Sampling, Recordkeeping, and Contingency Planning for RTCR



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Revised Total Coliform Rule

TCEQ Public Drinking Water Conference-2020

Presentation Outline



- Quality Assurance Project Plan (QAPP)
- Coliform sampling procedures
- Sample Siting Plan (SSP)
- Microbial Reporting Form (MRF)
- Record retention
- Contingency planning for RTCR

Quality Assurance Project Plan (QAPP)



- Guidance for Collection, Analysis and Reporting for Microbial Contaminants
 - Requirements applicable to both systems and laboratories
- Outlines information for PWS, such as:
 - Licensing requirements
 - Sample collection documentation
 - Sample custody transfer
 - Sample rejection requirements

Coliform Sampling Procedures



- Standard Operating Procedures (SOP) for sampling should include:
 - Sample site selection information
 - Bottle condition, storage, and transport
 - Sample collection procedures
 - Technical and administrative
- TCEQ's Guidance for Bacteriological Sample Collection SOP

Coliform Sample Guide



Guidance for Bacteriological Sample Collection Standard Operating Procedures (SOP)

Sample Site Selection Process

- Select a faucet with the following features:
 - Free of leaks;
 - A downward-facing outlet at least 18 inches above the floor or ground;
 - Constructed of materials that will allow it to be heated with a torch or cleaned with a strong bleach (chlorine) solution;
 - Free of obstructions such as tall grass or shrubbery; and
 - Free of any attachments such as a water hose, water softener, aerator, etc.
- Collect from a sample location identified in the system's coliform Sample Siting Plan (SSP).

Sample Bottle Storage

- Use only sterile bottles obtained from a laboratory accredited by TCEQ to perform total coliform and E.
 coli testing on drinking water.
- Ensure that extra bottles are on-hand in case of sampling issues.
- Do <u>not</u> use any bottles that are:
 - Damaged;
 - Opened;
 - Expired; and/or
 - Obtained from a laboratory that has not been accredited by TCEQ.
- Store unused sample bottles in a cool, dry area away from high heat, damp conditions, direct sunlight, or contact with contaminants.

Sample Siting Plan (SSP)



- All public water systems (PWS) are required to develop and maintain an SSP.
 - Submit updates to TCEQ
- Must be representative of water throughout the distribution system.
 - Include routine, repeat, and triggered source monitoring (TSM) locatons
 - SSP Distribution Map

SSP Distribution Map



- Routine sample sites
- Distribution water mains and sizes
- Entry point locations
- Water storage facilities
- Pressure plane boundaries

RTCR SSP Template



	Public Water System Revised Total Coliform Rule Sample Siting Pla
PWS Name	
PWS Name	

Microbial Reporting Form (MRF)



- Microbial Reporting Form (MRF)
 - Submitted with all bacteriological samples
- PWS representatives must review this form for completeness prior to submission
 - Review Guidance on Completing the MRF
- Serves as the sampling record, chain of custody, and sample data report

Completing the MRF



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RTCR Record Retention 3-5 years



3 years

Copies of public notices issued

5 years

- Bacteriological monitoring results
- Assessment forms/corrective actions
- Start-up procedures and certification documentation for seasonal system

RTCR Record Retention 10 Years



10 years

- Sample Siting Plans
 - When you update your SSP, you should also ensure the update is included in the Monitoring Plan.
 - The SSP is part of the Monitoring Plan, so listed sites should match.

RTCR Record Retention Good Recordkeeping



- Why is it so important? Maintaining good records is vial to running a compliant water system.
 - Ensures proper system operation helping facilities run more efficiently
 - Can be used to educate new staff
 - Help facilitate communication with customers and regulators

RTCR Record Retention Accuracy



- Systems should provide records that are accurate and should be maintained and should be maintained at a location that is accessible.
- In an emergency, you need to be able to depend on these records.
- Contingency planning is dependent on good recordkeeping.

Contingency Planning



PROACTIVE



REACTIVE

Creating or taking controlling of a situation.

Acting in response to a situation.

What are we planning for?



- Hurricanes
- Floods
- Tornadoes
- Drought
- •COVID-19



Proactive RTCR Planning



- Review your SSP
- Ensure sites are accessible
 - Identify alternate sites
- Sample early to account for issues
- Contact your lab about availability/changes to drop-off practices
- Back-up operators

Determine Alternative Sites



- Maintain representative sampling.
- Use the Bacteriological Sampling SOP to help determine what sites are appropriate.
- Consider what temporary changes might take place at the site; for example, flooding, restaurant closed, construction.

Contingency Planning for Repeats



Do you have a plan in place?

- Make sure your SSP is up to date
 - Original, upstream, downstream and TSM if applicable
- Collect repeats im 24 hours
- Disinfect faucets before sampling
- Ensure MRF is completed properly
 - Sample ID/Date of originating sample

Maximum Contaminant Level (MCL) for *E. coli*



- EC+ routine followed be EC+ repeat
- EC+ routine followed by TC+ repeat
- TC+ routine followed by EC+ repeat
- Failure to collect all repeat samples after a EC+ routine sample
- TC+ repeat sample is not analyzed for E. coli

Confirmed E. coli MCL



- Notify TCEQ within 24 Hrs.
- Post a BWN and PN within 24 Hrs.
- Send the BWN, PN, and Certificate of Delivery (COD) to the Drinking Water Standards Section
- Collect a set of special samples
 - Negative Lift the BWN
 - Send the lifted BWN

Helpful Documents



- Sample Siting Plan Template
- TCEQ's Guidance for Bacteriological Sampling SOP
- RTCR Repeat Sampling Requirements Poster
- MRF Guidance
- Public Water System Supervision Program
 QAPP

Resources



Drinking Water Watch:

www.tceq.texas.gov/goto/dww

RTCR Program:

(512) 239-4691

TCRData@tceq.texas.gov

PN and BWN Program:

PWSPN@tceq.texas.gov

PWSBWN@tceq.texas.gov

Additional Assistance Programs



Free Financial, Managerial, and Technical Assistance (FMT)

(512) 239-4691

FMT@tceq.texas.gov

Small Business and Local Government
Assistance (SBLGA)
(800) 447-2827
www.TexasEnviroHelp.org

Questions?



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