RTCR
One Year In
The 411

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The Goal

- Share ideas
- Stimulate thought process
- Shake up the routine
- Stir up the ooze

- Status Quos are made to be broken
  -- Ray Davis
<table>
<thead>
<tr>
<th>Assessments</th>
<th>Seasonal Systems</th>
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</thead>
<tbody>
<tr>
<td>• Level 1</td>
<td>• Seasonal Start-up</td>
</tr>
<tr>
<td>• 40 Systems</td>
<td>• BSDW – 23</td>
</tr>
<tr>
<td>• 2 due to late repeats</td>
<td>• SNHD – 6</td>
</tr>
<tr>
<td>• Level 2</td>
<td>• WCHD – 4</td>
</tr>
<tr>
<td>• 12 Assessments</td>
<td></td>
</tr>
<tr>
<td>• 6 Systems</td>
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</tbody>
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The Numbers
• One system inactivated
• One system did not serve water
• One system increased to year-round operation
• 3 violations for failing to complete start-up

The Seasonal Skinny
What worked?

- Advance thought and preparation
- Understand approved Start-up SOP
  - Where to take samples
  - Disinfection
- Shutdown procedure
- Time allowed for procedures and review
What didn’t work?

• Creating the start-up procedure and sending in the checklist at the same time.
• Starting to serve before approval given
• Calling on Friday for opening on Monday
  • “What do you want me to do?”
  • “Can I have an extension?”
  • Really?
• Take a few minutes to review SOP and decide if anything should be done differently.
• Give BSDW/SNHD/WCHD time to review and approve checklist.
• Include coliform results with checklist.
• Initial samples NOT compliance monitoring
• Allow time for compliance sampling the month of opening.
The Assessments

• Level of Effort
• Sampling error
• Weather conditions

“I'm a greater believer in luck, and I find the harder I work the more I have of it”

— Thomas Jefferson
No Problems?

• Are you sure?
• Did you
  • Glance?
  • Leave your office?
  • Scrutinize?
  • Get Dirty?
In fact

• “No problem found” was not common
• When it was found, seemed to be true
• Regulation allows rejecting the L1 Assessment Request additional information
• Regulator may request further investigation New 30-day clock
• Investigatory samples may be needed

Going Forward
• Sampling Error
  • Protocol
  • Location
• Maintenance
  • Disinfect after modifications
  • Treatment operations
• Old pressure tank
• Cross connection
• Water age

Some Level 1 Defects
• Question Staff
• Review activities, maintenance, SOPs, schedules

• Number ONE: Little or NO disinfection following maintenance 8
• Number TWO: Treatment system (changes, maintenance, ignored) 5

Thoroughness is Key
• Several a combination of One and Two

• Chlorination needed or not maintained (4)
• Sampling location or protocol (3)
• Cross connection (1)
Some Level 2 Defects

- Maintenance (11)
  - Disinfect after modifications
  - Treatment operations
- All triggered by multiple coliform events
- 2 Systems – Multiple Level 2s
  - Ongoing treatment issues
  - Unsafe well and poor communication
System Characteristics

• Transient Non-Community (8)
  • Maintenance
  • Lack of understanding

• Community (3)
  • Poor well construction
  • Lack of funds
  • Lack of communication
• Training
• Engineering
• Chlorination
• Treatment Maintenance/Replacement
Experience

• Flow direction or pressure changes
• Water age AND pipe sediments
• Potholing and Pressure testing
• Is your system coliformy?
• Contaminating factors
• Your experience
• Your support system

Your Turn
• Assessments take time
• Thorough investigation
• Investigative samples
• Look Again
  For the First Time
Call Me

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