



DPH Regulatory Update and Safe Drinking Water Act (SDWA) Compliance Reminders

ATCAVE

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Drinking Water Section



New Regulation

Generator and emergency contingency and response plan requirements (RCSA 19-13-B102(w)(1))

- 🔹 Announced in Circular Letter #2016-01
- 🔹 Effective 12/17/2015
- 🔹 CWS must install and maintain a generator or Department-approved alternative source of backup power
- 🔹 Minimum construction and fuel storage requirements are outlined in regulations

🔹 Due dates:

CWS Serving	Due Date
$\geq 100,000$	12/17/2016
10,000-99,999	12/17/2017
$< 10,000$	12/17/2018



New Regulation

Generator and emergency contingency and response plan requirements (RCSA 19-13-B102(w)(2))

- 💧 CWS also required to prepare a prepare an emergency contingency and response plan
- 💧 Plan must be completed by 7/17/2016
- 💧 Plan addresses disruption of the supply of water to consumers due to a loss of power, including:
 - 💧 Restoring service to consumers
 - 💧 Maintaining an adequate and safe supply of water to consumers
 - 💧 Notifying the consumers, local emergency management officials, the Department, the chief elected official of any municipality and any local health department or district health department served by the CWS
- 💧 **Generator and plan verification is required in a CWS's annual submission under CGS §25-33 (Annual Update)**



Revised Total Coliform Rule

- 💧 Final RTCR published in Federal Register on February 13, 2013
 - 💧 New requirements beginning April 1, 2016
 - 💧 CT Draft Regulation still under review
- 💧 Key Changes
 - 💧 Eliminates the MCL for total coliforms
 - 💧 Establishes an MCL for *E. coli*
 - 💧 Establishes Treatment Technique requirements
 - 💧 Level 1 and Level 2 Assessments (“Find and Fix”)
 - 💧 Defines a “Sanitary Defect”
 - 💧 Allowances for increased and reduced monitoring
 - 💧 Start-up procedures required for seasonal systems



Revised Total Coliform Rule

Sample Siting Plans

- 💧 Must identify Routine and Repeat sampling locations and a sample collection schedule
- 💧 Three repeat samples required at all times:
 - 💧 Original RT TC+ site
 - 💧 Tap within 5 service connections upstream
 - 💧 Tap within 5 service connections downstream
- 💧 Alternative fixed locations may also be used but need Department review and approval
- 💧 Plans do not need to be submitted, unless requested, but are subject to Department review and revision



Revised Total Coliform Rule

Sample Siting Plans

- 💧 Forms and guidance available on the DWS website
- 💧 *Revised Total Coliform Rule Sample Siting Plan Requirements*
- 💧 Two new reporting forms developed:
 - 💧 *SSP with Alternative Repeat Sampling Locations*
 - 💧 *SSP for Seasonal Public Water Systems Monitoring Quarterly*
- 💧 *Sample Siting Plan Template*
 - 💧 Meets all of the SSP requirements (if filled out properly)
 - 💧 Works in concert with Sampling Point Inventory Form
 - 💧 “Fill-in the blanks” style
 - 💧 Ideal for all water systems



Revised Total Coliform Rule

Start-up Procedures

- 💧 Required for seasonal systems
- 💧 Must be performed prior to serving water to the public
- 💧 Water System Start-Up Guidelines have been developed
- 💧 Start-up procedures require monitoring prior to serving water to the public
 - 💧 Acceptable sample results can be used to satisfy routine monitoring requirements if collected from compliance locations
- 💧 ***A Certification of Seasonal Start-up Procedure*** form must be submitted to the Department prior to serving water
- 💧 Failure to perform start-up procedures prior to serving water is a Treatment Technique Violation requiring a Tier 2 (30 day) public notification



Long Term 2 Surface Water Treatment Rule

- 🔹 **Enhanced treatment for Cryptosporidium**
- 🔹 **Applies to all Subpart H Systems**
- 🔹 **Second round of source water sampling started in 2015**
- 🔹 **Grandfathering of data is not allowed**
- 🔹 **PWS must submit a sampling schedule and receive approval prior to monitoring**
 - 🔹 **Due 3 months prior to sampling start date**
 - 🔹 **Sampling calendar dates**
 - 🔹 **Sampling locations**
 - 🔹 **Forms are available on DWS website**

Long Term 2 Surface Water Treatment Rule

LT2 Source Monitoring Schedule			
Schedule	Population	Sample Sch. Due	Monitoring Start Date
1	>= 100,000	1/1/2015	4/1/2015
2	50,000-99,999	7/1/2015	10/1/2015
3	10,000-49,999	7/1/2016	10/1/2016
4	< 10,000	7/1/2017	10/1/2017

Schedules 1, 2 and 3: *Cryptosporidium*, *E. coli*, and turbidity at least monthly for 24 months

Schedule 4: *E. coli* at least once every two weeks for 12 months

Sample reporting form will be available soon



Stage 2 Disinfectant and Disinfection Byproducts Rule

- 💧 Applies to all CWS and NTNC that deliver water treated with a primary disinfectant (not UV)
- 💧 Maximum Contaminant Levels have not changed
 - 💧 TTHM MCL = 0.080 mg/L
 - 💧 HAA5 MCL = 0.060 mg/L
- 💧 Compliance is based on a Locational Running Annual Average (LRAA) at locations identified in compliance monitoring plans



Stage 2 Disinfectant and Disinfection Byproducts Rule

Compliance Monitoring Plans

- 💧 Required for all systems
- 💧 All plans have been reviewed and approved by the DWS
- 💧 Plans must be followed exactly as approved:
 - 💧 Sampling frequency
 - 💧 Sampling locations
 - 💧 Sampling date range
- 💧 Any changes to the plan must receive approval from the DWS
- 💧 Compliance Monitoring Plan Forms and Instructions are available on the DWS Website



Stage 2 Disinfectant and Disinfection Byproducts Rule

Operational Evaluation Levels (OEL)

- 💧 Pre-compliance calculation at each sampling location conducted quarterly after 3 quarters of monitoring
- 💧 Equal to the sum of the 2 previous quarterly results plus twice the current quarter's result, divided by 4
- 💧 Compare OEL to MCL
- 💧 OEL exceedance requires an **OEL report** to be submitted to the DWS **within 90 days** of being notified of the result



Ground Water Rule

Triggered Monitoring

- 💧 Routine TC+ TCR samples “trigger” source water monitoring
- 💧 Triggered samples must be collected within 24 hours
- 💧 Triggered samples must be collected at each ground water source for each TCR TC+ sample
- 💧 Representative monitoring plan advised if a ground water source does not supply the entire distribution system
- 💧 Tier 1 (24 hr) Public Notification required if E. Coli+
- 💧 **Do NOT disinfect until you are sure that no additional (confirmation) monitoring will be required!**



Ground Water Rule

Assessment Monitoring

- ☛ Source does not meet the separating distances from sources of pollution
- ☛ Source is currently disinfected but not 4-log approved
- ☛ Two or more TCR MCL violations in a 12-month period
- ☛ Source is determined to be susceptible to contamination by microbial pathogens based on an HSA
- ☛ All 5 confirmation samples are Fecal Indicator Negative
- ☛ Discontinuance/removal of 4-log approved treatment
- ☛ Initial source schedule will be at the same frequency of the routine TCR monitoring schedule
- ☛ Tier 1 (24 hr) Public Notification required if E. Coli+

Ground Water Rule

Additional (Confirmation) Monitoring

- 💧 Following E. Coli+ triggered or E. Coli+ assessment sample
 - 💧 **Collect 5 Confirmation (CO) samples within 24 hours** of notification for each E. Coli+ source sample (*unless immediate corrective action is required by DWS*)
 - 💧 **Tier 1 (24 hr) Public Notification required**
- 💧 **If any of the 5 CO samples are E. Coli+**
 - 💧 **Additional Tier 1 (24 hr) Public Notification required**
 - 💧 Corrective Action or Corrective Action Plan required within 120 days
 - 💧 Consultation with the DWS is necessary within 30 days
- 💧 **Failure to collect confirmation samples requires Corrective Action within 120 days**



Ground Water Rule

Corrective Action Requirements

Upon notification of E. Coli+ source samples or a significant deficiency, PWS must either:

- 💧 Complete corrective action within **120 days** (30 day consultation period); OR
- 💧 Be in compliance with a DWS approved Corrective Action Plan
- 💧 Failure to comply = Treatment Technique Violation and Tier 2 (30 day) Public Notification Requirement
- 💧 Public notice must be completed annually if not corrective action is not completed



Ground Water Rule

What is a Corrective Action?

- ☉ Correct all significant deficiencies or violations potentially contributing to the issue,
- ☉ Eliminate the source of contamination,
- ☉ Provide an alternate source of water, or
- ☉ Provide treatment which reliably achieves 99.99 percent (4-log) inactivation or removal of viruses.

- ☉ Department needs to know exactly how the situation was corrected and the **date of the correction**
- ☉ Department must be notified of the corrective action within 10 days of completion

Lead and Copper Rule

- 💧 Two words: Flint. Michigan.
- 💧 DWS is conducting a complete review of all of its implementation procedures
- 💧 Expect changes that will tighten-up procedures and compliance activities across the entire section:
 - 💧 More scrutiny of new sources
 - 💧 Closer review of sampling points
 - 💧 Updated guidelines on sampling procedures
 - 💧 Development of detailed Lead and Copper Rule Guidance for PWS and operators
 - 💧 Quicker enforcement referrals when needed
 - 💧 Improved tracking and cross-referencing of customer complaints



Lead and Copper Rule

General reminders

- 💧 Applicable to all CWS and NTNC PWS
- 💧 Lead Action Level = 0.015 mg/L
- 💧 Copper Action Level = 1.3 mg/L
- 💧 “End of the monitoring period” trigger date defined as:
 - 💧 9/30 for annual or less frequent monitoring
 - 💧 6/30 or 12/31 for 6 month monitoring frequency
- 💧 Following an exceedance, PWS returns to standard routine tap monitoring (every 6 months)
- 💧 Systems on triennial monitoring must sample every three years, **not once every three-year compliance period**
- 💧 DWS will no longer approve monitoring reductions if there are other outstanding compliance requirements



Lead and Copper Rule

Sampling Locations

- 💧 PWS must complete a materials evaluation of the distribution system to identify a pool of sampling sites
- 💧 Pool must be large enough to ensure that the water system can collect the required number of samples
- 💧 Sample sites shall not include faucets with POU or POE treatment
- 💧 The sampling pool must consist of (in order of priority):
 - 💧 Tier 1 sampling sites
 - 💧 Tier 2 sampling sites
 - 💧 Tier 3 sampling sites
 - 💧 Non-Tier (representative) sampling sites.
- 💧 **Samples must be reported to the DWS using the identified sampling site!**



Lead and Copper Rule

Sampling Locations

- 💧 Tier 1: Single family structures that: contain copper pipes with lead solder installed after 1982 or contain lead pipes; or are served by a lead service line
- 💧 Tier 2: Buildings, including multiple-family residences, that: contain copper pipes with lead solder installed after 1982 or contain lead pipes; or are served by a lead service line
- 💧 Tier 3: Single family structures that contain copper pipes with lead solder installed before 1983
- 💧 Non-Tier: Representative site in which the plumbing materials used at that site would be commonly found at other sites



Lead and Copper Rule

Lead and Copper Rule Compliance

- 💧 An exceedance of either action level triggers additional requirements:
 - 💧 Water Quality Parameter Monitoring
 - 💧 Corrosion Control Treatment (CCT) Evaluation and Installation
 - 💧 Source Water Monitoring
 - 💧 Source Water Treatment Evaluation and Installation
 - 💧 Lead Public Education (lead exceedance only)
 - 💧 Lead Service Line Monitoring and/or Replacement (repeated lead exceedance only)
 - 💧 Copper Public Notification (Tier 2) (CT requirement only)
- 💧 **Recommended to sample early in the monitoring period**

Lead and Copper Rule

Water Quality Parameters (WQPS)

- 🔹 Required by all systems serving >50,000 and when smaller systems exceed the action levels
- 🔹 **Collected in the same monitoring period as the exceedance**
- 🔹 Samples are collected in the distribution system based on system size and at each entry point
- 🔹 Includes pH, alkalinity, calcium, conductivity, orthophosphate, silica and temperature
- 🔹 Results used to help predict water corrosivity and help identify appropriate CCT and operating levels
- 🔹 After installing CCT and follow-up monitoring, the State sets operating ranges and/or limits for WQPS



Lead and Copper Rule

Source Water Monitoring

- 🔹 Required by all systems that exceed either action level
- 🔹 Conduct lead and copper monitoring at each entry point within six months after the end of the monitoring period
 - 🔹 6 month monitoring frequency: **Due by 12/30 or 6/30**
 - 🔹 Annual or Triennial frequency: **Due by 3/30**
- 🔹 Based on the results, if source water treatment is needed, the system has 24 months for installation
- 🔹 After treatment installation
 - 🔹 Follow-up lead and copper tap and entry point monitoring
 - 🔹 DWS may set maximum permissible levels for source water lead and copper leaving the treatment system



Lead and Copper Rule

Corrosion Control Treatment

- 💧 Required by all systems that exceed either action level
- 💧 System shall recommend optimal CCT within 6 months after the end of the monitoring period of the exceedance
 - 💧 6 month monitoring frequency: **Due by 12/30 or 6/30**
 - 💧 Annual or Triennial frequency: **Due by 3/30**
- 💧 Once the State approves the proposed CCT, system has 24 months for installation
- 💧 System must conduct follow-up tap lead and copper and WQPS monitoring for two consecutive 6-month monitoring periods following installation
- 💧 CCT steps may be suspended at any time if the system meets both action levels for two consecutive 6-month monitoring periods



Lead and Copper Rule

Lead Public Education

- 💧 Only required if lead action level is exceeded
- 💧 Informs customers about lead health effects, sources and what can be done to reduce exposure
- 💧 May be provided in billing inserts, pamphlets, brochures, newspaper notices and public service announcements (PSA)
- 💧 Lead education materials must be delivered within 60 days after the end of the monitoring period of the exceedance and annually thereafter (every 6 months for PSAs)
 - 💧 6 month monitoring frequency: **Due by 8/29 or 3/1**
 - 💧 Annual or Triennial frequency: **Due by 11/29**
- 💧 May be discontinued when the PWS meets the lead AL
- 💧 Education materials and certification need to be sent to the DWS within 9 days of



Lead and Copper Rule

Consumer Notice

- 💧 **Required for every lead tap water sample collected**
- 💧 Notice of lead tap water monitoring results to persons served at the sites tested
- 💧 Notice must be delivered as soon as practical but not later than 30 days after learning of the results
- 💧 Notice must include:
 - 💧 Results of lead testing
 - 💧 Explanation of health effects of lead
 - 💧 List of steps to reduce exposure
 - 💧 PWS contact information
- 💧 **The Certification and a sample copy of a Notice must be sent to the DWS no later than 3 months after the end of the monitoring period (12/29 for annual/triennial samples, 9/29 and 3/31 for 6 month samples)**

Drinking Water Section



Water Quality Monitoring Schedules

- 💧 Provided by the DWS as a courtesy to assist owners and operators of PWS in maintaining compliance
- 💧 Updated and posted on the website twice monthly
- 💧 Schedules divided into the following sections
 - 💧 Water Quality Monitoring Requirements
 - 💧 Water System Facility Level Monitoring Requirements
 - 💧 Water System Facility Information
 - 💧 Sampling Point Inventory
 - 💧 Operator Certification
 - 💧 Public Notification Requirements
 - 💧 Contact Information
 - 💧 Other Compliance Schedules



Helpful Information

- 💧 DPH website: www.ct.gov/dph
- 💧 DWS website: www.ct.gov/dph/publicdrinkingwater
- 💧 DWS Phone: (860) 509-7333 (during business hours: M-F 8:30 am – 4:30 pm)
- 💧 DPH Main/Emergency phone: (860) 509-8000 (outside of business hours)
- 💧 US EPA website: <http://www.epa.gov/laws-regulations/summary-safe-drinking-water-act>
- 💧 Connecticut Drinking Water Regulations (19-13-B102): <https://eregulations.ct.gov/eRegsPortal/Browse/RCSA>
- 💧 Federal Drinking Water Regulations (40 CFR 141): <http://www.ecfr.gov>



Thanks for Listening! Questions??

Connecticut Department of Public Health Website:
<http://www.ct.gov/dph/publicdrinkingwater>

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