampling once every nine years. These waivers expired on December 31, 2019, which was the end of the most recent nine-year compliance cycle.

Beginning in 2020, routine monitoring will be required in accordance with the federal Chemical Phase II/V regulations for the IOCs and SOCs. Samples must be collected at every entry point to the distribution system which is representative of each source after treatment. The new monitoring schedules are reflected in your "Monitoring and Reporting Requirements for the Calendar Year 2020" report.

Inorganic Chemicals

Routine monitoring for the IOCs requires the following:

- Groundwater sources and groundwater under the direct influence of surface water sources - collection of one sample every 3 years.
- Surface water sources - collection of one sample every year.

There are thirteen regulated inorganic chemicals in drinking water, including sodium and cyanide. In most cases in previous years, the IOC, sodium, and cyanide monitoring schedules were listed separately in your annual Monitoring and Reporting Requirements report. Beginning in 2020, only the IOC monitoring schedule will be documented in your annual report. This is because sodium and cyanide will be on the same monitoring schedule as the other eleven IOCs, and therefore all inorganics will be grouped together. **When you sample for the IOCs, please be sure to also sample for sodium and cyanide and use the correct sample bottles for those two contaminants**.

Synthetic Organic Chemicals, Including Total Polychlorinated Biphenyls

Routine monitoring for the SOCs requires the following:

- Systems serving 3,300 persons or less – collection of one sample every 3 years.
- Systems serving more than 3,300 persons – collection of two samples every 3 years; the two samples must be collected in different quarters in one year. This means the two quarters should fall within twelve months during that 3-year compliance period.

Your community water system or non-transient non-community water system had previously been granted a waiver from EPA that did not require you to monitor for total polychlorinated biphenyls (PCBs). That waiver expired on December 31, 2019, as well. **You are now required to sample for total PCBs, along with the other SOCs**. Many laboratories already analyze for PCBs as part of the SOC suite. Please see the complete list of twenty-nine regulated SOCs on our website at https://www.epa.gov/region8-waterops, and use a laboratory that is certified for PCB analysis.

Please contact Kendra Morrison, the Chemical Phase II/V Rule Manager, with any questions at (303) 312-6145 or morrison.kendra@epa.gov.

Composite Sampling

The EPA permits public water systems to reduce the total number of chemical samples that must be analyzed, and therefore potentially decrease sampling costs, by allowing the use of sample compositing [described in the regulations at 40 CFR 141.23(a)(4) and 40 CFR 141.24(f)(14)]. Compositing means that water samples from separate sampling points are combined into a single sample by a certified laboratory, then the single sample is analyzed rather than all of the separate samples. Composite sampling is allowed for the inorganic chemicals (IOCs), synthetic organic chemicals (SOCs), and volatile organic chemicals (VOCs).

Samples **must be composited at the laboratory**. An operator may **not** composite the samples in the field. The laboratory that performs the analysis must be EPA certified and meet detection limits that are less than one-fifth of the MCL for the methods that are used for analyses.

The maximum number of samples that are allowed to be composited are five samples. That means that **up to five entry points to the distribution system can be sampled by the operator and submitted to the lab for compositing**.

If the population served is greater than 3,300 persons, then composting is only permitted within a single system at up to five entry points to the distribution system following treatment. If the population served is less than or equal to 3,300 persons, then compositing may be permitted among up to five different public water systems, but you must first contact the EPA to obtain approval for this second approach.

If any of the chemicals are detected in the composite sample, then additional sampling from each separate sampling point included in the composite sample must be conducted within 14 days. If the lab still has the original sample taken from each sampling point used in the composite sample and the holding times have not been exceeded, these may be used instead of resampling. EPA will provide guidance and will determine compliance based on the follow-up sample results.

Public water systems should contact the laboratory to inquire whether the laboratory can composite samples. Not all of the SOCs can be composited because of the low detection limits that must be met to composite drinking water samples. In addition, some labs may charge a fee to composite samples.

If a decision is made to composite samples and the laboratory is able to do so, the operator must clearly identify each of the separate sampling points on the lab's chain of custody form. This enables the laboratory to identify and document all of the sampling point locations that that are to be composited on the laboratory report that is submitted to EPA. Composite samples should be taken earlier in the monitoring period in the event that additional samples are required to demonstrate compliance prior to the end of the -monitoring period.

Please contact Kendra Morrison, the Chemical Phase II/V Rule Manager, with any questions at (303) 312-6145 or morrison.kendra@epa.gov.

DISINFECTION BY-PRODUCT SUBMITTAL FORMS

All Community Water Systems and Non-Transient Non-Community Systems adding chlorine are required to sample Disinfection Byproducts (DBPs), as Total Trihalomethanes and 5 Haloacetic Acids (TTHMs/HAA5s). These DBPs are formed when chlorine interacts with organic matter present in the drinking water.

Systems sample these contaminants on either a quarterly, annual, or triennial basis. For systems on annual or triennial monitoring, only the sample results are required to be submitted to the EPA. However, systems on quarterly monitoring must submit their sample results along with a DBP Locational Running Annual Average (LRAA) form and possibly an Operational Evaluation Level (OEL) form.

In the past, submitting the two separate LRAA and OEL forms has been a back and forth process to ensure compliance with these regulations. Recently, this process was streamlined through combining the LRAA and OEL calculations into one single form, which is called the Stage 2 LRAA OEL Form.

The new Stage 2 LRAA OEL Form walks the user through the evaluation process to ensure all possible requirements are met for their DBP submittal. If the OEL calculations exceed 80 parts per billion (ppb) for TTHMs or 60 ppb for HAA5s, an Operational Evaluation Report (OER) is required. The Operational Evaluation Report is a self-assessment of the public water system to identify operational changes required to ensure regulatory compliance. The Stage 2 LRAA OEL Form will directly inform the public water system whether an OER self-evaluation is required.

The new Stage 2 LRAA OEL Form is available in either a PDF or Excel version. The PDF version has the instructions for individuals to fill out the form manually. The Excel version has the instructions for individuals to fill out the form using the automatic embedded calculations.

The DBP forms can be found at https://www.epa.gov/region8-waterops/reporting-forms-and-instructions-reporting-forms#dbpr2. If you want more information or need assistance, please contact the DBP Rule Manager, Seth Tourney, at (303) 312-6579 or tourney.seth@epa.gov.