

# Sampling, Recordkeeping, and Contingency Planning for RTCR



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Revised Total Coliform Rule  
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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 not 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) locations
  - 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 Plan**

PWS Name

PWS ID

Date



# 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



# 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 vital 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**

VS

**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 in 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 by 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](http://www.tceq.texas.gov/goto/dww)

RTCR Program:  
(512) 239-4691  
[TCRData@tceq.texas.gov](mailto:TCRData@tceq.texas.gov)

PN and BWN Program:  
[PWSPN@tceq.texas.gov](mailto:PWSPN@tceq.texas.gov)  
[PWSBWN@tceq.texas.gov](mailto:PWSBWN@tceq.texas.gov)



# Additional Assistance Programs

Free Financial, Managerial, and Technical  
Assistance (FMT)

(512) 239-4691

[FMT@tceq.texas.gov](mailto:FMT@tceq.texas.gov)

Small Business and Local Government  
Assistance (SBLGA)

(800) 447-2827

[www.TexasEnviroHelp.org](http://www.TexasEnviroHelp.org)



# Questions?



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