

## CHILDREN'S ENVIRONMENTAL HEALTH



### **.2816 Testing Protocol for Elevated Lead in Water**

#### **Elevated Sample Results**

1. Elevated sample results will be sent by RTI to Tena Hand, Melanie Napier, Kimly Blount and the Regional Staff assigned to the County.
2. Regional Staff assigned to the county will contact that county's EHS Supervisor to determine if the Local Health Department will collect follow-up samples. (Templates for an initial request email and follow-up sample email notification to county are available.) Follow-up samples are to be collected ASAP but no longer than 10 business days after initial results are reported to the Department.
3. The center should be contacted to arrange sampling. The following should be discussed with the operator:
  - a. access restricted to fixtures with elevated water lead levels and alternative water is provided free of charge
  - b. a stagnation period of up to 72 hours is recommended to simulate the time period between Friday and Monday morning when the water is not in use, but a minimum of 8 hours stagnation is required before sampling.
  - c. 72 hours before scheduled testing, flush fixtures for 3-5 minutes. (If it is noted that sampling locations have been flushed less than 8 hours prior to arrival, then samples should not be collected).

#### **Follow-Up Sampling**

4. Follow-up sampling includes collecting a 250 ml first draw and 30-second flush sample. Ideally, sampling is done on Monday morning prior to the center opening to avoid unnecessary contact with staff or children. Verify signage/labeling is posted restricting access to fixtures with elevated water lead levels, and that the center is providing alternative water free of charge. Elevated samples inside the facility shall be re-sampled even if collected from a handwash lavatory or a bathroom lavatory by the operator. Utility room mop sinks and outside faucets will not need to be re-sampled if determined they are not utilized for drinking or food preparation.
5. Hand wash sinks, which were tested by the operator and determined not to be used as a source of water for drinking or food preparation, may continue to be used for hand washing. Signage must be posted at the hand wash lavatory to prohibit any consumption of the water. A minimum 8 hour stagnation is required before follow-up sampling. Staff shall be educated on proper usage of sinks and informed that consumption of water from hand wash lavatories is a violation of sanitation rules. If the follow-up sample is at or above 15 ppb, mitigation is required.
6. If during a follow-up visit it is determined that sinks that were required to be tested by the operator were omitted, sampling of those sinks may be conducted by the EHS and submitted to the State Lab. Both the first draw and 30-second flush should be collected at that time. Labeling instructions for those samples will be provided by RTI. Reference the RTI sample ID on the chain of custody. If initial samples collected by an EHS are at or above 15 ppb, follow-up sampling is not required, and the operator is required to mitigate.

7. If there is no follow-up sampling required at a center, but they missed samples that should have been collected, the center may request a kit from RTI using a self-pay mechanism. This helps preserve resources for other centers that still need sampling.

### **Sample Collection**

8. To collect samples, place the bottle for the first draw sample under the faucet, turn on the faucet and start a timer simultaneously. When the first draw sample bottle is full, remove it from the water stream and allow the faucet to continue to run. When 30 seconds is reached on the timer place the second bottle under the faucet until filled. Then the faucet may be turned off and bottles labeled.
9. Label bottles with field sample #, sample location, first draw or 30-second flush, date, address and facility name. Write field sample # on bottle lid in addition to side of bottle. Sample number is the RTI sample # followed by CFD or C30. CFD would indicate follow-up first draw and C30 would indicate follow-up 30-second flush.
10. Complete DHHS Form 4122 Special Lead Analysis of Drinking Water Request and Chain of Custody Record (revised 4/20). Results are to be reported to the Local Health Department even if collected by the regional specialist. RTI sample # needs to be recorded on the form 4122 in the comment section.
11. Samples are sent to the State Lab through the courier. Samples can be sent through the courier in batches (i.e., placing several boxes with samples into one large box or bag) to reduce courier costs. However, DON'T hold samples to facilitate batching - only batch samples if collected during the same time period.
12. An NCLEAD property event needs to be created for follow-up samples at or above 15 ppb lead.

### **Notification**

13. Once follow-up sample results are received, the Local Health Department needs to send written notification of results to the child care center and the Division of Child Development and Early Education.
14. If follow-up samples come back elevated, upon written notification, the operator needs to notify parents and staff and make results available to the public within 5 business days (public notice can be done by providing a link to the RTI website). The operator shall continue to restrict access to the fixture and provide alternative water free of charge.
15. The Local Health Department shall send out notification of lead poisoning hazards and a request for names per NCGS 130A-131.9B, which includes a request for parents/guardian to test their children. Notification is required for any water outlet accessible to children with follow-up results at or above 15 ppb lead, regardless of use. Local Health Departments may mail notices to parents or coordinate with the facility to have parents sign for notification letters at the center.

### **Mitigation & Clearance**

16. For centers with elevated water lead levels, the notification of lead poisoning hazards should include a request for a remediation plan. An acceptable remediation plan must include specific remediation options, including faucet replacement or lead filtration, to be used and any maintenance and monitoring per the manufacturer's instructions. Submitting remediation plans

to the County and having them approved by the authorized lead agent prior to mitigation may help eliminate improper and costly mitigation efforts that may result in a failed clearance.

17. Clearance samples and verification of remediation plans must be performed by an authorized lead agent or a CEH regional specialist.
18. Clearance samples should include both a 250 ml first draw and 30-second draw sample.
19. When clearance samples are collected, write "Post Remediation Follow-up Sample" in the comment section on the Chain of Custody form. Sample numbers are the RTI sample # followed by RFD or R30. RFD indicates remediation first draw and R30 indicates remediation 30-second flush.
20. Centers with faucets that test below 15 ppb, but choose to mitigate, may participate in RTI's resampling program under the pay portal for the EPA WIIN grant.
21. Follow-up for facilities required to mitigate under .2816 require annual sampling if filters or water treatment are used.

*\*\*\* Flushing before use is recommended for any water outlet that has elevated lead results.*

*\*\*\* A water tap that was sampled in error or due to improper usage must be mitigated if follow-up sampling is at or above 15 ppb. Stating that the sink will no longer be used to obtain drinking water is not an approved remediation option.*