EPA Federal Revised Total Coliform Rule (RTCR)

Level 1 and Level 2 Assessment Overview
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March 3, 2017 – TCEQ sent to the DWAWG Stakeholders the REVISED Level 1 and Level 2 Assessment forms for review and feedback.

March 17, 2017 – TCEQ received feedback from DWAWG Stakeholders and is incorporating these comments into the final assessment forms.
The RTCR requires PWSs that have an indication of coliform contamination as a result of total coliform (TC) + samples OR *E. coli* MCL (EMCL) violations to assess the problem and take corrective action.

**TWO** levels of assessments
- **Level 1** and **Level 2** - based on the severity or frequency of the problem.
1.1 - Assessments and Corrective Actions

Purpose of Level 1 and Level 2 Assessments
To find **Sanitary Defects** at the PWS which could provide a pathway of entry for microbial contamination into the distribution system such as:

- inadequate Sampling Protocol or Sample Site
- inadequate treatment or maintenance of residual disinfection levels
- low distribution system pressure
- no backflow protection/cross-connection control
- line breaks
- deteriorated water storage facilities or infrastructure
1.2 - Assessments and Corrective Actions

Deadline for Completing Assessments
40 CFR §141.859

A PWS must complete and submit a Level 1 or Level 2 assessment form to the State within 30 days after the system learns that it has exceeded a trigger.

• **Level 1 and 2 assessments** - PWSs must conduct or ensure that an assessment is conducted consistent with State requirements.

• **Level 2 assessments** - PWSs must comply with any expedited actions or additional actions required by the State in the case of an *E. coli* MCL violation.
Deadlines for Completing Corrective Actions (1)

Sanitary Defects identified during a Level 1 or Level 2 Assessment should be corrected as soon as possible. The PWS must complete corrective actions by one of the following timeframes:

- No later than the time the assessment form is submitted to the state, which must be within 30 days of triggering the assessment, or
- Within state-approved timeframe which was proposed by the PWS in the assessment form.
1.4 - Assessments and Corrective Actions

Deadlines for Completing Corrective Actions (2)

40 CFR §141.859 – Level 1 and Level 2 Assessments

- The Assessment form may also note that **no Sanitary Defects** were identified.

- The Assessment form must be completed and submitted to the State **within 30 days even if no Sanitary Defects were identified**.
1.5 - Assessments and Corrective Actions

Deadlines for Completing Corrective Actions (3)
40 CFR §141.859

• **Consultation** - At any time during the assessment or corrective action phase, either the PWS or the State may request a consultation with the other party to determine the appropriate actions to be taken.

• The PWS may consult with the State on all relevant information that may impact on its ability to comply with a requirement, including the method of accomplishment and an appropriate timeframe.
1.6 - Assessments and Corrective Actions

Level 1 Assessment Triggers

Level 1 Assessment is triggered if **any one** of the following occurs:

- A PWS collecting **fewer than 40 samples per month** has 2 or more TC+ routine and repeat samples in the same month.

- A PWS collecting **40 or more samples per month** has greater than 5.0 percent of the routine and repeat samples in the same month that are TC+.

- A PWS fails to take every required **repeat** sample after any single TC+ sample.
1.7 - Assessments and Corrective Actions

Level 2 Assessment Triggers

Level 2 Assessment is triggered if any one of the following occurs:

• A PWS incurs an *E. coli* MCL violation.

• A PWS has a **second Level 1 Assessment** within a rolling 12-month period,

• *unless* the State has determined a likely reason that the samples that caused the first Level 1 treatment technique trigger were total coliform-positive and has established that the PWS has corrected the problem.

• If the State determines that a PWS is not required to conduct a Level 2 assessment based on the occurrence of a second Level 1A within a rolling 12-month period, **the PWS is still required to conduct an L1A.** *(40 CFR §141.859)*
1.8 - Assessments and Corrective Actions

Example of Level 1 and Level 2 Assessor Qualifications

• An understanding of the objectives and structure of the RTCR
• Familiar with bacteriological sampling practices
• A working knowledge of how to interpret:
  - Distribution system water quality data
  - Distribution system operational data
  - Source of supply data
• An understanding of disinfection practices and treatment changes
• Operator certification level appropriate to PWS type/size
Level 1 and Level 2 Assessor Qualifications

Level 1 and Level 2 assessments shall be conducted and completed by:

- the PWS;
- licensed operators as required under §290.46(e); or
- other parties approved by the TCEQ.

The PWS, licensed operators, and other parties approved by the TCEQ shall have also completed training as required by the TCEQ upon notice to the PWS in writing.
Other parties approved by the TCEQ include, but not limited to:

- backflow prevention assembly testers and CSIs;
- plumbing inspectors and water supply protection specialists;
- licensed professional engineers (Tx Board of P.E.s);
- circuit riders or technical assistance providers under contract with the TCEQ or government agency approved by TCEQ; or
- utility supervisor or manager supported by various utility staff or other individuals.
Assessors who have conducted Level 1 assessments which were determined by the executive director to be insufficient or inadequate may be required to complete additional training or obtain certifications as prescribed by the TCEQ.
## 2.0 - Major Violations

**E. coli Maximum Contaminant Level (MCL)**

<table>
<thead>
<tr>
<th>Routine</th>
<th>Repeat</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC+</td>
<td>TC+</td>
</tr>
<tr>
<td>EC+</td>
<td>Any missing sample</td>
</tr>
<tr>
<td>EC+</td>
<td>EC+</td>
</tr>
<tr>
<td>TC+</td>
<td>EC+</td>
</tr>
<tr>
<td>TC+</td>
<td>TC+ (but no <em>E. coli</em> analysis)</td>
</tr>
</tbody>
</table>
2.1 - Major Violations

**E. coli Maximum Contaminant Level (MCL) Violation**

- **Public Notice (PN)** - An *E. coli* MCL violation requires a PWS to issue a PN under 30 TAC §290.122(a)(1) for acute violations or situations.

- **Boil Water Notice (BWN)** - An *E. coli* MCL violation requires a PWS to issue a BWN under 30 TAC §290.46(q)(3) and §290.122(a)(2)(A) for acute microbiological or turbidity violation.
2.2 - Major Violations

Treatment Technique Violation

• Failure to conduct a Level 1 or Level 2 Assessment within 30 days of a trigger.

• Failure to correct all sanitary defects from a Level 1 or Level 2 Assessment within 30 days of a trigger or in accordance with the state-approved timeframe.

• Failure of a seasonal system to complete state-approved start-up procedures prior to serving water to the public.
## 2.3 - Monitoring(M) & Reporting(R) Violations

<table>
<thead>
<tr>
<th>RTCR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monitoring</strong> violations and <strong>Reporting</strong> violations will be tracked separately as <strong>2 different violation types</strong></td>
</tr>
<tr>
<td>Newly specified M/R violations:</td>
</tr>
<tr>
<td>– <strong>M</strong> - Failure to <strong>take every required routine</strong> or additional routine sample in a compliance period.</td>
</tr>
<tr>
<td>– <strong>M</strong> - Failure to <strong>analyze for E. coli</strong> following a TC+ routine sample.</td>
</tr>
<tr>
<td>– <strong>R</strong> - Failure to <strong>submit a monitoring report or completed assessment form</strong> after monitoring or conducting assessment correctly/timely.</td>
</tr>
<tr>
<td>– <strong>R</strong> - Failure to <strong>notify the state following an E. coli +</strong> sample.</td>
</tr>
<tr>
<td>– <strong>R</strong> - Failure to <strong>submit certification of completion of state-approved start-up procedure</strong> by a seasonal system.</td>
</tr>
</tbody>
</table>
## 2.4 - Public Notice for MCL-TT-M&R Violations

<table>
<thead>
<tr>
<th>RTCR</th>
<th>Tier</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E. coli MCL violations</strong> (24 hours)</td>
<td>Tier 1</td>
</tr>
<tr>
<td>Treatment technique (TT) violations (30 days)</td>
<td>Tier 2</td>
</tr>
<tr>
<td>Monitoring (Annual/or elevated to T1 or T2)</td>
<td>Tier 3</td>
</tr>
<tr>
<td>Reporting (Annual/or elevated to T1 or T2)</td>
<td>Tier 3</td>
</tr>
</tbody>
</table>

40 CFR 141.63(b) & (d); 141.202; 141.203 & 141.860(a)-(b)
Public Notice for Failure to Maintain L1 and L2 Assessment Documentation

- **Recordkeeping** - PWSs must maintain any assessment form and documentation of sanitary defects and corrective actions completed as a result of assessments for a period not less than **five years** after completion. (*40 CFR §141.861(b) - RTCR*)

- **Public Notice** - PWSs must provide public notice for **Reporting** and **Recordkeeping** violations under the RTCR. (*§141.204(a) - Tier 3 Public Notice*)
3.0 - TCEQ Technical Assistance

- TCEQ will provide updated training to TCEQ’s Financial, Managerial, and Technical (FMT) contractor concerning Level 1 assessment requirements once the forms are finalized.

- TCEQ is providing on-site technical assistance to PWSs that trigger a Level 2 assessment.
Questions?
RTCR Information

TCEQ’s RTCR Website

http://www.tceq.texas.gov/goto/RTCR

Or Search: TCEQ RTCR

EPA’s RTCR Guidance

can be found at:

http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/regulation_revisions.cfm
TCEQ Water Supply Division

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