

Revised Total Coliform Rule (RTCR) Lab Roundtable

ANGELA CAPPETTI
BUREAU OF SAFE DRINKING WATER
ANGELA.CAPPETTI@DEP.NJ.GOV
(609)292-5550

JEFF BRENNAN
BUREAU OF WATER SYSTEM ENGINEERING
JEFFREY.BRENNAN@DEP.NJ.GOV
(609)292-2957

New Jersey Public Water Systems

| Quick Facts* | |
|-------------------------------|----------|
| Total Number of PWSs | 3,674 |
| CWSs | 582 |
| NTNCs | 719 |
| TNCs | 2,373 |
| Seasonal Systems (all GW) | 463 |
| Seasonal >1,000 | 8 (1.7%) |
| Seasonal monthly monitoring** | ALL |

* Totals as of 2/20/2018
** NJ does not allow annual monitoring for any PWS

New Jersey Rules

- ▶ Adopt the Federal rule by reference at N.J.A.C. 7:10-5.1 AND
- ▶ Adopt State specific requirements of RTCR at N.J.A.C. 7:10-5.8
 - ▶ Includes:
 - ▶ Seasonal Water System Start-Up Procedures
 - ▶ Restrictions on reduced monitoring
 - ▶ General content of Level 1 & Level 2 assessment forms
 - ▶ Individuals approved to conduct Level 2 assessments
 - ▶ http://www.nj.gov/dep/rules/rules/njac7_10.pdf

Primacy

- ▶ Federal Revised Total Coliform Effective April 1st, 2016
- ▶ NJ adopted state specific requirements November 6th, 2017
- ▶ EPA granted primacy to NJDEP July 2018
 - ▶ NJDEP demonstrated the ability to enforce all aspects of the rule; NJDEP can run compliance and enforcement action for RTCR

Required Monitoring

| System Classification | Required Monitoring |
|-----------------------|----------------------|
| CWS | Monthly |
| NTNC | Quarterly or Monthly |
| TNC | Quarterly or Monthly |
| Seasonal NC | Monthly |

Seasonal Water Systems

"Seasonal water system" means a public noncommunity water system that is not operated as a public water system on a year-round basis and starts up and shuts down in its entirety or in part at the beginning and end of each operating season.

- ▶ Types of Seasonal Systems:

| | |
|---------------------------|-----------------|
| Campgrounds | Marinas |
| Parks/Athletic Facilities | Golf/Swim Clubs |
| Snack & Ice Cream Stands | Farm Markets |
- ▶ Most Seasonal Water Systems are located in the NW and SE portions of the State near the beaches and mountains

Seasonal Start-Up Procedures

- NJ does not exempt a system from start-up procedures if it remains pressurized
 - Same contamination risk from stagnant water
 - In some cases, NJ allows the start-up sample to count as their routine compliance sample
- No required shutdown procedures but NJ staff works to ensure outstanding assessments, violations, etc. are resolved prior to the end of the season.
- NJ requires that seasonal systems take a sample within 30 days prior to opening to the public and submit a certification form with the results prior to opening

Seasonal Start-Up Procedures

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    graph TD
      A[Collect a start-up sample] --> B[Repeat sampling, GWR sampling, Level 2 assessment, corrective action]
      B --> C[Receive approval from State or CEHA to use the contaminated source]
      D[Action based on sample results] --> B
      E[Collect from an area of the distribution system that was depressurized or other State approved location] --> A
      F[Start-up sample must be collected no more than 30 days prior to opening.] --> A
      G[Receive approval from State or CEHA to use the contaminated source] --> C
    
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Seasonal Start-Up Samples

- Samples required to be tested for both Total Coliform and E. Coli
- If a sample is TC+ EC-, it is encouraged for the system to take repeats and do some best practice procedures such as flushing to remediate the issue
- If a sample is EC+, it is encouraged for the lab to call it in since follow up must be done prior to the system opening to the public
- Samples submitted to E2 only under the condition that the sample will also be used for that compliance monitoring period.
 - If a system opens 4/15, a sample taken 4/1 can satisfy both routine monitoring and the seasonal start-up sample.
 - Samples submitted in E2 should have "SSUP" attached to the sample ID name

Seasonal Certification Form

- Start-up certification form **submitted prior to opening.**
- Copy of sample results attached.
- When submitting certification forms via email, **submit only one form at a time.**
- Forms are entered and staff follows up on all positive samples

Seasonal System Violations

National Numbers

| | MCL | | TT | | |
|--------------------------|-----|-----|-----|-----|------------|
| | 1A | 2A | 2B | 2C | 2D |
| CWS n=49917 | 193 | 159 | 27 | 20 | 10 |
| NTNCWS n=17541 | 57 | 45 | 15 | 13 | 20 |
| TNCWS n=79559 | 495 | 577 | 164 | 123 | 1580 (45%) |
| Grand Total | 745 | 781 | 206 | 156 | 1610 |

Cited from an EPA RTCR Webinar

New Jersey

| Violation Type | Violation | Number of Violations | Percentage seasonal |
|-----------------------|-----------|----------------------|---------------------|
| TT (Total 165) | 2A | 64 | 43% |
| | 2B | 30 | |
| | 2D | 71 | |
| Reporting (Total 491) | 4B | 405 | 15% |
| | 4C | 75 | |
| | 5A | 11 | |

Cited from 2017 Annual Compliance Report

Raw Water Sample Taps

- Raw water sample taps must be before any storage or pressure tanks.
- A check valve must be present between the raw water tap and storage/pressure tank.
- Raw water tap should be labelled.

Raw Water Sampling Issues

- ▶ Confined space issues when raw water tap is in a pit.
- ▶ Policy changes for when raw sample is collected from the distribution system.
- ▶ Raw water samples must be analyzed for chlorine in the field.

RTCR Sampling Issues

- ▶ RTCR Sample Plans –All sampling should be in accordance with a system's RTCR Sample Plan and submitted for compliance via the E2 system.
- ▶ Sampling should be done from faucets that have both hot and cold handles without a swivel head.
- ▶ Samples are preferred to be taken from a commonly used faucet for drinking water, such as a kitchen tap.

Swivel faucets and Swivel taps

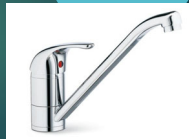
Swivel faucet

- Not a recommended sampling location.
- Gasket can wear out allowing for the potential of microbial contamination.



Swivel tap

- Not a recommended sampling location.
- Has the potential to allow hot water to enter sample.
- Gasket can also wear out.



New Level 1 and 2 Assessment Forms

| Section | General | Description of Defect and Corrective Action Taken/Proposed | Date Corrected/Response | For official use only |
|---------|---|---|-------------------------|-----------------------|
| 1 | <p>Has there been any violation and/or unauthorized access to facilities?</p> <p>Has there been any interruption to electrical power?</p> <p>Other comments on the general water system condition including identification of potential corrective actions.</p> | <p>If (X), indicate findings and date.</p> <p>If (X), indicate date and which components affected.</p> | | |
| 2 | <p>Have any existing (non)conformances recently been introduced into the system?</p> <p>Have any newly introduced non-conformances been properly addressed or corrected?</p> <p>Are there any violations noted in the NJDEP Drinking Water Watch website?</p> <p>Are there any violations noted in the NJDEP Drinking Water Watch website?</p> <p>Are there any violations noted in the NJDEP Drinking Water Watch website?</p> <p>Are there any violations noted in the NJDEP Drinking Water Watch website?</p> <p>Are there any violations noted in the NJDEP Drinking Water Watch website?</p> | <p>If (X), indicate which source(s).</p> <p>If (X), indicate which source(s).</p> <p>If (X), indicate which source(s).</p> <p>If (X), indicate which source(s).</p> <p>If (X), indicate which source(s).</p> <p>If (X), indicate which source(s).</p> | | |

Returning to Quarterly RTCR Monitoring

- ▶ Monthly RTCR monitoring is required after a Level 2 Assessment is triggered.
- ▶ Systems can go back to quarterly RTCR monitoring after the following:
 - ▶ 12 consecutive months of RTCR sampling that is absent of bacteria.
 - ▶ System has not incurred any MNR violations.
 - ▶ An additional Level 2 Assessment or Sanitary Survey is conducted in that 12 month period.
 - ▶ A written request for reduced monitoring must be sent to the BSDW

Reporting Regulations

- ▶ For an EC+ or nitrate/nitrite exceeding the MCL, call the office during normal business hours – 8am to 5pm, or call the DEP Hotline after hours (1-877-WARN-DEP).
- ▶ After the laboratory determines the presence of E. Coli in a drinking water sample they must notify by telephone the water purveyor, municipal/county health agency, and NJDEP within 24 hours.
- ▶ For TC+ repeat RTCR samples following an EC+ routine RTCR sample it is strongly recommended that labs notify the BSDW within 24 hours.

EC+ Notification Table

| System Type | BSDW/ Hotline | Health Dept. | Owner/ Superintendent | Licensed Operator | Client or Entity requesting analysis |
|-------------|---------------|--------------|-----------------------|-------------------|--------------------------------------|
| CWS | X | | X | X | |
| NTNC | X | X | X | X | |
| TNC | X | X | X | | X |

Notification phone calls should be made to the NJDEP at 609 292 5550 during business hours, or, if outside of normal business hours, to the Department's hotline at 1-877-WARNDEP (1-877-927-6337)

RTCR Policy Updates

- ▶ Level Assessments no longer require the lab to sign off on the sampling portion
- ▶ RTCR waiver process in development
- ▶ Lab's should not report Total Coliform positive results the NJDEP Hotline.

General Policy Updates

- ▶ Third party compliance company policy changes.
- ▶ Failure to Maintain Treatment policy changes.
- ▶ Sample Result Notification
 - ▶ Please notify the State of acute parameter sample results in a timely manner with appropriate information provided.
- ▶ Nitrate confirmation sampling
 - ▶ If a confirmation sample following a routine nitrate sample > MCL cannot be analyzed within 72 hours after collection then a precautionary Tier 1 Public Notice is required.