



The Revised Total Coliform Rule: Seasonal Public Water Systems

This fact sheet intends to explain key requirements under the Revised Total Coliform Rule for small, seasonal public water systems that use ground water and serve water to 1,000 people or less. It is not a complete summary of the requirements.

What is the Revised Total Coliform Rule (RTCR)?

The Revised Total Coliform Rule took effect on April 1, 2016. It changed the monitoring and response requirements for total coliform bacteria (TC). Additional information is available at: <http://epa.ohio.gov/ddagw/rtrcr.aspx>

Three types of Seasonal PWSs:

1. **Depressurized:** The entire water system is depressurized (**all** of the waterlines are drained) for a period of time each year.
2. **Partially-Depressurized:** The water system is partially-depressurized (**some** of the waterlines are drained) for a period of time each year.
3. **Fully-Pressurized Year-Round:** The entire water system stays fully-pressurized year-round (**none** of the waterlines are drained), but no one has access to the water for a period of time during the year (must be more than **90** consecutive days).

Routine Monitoring

As required by the Revised Total Coliform Rule, seasonal public water systems (PWSs) will be switched over to one of the following monitoring schedules during their next site visit from the Ohio EPA:

- **Depressurized:**
Once/month during operating season
- **Partially-Depressurized:**
Once/month during primary operating season, and
Once/quarter during off-season
- **Fully-Pressurized Year-Round:**
Once/quarter during operating season

Repeat Monitoring and Source Water Monitoring

Within 24 hours of being notified of a TC+ routine sample, systems are required to collect 3 repeat samples for each TC+ routine sample, unless an extension is justified.

Ground water systems may also be required to collect a source water sample within 24 hours. Source water sampling is required if the system has more than one (1) well, or it has any treatment beyond a cartridge filter and/or water softener. A source water sample must be collected from each well that was in service when the TC+ routine sample was collected. The sample must be collected from a sample tap before any treatment.

Temporary Routine Monitoring

Systems that monitor **quarterly** for total coliform are required to collect three (3) routine samples during the month following a TC+ routine sample. The samples must be collected one of the following ways:

1. **3 Different Taps** = Collect all three (3) samples on the **same day** from three (3) different taps.
2. **3 Different Days** = Collect one (1) sample per day on three (3) **different days**. The days must be evenly spaced throughout the month (e.g., 1 sample the first week, 1 sample the second week, 1 sample the third week).

Key Requirements

- Depressurized and partially-depressurized seasonal PWSs:
 - Must complete the Start-Up Checklist and submit the “Seasonal Start-Up Certification Form” every year before they begin serving water to the public.
 - Will transition to their new total coliform routine monitoring schedule no later than their next site visit from Ohio EPA.
- All systems must collect three (3) repeat samples, and source water sample(s) (if applicable), within 24 hours of notification.
- TC+ samples may trigger an assessment to find and fix the cause.
- Systems must update their Total Coliform Sample Siting Plan. The seasonal template is available at: <http://epa.ohio.gov/ddagw/rtrcr.aspx>

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Systems on **monthly** monitoring resume collecting routine samples according to their monitoring schedule during the month following a TC+ result.

Assessments

The RTCR requires a “Find & Fix” approach when bacteria are present in the water system. If a trigger occurs, a Level 1 or Level 2 Assessment must be performed.

What is a Level 1 Assessment?

Basic examination of the entire water system to try to identify the cause of the TC+ samples. Ohio EPA will contact the PWS to conduct the assessment.

What triggers a Level 1 Assessment?

- 1) 2 or more TC+ samples during the same month;
- 2) When the required repeats samples are not collected, or are not collected in a timely manner, after a routine samples is TC+ (E. coli-negative).

What is a Level 2 Assessment?

A more in-depth examination of the entire water system. Ohio EPA inspector will perform this evaluation on site with the PWS.

What triggers a Level 2 Assessment?

- 1) E. coli maximum contaminant level violation;
- 2) A second Level 1 Assessment is triggered within a 12-month period (Problem was not resolved after the 1st Level 1 Assessment);
- 3) When the required repeat samples are not collected, or are not collected in a timely manner, after a routine sample is E. coli-positive.

Increased Monitoring

Systems on quarterly monitoring can get increased to monthly monitoring if they meet **any** of the criteria listed in Table A. These systems may be reduced back to quarterly monitoring if **all** of the criteria listed in Table B are met.

Table A. My routine monitoring will increase to monthly if my system:

- 1) Triggers a Level 2 Assessment;
- 2) Triggers two Level 1 Assessments within 12 months;
- 3) Has an E. coli MCL violation;
- 4) Has a coliform treatment technique violation;
- 5) Has two RTCR monitoring violations within 12 months;
- 6) Triggers a Level 1 Assessment and an RTCR monitoring violation within 12 months.

The increase to monthly would only affect seasonal PWSs on quarterly monitoring for at least one quarter.

Table B. My system could return to quarterly monitoring if **all** of the following criteria are met:

- 1) Sanitary survey, site visit, or Level 2 Assessment within the past 12 months;
- 2) 12 months of clean compliance history;
- 3) No significant deficiencies;
- 4) Protected source water;
- 5) Valid License to Operate; and
- 6) No outstanding violations of the following: nitrate/nitrate (MCL or monitoring), source water monitoring, treatment technique requirements, or operational requirements.

Depressurized and partially-depressurized seasonal PWSs cannot return to quarterly monitoring year-round, even if the above criteria are met.

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Start-Up Checklist and Certification Form

All depressurized and partially-depressurized seasonal PWSs are required to complete the start-up procedure **every year**. The start-up procedure shall be completed as follows:

- Complete the “Seasonal Public Water System Start-Up Requirements and Checklist” (a.k.a. “Start-Up Checklist”). Keep it on file for at least five years for Ohio EPA review.
- The Start-Up Checklist includes the collection of at least one “Start-Up” special purpose TC sample from the tap considered to be the most susceptible to contamination. The sample cannot be collected near the well (e.g., wellhouse, pressure tank, pump room). Mark the sample as follows on the Sample Submission Report:
 - Sample Type = **Special**
 - Sample Monitoring Point = **SUP01**
 - Facility Code = **DS1**
 - Comments = **“Start-Up”**
- **If the “Start-Up” sample is TC-negative**, the water system must complete and submit the “Seasonal Start-Up Certification Form.” Please note that the “Seasonal Start-Up Certification Form” must be **received by Ohio EPA before the system serves water to the public**.
- **If the “Start-Up” sample is TC+**, the water system must repeat the disinfection and flushing procedure and collect at least two (2) total coliform samples at least 24 hours apart. The water system must have at least two (2) TC-negative samples collected at least 24 hours apart before the system can submit the “Seasonal Start-Up Certification Form” and begin serving water to the public. Contact the local Ohio EPA District Office if there are any questions.

The “Seasonal Start-Up Certification Form” cannot be submitted until the system receives TC-negative start-up sample results. Therefore, the system should **request results from the lab as soon as they are available**.

NOTE: The start-up sample is required **in addition to** the routine samples. The start-up sample is collected **prior to opening** for the season. Routine samples are collected **after opening** for the season (see following example).

Total Coliform Monitoring Example

The following example is of a seasonal public water system which is open from April 15th to September 15th. All of the waterlines are drained during the winter, which makes it a depressurized seasonal system. This system had a visit from Ohio EPA and has transitioned to its new monthly monitoring schedule. This system would be required to complete the following total coliform monitoring each year:

	Before Opening	Example Samples Collected After Opening (facility is open April 15 th – September 30 th)					
Required Sampling:	Collect start-up sample(s)	Collect 1 routine total coliform sample per month during the operating season					
Example Sampling Conducted:	1 sample collected on April 2 nd	1 sample collected on April 18 th	1 sample collected on May 5 th	1 sample collected on June 8 th	1 sample collected on July 25 th	1 sample collected on August 4 th	1 sample collected on September 17 th

Sample Siting Plan

All public water systems must update their Total Coliform Sample Siting Plan. The “Seasonal Total Coliform Sample Siting Plan Template” is available online at: <http://epa.ohio.gov/ddagw/rtrc.aspx>. The physical locations of routine, repeat, source water, and seasonal start-up samples noted in the Sample Siting Plan must match the locations listed on the Sample Submission Report (SSR). **NOTE:** PWSs that do not conduct their monitoring in accordance with their written Sample Siting Plan can incur a monitoring violation.

Contact

For more information, visit: <http://epa.ohio.gov/ddagw/rtrc.aspx> or contact your inspector in the appropriate District Office:

Northwest: 419-352-8461

Northeast: 330-963-1200

Central: 614-728-3778

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