
Current Lead Rules

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Oregon
Health
Authority

Presentation Overview

- Health Effects of Lead
- Lead sample site selection
- Sampling protocol and invalidation
- Consumer Notification
- Adding a new source or treatment
- Actions after an exceedence
- Water quality parameter monitoring
- Reporting

Health effects of Lead

- Lead gets into a body's bloodstream, organs and bones, and primarily affects the central nervous system (brain)
- No safe blood lead level has been determined
- Children aged 6 and younger are at higher risk due to increased absorption of lead and hand-to-mouth activity
 - Ages 9 months to 2 years at highest risk

Health effects, continued

- Low blood levels (<10ug/dL) can cause
 - reduced IQ and attention span,
 - learning disabilities,
 - behavioral problems,
 - impaired growth, and
 - hearing loss
- High blood levels (>70 ug/dL) can cause coma, convulsions, and possibly death

Sample site selection

- Materials Evaluation should have been conducted to identify a pool of sites.
 - If no documentation exists, consider re-doing
- Sampling sites must consist of:
 - Tier 1 sites: homes with copper pipe and lead solder built between Jan 1983 and June 1985 OR contain lead pipes (goosenecks)
 - Tier 2: any building as above
 - Tier 3: homes built before 1983 with copper pipes and lead solder

EPA 141-A form

CERTIFICATION OF SAMPLING SITES	
LEAD SOLDER SITES	
# of single-family structures with copper pipes with lead solder installed after 1982 or lead pipes and/or lead service lines (Tier 1)	<input type="text"/>
# of multi-family structures with copper pipes with lead solder installed after 1982 or lead pipes and/or lead service lines (Tier 1)	<input type="text"/>
# of buildings containing copper pipes with lead solder installed after 1982 or lead pipes and/or lead service lines (Tier 2)	<input type="text"/>
# of sites that contain copper pipes with lead solder installed before 1983 (Tier 3)	<input type="text"/>
# of sites that do not meet Tier 1, 2, or 3 criteria <i>(to be used only if other conditions have been exhausted)</i>	<input type="text"/>
TOTAL	<input type="text"/>

The following sources have been explored to determine the number of structures which have interior lead pipe or copper pipe with lead solder.

- Plumbing and/or building codes
- Plumbing and/or building permits
- Contacts within the building department, municipal clerk's office, or State regulatory agencies for historical documentation of the service area development
- Water Quality Data

Other Resources Which PWS May Utilize

- Interviews with building inspectors
- Survey of service area plumbers about when and where lead solder was used from 1982 to present

Sample sites

- Is system still sampling from the original pool of sites?
- Is system asking owner if plumbing has changed?
- Does system have goosenecks? Do they know where?

- 141A form if changes

EPA 141-A form

CHANGE IN SAMPLING SITES

Original site address:

New site address:

Distance between sites (approximately):

Targeting Criteria: NEW:

OLD:

Reason for change (attach additional pages if necessary)

Sampling protocol

- 1-liter sample bottle, wide mouth to allow full flow
- Water must sit stagnant in pipe for at least 6 hours before sampling
- First draw sample from tap used for consumption
- If homeowner collects sample, provide and ensure that they have read the sampling instructions

Invalidation

- If homeowner collects the sample, an operator cannot claim sampling protocol as reason for invalidation!
- Allowable reasons to invalidate:
 - Improper lab analysis
 - Did not meet site selection criteria
 - Sample was damaged or subject to tampering
 - NOTE: there is no upper stagnation time limit!
- A replacement sample must be taken within 20 days of invalidation

Consumer Notification

- Consumers of the water at sites sampled must be notified of their results. Must also include:
 - Health effects of lead
 - Steps to take to reduce lead exposure
 - Water system contact information
 - Action levels and MCLG for lead
- Templates available on DWS website
- Also, all customer-requested samples, not evaluated as compliance sample, must be submitted to OHA

Adding a new source

- If system has NO corrosion control:
 - Conduct 2 6-month rounds of lead / copper
 - OR submit adequate Lead and Copper Evaluation
- If system has corrosion control:
 - Apply same treatment as other entry points
 - OR submit adequate Lead and Copper Evaluation



Adding new treatment

- Must conduct 2 6-month rounds of lead and copper testing if treatment is added that may affect lead and copper levels at the tap.
- This may include:
 - Adding or changing chemical disinfectant
 - Adding or changing coagulant chemicals
 - Ion exchange
 - Membrane filtration
- A Lead and Copper Evaluation may also be submitted. Must include a pilot test.

If Action Level is exceeded

- On track to install corrosion control!
- If system collects 2 6-month rounds (original number of sites) that are below action level, plans to install treatment can cease.

Steps after an exceedance (no CCTx)

- Collect 2 rounds of water quality parameters, 2 weeks apart
 - From sources, and in distribution system
- Lead and copper sample from entry point
- Public Education if exceeded lead (within 60 days)
- Letter of recommendation of treatment within 6 months
- Installation within 2 years
- Demonstration rounds

Water Quality Parameter monitoring

- At entry point following treatment:
 - Minimum parameter(s) will be established
 - Sample and record at least every 2 weeks
 - If below minimum, adjust chems and sample at least daily
 - Sample for parameter that is adjusted (pH, Alkalinity)
 - Submit forms monthly
- In distribution system:
 - Sample at same time as lead and copper tap sampling
 - Number of representative sites based on population

Reporting to OHA

- Tap results must be submitted 10 days after the end of the monitoring period
 - October 10th if must sample June 1-Sept 30
- Consumer notification certification and example must be submitted within 3 months of end of monitoring period
 - December 31st if sampling June 1-Sept 30

Lead Tap Water Monitoring Certification of Notice to Individual Consumers

Water System Name:

PWS ID No:

Monitoring period to which the notice applies (for example, June – Sept. 2009):

Date(s) results were received from laboratory:

Date(s) results were provided to consumers:

Notice included individual tap results from lead tap water monitoring compl

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Contact Us!

For technical assistance, contact

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