

Repeat Monitoring Requirements For Small Waterworks

WHO DOES THIS FACTSHEET APPLY TO?

ALL WATERWORKS SERVING 1,000 OR FEWER PEOPLE that are required to conduct repeat monitoring when a water sample is POSITIVE FOR TOTAL COLIFORM (TC+) BACTERIA.

RTCR

What to Do?

Step 1

Collect 3 repeat samples after each TC+ routine sample

Step 2

Conduct required actions after collecting repeat samples



Additional RTCR Factsheets:

- Requirements for Small Waterworks on Monthly Monitoring
- Requirements for Small Waterworks on Quarterly Monitoring
- Requirements for Seasonal Waterworks
- Level 1 & Level 2 Assessments and Corrective Actions

ATTENTION!

All waterworks must comply with the RTCR requirements starting April 1, 2016.

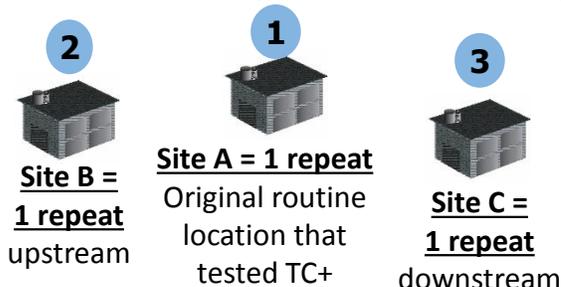
✓ Are you a waterworks owner? To contact the appropriate ODW field office, go to: <http://www.vdh.virginia.gov/odw> and search using the "Contact Information" Tab

STEP 1: COLLECT 3 REPEAT SAMPLES FOR EACH ROUTINE TC+ SAMPLE

YOU MUST COLLECT A SET OF 3 REPEAT SAMPLES AFTER EACH TC+ ROUTINE SAMPLE. You must continue to collect a set of 3 repeat samples until either TC is not detected in one complete set of repeat samples or you trigger an assessment (See the **RTCR Factsheet: Level 1 & Level 2 Assessments and Corrective Actions**).

Repeat Sampling Locations

You must collect at least 3 repeat samples at the locations described in your approved bacteriological sample siting plan (BSSP): (1) One (1) repeat sample at the original routine location, (2) one (1) repeat sample within five service connections upstream, and (3) one (1) repeat sample within five service connections downstream of the TC+ sample.



ATTENTION!

COLLECT ALL 3 REPEAT SAMPLES.

If you do not collect and analyze at least 3 repeat samples (for each routine TC+), you will have to perform a Level 1 or Level 2 Assessment.

See the **RTCR Factsheet: Level 1 & Level 2 Assessments and Corrective Actions**.

Frequency & Timing

Collect all 3 repeat samples **WITHIN 24 HOURS AFTER RECEIVING NOTIFICATION OF THE TC+ SAMPLE RESULT.**

- Remember the lab must begin analyzing the drinking water sample no later than the 30th hour from the collection time.
- If necessary, ship the sample overnight (cooled to about 4° to 10° C) using ice or ice packs (e.g., "blue ice") to maintain the temperature during transit. Consult with your lab on the "transport protocol".



NOTES

*CALL YOUR ODW FIELD OFFICE on the same day you learned of the *E. coli*-positive (EC+) result, or by the end of the next business day, and tell them you received an EC+ result.

STEP 2: FOLLOW-UP ACTIONS REQUIRED AS A RESULT OF YOUR REPEAT SAMPLING

You must **COMPLETE AN ASSESSMENT AND SUBMIT THE FORM TO THE ODW FIELD OFFICE WITHIN 30 DAYS** after you learned your waterworks has triggered an assessment. See the **RTCR Factsheet: Level 1 & Level 2 Assessments and Corrective Actions**.

- **TC+** = Total coliform-positive or present; **TC-** = Total coliform-negative or absent
- **EC+** = *E. coli*-positive or present; **EC-** = *E. coli*-negative or absent; **EC?** = *E. coli* not analyzed

If Routine Sample Is:	And	Any Repeat Sample Is:	Action: What do your sample results mean?	Violation
TC+ EC-	&	TC+ EC-	The presence of total coliform bacteria in both your original routine sample and in your follow-up repeat sample suggests there could be a contamination pathway into the water system. 1. WATERWORKS OWNER MUST CONDUCT A LEVEL 1 ASSESSMENT.	No PMCL violation
TC+ EC-	&	TC+ EC?	The presence of total coliform bacteria in both your original routine sample and in your follow-up repeat sample suggests there could be a problem and because <i>E. coli</i> was not tested, the ODW field office will advise you of the next steps. 1. NOTIFY THE ODW FIELD OFFICE within 24 hours of receiving the sample results 2. ODW FIELD STAFF WILL INITIATE & CONDUCT A LEVEL 2 ASSESSMENT. 3. THE WATERWORKS OWNER MUST ISSUE A TIER 1 PUBLIC NOTICE (PN).	<i>E. coli</i> PMCL violation*
TC+ EC-	&	TC+ EC+	The presence of <i>E. coli</i> bacteria in your water is an indicator of fecal contamination and your water may not be safe to use. 1. NOTIFY THE ODW FIELD OFFICE within 24 hours of receiving the sample results 2. ODW FIELD STAFF WILL INITIATE & CONDUCT A LEVEL 2 ASSESSMENT. 3. THE WATERWORKS OWNER MUST ISSUE A TIER 1 PUBLIC NOTICE (PN).	<i>E. coli</i> PMCL violation*
TC+ EC-	&	Any or all repeat samples missing	The presence of total coliform bacteria in your original routine sample suggests there could be a problem and because repeat samples were not tested, the water system must be evaluated for a contamination pathway. 1. DEPENDING ON RECENT BACTERIOLOGICAL HISTORY, EITHER A LEVEL 1 OR A LEVEL 2 ASSESSMENT MAY BE REQUIRED. WATERWORKS OWNER TO CONTACT the ODW field office for help determining which type of assessment is required.	No PMCL violation
TC+ EC+	&	TC+	The presence of <i>E. coli</i> bacteria in your water is an indicator of fecal contamination and your water may not be safe to use. 1. NOTIFY THE ODW FIELD OFFICE within 24 hours of receiving the sample results 2. ODW FIELD STAFF WILL INITIATE & CONDUCT A LEVEL 2 ASSESSMENT. 3. THE WATERWORKS OWNER MUST ISSUE A TIER 1 PUBLIC NOTICE (PN).	<i>E. coli</i> PMCL violation*
TC+ EC+	&	Any or all repeat samples missing	The presence of <i>E. coli</i> bacteria in your water is an indicator of fecal contamination and your water may not be safe to use. 1. NOTIFY THE ODW FIELD OFFICE within 24 hours of receiving the sample results 2. ODW FIELD STAFF WILL INITIATE & CONDUCT A LEVEL 2 ASSESSMENT. 3. THE WATERWORKS OWNER MUST ISSUE A TIER 1 PUBLIC NOTICE (PN).	<i>E. coli</i> PMCL violation*

NOTE

* The waterworks owner is required to provide Tier 1 public notice within 24 hours in response to an *E. coli* PMCL violation. [*E. coli* is a species of coliform bacteria. Some strains of *E. coli* are waterborne pathogens, and *E. coli* is the best indicator of fecal contamination.]