



LOS ANGELES UNIFIED SCHOOL DISTRICT
REFERENCE GUIDE

TITLE: Lead in Drinking Water Program

NUMBER: REF-3930.7

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ROUTING

All Schools and Offices

PURPOSE: The purpose of this Reference Guide is to advise administrators, staff, parents and guardians of the health effects of lead in drinking water and to provide direction for maintaining lead levels in drinking water as low as possible.

MAJOR CHANGES: This Reference Guide replaces REF-3930.6 (October 17, 2016) *Daily Flushing Requirements for Drinking Fountains and Faucets*. Changes include the elimination of daily flushing as a mitigation method and online certification required by Administrators. Additions include flushing after weekends, holidays, and long periods of inactivity, as a practice to ensure the water is regularly moving in the plumbing system. Facilities Services Division’s Maintenance and Operations Branch (M&O) program requirements have also been revised with new procedures and requirements. A new goal of reducing lead in drinking water at all District sites to below five parts per billion (ppb) has also been established.

BACKGROUND: Health Effects/Sources of Exposure

Lead is a toxic metal that is harmful to human health. There is no safe blood lead level for children, pregnant, or nursing women, who absorb more lead into their blood system. Lead can affect almost every organ and system in the human body, and can replace healthy calcium, which is a mineral that strengthens the bones.

There are many potential sources of lead exposure, such as old deteriorated paint, plumbing products used for water lines and other building materials, industrial emissions, lead in the soil from cars using leaded gasoline and consumer products (imported candy, medicines, toys, dishes, etc.).

Lead primarily gets into drinking water from contact with plumbing components such as faucets and valves made of brass or lead-containing solder. Corrosion of plumbing components is a major factor that directly contributes to the amount of lead that is released into the water. Although plumbing components installed prior to the 1990’s contained more lead than newer components, the amount of lead in the drinking water cannot be predicted by the age of building.



LOS ANGELES UNIFIED SCHOOL DISTRICT REFERENCE GUIDE

Legislation and Regulatory Guidance

Under the authority of the Safe Drinking Water Act (SDWA) (42 U.S.C. §300f et seq. 1974), the U.S. Environmental Protection Agency (EPA) established guidelines specifically for reducing lead in drinking water in schools. In 2005, the EPA's *3Ts for Reducing Lead in Drinking Water in Schools and Child Care Facilities* toolkit recommended corrective measures whenever lead content exceeded 20 ppb of lead. Los Angeles Unified adopted an action level of 15 ppb from the EPA's Lead Copper Rule used by water purveyors, which was lower and more conservative.

In January 2014, the SDWA was amended to add the Reduction of Lead in Drinking Water Act which reduced the amount of lead allowed in a water system and plumbing products by changing the definition of "lead free." Section 1417 of the SDWA decreased the amount of lead allowed in plumbing fixtures from up to 8% lead content, to not more than a weighted average of 0.25% lead.

Presently, the EPA and the Los Angeles County Department of Public Health have established that there is no safe level of lead in drinking water. As a result, the EPA revised the 3T's guidance for reducing lead in drinking water in 2018 to reflect that levels should be maintained as low as possible while referring to state and local requirements.

In January 2018, the California legislature adopted Assembly Bill 746, which supplemented the Health and Safety Code Section 116277 and the 2017 Permit Amendments and required a community water system that serves a school site constructed before January 1, 2010, to test for lead in the drinking water before January 1, 2019. This requirement directs the local water purveyors to ensure drinking water sources at schools are being tested for lead and shut-off when lead results are equal to or exceed 15 ppb. This recent legislation, AB 746, mirrored Los Angeles Unified's existing program. All testing required by this legislation has been completed at Los Angeles Unified schools.

Actions Taken

Los Angeles Unified has implemented several types of corrective measures to address elevated lead levels. They include the following: shutting off fixtures, replacing plumbing components, installing point of use filters and flushing of drinking water sources. Over the last 10 years, \$30 million from bond funds have been used to test and remediate approximately 70,000 plumbing fixtures.

Currently, at Los Angeles Unified, all drinking water sources that are operable, have tested below 15 ppb. All drinking water sources that tested at or above 15 ppb have been shutoff or remediated. As the EPA no longer recommends daily



LOS ANGELES UNIFIED SCHOOL DISTRICT REFERENCE GUIDE

flushing as a remedial tool and all drinking water sources are below the threshold, daily flushing of drinking water sources is no longer required. Therefore, the requirement for Administrators, to certify daily flushing online, has been eliminated.

INSTRUCTIONS:

The District's progressive goal is to further reduce the amount of lead in drinking water to below 5 ppb, which is the current standard by the Food and Drug Administration's (FDA) for lead in bottled water. The following guidelines are provided for reducing lead in drinking water. Responsibilities are identified in Section III of this reference guide.

I. NEW FLUSHING PRACTICES AND PROCEDURES

The potential for lead to leach into water can increase the longer water is in contact with plumbing fixtures. The EPA recommends that facilities with intermittent water use, such as schools, develop a flushing practice. This practice is a tool used to improve overall water quality to ensure water is moving regularly throughout the plumbing system. The following flushing practices shall be implemented:

- A. Flush all water outlets used for drinking water or food preparation on the first day after weekends, holidays, and when water may have been stagnant for a long period of time before the first use of the day. All schools and offices must comply with these requirements regardless of when the buildings were constructed.

Flushing shall also be conducted following remediation or installation of new plumbing fixtures. In addition to replacing or removing lead containing plumbing or fixtures, flushing can help clear out debris or lead particles that may be released when remediation occurs.

- B. Flushing involves opening valves and faucets and letting the water run to remove water that has been standing in the interior pipes and/or the outlets.
 - Locate the faucet furthest away from the service line on each wing and floor of the building. Open this faucet wide and let the water run for a minimum of 10 minutes.
 - Drinking fountains and food preparation outlets must be flushed for a minimum of 30 seconds to one minute, or until water runs cold.



- C. Be careful not to flush too many outlets at the same exact time. This could dislodge sediments that might create further lead problems, or it could reduce pressure in the system. If the flow from outlets is reduced noticeably during flushing, too many outlets have likely been turned on at once.
- D. Examples of drinking water sources are drinking fountain bubblers, glass fillers, bottle filling stations, pot fillers, and sink faucets used for food preparation. These can be located in classrooms, home economics rooms, staff lunch rooms, kitchens, food preparation stations, and health/nurse's offices. Any other source of water clearly for human consumption is included such as hard-plumbed coffee makers, ice machines and dental chairs with plumbed water.

Examples of drinking water sources

Bubbler



Glass Filler



Bottle Filling Station



- Fixtures that are not considered a drinking water source are sinks in bathrooms, laboratories, staff work rooms, and hopper rooms. Hose bibs and quick coupler valves are also not considered drinking water sources.
- Faucets that are not used or intended for use as drinking water or food preparation may be labeled with the universal pictogram for Do Not Drink, for "Hand Wash Only" or "Laboratory Use Only." See labels below. These signs are used to advise that the fixtures are not intended for drinking water, not as an indicator of elevated lead results.





LOS ANGELES UNIFIED SCHOOL DISTRICT REFERENCE GUIDE

These faucets are not required to be flushed. Because hose bibs and quick coupler valves are not intended for drinking water, they are not labeled.

- E. Those responsible for flushing after periods of stagnation shall document the dates of completion on the “Drinking Water Flushing Log” (Attachment A). They should also note if fixtures are inoperable, and if the water has discoloration or odor. Any deficiencies shall be reported immediately to the Plant Manager, who will enter a service request in Maximo or contact the M&O Service Call Desk (213) 745-1600 and contact OEHS for assistance at (213) 241-3199.

II. PLUMBING MAINTENANCE

- A. To ensure functionality and cleanliness, custodial staff shall ensure that routine cleaning is performed on all drinking water outlets daily. Debris and sediment can build up in fixtures over time. If not kept clean, the aerator and screen can store debris, lead and bacteria which may impact water quality.

M&O personnel shall clean aerators and strainers at least quarterly or more frequently if needed. This activity shall also be documented on the “Drinking Water Flushing Log” (Attachment A) and in Maximo.

- B. If point of use (POU) filters have been installed at a sink, drinking fountain or bottle filling station, an annual maintenance plan shall be implemented. M&O shall document filter service and replacement in Maximo and note the date of installment at the filter assembly. Filter replacement shall be conducted by the plumbing department only, at least annually or more frequently, if needed.

III. RESPONSIBILITIES

- A. The Local District Superintendent shall require that all Site Administrators comply with these guidelines, including proper training for those responsible for flushing, and establishing schedules that allow for flushing to be completed prior to the first use of the day after weekends, holidays, and long breaks.
- B. The Site Administrator shall ensure that plant personnel flush fixtures as a regular practice to ensure water is regularly moving through the site plumbing system. The “Drinking Water Flushing Log” (Attachment A), is to be completed weekly. The flushing log is used to document flushing after weekends, holidays and long periods of



LOS ANGELES UNIFIED SCHOOL DISTRICT REFERENCE GUIDE

inactivity. Completed “Drinking Water Flushing Logs” shall be kept on file at the school for three years for inspection or review.

- C. Custodial staff shall ensure drinking water fixtures are cleaned daily.
- D. M&O personnel will clean screens and aerators at least quarterly and filters shall be replaced annually or more often, if needed. Flushing after remediation or installation of new drinking water fixtures and sources, will require lead in water sampling, and documentation of maintenance and service in Maximo, before drinking water sources can be operable.
- E. All drinking water sample results are posted on Los Angeles Unified’s website for each school. If any drinking water sample results are 15 ppb or greater, the drinking water source will be shut-off, and further sampling and remediation will be conducted. School staff and parents will receive written notification when active drinking water sources test results exceed 15 ppb. The drinking water source will not be put back into use until lead sample results are below 15 ppb.

All results are available, including drinking water sources that are “shut-off,” at Principals’ Corner at <http://www.laschools.org/new-site/my-school/principal-search>.

- Once you are on the website, enter the school in question into the search bar and press enter. Then select the school.
 - Under the Resources section, found on the lower left-hand corner, select the “Drinking Water Quality Data” tab and the most recent results will be displayed.
 - These results are available to Site Administrators, Staff and Parents. For more detailed information refer to [Safety Alert: 18-01 Lead in Drinking Water Program Update No. 2. https://achieve.lausd.net/Page/2941](https://achieve.lausd.net/Page/2941). You can also find the results by accessing the Principals’ Corner through Los Angeles Unified’s OEHS website at <http://achieve.lausd.net/Page/3450>.
- F. To the greatest extent allowed by law, the District will defend and indemnify each District employee who, within the course and scope of employment, performs drinking fountain or sink flushing activities in accordance with District policy from any demands, claims or lawsuits against them arising out of those drinking fountain or sink flushing activities.



LOS ANGELES UNIFIED SCHOOL DISTRICT REFERENCE GUIDE

- RELATED RESOURCES:** *EPA 3Ts for Reducing Lead in Drinking Water in Schools*
<https://www.epa.gov/ground-water-and-drinking-water/3ts-reducing-lead-drinking-water-toolkit>
- EPA 3TS Flushing Best Practices*
https://www.epa.gov/sites/production/files/2018-09/documents/flushing_best_practices_factsheet_508.pdf
- The County of Los Angeles Public Health Department has a Childhood Lead Poisoning Prevention Program with Health Education Services which can be reached at 1 (800) 524-5323 or you can go to the website at <http://publichealth.lacounty.gov/lead/>
- Los Angeles Unified School District, [Safety Alert: 18-01 Lead in Drinking Water Program Update No. 2](#) issued by the Office of Environmental Health and Safety.
- ASSISTANCE:** For assistance or further information please contact the Office of Environmental Health and Safety (OEHS) 213-241-3199, or visit the OEHS website at: <http://achieve.lausd.net/oehs>.

ATTACHMENT A Drinking Water Flushing Log

Name of School: _____

Month/Year: _____

Location (Building/Room): _____

Location Code: _____

Date/Week#	Each Fixture Flushed (Y, N)	Location & Equipment ID of Problem Fixtures (inoperative, odors, discoloration or complaints)	Aerator/ Screen Cleaning (Y,N)	Responsible Person's Signature
1				
2				
3				
4				
5				

Note: All drinking fountains, faucets and cafeteria kitchen faucets used for food/beverage preparation shall be flushed for a minimum of 30 seconds prior to the first use every Monday, following extended breaks, and holidays. It is the responsibility of the school's Principal or the Site Administrator to ensure that this log is kept up to date and copies are kept on file at all times.