SAB Review of EPA's Draft Supporting Analyses for the Proposed Revised Total Coliform Rule (RTCR)

Introduction to the Proposed RTCR

Science Advisory Board Consultation

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Drivers and History for Total Coliform Rule Revision

2000: Review was recommended in Stage 2 Federal Advisory Committee Agreement In Principle

- ". . .the FACA recommends that beginning in January 2001, as part of the 6-year review of the Total Coliform Rule, EPA should evaluate available data and research on aspects of distribution systems that may create risks to public health and, working with stakeholders, initiate a process for addressing cross connection control and backflow prevention requirements and consider additional distribution system requirements related to significant health risks. " (2000 Stage 2 M-DBP Agreement in Principle)

2003: Six year review of existing drinking water regulations

- Statute requires revisions to improve or maintain level of public health protection
- EPA's decision to revise the 1989 TCR was based on stakeholder comments

2003 – 2007: Preparation of issues: EPA prepared a series of white papers on TCR & distribution system issues

2007: EPA established Total Coliform Rule / Distribution System Advisory Committee (TCRDSAC) in July 2007.

Total Coliform Rule / Distribution System Advisory Committee (TCRDSAC)

- Established in July 2007 and met 13 times between July 2007 and September 2008
- Fifteen members, representing
  - EPA and state regulators
  - Water utilities
  - Local government
  - Environmental advocates
  - Public health
  - Consumer advocates
  - Indian tribes

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TCRDSAC

- EPA's charge to the TCRDSAC was to provide Agency recommendations on <u>how best to revise the TCR</u> and on what information and research is needed to understand risks posed by distribution system issues
- The TCRDSAC formed a technical workgroup to provide data analysis and information to inform the discussion of the Committee
- The TCRDSAC developed an Agreement in Principle that is being used as the foundation for the proposed RTCR

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TCRDSAC

- EPA is committed to proposing a rule that is consistent with the TCRDSAC recommendations
- Each representative on the TCRDSAC agreed to support the proposed RTCR components that reflect the AIP
- Anticipated rule development & compliance schedule
  - Proposed rule in 2010
  - Final rule in 2012
  - Compliance in 2015

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Highlights of TCRDSAC Recommendations

- No longer MCL/MCLG for total coliform (TC)
  - Proposed RTCR – MCL/MCLG for *E. coli* only
- TC and *E. coli* positive sampling results trigger investigation (assessment)
  - Investigation → find problem and fix
- Monitoring on a quarterly and annual basis may be allowed for some small ground water systems
- Distribution system research and information collection need to be a priority

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Recommendations for Revised TCR

- Overall shift in focus
  - From: monitoring results inform public notification
  - To: monitoring results trigger an assessment and corrective action
- Benefits
  - More proactive approach to public health protection
  - Reduce confusion associated with PN actions for TC violations

Recommendations for Revised TCR: Rule Construct

- Use TC as part of an overall treatment technique (TT)
  - No MCLG/MCL for TC
  - TC positive sampling results trigger assessment to identify sanitary defects
  - A sanitary defect finding triggers corrective action
  - TT violation if assessment or corrective action is not completed
- Retain MCLG = 0 for *E. coli* and current MCL associated with presence of TC/*E. coli*
- Do not use Fecal Coliforms
- Public Notification for TT violations or acute MCL violations

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Recommendations for Revised TCR: Monitoring Changes

- Systems serving ≤ 1,000 people
  - New criteria for increased and reduced monitoring
  - Transition with existing monitoring frequency unless primacy agency determines otherwise
  - Decrease in number of additional routine monitoring and repeat monitoring samples
- Systems serving > 1,000 people
  - No changes in routine monitoring
  - Decrease repeat samples and eliminate additional routine monitoring for systems serving ≤ 4,100 people
- More flexibility in sample siting plans

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Principles of Assessments

- Proactively enhance public health
  - Identify sanitary defects
  - Identify incorrect monitoring practices
- PWS is typically responsible for assessment
  - Strengthen capacity to ensure barriers are in place and effective
- Two levels of assessment based on severity of trigger

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Corrective Action

- Systems must correct all sanitary defects found in the assessment
- Sanitary defect defined as

  "*a defect that could provide a pathway of entry for microbial contamination into the distribution system or that is indicative of a failure or imminent failure in a barrier that is already in place." (2008 TCRDSAC AIP)*

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TT Violation

- Failure to perform a Level 1 and 2 assessment when triggered.
- Failure to correct all sanitary defects identified in an assessment.
- Failure to correct sanitary defects according to agreed upon schedule.

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Violations and Public Notification

- Four types of violations:
  - *E. coli* MCL violation (Tier 1 PN)
  - Treatment Technique Violation (Tier 2 PN)
  - Routine Monitoring Violation (Tier 3 PN)

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For more information

- The full AIP and other information related to the TCR revisions and Advisory Committee can be found at:

http://www.epa.gov/OGWDW/disinfection/tcr/regulation_revisions.html

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