



The Safe Drinking Water Act requires the U.S. Environmental Protection Agency (EPA) to review and revise, as necessary, each drinking water regulation at least every six years. The Total Coliform Rule (TCR) was originally published in 1989; the TCR is the only microbial drinking water regulation that applies to all public water systems (PWSs). The main objectives of the TCR were to evaluate the effectiveness of treatment, determine integrity of the distribution system, and to signal the possible presence of microbial contamination. In 2003, the EPA decided that it was time to revise the TCR. An advisory committee of 15 organizations, including the National Rural Water Association, was formed to make recommendations for rule revisions. The final Revised Total Coliform Rule (RTCR) was promulgated on February 13, 2013. The RTCR aims for greater public health protection using a “find and fix” approach.

The top three provisions of the RTCR

It is important to note that in the state of Kansas, the RTCR is yet to be adopted as a state regulation. Currently the RTCR exists as a federal regulation and the rule is currently under development by the Kansas Department of Health and Environment (KDHE). KDHE has an agreement with the EPA to implement the rule prior to obtaining primacy. Although there is no official regulatory language from KDHE at this point, KDHE has expressed intentions on how the

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agency plans to implement the RTCR. All PWSs must comply with the RTCR beginning April 1, 2016.

1. Monitoring

The current TCR requires that PWSs conduct routine (monthly) monitoring for total coliform (TC) bacteria in the distribution system. The number of required samples varies depending on population served. Under the RTCR the number of required routine TC samples will not change. Also, KDHE intends to maintain the monitoring frequency at monthly. This is a change from the federal regulation. EPA’s RTCR allows for reduced (quarterly) TC monitoring for groundwater systems that serve less than 1,000 if the system meets specific requirements. KDHE also intends to be more stringent than the federal RTCR by not allowing groundwater systems that serve less than 4,900 to collect all routine TC samples on the same day. These systems will be required to spread out their TC sampling throughout each month.

There will be no change in repeat sampling requirements. If any routine TC sample tests positive, it must also be tested for the presence of *E. coli* and the water system will be required to collect three repeat samples. One sample is to be collected at the site of

the original TC+, one sample is to be collected within five service connections upstream of the TC+, and one sample is to be collected within five service connections downstream of the TC+. KDHE will not require water systems to update their TC sampling

plans unless the system wants to designate specific locations for repeat sampling.

2. Violations

Another change under the RTCR is Maximum Contaminant Level (MCL)

Kansas Environmental Application Portal (KEAP)

PWS representatives who are not already registered with the KEAP will need to request a user name and password by visiting <http://keap.kdhe.state.ks.us/>. It may take up to one week to receive a user name and password via email. It's a good idea for systems to obtain access to the KEAP sooner rather than later. If your system is triggered into a Level 1 Assessment, you do not want to have to wait for access to KEAP in order to complete the assessment.

violations. A PWS will be in violation of the *E. coli* MCL if any of the following sample result combinations occur:

Routine	Repeat
EC+	TC+
EC+	Any missing sample
EC+	EC+
TC+	EC+
TC+	TC+ (but no <i>E. coli</i> analysis)

Violation of the *E. coli* MCL requires PWSs to distribute Tier 1 Public Notice within 24 hours.

3. Assessments

The biggest change that some water systems will experience under the RTCR is the Level 1 and Level 2 Assessments. This is where the “find and fix” approach comes in. The RTCR requires PWSs to investigate the system when monitoring results show the system may be vulnerable to contamination and correct any “sanitary defects” identified. There are two levels of assessments based on the severity and frequency of the problem.

The following situations will trigger a Level 1 Assessment:

- A PWS collecting fewer than 40 samples per month has two or more TC+ routine and/or repeat samples in the same month.
- A PWS collecting at least 40 samples per month has greater than 5.0 percent of the routine/repeat samples in the same month that are TC+.
- A PWS fails to take every required repeat sample after any single TC+ sample.

Examples of Sanitary Defects	Examples of Corrective Actions
Damaged chlorine feeder	Repaired or replaced on a specific date
Excessive residence times in the distribution system where minimal disinfectant residual levels are not met	Reduce excessive residence times with flushing and begin regular line flushing routine beginning on a specific date
Hatch not sealed on a storage tank	Repaired tank on a specific date

Level 1 Assessments will be conducted by the PWSs, within 30 days of notification, using the KDHE’s online Kansas Environmental Application Portal (KEAP).

The following situations would trigger a Level 2 Assessment:

- A PWS incurs an *E. coli* MCL violation.
- A PWS has a second Level 1 Assessment within a rolling 12-month period.

Level 2 Assessments will be more detailed than a Level 1 Assessment and they will be conducted by KDHE within 30 days of a trigger.

If a “sanitary defect” is identified during either a Level 1 or Level 2 Assessment, it must be corrected by the PWS within 30 days for the completed assessment, or within a KDHE-determined timeframe. Failure to correct a sanitary defect within the specified timeframe would be considered a treatment technique violation and would require Tier 2 Public Notice (within 30 days).

Conclusion

KRWA hopes to have the opportunity, in the near future, to review and provide comments on KDHE’s draft version of the RTCR before it is presented to the Legislature

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for approval. If anything changes, KRWA will keep systems informed. If you have any questions regarding the RTCR you may email me at monica@krwa.net or call me at 785-262-7301 or also contact KDHE staff Jean Herrold at 785-296-5518; jherrold@kdheks.gov or Andrew Hare, 785-296-5946; ahare@kdheks.gov.

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