Revised Total Coliform Rule
Transition to Systems Conducting Level 2 Assessments
October 19, 2016

WebEx Dial-in number for audio: 1-650-479-3208
Access code: 646 089 757

Tom Wolf, Governor
Patrick McDonnell, Acting Secretary
Logistics

• All phones on mute
• Time for questions at end
  – Chat feature
• One hour in duration
• Webinar recording available on website
• Training materials on website
• Tinyurl.com/PaRTCR2
What will be covered?

• Federal to state regulation background
• Level 2 assessments triggered after 9/24/16
  – Who conducts Level 2 assessments
  – Triggers
  – What is involved in the assessment
• Issue of concern: Transient Noncommunity Water Systems
Federal to State Background

- Federal RTCR effective on 4/1/2016
- New requirement of assessments began

Find and Fix
• Under the federal rule (April 1), systems began conducting Level 1 assessments as necessary
• The federal rule requires that Level 2 assessments are completed by the state or by a party approved by the state
• Until PA RTCR in place, state conducted Level 2 assessments
New State Requirements

• State RTCR published in Chapter 109 on 9/24/16
• State rule requires certified operators to conduct Level 2 assessments
• Must be appropriately certified for:
  – Size (class) for the water system being assessed
  – Subclasses for treatment technologies at system
Level 1:

- Evaluation of system to identify:
  - possible sanitary defects
  - Issues in sampling practices
- Makes use of available information and data
Level 2:

• Same goals as Level 1, but a more comprehensive evaluation
  – Additional water quality data collected as part of investigation
  – Entire water system evaluated; including all sources, treatment, tanks and distribution
Level 2 Assessment Triggers

- E. coli MCL violation
- OR
- 12 rolling months
## E. Coli MCL

### Violations of the E. coli (EC) MCL:

<table>
<thead>
<tr>
<th>Sample Result Type: ROUTINE</th>
<th>Sample Result Type: CHECK</th>
<th>E. coli MCL Violation</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC+</td>
<td>TC+</td>
<td>YES</td>
</tr>
<tr>
<td>EC+</td>
<td>Any missing check sample</td>
<td>YES</td>
</tr>
<tr>
<td>TC+</td>
<td>EC+</td>
<td>YES</td>
</tr>
<tr>
<td>TC+</td>
<td>TC+ (but no E. coli analyses)</td>
<td>YES</td>
</tr>
</tbody>
</table>
Level 2 Assessment and Corrective Action Form

Must use DEP Assessment Form!

Six Parts:

• **Part I**: General Information
• **Part II**: Positive Sample Information
• **Part III**: Sampling Issue Descriptions and Corrective Actions
• **Part IV**: Assessment Questions
• **Part V**: Issue Descriptions and Corrective Actions
• **Part VI**: Verification
### Distribution System for PWS with Multiple Service Connections

*If PWS does not have multiple service connections check here and skip to section H.*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Were any water related customer complaints received within the 30 days prior to the assessment being triggered?</td>
<td>YES</td>
</tr>
<tr>
<td>2. Has the percent of unaccounted for water increased from historical levels?</td>
<td>YES</td>
</tr>
<tr>
<td>3. If line breaks occurred within the 30 days prior to the assessment being triggered, were they repaired in accordance with AWWA Standard C651?</td>
<td>YES</td>
</tr>
<tr>
<td>4. If the samples that triggered the assessment were collected from the inside of a building, was there any plumbing work conducted at the site within the 30 days prior to the assessment being triggered?</td>
<td>YES</td>
</tr>
<tr>
<td>5. Were any positive samples collected from a location that has supplementary water treatment installed?</td>
<td>YES</td>
</tr>
<tr>
<td>6. Were pressure measurements taken as part of this investigation?</td>
<td>YES</td>
</tr>
<tr>
<td>7. Did pressure measurements collected as part of this investigation indicate that the system is experiencing low or negative pressure?</td>
<td>YES</td>
</tr>
<tr>
<td>8. Did large firefighting events or other situations occur within the 30 days prior to the assessment being triggered that resulted in low pressure in any portion of the distribution system?</td>
<td>YES</td>
</tr>
<tr>
<td>9. Does the water system have a flushing program in place?</td>
<td>YES</td>
</tr>
<tr>
<td>10. Are fire hydrants and blow offs maintained and operational without leaks?</td>
<td>YES</td>
</tr>
<tr>
<td>11. Are pump stations protected from unauthorized personnel?</td>
<td>YES</td>
</tr>
<tr>
<td>12. Are pump stations maintained and equipment operational?</td>
<td>YES</td>
</tr>
<tr>
<td>13. Are appropriate backflow prevention devices installed, maintained, and tested on all cross connections?</td>
<td>YES</td>
</tr>
<tr>
<td>14. Are new customers evaluated for cross connections prior to being connected to the water system?</td>
<td>YES</td>
</tr>
<tr>
<td>15. Are air relief valves maintained and operational without leaks?</td>
<td>YES</td>
</tr>
<tr>
<td>16. Were additional chlorine measurements collected as part of this investigation?</td>
<td>YES</td>
</tr>
<tr>
<td>17. Were additional coliform bacteria samples collected as part of this investigation?</td>
<td>YES</td>
</tr>
<tr>
<td>18. Does water quality data collected in the distribution system as part of this investigation show results indicative of an issue?</td>
<td>YES</td>
</tr>
</tbody>
</table>
## Level 2 Assessment Form: Part IV.

### A. Source – Well

**ALL sources must be evaluated**

<table>
<thead>
<tr>
<th>Questions</th>
<th>Answer to Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong> Are any of the wells located in a pit?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>2.</strong> Is the ground graded to prevent surface water flow towards the wells?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>3.</strong> Do the well casings extend at least 18” above the ground?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>4.</strong> Are the exposed portions of all well casings in good condition?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>5.</strong> Do all wells have a secured sanitary seal well cap?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>6.</strong> Are the sanitary seal well caps vented and screened?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>7.</strong> Is there an air gap between all well vents and the ground surface?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>8.</strong> Are appropriate backflow prevention devices installed, maintained and tested on all cross connections?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>9.</strong> Were raw water turbidity measurements collected as part of this investigation?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>10.</strong> Does raw water quality data collected from any of the wells indicate issues with the source water quality?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>11.</strong> Has source yield changed for any of the wells?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>12.</strong> Are there obvious sources of contamination in the vicinity of any of the wells?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>13.</strong> Have any of the well pumps recently been repaired or replaced?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>14.</strong> Are there signs of vandalism at any of the wells?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>15.</strong> Have there been any unusual weather events that may have impacted the wells?</td>
<td>YES</td>
</tr>
<tr>
<td><strong>16.</strong> Have there been any sewer overflows or spills, chemical spills or other disturbances in the area of the wells?</td>
<td>YES</td>
</tr>
</tbody>
</table>
Level 2: Part IV

15. Are air relief valves maintained and operational without leaks?
16. Were additional chlorine measurements collected as part of this investigation?
17. Were additional coliform bacteria samples collected as part of this investigation?
18. Does water quality data collected in the distribution system as part of this investigation show results indicative of an issue?

- [ ]
- [ ]
- [ ]
- [ ]

As asked to collect additional water quality data
Level 2: Part V

- Determine if issues are sanitary defects
- Describe corrective actions and schedule

V. Issue Descriptions and Corrective Actions

Note: A separate table should be completed for every question from Part IV, that is answered in a shaded box. If more than four issues are identified, use page 9 to report additional issues and corrective actions.

<table>
<thead>
<tr>
<th>Section Letter</th>
<th>Question #</th>
<th>Issue Description</th>
<th>Corrective Action and Completion Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>The well does not have a sanitary seal cap.</td>
<td>We have contacted ABC well driller and they will be installing a sanitary seal well cap within 2 weeks (by 11/28/2016).</td>
</tr>
</tbody>
</table>

Sanitary Defect: YES: ☑ NO: ☐
Level 2 Assessment Submission

- **30 days** after triggering: *submit the completed assessment form*

- Trigger dates for *E. Coli* MCL triggers can vary. Please see table in training materials

<table>
<thead>
<tr>
<th>Sample Result Type: ROUTINE</th>
<th>Sample Result Type: CHECK</th>
<th>Assessment Trigger Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>EC</em>+</td>
<td><em>TC</em>+</td>
<td>Analysis date of <em>TC</em>+ check</td>
</tr>
<tr>
<td><em>EC</em>+</td>
<td><em>Any missing repeat sample</em></td>
<td>Day after analysis date of <em>EC</em>+ routine</td>
</tr>
<tr>
<td><em>TC</em>+</td>
<td><em>EC</em>+</td>
<td>Analysis date of <em>EC</em>+ check</td>
</tr>
<tr>
<td><em>TC</em>+</td>
<td><em>TC</em>+ (but no <em>E. coli</em> analyses)</td>
<td>Analysis date of <em>TC</em>+ check that had no <em>EC</em> analysis conducted</td>
</tr>
</tbody>
</table>
Level 2 Assessment Submission

- Methods for Assessment Submission:
  - Regular Mail
  - Certified Mail
  - Fax
  - E-mail (scanned)
  - Hand Delivered to District Office

- Must be **received** by DEP within 30 days of system triggering assessment
If DEP deems insufficient:

- **14 days** from the DEP notification date that assessment is insufficient: *consult with the DEP*

- **30 days** from the date of consultation: *submit revised assessment.*
• Transient Noncommunity Systems (e.g., convenience store, park, restaurant, camp)
• These systems moved from quarterly to monthly coliform monitoring on 4/1/16
• Triggering the most Level 2 assessments compared to community water systems
• Generally not required to have a certified operator to operate and maintain water system

• If they trigger a Level 2, need to contract with an operator to conduct assessment
  – Doesn’t mean that this operator becomes the “available operator” for this system
Survey coming soon!

Willing to be an assessor for Level 2s at transients?
Transient NCWS

Training in 2017 focused on Level 2 assessments at transient non-community systems
Transient Systems: Common Issues

Lack of a sanitary well seal
Transient Systems: Common Issues
Transient Systems: Common Issues

Lack of air gap for treatment drain lines
Transient Systems: Common Issues

Bypass around UV light
• Sampling from mixed faucet
Key Points

• Pa RTCR effective 9/24/16.
• Appropriately certified operators must conduct Level 2 Assessments
• Level 2 Assessment is a more in-depth evaluation of the water system
• Two triggers for a Level 2 Assessment:
  – 2\textsuperscript{nd} Level 1 in a rolling 12 months
  – \textit{E. coli} MCL violation
• Level 2 Assessment form and instructions developed by DEP must be used by water systems
• \textbf{30 days} to submit the \textit{completed assessment form} from trigger date
Questions when conducting assessments

- Contact your local office/Sanitarian
- List by county in back of assessment form
Questions

• Use the chat box in the lower right to submit your questions
Jeff Allgyer
Sabrina Haydt
Bill McNamara

For more information:
http://tinyurl.com/PaRTCR2

Tom Wolf, Governor
Patrick McDonnell, Acting Secretary