



Common Findings from the Drinking Water Program

Michelle Ross – Lead and Copper Monitoring (LCM)

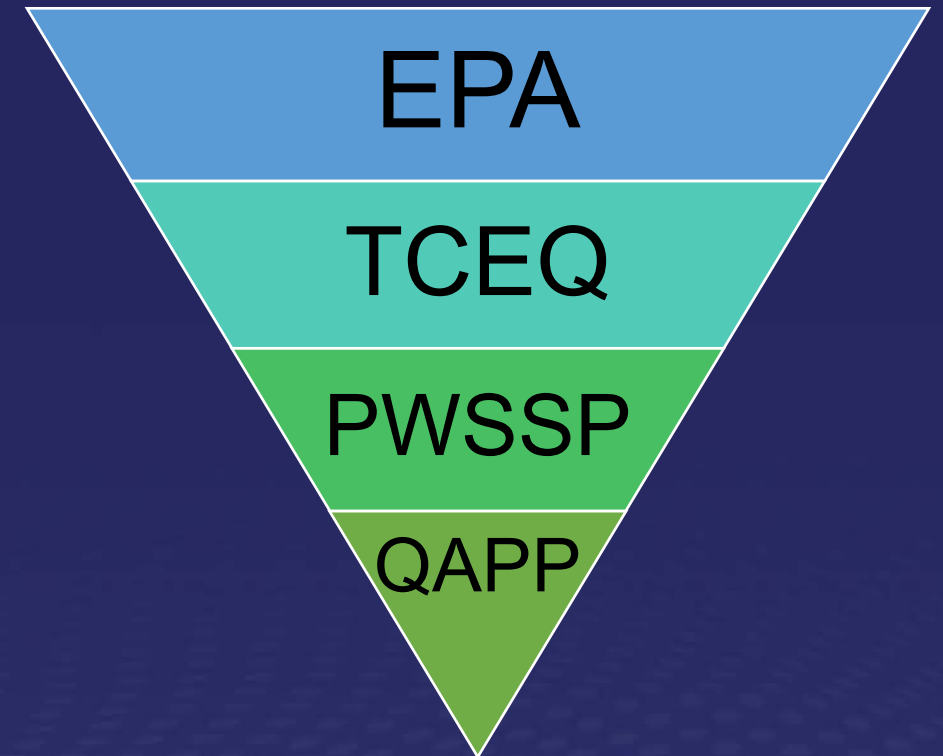
Jessica Miller – Revised Total Coliform Rule (RTCR)

Overview

- Defining terms
 - Common findings
 - Best Practices
- Monitoring Form Corrections
- Corrective Action
- Resources

What is a finding?

- Non-fulfillment of requirement
 - Lab vs. PWS
- Environmental Data
 - Quality Assurance Project Plan (QAPP)
 - Public Drinking Water Rules



Labs and Public Water Systems

- Most Common (Labs)
 - Sample Analysis
 - Sample and Monitoring Form Acceptance
 - Reporting
- Most Common (PWS)
 - Sample Collection
 - Monitoring Form Completion
 - Sample Drop Off (Relinquishment)

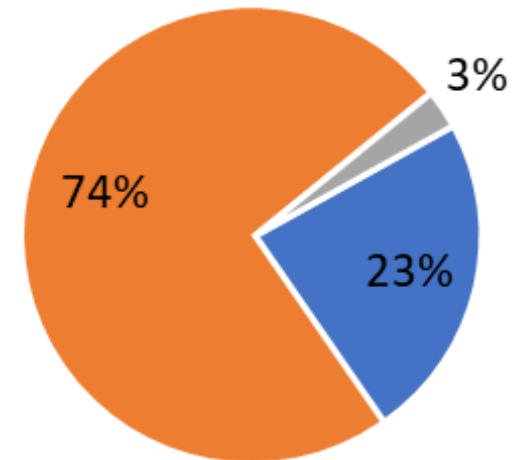
Sample Collection – Lead and Copper

Most Common

- LCR
 - Sample dates
 - Sample amount
 - Sample location
- WQP
 - Missing one Quarter
 - Lab Approval
 - Missing entry points

June - September 2022 Lead and Copper Monitoring/Reporting Violation Categories

- Rejected Samples
- No Samples/Insufficient Samples
- Sampled outside monitoring period



Sample Collection: Best Practices

- Set expectations early and plan
 - Schedules, Monitoring Periods
 - Drinking Water Watch
 - TCEQ resources
- 1 page guide for contractors and 3rd parties
- Your locations/your paperwork
 - PWS Monitoring Plan, approved sample sites
 - RTCR Sample Siting Plan
- Keep back up LCR sample locations

Monitoring Form - PWS

- Legibility
- Blank fields
- Approved Lead & Copper sample locations
- Units or designations
- MF versions
- Sample Type checkboxes
- Missing dates and signatures

Monitoring Form - Best Practices

- Training and SOPs
- Form Instructions
- Double check:
 - Facility IDs
 - Sample Point IDs
 - Designations
 - Signatures/Dates

Sample Type (S)		Compliance	Non-compliance						
Sample Collector (S)		Public Water System	Accredited Lab	3rd Party Contractor --> IAS ID					
Temperature and pH (Y or N)		Are temperature and pH included on the sampling entity's Laboratory Approval Form on file at the TCEQ?	Where temperature and pH measured in the field within 15 minutes of sample collection?						
Facility ID (e.g. DS01, PBCU001)	Sample Point ID (e.g. DSTWQP, ERQ2P)	Sample Location	Sample Collection		Field Measurements		Refractometer? (Y)	Original Sample ID #	Original Sample Date (MMDDYY)
			Date (MMDDYY)	Time - 24 hr (HHMM)	pH	Temp (°C)			
PBCU001	EWQP	1 [REDACTED] DR	4/13/21	0800	7.81	26			
DS01	DSTWQP	14 [REDACTED] RT	4/13/21	0807	7.90	22			
<p>I acknowledge that information on this form is true and correct and was selected for sampling follow the instructions in the TCEQ Monitoring and Sample Collection Guidance for Water Quality Parameters. This includes, but not limited to the measurement of pH and temperature immediately upon collection. Falsification of this form or tampering with water samples is a crime punishable under state and/or federal law. (Texas Penal Code, Title 8, Chapter 37.10)</p>									
Name of Authorized PWS Representative (Print)		Signature		Organization		Date			
[REDACTED]		[REDACTED]		[REDACTED]		4/13/21			
Chain of Custody			Relinquished By Customer (Signature)				Date/Time:		
[REDACTED]			[REDACTED]				4/13/21 12:30		
Received by Customer (Signature)			Received By Lab (Signature)				Date/Time:		
[REDACTED]			[REDACTED]				4/13/21		

Microbial Reporting Form

TCEQ Microbial Reporting Form															TCEQ Form 10525																				
															08/2017																				
Water System Identification & Sample Collection Information (Please type or use block print)																																			
Public Water System ID:				TX																															
(Must be 7 digits; include all zeros)																																			
Public Water System Name:																																			
County:																																			
Report Results To:	Name:																																		
	Address:																																		
	City:																																		
	State:				Zip Code:																														
	Phone #:				Other Contact:																														
	Sampler Name (Print):				Signature:																														
	Operator License #:								<input type="checkbox"/> Owner		<input type="checkbox"/> Operator		Other:																						
	<small>Falsification of this form or tampering with water samples is a crime punishable under state and/or federal law. (Texas Penal Code, Title 8, Chapter 37.10) By signing this form, the sampler acknowledges that samples were collected according to the systems established sample collection procedures, and that all information is accurate.</small>																																		
	Sample Identification/Location				Sample Type : (✓ one)				Collected				Sample ID & Date of Originating Sample (All Repeat, Replacement, & Triggered Raw Samples)		Chlorine Residual		Rejection Code (if applicable) - Please Resubmit		Lab Results						Laboratory Sample ID Number										
Use Specific Address / Location identified in Sample Siting Plan				Routine (Distribution)		Repeat		Raw Well		Special *		Construction *		Date		Time		Please circle AM or PM		Replacement		Circle "F" for Free, "T" for Total. (mg/L)		F			T		Chlorine ✓		Total Coliform		E. Coli		
Raw Wells - Use Source ID for Well Sampled (Example: G1234567A)																																			

Monitoring Form Corrections: PWS & Lab

- MF errors found before or at relinquishment
 - Corrections should be made ASAP by PWS
- MF errors found after relinquishment
 - Corrections require prior TCEQ approval
 - Corrections not allowed on all fields
 - Lab not allowed to make corrections

Correction Request Processes: Lead and Copper

- Quality Assurance Project Plan Addendum 2 and 3
 - TCEQ may request corrections
 - Resubmit corrected documents to lab
 - Lab updates results reported to TCEQ
 - Drinking Water Watch results

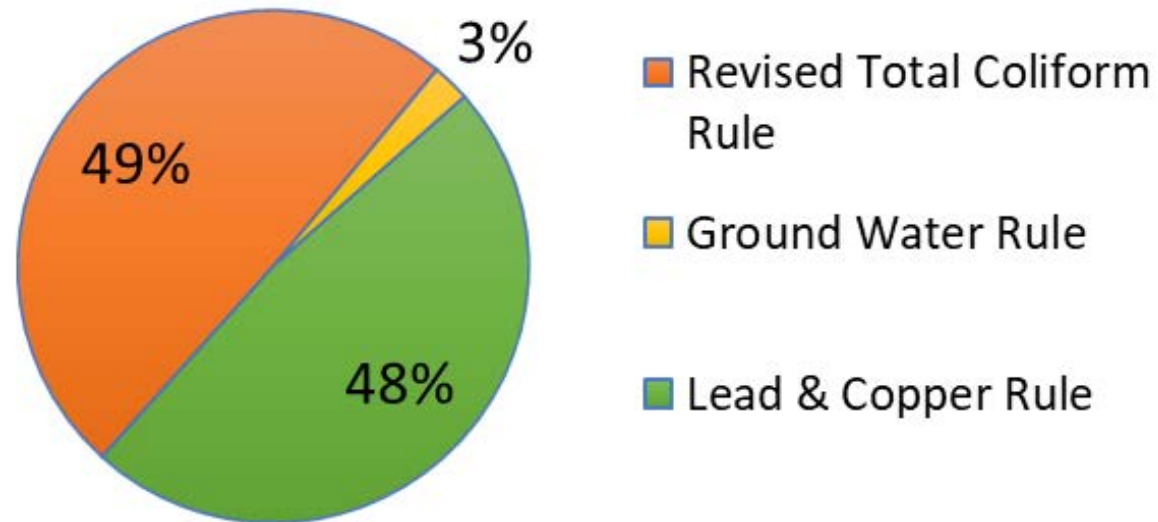
Correction Request Processes: Microbial

Quality Assurance Project Plan Addendum 4

- Sample type change not allowed (noncompliance to compliance)
- Adding missing information after relinquishment not allowed – date of collection, time of collection, chlorine residual, chain of custody
- Laboratory cannot alter PWS fields
- TCEQ approves/denies requests to correct MRF
- Corrections may be limited - once per year
- Submit request to TCRDATA@tceq.texas.gov

Monitoring Form Correction Requests

Monitoring Form Corrections July - December 2022



Sample Drop Off

- Confirm samples were collected properly
 - High turbidity, sample locations
 - Exceeding hold times
 - Unsuitable temperature
- Unsuitable MF acceptance
 - Not verifying MF is complete and correct

Facility ID (e.g. DS01, PBCU001)	Sample Point ID (e.g., DSTWQP, EWQP)	Sample Location	Sample Collection		Field Measurements		Replacement?	Original Sample ID #	Original Sample Date (MMDDYY)
			Date (MMDDYY)	Time - 24 hr (HHMM)	pH	Temp (°C)			
DS01	DSTWQP	[REDACTED]		0815	7.97	18.9°C			
DS01	DSTWQP	[REDACTED]		0830	8.22	19.9°C			
DS01	DSTWQP	[REDACTED]		0805	7.45	19.6°C			
PBCU001	EWQP	[REDACTED]		0750	8.29	21.8°C			
PBCU003	EWQP	[REDACTED]		0845	8.03	20.6°C			

Sample Drop Off: Best Practices

Confirm...

- Condition is acceptable
- Samples collected properly
- Monitoring form is legible and complete
- Reporting deadline
- Turnaround time for reporting results to TCEQ
- Fee structure for rush samples/form corrections
- Contact information

The Life of a Lead and Copper Sample

Days	Collection - Lab Receipt	Lab Receipt - Analysis Completion	Analysis Completion - Reporting	Collection – Reporting (Total)
0-5	18328	8183	9782	36
6-10	10453	8514	11012	1985
11-20	2186	9663	6387	8704
21-30	39	3549	2039	9751
31-50	1	1042	1129	8349
50+	5	61	663	2187

RTCR Common Findings



Preventing Violations

Monitoring and Reporting

- Incomplete or no sampling
- Incorrect Microbial Reporting Form completion
- Special circumstances – weather events

Assessments

- No submission
- Sanitary defect resolution past due

Violation Averages

- **Most Common – 3A Monitoring and Reporting**
- 130 monthly violations
- 1 monthly related to monitoring form errors
- 6 monthly monitoring form correction requests
- Denied requests – too many erroneous fields, not allowed per QAPP
- Return to compliance by completing sampling the next month – public notice required

Level 1 and Level 2 Assessments

Sampling Triggers

- Total coliform positives
- Repeats not collected within 24 hours of notification
- Incomplete sampling – potential Ground Water Rule violation also
- EMCL

Documentation Triggers

- Incorrect sample type on Microbial Reporting Form

Sanitary Defects

Examples include but are not limited to:

- Failure to properly maintain a well
- Failure to maintain adequate residual
- Failure to maintain system in a watertight condition
- Failure to maintain minimum pressure
- Failure to maintain a water storage tank

Additional Corrective Actions

- Sample Siting Plan
 - Not maintained or missing information
 - Update Monitoring Plan accordingly
- Disinfectant Residual Monitoring
 - Documentation – frequency, locations, type
- Tank inspections
- Facility approval

Best Management Practices

- Microbial Sample Collection Standard Operating Procedure
 - Not maintained or missing information
 - Not following SOP
- Sample sites
 - Unsanitary or altered
- Update PWS information in TCEQ database

Resources

PWSSP

PWSQA@tceq.texas.gov

<https://www.tceq.texas.gov/drinkingwater/pwss.html>

LCR

PWSLCR@tceq.texas.gov

https://www.tceq.texas.gov/drinkingwater/chemicals/lead_copper

RTCR

TCRData@tceq.texas.gov

<https://www.tceq.texas.gov/drinkingwater/revised-total-coliform-rule>



Questions?