MADEP Drinking Water Program (DWP)

Commonly Used Terms in the Lead Contamination Control Act (LCCA) Program for Schools & Child Care Facilities

This list will be update/revised based on questions from our LCCA partners, PWS, the schools, programs and early education and care facilities covered by the LCCA program and as EPA and/or MassDEP make adjustments to the LCCA program or regulations.

Acidic[1]

The condition of water or soil which contains a sufficient amount of acidic substances to lower the pH below 7.0.

Action Level[1]

The level of copper (1.3 mg/L) which, if exceeded, triggers treatment/remediation and/or other requirements that a school, program, or child care facility must follow.

Alkalinity[1]

The capacity of water to neutralize acids. This capacity is caused by the water's content of carbonate, bicarbonate, hydroxide, and occasionally borate, silicate and phosphate. Alkalinity is expressed in milligrams per liter of equivalent calcium carbonate. Alkalinity is not the same as pH because water does not have to be strongly basic (high pH) to have a high alkalinity. Alkalinity is a measure of how much acid can be added to a liquid without causing a significant change in pH.

Alloy[1]

A solution made of two or more elements, at least one of which is a metal.

Backflow[1]

A reverse flow condition created by a difference in water pressures which causes water to flow back into the distribution pipes of a potable water supply from any source or sources other than an intended source.

Backwashing[1]

The process of reversing the flow of water back through the filter media to remove the entrapped solids.

Bacteria[1]

Microscopic living organisms usually consisting of a single cell. Bacteria can aid in pollution control by consuming or breaking down organic matter in sewage or by similarly acting on oil spills or other water pollutants. Some bacteria in soil, water, or air may also cause human, animal, and plant health problems.

Co-located School, Program or Early Education and Care Facility[2]

A school, program, or early education and care facility is "co-located", if the space used by your school, program, or early education and care facility is within another LCCA school or facility that submits a Lead and Copper in Drinking Water Maintenance Checklist to MassDEP. The space that your program/facility occupies must be part of/covered by their Checklist. Any LCCA fixtures in your facility's "space" must be on their (host facility) Sampling Plan and they

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[1] Drinking Water Best Management Practices – For School and Child Care Facilities Served by Municipal Water Systems – EPA 816-B-13-002 - April 2013 https://www.epa.gov/dwreginfo/lead-drinking-water-schools-and-childcare-facilities

[2] The MADEP LCCA Program – terms developed and used in the MA LCCA forms and documents in order to provide technical assistance to schools, programs or early education and care facilities on lead and copper in drinking water at their facilities – https://www.mass.gov/lead-in-drinking-water

must share all appropriate LCCA records with you (Co-located facility) that cover the space your program/facility uses.

The Co-located program/facility when completing the Checklist should follow the directions for Co-located Programs or Facilities (skipping most of the questions).
Your school/program/facility will be linked in our (MassDEP) LCCA database to the school/program that you list on the Co-located form as your "Host Facility" and we will report the status of your school/program/facility with respect to the Lead in Drinking Water in Schools and Child Care Facilities based on their current submission (and future submissions) of the school/facility you list on the form as the "Host" facility.

Examples of Co-located facilities

1) An after/before school program is located at an elementary school and all the facilities used by the after/before school program are covered by the Checklist already submitted (to be submitted) by the elementary school.

2) A Checklist for the St ADCDE Elementary school was submitted to MassDEP and a pre-school program and after-school program utilize the same facilities as those covered by the Checklist submitted for the school.

3) A contractor is hired by the school district to offer SPED classes **at** schools and pre-schools in the district. The school's pre-schools already have submitted their Checklist to MassDEP.

4) A town community building is used for several purposes including multiple pre-schools, before/after school programs and child care programs. The community building itself is not required itself to file a LCCA Checklist. One of these programs should be listed as the host facility and the rest of the facilities/programs are listed as co-located facilities.

Contaminant[1]

Anything found in water (e.g., microorganisms, minerals, chemicals, radionuclides, etc.) which may be harmful to human health.

Corrosivity[1]

An indication of the corrosiveness of water. The corrosiveness of a water is described by the water's pH, alkalinity, hardness, temperature, total dissolved solids, dissolved oxygen concentration, and the Langelier Index.

Corrosion[1]

The gradual decomposition or destruction of a material by chemical action often due to an electrochemical reaction. Corrosion may be caused by: 1) stray current electrolysis, 2) galvanic corrosion caused by dissimilar metals or 3) differential concentration cells. Corrosion starts at the surface of a material and moves inward.

Corrosion Inhibitor[3]

A substance capable of reducing the corrosivity of water towards metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

Cross-Connection[1]

Any actual or potential connection between a drinking (potable) water system and an unapproved water supply or other source of contamination. For example, if you have a pump moving non-potable water and hook into the ground

[3] 310 CMR 22: The Massachusetts Drinking Water Regulations - https://www.mass.gov/regulations/310-CMR-22-the-massachusetts-drinking-water-regulations

water system to supply water for the pump seal a cross-connection or mixing between the two water systems can occur. This mixing may lead to contamination of the drinking water.

Cu[4]
Chemical acronym for copper.

Descaler[1]
A solution used to remove and/or prevent lime scale and fouling on water taps, kettles, coffee makers, toilets, and water pipes.

Disinfectant[3]
Any oxidant, including but not limited to chlorine, chlorine dioxide, chloramines and ozone which is added to water in any part of the treatment or distribution process, and which is intended to kill or inactivate pathogenic microorganisms.

Distribution System[1]
A network of pipes leading from a treatment plant to customers' plumbing systems or the pipes and plumbing within a building that distribute water to all of the water outlets.

DWP[4]
MA DEP Drinking Water Program

First Draw Sample[5]
A tap water sample taken after the water has been standing motionless in the plumbing pipes for a period of time. Approximately 8 hours is an ideal amount of time to let the water sit before collecting a first draw sample, a minimum of 6 hours is required.

Groundwater[3]
All water that exists beneath the land surface in soils or geologic formation, specifically that part of the sub-surface water in the saturated zone.

Health Hazard[3]
An actual or potential threat of contamination to the potable water in a public water system, which, in the opinion of the Department or its designee would endanger health.

Host Facility[2]
Your facility has one or more other LCCA schools, programs, or facilities located within your building(s) which are covered by the LCCA Checklist you have submitted (or will be submitting) to MassDEP LCCA Program; any LCCA Fixtures located in the spaces they occupy need to be included on your Sampling Plan & LCCA Fixture Map and you will share any LCCA records that you maintain that apply to the space they occupy.

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[4] List of Common Environmental Regulation Acronyms, Abbreviations and Initializations - https://www.mass.gov/service-details/list-of-environmental-acronyms

[5] EPA Water on Tap – What You Need to Know (pg 31) 12/09 - Appendix D: Glossary – EPA 816K03007 - https://nepis.epa.gov/Exe/ZyNET.exe/P1008ZP0.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2006+Thru+2010&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5Czyfiles%5CIndex%20Data%5C06thru10%5CTxt%5C00000021%5CP1008ZP0.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1&SeekPage=x&ZyPURL

Example:
Please see the examples listed under co-located facility definition. The facilities underlined in the example are the host facility.

Inorganic Contaminants[5]

Mineral-based compounds such as metals, nitrates, and asbestos; naturally occurring in some water, but can also enter water through human activities.

Lead Service Line[3]

A service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting which is connected to such a lead line.

LCCA[2]

Lead Contamination and Control Act (of 1988) - Implemented in Massachusetts by MassDEP with assistance from DPH, DESE, DEEC, and DPL – Plumber's Board.

LCCA Checklist[2]

The LCCA Program asks all schools (K-12), programs and child care facilities to complete a LCCA Checklist in response to three events:

1) Every 5 years a letter is sent out to all schools (K-12), programs & facilities which updates the LCCA Program and requests they complete a LCCA Checklist to update the program on your facility's status with the program. This year's Checklist has incorporated the co-located form into it.
2) Every time the LCCA Program receives a lab report from testing a LCCA fixture at a school (K-12), program or child care facility that has at least one exceedance for lead and/or copper, we issue a letter which has an attached table (Table A) that we ask the school, program or facility to return and to attach an updated LCCA Checklist
3) Every time a school, program or child-care facility has a major plumbing modification that could affect any LCCA fixture the facility needs to complete an updated LCCA Checklist – noting the upgrades.

LCCA Early Education & Care Facilities[2]

Center- or school-based early education and care programs regulated by DEEC – including before and/or after school programs, child care center, child nursery, child development centers, nursery school, kindergarten, child play school, progressive school, child development center, day care center, pre-school, school-age child care centers, or known under any other name which receives children, not of common parentage, under seven years of age, or under 16 years of age if these
children have special needs

LCCA Schools[2]

Schools (Pr-K – 12) regulated by DE&SE – including public schools, alternate education, private schools, charter public schools, collaborative programs, approved special education schools, unapproved special education schools, approved special education programs, Ch. 74 career/vocational tech education, and innovation schools and academies.

LCCA Fixtures[2]

Fixtures within schools, programs, or child care facilities that are used for drinking water or to prepare food or beverages are LCCA fixtures for the purpose of this program. Fixtures not listed as LCCA fixtures should be marked as "Not to be used for drinking water or to prepare food or beverages". One fixture that is often not included is a bathroom sink which in several facilities is used for brushing teeth by children or children "cup" their hands and drink from the fixture.

LCCA Map/Plan/Diagram[2]

Is a visual display (paper or electronic) of the LCCA facility. It must show all areas of the facility used by students/children, staff and visitors. It must identify all LCCA fixtures at the facility (non-LCCA fixtures need not be identified). An ID# for each LCCA fixture should be noted on the map plan or diagram.

LCR[2]

Is the acronym for the Lead and Copper Rule which is the regulation under the National Primary Drinking Water Regulations (NPDWR) for lead and copper. The purpose of the Lead and Copper Rule (LCR) is to protect public water system consumers from exposure to lead and copper in drinking water.

Lead Service Line[1]

A service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting which is connected to such a lead line.

MA LCCA Committee[2]

The Massachusetts LCCA Committee is made up of representatives from MassDEP, DPH, DE&SE, DEEC and DPL – Plumbers Board. The committee is chaired and administered by MassDEP.

Manganese[6]

Manganese is a naturally-occurring element that can be found in the air, soil, and water. Manganese is an essential nutrient for humans and animals. Adverse health effects can be caused by inadequate intake or over exposure. MassDEP advises that children/infants up to 1 years of age should not be given water with manganese concentrations over 300 g/L, nor should formula for infants be made with
that water for longer than 10 days primarily to decrease the possibility of adverse neurological effects and that people (above one year) drink water with manganese levels less than 0.30 mg/L over a lifetime, and also advises that people limit their consumption of water with levels over 1 mg/L, primarily to decrease the possibility of adverse neurological effects.

The ORSG differs from the EPA's health advisory because it expands the age group to which a lower manganese concentration applies from children less than 6 months of to age to children up to 1 year of age address concerns about children's susceptibility to manganese toxicity.

See ORS document on manganese at: https://www.mass.gov/lists/contaminants-in-drinking-water#manganese-

Mn[4]

Mn is the acronym for manganese.

Monitoring Program[1]

Testing that water systems must perform to detect and measure contaminants. Specifically, measuring concentrations of certain substances within environmental media (e.g., drinking water) at regularly scheduled intervals.

Municipal Water System[1]

A network of pipes, pumps, and storage and treatment facilities designed to deliver potable water to homes, schools, businesses, and other users in a city or town.

Non-LCCA Fixture[2]

Is any fixture at your facility that is not used for drinking water or used to prepare food and beverages. These non-LCCA fixtures should be marked – Do Not Use this Fixture for Drinking Water or to Prepare Food or Beverages.

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[6] Manganese In Massachusetts Drinking Water - https://www.mass.gov/lists/contaminants-in-drinking-water#manganese-

Non-Potable Water[1]
Water that may contain objectionable pollution, contamination, minerals, or infective agents and is considered unsafe and/or unpalatable for drinking.

ORS[4]
Is the MassDEP Office of Research and Standards (ORS)

ORSG[4]
Is an ORSG guideline (ORSG) which is issued by the MassDEP Office of Research and Standards.

Pathogen[5]
A disease-causing organism

Pb[4]
Is the chemical acronym for lead.

pH[1]
A measurement of how acidic or basic a substance is. It ranges from 0 to 14. A pH of 7 is neutral. A pH less than 7 is acidic and a pH greater than 7 is basic.

Point-of-Entry Treatment Device (POE)[3]
A device installed to treat the water entering a building or portion of such for the purpose of reducing contaminants in the water distributed throughout the building or portion of such.

Point-of-Use Treatment Device (POU)[3]
A treatment device installed on a single faucet or spigot used for the purpose of reducing contaminants in drinking water at that one faucet or spigot.

Potable Water[1]
Water that is safe and satisfactory for drinking and cooking.

Public Water System (PWS)[3]
A system for the provision to the public of water for human consumption, through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days of the year. Such term includes any collection, treatment, storage, and distribution facilities under control of the operator of such a system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

MassDEP may presume that a system is a public water system as defined herein based on the average number of persons using a facility served by the system or on the number of bedrooms in a residential home or facility. MassDEP reserves the right to evaluate and determine whether two or more wells located on commonly owned property, that individually may serve less than 25 people, but collectively serve more than 25 people for more than 60 days of the year should not be regulated as a public water system, taking into account the risk to public health. A public water system includes a "community water system" or a "non-community water system".

a) **Community Water System:** A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

b) **Non-community Water System:** A public water system that is not a community water system.

1. **Non-transient non-community water system (NTNC)**
   A public water system that is not a community water system and that has at least 15 service connections or regularly serves at least 25 of the same persons or more approximately four or more hours per day, four or more days per week, more than six months or 180 days per year, such as a workplace providing water to its employees.

2. **Transient non-community water systems (TNC)**
   A public water system that is not a community water system or a non-transient non-community water system but is a public water system which has at least 15 service connections or serves water to 25 different persons at least 60 days of the year. Some examples of these types of systems are: restaurants, country clubs, and convenient.

Recommended Laboratory Detection Limit for Lead

The recommended level of lead (1ppb or lower) that a certified laboratory should be capable of measuring.

Remediation[1]

Removal of pollution or contaminants from environmental media such as soil, ground water, sediment or surface water for the general protection of human health and the environment.

Samples[1]

The portion of the water that is analyzed for the presence of EPA-regulated drinking water contaminants. Depending on the regulation, EPA requires water systems and states to take samples from source water, from water leaving the treatment facility or from the taps of selected consumers.

Sensitive Subpopulation[5]

People who may be more vulnerable to drinking water contamination, such as infants, children, some elderly, and people with severely compromised immune systems.

Service Line[3]

Is the line coming into your facility from the PWS main line in the street. Partial lead service line means the PWS removes or replaces the service line from their main line in the street up to your property line. The partial lead service line refers to the remaining section of the service line located on your property.

Service Line Sample[3]

Is a sample of water that has been standing for at least six hours in a service line.

Soft Water[1]

Water having a low concentration of polyvalent cations, such as calcium and magnesium ions. According to U.S. Geological Survey guidelines, soft water is water having a hardness (concentration of polyvalent cations) of 60 milligrams per liter or less.

Solder[1]

A metallic compound used to seal the joints between pipes. Until recently, most solder contained 50% lead. The use of lead solder containing more than 0.2% lead is now prohibited for pipes carrying potable water.

Source Water[5]

Water in its natural state prior to any treatment for drinking.

Supplier of Water[3]

Any person who owns or operates a public water system (PWS).

Toilet Dam[1]

A water-conservation device that is placed inside the tank portion of a toilet to reduce the amount of water the tank will hold by partitioning off part of the tank.

Treatment Technique (TT)[3]

A process, practice, or device required by 310 CMR 22.00, the National Primary Drinking Water Standards, or by the terms and conditions of a permit, approval, or order issued by MassDEP intended to reduce the level of a contaminant or other constituent in drinking water.

Water Used for Human Consumption[3]

Water that is used by humans in residential, commercial, industrial, institutional or other setting for drinking, bathing, showering, cooking, dishwashing, or maintaining oral hygiene.