

## THE REVISED TOTAL COLIFORM RULE (RTCR) ASSESSMENTS

The Federal Revised Total Coliform Rule (RTCR), 40 CFR 141, Subpart Y, became effective on April 1, 2016 and is a revision of the 1989 Total Coliform Rule (TCR). The Pennsylvania Department of Environmental Protection (DEP) adopted the rule on September 24, 2016.

ALL public water systems (PWSs), both community and non-community, groundwater and surface water, are required to comply with the RTCR. There are a number of ways the RTCR will affect public water systems:

- All PWSs must have an up-to-date sample siting plan and have it available for review.
- All PWSs must collect routine total coliform samples according to their sample siting plan.
- If any routine monthly coliform samples test positive for total coliform bacteria (i.e., TC+), then at least three check samples must be collected within 24 hours of the PWS being notified of each TC+ result.
- If any routine or check total coliform sample is TC+, the laboratory must also analyze that sample for *E. coli*.
- The acute maximum contaminant level (MCL) violation has been retained and is based on the presence of *E. coli* (i.e., EC+) as part of specific sample result circumstances.
- There is no longer a total coliform MCL. Instead, there are thresholds – referred to as “Treatment Technique (TT) Triggers” – because they trigger the need for additional actions by the water system.
- If a PWS experiences a TT Trigger, it must conduct a Level 1 or Level 2 assessment, depending on the trigger, and complete corrective actions to address any sanitary defects that are identified during the assessment.

### RTCR Assessments

#### **A Level 1 Assessment must be conducted when:**

- 1) A PWS fails to collect at least three check samples for each routine sample that tested positive for total coliform (TC+);  
or
- 2) A PWS that collects less than 40 samples per month has two or more TC+ samples (including both routine and check sample results) in one month;  
or
- 3) A PWS that collects more than 40 samples per month has greater than 5% of sample results be TC+ (including both routine and check sample results).

#### **A Level 1 Assessment can be conducted by the PWS.**

#### **A Level 2 Assessment must be conducted when:**

- 1) A PWS incurs an *E. coli* MCL violation under any of the following situations:

| Sample Result Type: ROUTINE | Sample Result Type: CHECK                  |
|-----------------------------|--|
| TC+ & EC+                   | TC+  |
| TC+ & EC+                   | Any missing check sample                   |
| TC+ & EC-                   | EC+  |
| TC+ & EC-                   | TC+ (but not analyzed for <i>E. coli</i> ) |

or

- 2) A PWS triggers two Level 1 Assessments in a rolling 12-month period.

**A Level 2 Assessment must be conducted by a certified operator with the appropriate class and subclass certifications for the water system being assessed.** It is more comprehensive and in-depth because the cause of the assessment is more critical and likely to result in a direct public health impact.

RTCR assessments look for sanitary defects. A “sanitary defect” is something that can provide a pathway of entry for microbial contamination into the distribution system or can indicate an imminent failure in an existing barrier (e.g., cracked storage tank, low disinfectant residuals, or leaks).

When sample results show that a PWS may be vulnerable to contamination, the PWS must conduct a Level 1 Assessment or Level 2 Assessment and must FIND AND FIX ANY SANITARY DEFECTS found.

There are five basic elements investigated during every RTCR Assessment:

1. Atypical events that may affect distributed water quality or indicate that distributed water quality was impaired;
2. Changes in distribution system maintenance and operation, including water storage;
3. Water source and treatment methods that affect distributed water quality;
4. Inadequacies in sample sites, sampling protocol, and sample processing; and
5. Existing water quality monitoring data.

A Level 2 assessment is more comprehensive and in-depth compared to a Level 1 assessment because the cause of the assessment is more critical and likely to result in a direct public health impact.

**What to do if you trigger an assessment?**

Within 30 days of learning that your PWS triggered an assessment, a completed assessment form must be submitted to your local DEP office. The process for completing and submitting the required form depends on the type of assessment. In both cases, DEP will review the completed assessment form to determine if the likely cause of the trigger has been identified and to ensure the problem is corrected.

**Conducting an RTCR Assessment**

- STEP 1:** Call your DEP Sanitarian or your local DEP Office (see contact numbers below) and verify the appropriate party to conduct the assessment.
- STEP 2:** Ask DEP for the Level 1 or Level 2 Assessment Form and verify the process for submission.
- STEP 3:** Ensure the assessment is completed by an appropriate party.
- STEP 4:** Fix ALL sanitary defect(s) found within 30 days of triggering the assessment, or propose a corrective action schedule for fixing them and get DEP approval.
- After completing each scheduled corrective action you must notify DEP.
  - Your system or DEP may consult with each other at any time to discuss progress or the corrective action(s) identified.
- STEP 5:** Submit the completed assessment form to your local DEP office within 30 days of triggering the assessment.

| Regional Office | Counties Covered  | Safe Drinking Water Program |
|-----------------|---|-----------------------------|
| Northeast       | Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming                             | 570-826-2511                |
| North-central   | Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union | 570-327-3490                |
| Northwest       | Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren                                  | 814-332-6899                |
| Southeast       | Bucks, Chester, Delaware, Montgomery, Philadelphia  | 484-250-5980                |
| South-central   | Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York  | 717-705-4708                |
| Southwest       | Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland                                 | 412-442-4217                |

For more information, visit [www.dep.pa.gov](http://www.dep.pa.gov).