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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

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OFFICE OF WATER

MEMORANDUM

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- SUBJECT: Requirements and State Reporting Guidance to Transition Public Water Systems from the Total Coliform Rule to the Revised Total Coliform Rule
- TO: EPA Regional Drinking Water Branch Chiefs, Region I-X EPA Regional Enforcement Branch Chiefs, Region I-X

This memorandum provides guidance to primacy agencies with enforcement responsibility under the Safe Drinking Water Act (SDWA) concerning the requirements to transition public water systems (PWSs) from the Total Coliform Rule (TCR) to the Revised Total Coliform Rule (RTCR). This transition would start April 1, 2016 or on an earlier State effective date, whichever comes first, hereafter referred to as the RTCR effective date. Specifically, this memorandum addresses:

- 1. How PWSs must comply with the TCR on or after the RTCR effective date; and
- 2. What primacy agencies must report to the Safe Drinking Water Information System (SDWIS/FED) on or after the RTCR effective date.

States should urge their PWSs to take their routine samples early in their monitoring period of 2016 to allow for completion of TCR requirements before the RTCR effective date. For example, if the PWS is on quarterly monitoring, it should collect its routine samples in January or February of 2016 to increase the likelihood for completion of repeat sampling or other corrective actions before the RTCR effective date of April 1, 2016. Based on SDWIS/FED data from 2014 and 2015, EPA extrapolates that less than

one percent of PWSs will have overlapping simultaneous regulatory obligations under the TCR and RTCR on or after the RTCR effective date.

For RTCR implementation topics not specifically addressed in this memorandum, please refer to the RTCR State Implementation Guidance-Interim Final, EPA 816-R-14-004, December 2014.

Background

The U.S. EPA published the RTCR (40 CFR Part 141 Subpart Y) in the Federal Register (FR) on February 13, 2013 (78 FR 10269) and minor corrections on February 26, 2014 (79 FR 10665). The RTCR is a revision to the 1989 TCR (40 CFR Part 141 Subpart C), and all PWSs must comply with the RTCR on its effective date, except aircraft PWSs subject to the Aircraft Drinking Water Rule (ADWR) (40 CFR Part 141 Subpart X).

Transition Requirements

(1) How PWSs Must Comply with the TCR on or after the RTCR Effective Date.

In accordance with 40 CFR § 141.21(h), PWSs with a total coliform-positive (TC+) routine sample taken before the RTCR effective date must still complete the TCR repeat monitoring requirements in accordance with 40 CFR § 141.21(b)(1), (2), (3), (4) and (7) even if the subsequent events occur on or after the RTCR is effective. In addition, the PWS must comply with the applicable TCR requirements of 40 CFR § 141.21(c), (e), (f), and (g), and comply with the TCR reporting, recordkeeping, public notification (PN) and the consumer confidence report (CCR) requirements associated with this monitoring and testing. For example, if the TCR monitoring results caused a monthly MCL violation, the PWS is required to comply with the ensuing actions that accompany the violation, e.g., provide Tier 2 PN, even if this PN occurs on or after the RTCR effective date.

Before the RTCR effective date, if the PWS has not collected its required TCR routine sample(s) as required by 40 CFR § 141.21(a), the PWS incurs a monitoring and reporting (M&R) violation and must provide Tier 3 PN for that violation in accordance with 40 CFR § 141.204, even if issuance of PN would occur on or after the RTCR effective date.

The primacy agency may specify the PWS's return-to-compliance actions at its discretion (e.g., utilize the TCR return-to-compliance policies, or based on results from subsequent RTCR monitoring). The follow-up actions may include modifying the RTCR routine monitoring begin-date of a system in order to use these sampling results to make return-to-compliance decisions (e.g., a system on quarterly routine monitoring could collect its sample in April 2016 rather than a later month in the quarter). [Refer to Attachment #1 for detailed examples.]

(2) What Primacy Agencies Must Report to the Safe Drinking Water Information System (SDWIS/FED) on or after the RTCR Effective Date.

Primacy agencies will continue to report to SDWIS/FED all TCR violations and enforcement codes generated from failure of the PWS to meet TCR requirements, as applicable, even if issuance occurs on or after the RTCR effective date.

The following section describes state implementation actions for a PWS's TCR event initiated before the RTCR effective date.

If the PWS collected a TCR routine sample and that sample is TC+, the primacy agency should determine if the PWS completed the repeat monitoring requirements in accordance with 40 CFR §141.21(b)(1), (2), (3), (4) and (7). This must include maintaining TCR compliance with the testing for fecal coliform or *E. coli*, reporting sampling results to the state, maintaining records, and if applicable, issuing the associated PN and/or including TC occurrences and violation information in the CCR. [Refer to Attachment #1 for detailed examples.]

<u>If the PWS did not collect all TCR routine sample(s) by the RTCR effective date</u>, in accordance with 40 CFR § 141.21(a), the primacy agency must issue the applicable TCR notice of violation. For example, if the PWS fails to collect all of its required quarterly routine TC samples, the primacy agency must issue a type 23 violation (i.e., M&R violation for failure to collect all of the scheduled routine TC samples at sites approved in the written sample siting plan according to the determined monitoring frequency) and report the violation to SDWIS/FED. The PWS must also provide Tier 3 PN for that M&R violation. Subsequently, if the PWS fails to provide PN for that M&R violation in accordance with 40 CFR § 141.204(b), the primacy agency must issue a type 75 violation (i.e., Other) for the PN failure.

The primacy agency should exercise its discretion to determine the return-to-compliance actions for any TCR violation incurred by the PWS. For example, use RTCR monitoring results to fulfill return-tocompliance actions. [Refer to Attachment #1, for detailed examples.] Once the primacy agency determines compliance was achieved by the PWS, it should report to SDWIS/FED the code SOX (state compliance achieved) or EOX (federal compliance achieved) to close an open-TCR violation.

For all TCR violations that are open on or after the RTCR effective date, the primacy agency should determine the appropriate return-to-compliance action(s) to achieve PWS compliance and close the violations by reporting the applicable code to SDWIS/FED. Refer to Attachment #2 for existing TCR return-to-compliance policies and violation codes.

Other TCR to RTCR Transition Requirements

Sanitary Survey Requirements: In accordance with 40 CFR § 141.21(h), the provisions of 40 CFR § 141.21(d) *[Sanitary surveys]* are no longer effective as of April 1, 2016. The primacy agency should continue conducting sanitary surveys based on the frequency and using the criteria established under 40 CFR §§ 141.401, 142.16(b)(3), and 142.16(o)(2).

Public Notification (PN) Requirements: For those TCR events that require PN on or after the RTCR effective date, EPA recommends that the primacy agency exercise its discretion in accordance with 40 CFR §§ 141.202(b), 141.203(b), and 141.204(b) to decrease the timeframes within which the PWS is required to initiate and post PN. For example, instead of allowing the PWS to take the full year to post Tier 3 PN for a M&R violation, the state could interpret "as soon as practical" to be not later than 90 days from the date the PWS learns of its violation. This may aid to reduce the potential overlap of posting PN with varying health effects language for events that are treated differently under the TCR and RTCR.

Consumer Confidence Report (CCR) Requirements: For the CCR due on July 1, 2017, community water systems (CWS) must include all TCR and RTCR reportable events incurred in calendar year 2016. For the TCR, CWSs must include events (e.g., coliform positive occurrences and violations) incurred from January 1, 2016 through March 31, 2016. For the RTCR, CWSs are required to include events (e.g., coliform positive occurrences, violations, and that a level 1 or level 2 assessment was triggered) incurred from April 1, 2016 through December 31, 2016 (40 CFR § 141.153). EPA recommends that the primacy agencies work with the CWSs to include language in the CCR to facilitate a better understanding of the public health differences of the two rules. For example, CWSs could include the following suggested language in CCRs due by July 1, 2017:

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and began compliance with a new rule, the Revised Total Coliform Rule on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E.coli bacteria). The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a monthly maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the PWS.¹

Enforcement Response Policy (ERP) & Enforcement Tracking Tool (ETT) Regarding TCR and RTCR Violations: The ETT will continue to assign points to current TCR violations identified in SDWIS/FED in accordance with the 2009 Drinking Water ERP, regardless of whether the violation occurred before or after the RTCR effective date. For the RTCR, Tier 1 PN violations are assigned 10 points; Tier 2 PN violations are assigned 5 points; and Tier 3 PN (non-health-based) violations are assigned 1 point. As a reminder, PWSs scoring 11 points or higher on the ETT are identified as enforcement priorities. For more information on the ETT, refer to the ERP².

If you have additional questions about transitioning rule requirements from the TCR to the RTCR, please contact RTCR rule manager Cindy Y. Mack at 202-564-6280 (mack.cindy-y@epa.gov), or for ETT questions contact Joyce Chandler at 202-564-7073 (chandler.joyce@epa.gov).

Attachment (#1)

Attachment (#2)

Cc: Jim Taft, Executive Director, ASDWA

RTCR Regional and State Implementation Workgroup

SDWA Enforcement Coordinators

¹ Source: "Fact Sheet: Announcement of Revisions to the Total Coliform Rule", EPA 815-F-12-007, December 2012; http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/upload/epa815f12007.pdf.

² http://www2.epa.gov/sites/production/files/documents/drinking water erp 2009.pdf.

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ATTACHMENT #1

(RTCR Transition Memo)

Scenario Examples: Transiting Public Water Systems (PWSs) from Total Coliform Rule (TCR) to Revised Total Coliform Rule (RTCR).

These examples illustrate: (1) TCR requirements that continue on or after the RTCR effective date; and (2) State return-to-compliance discretion on how to transition a PWSs with on-going TCR actions on or after the RTCR effective date.

KEY: Total Coliform-positive (TC+); Total Coliform-negative (TC-)

Month	TCR Implementation	RTCR Implementation	t/Nov/Dec.) les are not required on or after the RTCR effective date. State Action Applicable to		
MOIIII	ICK Implementation	KICK Implementation	TCR Implementation		
February 2016	 Routine sample: TC+ Four repeats: four TC- 				
March 2016	 3) Five "additional" routine samples: one TC+ 4) Four repeats: one TC+; PWS <i>incurs a TCR monthly MCL violation and Tier 2 PN issuance.</i> 		Issue PWS a TCR monthly MCL violation for March 2016 samples (Violation Code 22): Primacy agency would issue violation to a system that collects fewer than 40 samples/month exceeds the MCL if more than one sample collected during the month is total coliform- positive. [141.63(a)(2)]		
April 2016	 5) Tier 2 PN <u>not</u> completed within 30 days from the date the PWS learned of its violation; <i>PWS incurs a PN</i> <i>violation.</i> <i>NOTE: In accordance with</i> 141.21(h) the PWS does not have to collect TCR five routine samples this month. 	 PWS collects routine quarterly (April-June) sample as determined by state. <i>Because TCR</i> <i>samples were TC+ in March, the state exercised</i> <i>its discretion and made the PWS collect the</i> <i>RTCR routine sample in April instead of a later</i> <i>month in the quarter</i>: one TC+. Three repeats: one TC+. Level 1 Assessment triggered (<i>due to two TC+</i> <i>results in one month</i>). 	Issue PWS a violation for failure to provide PN (<i>Violation Code 75</i>): Primacy agency would issue violation to a system required to provide public notice that fails to provide notice to persons served by the water system. [141.201(c)(1)]		
May 2016	 PWS issues Tier 2 PN to customers. 	 4) Level 1 Assessment completed: sanitary defect found and fixed. 5) Three (additional) routine samples: three TC NOTE: <i>The PWS would collect its next routine quarterly sample as scheduled in sampling plan for July-September.</i> 	 Return PWS to compliance with the PN violation: Because PWS issued Tier 2 PN, state or federal respectively, would SOX (State compliance achieved) on EOX (Federal compliance achieved) the violation. Return PWS to compliance for the TCR monthly MCL violation: Because the next full round of [RTCR] monitoring (e.g., three additional routine samples TC-) demonstrated that no additional MCL or M&R violation occurred, the state or Federal agency would report to SDWIS/FED the code SOX or EOX respectively, for the violation. 		

Month	TCR Implementation	RTCR Implementation	State Action Applicable to TCR Implementation		
March 2016	 Monthly routine sample: one TC+ (results received on March 31, 2016) 				
April 2016	 April 1, 2016: Four repeats collected [141.21(b)(1)]. April 2, 2016: one TC+ repeat. <i>PWS incurs violation 22</i> (<i>TCR monthly</i> <i>MCL violation</i>) for TC+ routine in March and TC+ repeat in April); <i>PWS</i> must issue Tier 2 PN. NOTE: In accordance with 141.21(h) the PWS does not have to collect TCR five routine samples this month. 	 April 3, 2016, as determined by state: PWS collects monthly routine sample. (<i>Because TCR</i> <i>repeat samples were TC+, the state exercised its</i> <i>discretion and made the PWS collect the RTCR</i> <i>routine sample within 24 hours of notification of the</i> <i>TCR MCL violation instead of later in the month</i>). April 5, 2016: one routine TC+ April 7, 2016: one repeat TC+ (<i>out of three</i> <i>repeats collected</i>) and Level 1 Assessment triggered (<i>due to two TC+ results in one month</i>) 	Issue PWS a TCR monthly MCL violation for <u>March 2016</u> compliance period (<i>Violation Code</i> 22): Primacy agency would issue violation to a system that collects fewer than 40 samples/month exceeds the MCL if more than one sample collected during the month is total coliform- positive. [141.63(a)(2)]		
May 2016	4) Tier 2 PN initiated and completed within 30 days.	 4) Level 1 Assessment completed: sanitary defect found and fixed. 5) Monthly routine sample: TC NOTE: <i>PWS would collect its next routine monthly</i> <i>sample as scheduled in sampling plan.</i> 	Return PWS to compliance with the TCR monthly MCL violation: When the next full round of [RTCR]monitoring (e.g., May monthly sample was TC-) demonstrated that no additional MCL or M&R violation occurred, the state or Federal agency would report to SDWIS/FED the code SOX or EOX respectively, for the violation.		

Month	TCR Implementation	RTCR Implementation	State Action Applicable to TCR Implementation
March 2016	1) Monthly routine sample: two TC+ (results received on March 31, 2016; 2 of the 80)		
April 2016	 2) April 4, 2016: two TC+ repeats (collected 1 set of 3 repeats for each routine TC+=six repeats total; TC+ repeats came from set 1); 4 out of 86 samples=4.7%).[141.21(b)(1)] 3) April 6, 2016: two TC+ repeats from set 1 (Note: if one or more repeat samples in a set is TC+, collect an additional set of repeat samples [141.21(b)(4)]); 6 out of 89 samples=6.7% PWS incurs TCR monthly MCL violation due to 5.0% TC+ exceedance; PWS must provide Tier 2 PN and include violation in 2016 CCR. [141.63(a)(1)]. In accordance with 141.21(b)(4), this PWS stops taking TCR repeats due to 5.0% TC+ MCL exceedance. 	 April 20, 2016: two routine TC+ (out of 80 routine samples collected). April 22, 2016: three repeat TC+ (out of six repeat samples collected); this triggers a Level 1 assessment due to greater than 5.0% TC+ in one month as per the RTCR (5 TC+ out of 86 samples collected=5.87%). In accordance with 141.858(a)(3) this PWS stops taking RTCR repeats due to triggering a level 1 assessment. 	Issue PWS a TCR monthly MCL violation for <u>March 2016</u> compliance period: A system that collects at least 40 samples/month exceeds the MCL if more than 5.0% samples collected during a month are total coliform-positive. [141.63(a)(1)]
May 2016	 4) Tier 2 PN initiated and completed within 30 days, <i>Reminder: For 2016 CCR due July 1, 2017: PWS includes this TCR monthly MCL violation from March 2016 compliance period.</i> 	 3) Level 1 Assessment completed: sanitary defect found and fixed. 4) All Routine Samples in May 2016 are TC-NOTE: <i>The PWS would collect its next 80 routine monthly samples as scheduled in sampling plan.</i> 	Return PWS to compliance with the TCR monthly MCL violation: When the next full round of monitoring (e.g., May monthly samples were TC-) demonstrated that no additional MCL or M&R violation occurred, the state or Federal agency would report to SDWIS/FED the code SOX or EOX respectively, for the violation.

Attachment #2

	А	В	C	D	E	F	G	н
2	NPDWR	Reportable Violation Code (SDWIS/FED)	Contaminant Code	Item #	ICR VIOLATIONS AND RETURN TO	Violation Type	Violations return to compliance ("RTC") when the system meets the following criteria: (Note: A priority system (formerly SNC) is addressed when all of its violations RTC or have an addressing action.)	PN Tier Type
2	TCR	23	3100	84	A system that fails to collect all of the scheduled routine total coliform samples at sites approved in the written sample siting plan according to the determined monitoring frequency. [141.21(a)(1)-(2)]	M&R	RTC is achieved once the system collects a full round of required routine monitoring samples for the following compliance period.	Tier 3 (or Tier 2)
4	TCR	23	3100	85	A system collecting fewer than 5 routine samples per month has one or more total coliform positive samples and fails to collect all of the 5 routine samples the following month. [141.21(b)(5)]	M&R	RTC is achieved once the system has collected the 5 routine samples.	Tier 3 (or Tier 2)
5	TCR	23	3100	86	An unfiltered system that fails to collect at least one sample near the first service connection each day the turbidity level of the source water, measured in accordance with 141.74(b)(2), exceeds 1 NTU. [141.21(a)(5)]	M&R	RTC is achieved once the system has collected the sample(s).	Tier 3 (or Tier 2)
6	TCR	24	3100	87	A system collects some but not all of the scheduled routine total coliform samples at sites approved in the written sample siting plan according to the determined monitoring frequency. [141.21(a)(1)-(2)]	M&R	RTC is achieved once the system collects a full round of routine monitoring samples.	Tier 3 (or Tier 2)
7	TCR	24	3100	88	A system collecting fewer than 5 routine samples per month has one or more total coliform positive samples and collects some but not all of the 5 routine samples the following month. [141.21(b)(5)]	M&R	RTC is achieved once the system has collected the 5 routine samples.	Tier 3 (or Tier 2)
8	TCR	25	3100	89	A system that has been notified of a total coliform positive routine sample and fails to collect all of the repeat samples within 24 hours of being notified of the positive result. [141.21(b)(1)]	M&R	RTC is achieved once the system collects the same number of on- special purpose samples as the number of missed repeat samples, from the required locations.	Tier 3 (or Tier 2)

	A	В	C	D	E	F	G	Н
2	NPDWR	Reportable Violation Code (SDWIS/FED)	Contaminant Code	Item #	Violation Description	Violation Type	Violations return to compliance ("RTC") when the system meets the following criteria: (Note: A priority system (formerly SNC) is addressed when all of its violations RTC or have an addressing action.)	PN Tier Type
9	TCR	25	3100	90	A system that is notified of total coliform positive repeat sample and fails to continue collecting all of the additional sets of repeat samples, unless the MCL has been exceeded. [141.21(b)(4)]	M&R	RTC is achieved once the system collects the same number of non- special purpose samples as the number of missed repeat samples, from the required locations, or notifies the State that the MCL has been exceeded.	Tier 3 (or Tier 2)
10	TCR	25	3100	91	A system notified of a total coliform positive routine or repeat sample and fails to analyze the total coliform positive culture medium for fecal coliforms/E. coli. [141.21(e)(1)]	M&R	RTC is achieved once the total coliform positive culture medium is tested for fecal coliforms, unless the total coliform positive culture medium is no longer capable of being tested for fecal coliforms. In that case, the system must resample for each total coliform positive sample not tested for fecal coliforms.	
11	TCR	26	3100	92	A system notified of total coliform positive repeat sample and analyzes some but not all of the total coliform positive samples for fecal coliform/E. coli. [141.32(e)(1)]	M&R	RTC is achieved once the total coliform positive culture medium is tested for fecal coliforms, unless the total coliform positive culture medium is no longer capable of being tested for fecal coliforms. In that case, the system should resample for each total coliform positive sample not tested for fecal coliforms.	
11	TCR	21	3100	81	A system exceeds the MCL if it has a routine total coliform- positive sample and any fecal coliform-positive repeat sample or E.coli-positive repeat sample, or any total coliform-positive repeat sample following a fecal coliform-positive or E.coli- positive routine sample. [141.63(b)]	MCL	RTC is achieved when the next full round of monitoring demonstrates that no additional MCL or M&R violations occurred.	Tier 1
13	TCR	22	3100	82	A system that collects at least 40 samples per month exceeds the MCL if more than 5.0 percent of the samples collected during a month are total coliform positive. [141.63(a)(1)]	MCL	RTC is achieved when the next full round of monitoring demonstrates that no additional MCL or M&R violations occurred.	Tier 2
13	TCR	22	3100	83	A system that collects fewer than 40 samples/month exceeds the MCL if more than one sample collected during the month is total coliform-positive. [141.63(a)(2)]	MCL	RTC is achieved when the next full round of monitoring demonstrates that no additional MCL or M&R violations occurred.	Tier 2
15	TCR	5	3100	63	A system that has a fecal coliform or E. coli positive routine or repeat sample and fails to report it to the State by the end of the business day. [141.21(e)(1)]	OTHER	RTC is achieved once the system notifies the State of the positive fecal coliform or E. coli sample.	na

	A	В	С	D	E	F	G	Н
2	NPDWR	Reportable Violation Code (SDWIS/FED)	Contaminant Code	Item #	Violation Description	Violation Type	Violations return to compliance ("RTC") when the system meets the following criteria: (Note: A priority system (formerly SNC) is addressed when all of its violations RTC or have an addressing action.)	PN Tier Type
16	TCR	5	3100	64	A system which has exceeded the acute or monthly MCL for total coliforms and fails to report the violation to the State by the end of the next business day after it is notified of the violation. [141.21(g)(1)]	OTHER	RTC is achieved once the system notifies the State.	na
17	TCR	5	3100	65	A system which has failed to comply with a coliform monitoring requirement and fails to report the monitoring violation to the State within 10 days after the system discovers the violation. [141.21(g)(2)]	OTHER	RTC is achieved once the system notifies the State.	na
18	TCR	28	No Ccode	98	A system that does not collect 5 or more routine samples per month and fails to undergo an initial sanitary survey by June 29, 1994, for community water systems, and June 29, 1999 for non-community water systems; or fails to undergo another sanitary survey every five years for community water systems and every 10 years for non- community water systems. [141.21(d)(1)(i)]	OTHER	RTC is achieved once a sanitary survey has been performed at the system.	na