

# Lead and Copper Rule Monitoring Issues

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## Today's Topics

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    A[Today's Topics] --> B[Lead and copper tap samples]
    A --> C[Water quality parameter (WQP) samples]
  
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## Federal Lead and Copper Rule (LCR)

All community water systems and non-transient non-community water systems are subject to the LCR

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## Lead in Drinking Water Webpage

**Lead in Drinking Water**

Lead is not normally found in drinking water at the source. Typically, lead gets into your drinking water from the service lines, plumbing and fixtures that contain lead. As a result of corrosion, lead and other metals from the pipes slowly dissolve into the water. Many factors affect the amount of lead that leaches into the water, including lead content of pipes, fixtures, and solder, along with water temperature, pH and hardness. Lead is associated with adverse health impacts even at low levels, particularly in infants and children.

Additional information is available at the following links:

- CONSUMER  
(You are served by a community water system/are on "city water")
- SCHOOL or CHILD CARE FACILITY
- PUBLIC WATER SYSTEM  
(Community or Non-transient non-community)
- EPA Lead and Copper Rule Implementation Info



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## Sampling Plans

NJDEP is calling in all lead and copper sampling plans and all water quality parameter sampling plans

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## Standard Monitoring

All large systems (>50,000 people served) are going back on standard lead and copper monitoring starting on January 1, 2017.

Small and medium systems may go back to standard monitoring based on plan reviews.

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## Sampling

- First draw samples must be collected at cold kitchen or bathroom taps (CWS) or indoor taps that can be used for human consumption (NCWS)
- Sample first draw
  - Stagnant minimum of 6 hours
  - Sample should not be taken at tap that is attached to a water softener or point of use filter

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## EPA February 29, 2016 Memo

WSG 197  
Date Signed: February 29, 2016

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460  
FEB 29 2016

OFFICE OF WATER

**MEMORANDUM**

SUBJECT: Clarification of Recommended Tap Sampling Procedures for Purposes of the Lead and Copper Rule

FROM: Peter C. Grevatt, Director  
Office of Ground Water & Drinking Water


TO: Water Division Directors  
Regions 1 - X

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## EPA February 29, 2016 Memo

### 1. Aerators

Water system should not recommend the removal or cleaning of aerators prior to or during the collection of tap samples



Source: [www.amconservationgroup.com](http://www.amconservationgroup.com)

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## EPA February 29, 2016 Memo

### 2. Prestagnation flushing

Do not flush the tap prior to starting the minimum 6 hour stagnation time

- EPA recommends that sampling instructions do not contain pre-stagnation flushing

### 3. Bottle configuration

Wide mouth 1 liter bottles for lead and copper sampling

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## Sample Site Change

1. No longer willing to participate in sampling
2. No longer meets tier criteria

*\*Lead and Copper Sample Site Change Form (BWSE-56) is required to be submitted within 10 days following the end of the monitoring periods for any sample change from the previous monitoring period*

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## Customer Sampling Requests

Samples collected from the correct tier and during the compliance monitoring period must be included in the 90<sup>th</sup> percentile calculations. Sample results shall be submitted to the state via E2 with acronym at end of sample number

- PBCR- Lead customer request
- CUCR- Copper customer request

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## Customer Sampling Requests

- If outside monitoring period, sample will be submitted to the state via BWSE-16 form <http://www.nj.gov/dep/watersupply/pdf/bwse16.pdf>
- Confirmation samples must also be included in the 90<sup>th</sup> percentile and submitted via E2

Department of Environmental Protection - Bureau of Water System Engineering  
 MAIL CODE: 401-042  
 401 East State Street - P.O. Box 8420  
 Trenton, New Jersey 08620-8420  
 Tel: 609-292-2967 • Fax: 609-432-4165

**Non-Compliance Lead and Copper Tap Monitoring Form**  
 Requirements Pursuant to 40 CFR 141.90  
 \*\*This form (BWSE-16) must be submitted to the State within 90 days of receipt of results\*\*

1. Water System Name: \_\_\_\_\_ 2. PWSID: \_\_\_\_\_

3. Monitoring Period (if applicable): \_\_\_\_\_ 4. Date Sample(s) Collected: \_\_\_\_/\_\_\_\_/\_\_\_\_

5. Number of Non-Compliance Sites Sampled (Total): \_\_\_\_\_

Office Use Only  
 Reviewed by: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Approval Date: \_\_\_\_\_

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## Sample Invalidation

1. Lab established that improper sample analyses caused erroneous results
2. State determines sample was taken from a site that did not meet the site selection criteria
3. Sample container was damaged in transit
4. There is substantial reason to believe the sample was subject to tampering

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## Please note...

**Sample collected at a location with a significant standing time does not meet invalidation criteria under the Federal Lead and Copper Rule**

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## Water Quality Parameters

- Water Quality Parameters (WQP) are used to measure and track the corrosivity of the water supply
- Determine whether corrosion control treatment is being properly maintained
- Samples are taken at all **point of entries** (biweekly) and in the **distribution system** (two times in a 6 month period)
- WQPs include: pH, alkalinity, calcium, conductivity, orthophosphate, silicate, water temperature

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## Water Quality Parameters

- Under the Federal Lead and Copper Rule, only large water systems or systems that have had an action level exceedance are required to do WQP monitoring
- NJ has more stringent requirements- Large and small and medium systems with corrosion control treatment are required to do ongoing WQP monitoring

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## WQP Approved Person

**WQP samples can be taken by an "Approved Person" under the Federal Lead and Copper Rule**

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## WQP Approved Person

**Licensed Operator or someone trained by a Licensed Operator**

**Responsibilities:**

- Use analytical methods in 40 CFR 141.23(k)(1)
- Training must be documented
- Conduct proper calibrations and maintain records of all QAQC tasks
- Submit results on the Excel Generic WQP Analysis Spreadsheet via email to [watersupply@dep.nj.gov](mailto:watersupply@dep.nj.gov)
- NJDEP will be submitting the results to E2

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## WQP Schedule Types

1. Initial
2. Follow-Up
3. Optimal

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## Optimal WQP Monitoring

System will receive a treatment technique violation if result is lower than the minimum value (an excursion) more than 9 times in the 6-month monitoring period

- Need to report violation to NJDEP within 48 hours
- Deliver Tier 2 public notice
- Include discussion of violation in CCR
- Return to standard (every 6-month) WQP tap monitoring and lead and copper tap monitoring immediately

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## Please note...

**Water systems should make arrangements with the labs regarding notification to the system if the result is less than the minimum value so treatment adjustments can be done and repeat samples can be taken**

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## Compliance

NJDEP is now running compliance for all LCR requirements which includes:

- WQP monitoring
- Source water monitoring
- Submittal and/or install of corrosion control treatment and/or source water treatment
- Public education
- Optimal water quality parameters
- Lead consumer notices

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## Questions?

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609.292.2957

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## References

- Federal Lead and Copper Rule: 40 CFR Part 141 Subpart I
- NJDEP Sampling & Regulatory Forms:  
<http://www.nj.gov/dep/watersupply/dws-sampreg.html>
- NJDEP Lead in Drinking Water webpage:  
<http://www.nj.gov/dep/watersupply/dwc-lead.html>
- EPA February 29, 2016 Memo:  
[https://www.epa.gov/sites/production/files/2016-02/documents/epa\\_lcr\\_sampling\\_memorandum\\_dated\\_february\\_29\\_2016\\_508.pdf](https://www.epa.gov/sites/production/files/2016-02/documents/epa_lcr_sampling_memorandum_dated_february_29_2016_508.pdf)

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