



REFERENCE GUIDE: Revised Total Coliform Rule

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT • www.idem.IN.gov



Level 1 & Level 2 Assessments and Corrective Actions

WHO DOES THIS REFERENCE GUIDE APPLY TO?

PUBLIC WATER SYSTEMS (PWSs) SERVING 1,000 PEOPLE OR FEWER THAT MUST CONDUCT A LEVEL 1 OR LEVEL 2 ASSESSMENT.

RTCR

What to know?

- What is an Assessment?
- What to do if you are triggered to conduct an assessment.



Additional RTCR Reference Guides:

- Requirements for Small Systems on Monthly Monitoring
- Requirements for Small Systems on Quarterly Monitoring
- Requirements for Seasonal Systems
- Repeat Monitoring Requirements for Small Systems

FOR ASSISTANCE, PLEASE CONTACT

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ATTENTION!

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

WHAT IS AN ASSESSMENT?

When sample results show that your PWS may be vulnerable to contamination (i.e. TC + or EC+), PWSs must perform an assessment (Level 1 or Level 2) and **FIND AND FIX ANY "SANITARY DEFECTS."** A sanitary defect can provide a pathway of entry for microbial contamination into the distribution system or indicate imminent failure in an existing barrier (e.g. cracked tank, rat droppings on wellheads, or broken seals).

THERE ARE 5 BASIC ELEMENTS TO INVESTIGATE DURING AN ASSESSMENT:

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

A LEVEL 2 ASSESSMENT IS A MORE COMPREHENSIVE AND IN-DEPTH EXAMINATION COMPARED TO A LEVEL 1 ASSESSMENT because the cause of the Level 2 assessment is more critical and likely to result in a direct public health impact.

- A Level 2 assessment must be conducted by IDEM or a party approved by IDEM. This information is available at <http://www.in.gov/idem/cleanwater/2494.htm>. A Level 1 assessment is typically conducted by the PWS.
- You have 30 days (after learning that you triggered the assessment) to complete the assessment, correct sanitary defects found, and submit the completed assessment form to IDEM. For sanitary defects found but NOT fixed within the 30 days, you must obtain a state-approved schedule. **AFTER COMPLETING EACH SCHEDULED CORRECTIVE ACTION, YOU MUST NOTIFY IDEM TO AVOID VIOLATIONS.**

Examples of Common Causes of Contamination	Example Common Corrective Action(s)
Loss of system pressure	<ul style="list-style-type: none"> ✓ Maintenance of adequate pressure ✓ Valve maintenance ✓ Addition or upgrade of on-line monitoring & control
Cross connections	<ul style="list-style-type: none"> ✓ Maintenance of adequate pressure ✓ Installation of backflow prevention assembly/device ✓ Implementation/upgrade of cross connection control program
Cracks in well seal, casing, etc.	<ul style="list-style-type: none"> ✓ Replacement/repair of well components

WHAT TO DO IF YOU TRIGGER AN ASSESSMENT?

WITHIN 30 DAYS OF LEARNING THAT YOUR PWS HAS TRIGGERED AN ASSESSMENT, a completed state assessment form must be submitted to IDEM. The process for completing and submitting the required form depends on the type of assessment. In both cases, IDEM will review the completed assessment form to determine if the likely cause of the trigger has been identified and to ensure the problem has been corrected.

Level 1 Assessment

You have to do a Level 1 Assessment if you:

1. Fail to collect and analyze at least 3 repeat samples for each routine TC+; or
2. Have two or more TC+ samples (use routine and repeat results in your calculation) in one month.



Your system conducts the assessment.

STEP 1: Call IDEM, and verify the appropriate person to conduct the assessment (the assessor).

STEP 2: Ask IDEM for the Level 1 assessment form and determine the process for submission.

STEP 3: Perform the assessment.

STEP 4: If sanitary defect(s) are found, fix them or propose and gain a state-approved schedule for fixing, if the sanitary defect(s) cannot be corrected within 30 days of triggering the assessment.
— After completing each scheduled corrective action you must notify IDEM.

STEP 5: Submit the completed assessment form to IDEM within 30 days of learning that your system triggered the assessment.

Level 2 Assessment

You have to do a Level 2 Assessment if you have either:

1. *E. coli* MCL violation:

Routine	Repeat
TC+ & EC-	<i>E. coli</i> -positive (EC+)
TC+ & EC-	TC+ but not analyzed for EC
TC+ & EC+	TC+
TC+ & EC+	One or more samples is missing

2. Two Level 1 triggers in a rolling 12-month period.

IDEM approves the party that will conduct the assessment.

STEP 1: Call IDEM to select the appropriate person to conduct the assessment (the assessor).

— **Assessors may be IDEM, a third party or qualified staff from your system.**

STEP 2: Ask IDEM for the Level 2 assessment form and determine the process for submission.

STEP 3: Have the assessment performed.

STEP 4: If sanitary defect(s) are found, fix them or propose and gain a state-approved schedule for fixing, if the sanitary defect(s) cannot be corrected within 30 days of triggering the assessment.
— After completing each scheduled corrective action you must notify IDEM.

STEP 5: Submit the completed assessment form to IDEM within 30 days of learning that your system triggered the assessment.

NOTES—Your PWS will get a treatment technique violation if you:

- Fail to perform an assessment or take corrective action; or,
 - Fail to submit the completed assessment form to IDEM within 30 days of learning that it triggered the assessment.
- You are required to provide Tier 2 public notice within 30 days in response to a treatment technique violation.