

Mandatory Lead in Water Testing

Training Overview - Water Testing General Information

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Introduction: Lead in Water Testing Training Modules

The lead in water testing program has gone through significant changes since inception. This module, and the others, provide the most up-to-date information available. Please review these training modules to ensure you are complying with the latest requirements.

This training overview has two parts. The first part goes over why lead in water testing is important, state law compliance, and what and when you must test. The second part covers the lead in water testing and reimbursement process. [Training Modules 1-6](#) on our [Lead in Water webpage](#) contain in-depth instructions and information on each step of the lead in water testing and reimbursement process. Please refer to the individual training modules for more information.

Part 1: Mandatory Lead in Water Testing

Why Lead Testing is Important

It is well documented that elevated levels of lead in the body can cause:

- Developmental delays
- Learning difficulties
- Reductions of IQ
- Behavioral issues
- Other serious medical conditions

The EPA classifies lead as a probable human carcinogen. Lead builds up in the body over time and does not dissipate, so ingestion of even small quantities of lead is a serious concern. The effects are cumulative and any source of lead can contribute to serious health consequences. Potential sources of lead are:

- Lead paint
- Lead contaminated dust
- Air
- Water
- Soil

State Law Compliance

Both the Oregon Department of Education's (ODE) and Oregon Health Authority's (OHA) administrative rules ([OAR 581-022-2223](#) and [OAR 333-061-0400](#), respectively), require ESDs, school districts, and charter schools to test water fixtures for elevated levels of lead. Following the instructions in these training modules will help keep your district's school(s) compliant with those regulations.

Reimbursement

To help compensate for the additional work required to create a comprehensive water testing system and taking the samples, ODE provides reimbursement for certain costs. Please see the last section in this overview and [Training Module 6 - Reimbursement](#) for more information.

Testing Philosophy

Children are not miniature adults. Their brains have not fully developed and you cannot expect them to think or behave as adults. When considering what constitutes a source for drinking water, the basic criteria is to assume that any water source that a child can get their mouth on/under, cup their hands and drink from, or fill their water bottle from should be assumed to be a drinking water source and tested under [OAR 333-061-0400](#).

It is important to test every fixture in your building that can be used for drinking or food preparation. For example, a building reported lead levels as high as 57,600 parts per billion (ppb) at a given fixture. At the same time, many fixtures in that same building tested well below the current action level of 15 ppb. Testing a “representative sample” of fixtures could have missed this seriously problematic fixture.

What Must be Tested

The rules require that all sources of water must be tested for elevated levels of lead, unless the fixture type is specifically included on the list of exempt fixture types. **This includes all facilities**, not just instructional facilities. Even sources that some might not think of as drinking water sources. If you believe a fixture that is on the exemption list should be tested, then the testing will be eligible for reimbursement. If testing reveals elevated levels of lead from an exempt fixture, it must be remediated.

Exempt Fixtures and Buildings

Exempt Fixtures

The list of exempt fixture types includes:

- Shower heads
- Pipes used to convey water to systems for building heat
- Dedicated eye wash stations and emergency showers
- Fixtures with no student access used exclusively by staff for building sanitation purposes
- Fixtures used exclusively for irrigation, unless it is reasonable to believe that students or staff will use water from that fixture for drinking
- Fixtures in science and technical education classrooms that provide education to grades 6 through 12 exclusively where fixtures:
 - Have signs indicating they are not sources of drinking water, and
 - Are used in classes such as Chemistry lab that do not have drinking or food preparation as part of the curriculum (such as a Culinary Arts class)

Exempt Buildings

If the plumbing in a building is all new from the service connection forward, including all piping, valves and fixtures, **a district may apply to ODE for exemption from ongoing testing. In order to apply for this exemption, however, an initial testing of the building's water fixtures must still be completed.**

Examples of buildings that qualify for the exemption include all new construction, or renovation of existing structures that have been completely re-piped. However, **all** of the following criteria must be met and documented:

1. All plumbing, from the service connection forward, must have been replaced later than January 1, 2014.
2. All plumbing materials must meet the lead-free standard of no more than 0.25% lead by weight, including piping, valves, and fixtures.
3. All solder and flux meets the lead-free standard of no more than 0.2% lead.
4. **All required fixtures have undergone initial testing with the results indicating lead content of no more than 1 ppb.**
 - a. When performing this initial testing, it is important to be sure that the chosen lab tests down to at least 1 ppb Minimum Reporting Level (MRL). **Test results indicating Non-Detect (ND) with a MRL of only 2 for instance, will not qualify for exemption, and would require retesting.**
5. The exemption from ongoing testing must be requested from and approved by ODE. Proper documentation will be required before exemption is approved.

When You Must Test – Mandatory Schedule

The Oregon Health Authority (OHA), in consultation with ODE and stakeholders, determined that every school building would have to test for lead in water at least once every six years for their ongoing testing.

The testing schedule is determined by the number of schools in a district, including charter schools. Larger districts are required to spread their testing out over multiple years. The largest districts will test 1/6th of their facilities every year. Charter schools are required to test the same year as their sponsoring district. All ESDs will begin their testing cycle in the 2023 fiscal year (2022-23 school year).

The table on the following page illustrates the testing schedule by district size for the first year of ongoing testing. This table, along with more detailed schedules listed by district and charter school, can be found under the [Mandatory Lead Testing Schedule](#) section of our [Lead in Water webpage](#).

2021 Fiscal Year (2020-21 School Year)	2022 Fiscal Year (2021-22 School Year)	2023 Fiscal Year (2022-23 School Year)	2024 Fiscal Year (2023-24 School Year)	2025 Fiscal Year (2024-25 School Year)	2026 Fiscal Year (2025-26 School Year)
Districts with 1-3 Schools					
Completion of Initial Testing by All Districts	Districts with 4-6 Schools				
		Education Service Districts			
		Districts with 7-8 Schools			
			Districts with 9-10 Schools		
			Districts with 11-15 Schools		
		Districts with 16-20 Schools			
Districts with 20 + Schools					

Part 2: Lead in Water Testing Training Modules Overview

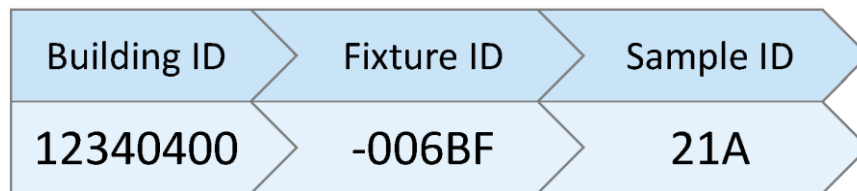
Lead in Water Testing Process

The lead in water testing process involves many steps. The graphic below outlines the lead in water testing process. These icons are used throughout the Training Modules to help quickly identify which step of the process each section is referring to.



Training Module 1 - Fixture and Sample ID Numbers

We are tracking in excess of 100,000 fixtures statewide for years to come, therefore it is critical to have unique identifiers for each fixture and sample. This uniform fixture numbering system will help track these fixtures over time and help avoid errors. All fixtures and samples are required to be assigned individual numbers based on the following protocol:



The **Fixture ID # (FIN)** is 13 digits long, with an additional three digits to make the **Sample ID #**. The first 8 digits are the **Building ID # (BIN)** (used in the [School Facilities Data Collection](#)), which are already assigned. Digits 9-11 are numbers you assign to fixtures in a given building, starting with 001 and

working up. So you would have 001, 002, 003, and so on. **Do not assign the same digits in the same building.** When you move on to the next building, you can restart the numbering back at 001, or you can continue with the next number in sequence.

Digits 12 and 13 are a two digit letter code indicating the type of fixture. For instance, BF would be a Bathroom Faucet, DW would be a Drinking Water Fountain, KF a Kitchen Faucet, and so on. **Please use only the letter codes listed below.**

Fixture ID # Fixture Type Codes	
BF = Bathroom Faucet	OS = Outside Spigot
CF = Classroom Faucet	SF = Staff/Office Faucet
DW = Drinking Water Fountain	SH = Shower Head
IM = Ice Machine	WB = Water Bottle Filler
KF = Kitchen/Food Prep	WC = Water Cooler (Chiller)
NS = Nurse's Office Sink	OT = Other (Specify)

For the **Sample ID #**, we add three more digits. Digits 14 and 15 are the last two digits of the fiscal year the sample is drawn. The final, 16th digit is a single letter indicating which sample is taken from a fixture. For instance, the initial draw sample (first sample drawn from a fixture) would be an A. If a 2nd sample is drawn, the code would be a B, a third sample would be a C and so on.

More detailed information can be found in [Training Module 1 - Fixture and Sample ID Numbers](#).

Training Module 2 - Fixture Locations and Descriptions

To ensure each fixture has the same number and a record of its test results that can be kept accurately for years to come, a record describing the location of each fixture is necessary. The description of the fixture location and type of fixture must be specific enough that anyone could look at the location and description and know what fixture is being referenced out of all the fixtures in that building. These specific descriptions should provide the location of fixture by room or hallway, the relationship to other fixtures in the room (left, right) and the type of fixture (dish sink, water fountain, etc.)

More detailed information can be found in [Training Module 2 - Fixture Locations and Descriptions](#).

Training Module 3 - Sampling



Selecting an ORELAP Testing Lab

Several factors play into selecting a testing lab for your school. A lab you have previously used may or may not be your best choice. Things to consider:

- You must use a lab that is ORELAP certified to test for lead in drinking water. Certifications do require periodic renewal, so you should double check to be sure the lab you select is still certified. A list can be found on the [OHA website](#).
- It can pay to shop around. Pricing varies from one lab to the next, and some will do copper testing at no additional charge. Reimbursement is not available for copper testing.

More detailed information can be found in [Training Module 3 - Water Sampling](#).

Prior to Water Sampling

Prior to drawing samples, the following prerequisites must be met:

- Samples must be drawn following a day when class is in session in the building. This will preclude you from testing during summer, winter, and spring breaks. The exception would be testing on the first day after the close of school for a break.
- Samples must be drawn in the morning before any water in the building is used, after plumbing has been idle for 8 to 18 hours.
- Flushing of systems prior to testing is **NOT** allowed.



Draw Samples

All testing should start with Draw samples. Draw samples are:

- Collected after an 8 to 18 hour stagnation period and **before any water is run** from the tap;
- Collected from the first water out of the cold tap;
- Testing the water that has been sitting overnight in the fixture itself; and
- Detecting elevated levels of lead that are caused by anything in the system, up to and including the fixture itself.

Flush Samples

Flush samples are to be used **as a diagnostic tool only**. It is not necessary to take flush samples unless the draw sample indicates high levels of lead. Flush samples are taken the same way as draw samples (including the 8-18 hour wait time), except they are taken **after the water has run** for 30 seconds.

A flush sample below the action level following a draw sample above the action level is not an indication that lead levels are acceptable. **Remediation must still take place.** The fixture cannot be returned to service until remediation has been completed and the fixture has a below action level **draw test**.

More detailed information can be found in [Training Module 3 - Water Sampling](#).



Training Module 4 - Elevated Lead Levels and Remediation

The action level for lead content in a water sample is 15 parts per billion (ppb). If you received results of 15 ppb or over, you **must** take immediate action. The fixture must be removed from service within 48 hours, and cannot be returned to service until the fixture has been remediated and retested with a draw test result below 15 ppb.

If your test result is less than 15 ppb, but close to that level (from about 12 to 14.999 ppb), you should consider remediating and retesting the fixture. While not legally required to do so, this is recommended for two reasons:

1. Under the assumption that lead levels tend to increase with age and wear of fixtures, and assuming that it will be 6 years before you test again, the potential exists that the lead concentration will increase and exceed the 15 ppb threshold before your next test.

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2. It helps assure parents that you are taking the health and safety of their children seriously. Leaving fixtures that are close to the action level untreated may lead parents to assume that you are “splitting hairs” on a safety issue.

More detailed information can be found in [Training Module 4 - Elevated Lead Levels and Remediation](#).



Training Module 5 - Publishing Test Results

[ORS 332.334](#) requires that all test results be made available to the public no later than 10 business days from receiving final test results. **Test results must be published three separate ways:**

1. Posted to the ESD, district, or charter school’s website;
2. Available to the public in hardcopy in the main administrative office; **and**
3. Emailed to staff, students, and parents of minor students for whom the school has an email address. This includes providing actual final test results or providing direct access to final test results through links in the communications. It is not sufficient to simply instruct people to go to the school’s website.

More detailed information can be found in [Training Module 5 - Publishing Test Results](#).



Training Module 6 - Reimbursement

All testing for lead in water from January 2019 forward is eligible for reimbursement.

ODE provides reimbursement for the following:

- Direct lab fees
- Testing supplies
- Shipping and some other related costs
- Mileage from the district to the testing lab (if your location is such that it is necessary to drive samples a significant distance to the lab, as opposed to shipping them)
- Additional amount on a per sample basis to help offset collection and administrative costs. This additional amount per sample can vary and will be based in part on how much funding is available after all direct lab costs have been paid for the state for a given year.

Reimbursement requires submission of the following:

- Completed [Reimbursement Request Form](#)
- Copies of the lab reports
- Invoices for lab work and receipts for shipping and other related expenses

For additional information on program requirements and how to claim your reimbursements, please refer to [Training Module 6 - Reimbursement](#).