TCR Implementation

Challenges and Variability in Implementation

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This Meeting's Presentations

Objectives

Provisions

System compliance

Improvement

Research

TCR Implementation

Implementation Challenges
(Synopsis of July 17 Presentation)

- **Available state resources are limited and affect individual state approaches to:**
  - Oversight and training of public water systems
  - Monitoring requirements
  - Detail and frequency of sanitary survey inspections
  - Tracking responses to positive observations and violations (regulatory standard and monitoring / reporting)

Implementation Challenges
(Synopsis of July 17 Presentation)

- **The large number and diversity of system types that must comply with TCR exacerbates resource challenge**
  - Noncommunity water systems (primary function is not providing drinking water)
  - Small community water systems (numerous and resource challenged)

Implementation Challenges
(Synopsis of July 17 Presentation)

- **Unclear technical / policy framework**
  - When is a total coliform positive an indicator of public health concern?

Variation in Implementation

- Current TCR Framework intentionally provides for flexibility in implementation
- Implication of that flexibility is variability in:
  - Differences in data available to FACA to understand rule performance
  - Different compliance approaches by States
  - Different compliance approaches by PWSs
    - Emphases in location, frequency, and timing of monitoring
    - Response strategies upon positive observations

It is an open question as to whether current variability represents meaningful differences in public health protection

Aspects of Implementation Where Variability Exists

- Monitoring requirements – plans & schedules
- Response to positive observations
- Definition of a violation
- Response to violation
- PWS compliance assistance

Differences between CWS and NCWS is an overarching aspect of these categories.

State Survey Results:

Example of State Requirements Beyond Federal Standard

Routine TCR Monitoring Requirements for Systems <1,000 Persons Served			
Sample Frequency*	**Samples Per Year**	**Number of States**	
		CWS	**NCWS**
3 per month	36	1	0
2 per month	24	2	1
1 per month	12	40	4
2 samples per quarter	8	0	1
Quarterly	4	16	38
Semi-Annual	2	na	1
Annual	1	na	14

*Some states have more stringent requirements for schools and systems using surface water.

Monitoring Requirements

Aspects of State-Specific Implementation	Implications for PWS
Timing and detail of sample plan review / approval	Sample plans provide a common set of expectations
Acceptable sample locations ▪Dedicated sample stations ▪Repeat sample sites (NCWS)	Dedicated sample stations are known to reduce spurious coliform observations
Monitoring frequency ▪Among sample sites ▪Reduced monitoring for small systems	Location and frequency of monitoring drives logistics and costs of sampling
Use of special purpose samples	Water systems need ability to take samples for purposes other than compliance
Addressing extenuating circumstances ▪Access to laboratory services	Some small systems lack ready access to laboratory services

Response to Positive Samples

Aspects of State-Specific Implementation	Implications for PWS
What does a repeat total coliform sample trigger? ▪Additional investigation ▪Corrective actions ▪Public notice	Given available resources PWSs will take additional measures to avoid TCR triggered corrective actions and public notice
What is required to demonstrate a sample is invalid?	At present sample invalidation is rarely used so sampler and laboratory QA/QC is critical.
Interpretation of significance of “x” observed positive samples ▪Total coliform ▪E. coli	Different professional judgments about the significance of observations leads to different corrective actions being required ▪Wells disinfection vs abandonment ▪Boil water alert vs minimum public notice

Definition of a Violation

Aspects of State-Specific Implementation	Implications for PWS
Simple “bright line” criteria are simple to administer and project regulatory hammer ▪Treating monitoring and reporting violations as MCL violations (Ohio)	Violations carry with them public notice requirements – that must be in sync with definition of violation

Response to a Violation

Aspects of State-Specific Implementation	Implications for PWS
Approaches and ability of states to ▪Provide advice on public notification ▪Track public notice activity	Confusion over use of an indicator to describe potential health effects ▪Non-acute MCL
Ability to distinguish the significance of monitoring and reporting violations	Monitoring violations are presumed by some to be deliberate circumvention of TCR where, in fact, local circumstances may preclude meeting monitoring requirements
Use of optimal public notice delivery methods for various system types	Degree of focus on area impacted by TCR observations varies ▪Both NCWS and CWS

PWS Compliance Assistance

Aspects of State-Specific Implementation	Implications for PWS
Resource allocation ▪On-site inspections ▪Laboratory services ▪Automation •Reminders •Violation notices	A small percentage of PWS community have violations of primary standards over time
Operator certification requirements ▪Training for operators ▪Training for governing boards	Poor compliance records with TCR lead to perceptions ▪Lack of confidence in CWSs ▪Lack of confidence in drinking water generally

Summary

- We have looked at some of the aspects of state-specific implementation
- We have also looked at implications of state implementation on water systems
- Next, we need to understand implications for implementation improvement