



Repeat Monitoring Requirements For Small Systems

WHO DOES THIS REFERENCE GUIDE APPLY TO?

ALL PUBLIC WATER SYSTEMS (PWSs) SERVING 1,000 PEOPLE OR FEWER 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

Collect source sample

Step 3

Conduct required actions after collecting repeat samples

Additional RTCR Reference Guides:

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

FOR ASSISTANCE, PLEASE CONTACT:

IDEM - DRINKING WATER BRANCH

PHONE: (317) 234-7430

EMAIL: DWBMGR@IDEM.IN.GOV

ATTENTION!

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

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.

Repeat Sampling Locations

You must collect at least 3 repeat samples at the locations described in your site sample plan: (1) 1 repeat sample at the original routine location, (2) 1 repeat sample within five service connections upstream, and (3) 1 repeat sample within five service connections downstream of the TC+ sample. You may choose alternative repeat sampling locations on a situational basis—contact IDEM for more information.



Site B = 1 repeat upstream



Site A = 1 repeat Original routine location that tested TC+



Site C = 1 repeat downstream

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 Reference Guide: Level 1 & Level 2 Assessments and Corrective Actions.**

Frequency & Timing

REMINDER: ANALYZE ALL REPEAT TC+ SAMPLES FOR *E. COLI*.*

Collect all 3 repeat samples and source samples **WITHIN 24 HOURS** AFTER RECEIVING NOTIFICATION FROM THE STATE-CERTIFIED LAB OF THE TC+ SAMPLE RESULT.** The repeat samples and source samples must be taken on the same day.

NOTES

* **Ground water systems must collect at least one ground water source sample for each source in use at the time the total coliform positive sample was collected.**

** Call IDEM DWB (317) 234-7430 on the same day you learn of the EC+ result, or by the end of the next business day or after hours emergency line (888) 233-7745 and tell them you received an EC+ result.

** *Contact IDEM for an approved extension if logistical problems prevent collection of repeat samples within 24 hours.

STEP 2: CONDUCT ACTIONS REQUIRED AS A RESULT OF YOUR REPEAT SAMPLING

- **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

You must **COMPLETE AN ASSESSMENT AND SUBMIT THE FORM TO IDEM WITHIN 30 DAYS** after you learned your PWS has triggered an assessment. See the **RTCR Reference Guide: Level 1 & Level 2 Assessments and Corrective Actions**.

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 problem and your water may not be safe to use. 1. CONDUCT A LEVEL 1 OR LEVEL 2 ASSESSMENT. Contact IDEM for help determining which type of assessment is required.	No MCL 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, it is unknown whether or not the water is safe to use. 1. NOTIFY IDEM within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL 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 IDEM within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL 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, it is unknown whether or not the water is safe to use. 1. CONDUCT A LEVEL 1 OR LEVEL 2 ASSESSMENT. Contact IDEM for help determining which type of assessment is required.	No MCL 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 IDEM within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL 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 IDEM within 24 hours of receiving sample results 2. CONDUCT A LEVEL 2 ASSESSMENT. 3. ISSUE A PUBLIC NOTICE (PN).	<i>E. coli</i> MCL violation*

NOTE: * You are required to provide Tier 1 public notice within 24 hours in response to an *E. coli* MCL violation.