



CHAPTER 10
GLOSSARY AND RESOURCES



Abatement	Any measure or set of measures designed to permanently eliminate lead-based paint hazards.
ABC-rated fire extinguisher	Fire extinguishers are rated according to the type of fire they are used on: Class A for paper and wood, Class B for more flammable materials such as liquids or greases, and Class C for electrical fires. An ABC-rated fire extinguisher puts out all of these kinds of fires. An ABC-rated fire extinguisher is recommended for work sites.
Accessible surface	An interior or exterior surface that a young child can reach—such as a window sill—to chew or put its mouth on.
Accreditation	A formal recognition that an organization, such as a laboratory, is qualified to carry out specific tasks or types of tests.
Action level	The level at which an employer must begin certain compliance activities outlined in the OSHA lead standard. The action level, regardless of respirator use, for the lead in construction standard is an airborne concentration of 30 $\mu\text{g}/\text{m}^3$ calculated as an 8-hour time-weighted average (TWA).
Acute effect	Severe or immediate reaction, usually to a single large exposure to a toxin or substance.
Adequate quality control	Means a plan or design which ensures the authenticity, integrity, and accuracy of samples, including dust, soil, and paint chip or paint film samples. Adequate quality control also includes provisions for representative sampling.
AIHA	American Industrial Hygiene Association.
Anemia	A condition where there is not enough iron in your blood. Anemia makes people very tired.
Anodic stripping voltametry (ASV)	An analytical method for identifying small amounts of metals within a substance. The charged atoms of the metal (e.g., lead) in a solution are attracted to an electric probe. After the charged atoms collect upon the probe, they are stripped off and measured.



Atomic absorption spectroscopy (AAS)	A method of measuring elements such as lead. The lead is turned into a gas at high temperatures, usually several thousand degrees, and light of a very specific wave length is passed through the vapor. The instrument measures how concentrated the lead is in the test material.
Biological monitoring	The analysis of a person's blood and/or urine to determine the level of a contaminant, such as lead, in the body.
Blank	An unused sample of the medium being used for testing (i.e., wipe or filter) that is tested to determine if the medium has been contaminated with lead (e.g., at the factory or during transport).
Blind sample	A sample submitted for analysis when the sample and its elements are known to the submitter but not to the analyst. This is done to test the laboratory analyst's accuracy and skill in analyzing samples. (See also "spiked sample").
Body burden	The total amount of a substance that is deposited in the entire body. Metal substances, such as lead and mercury, tend to accumulate in the kidneys, the liver, and especially the bones.
Building component	Any part of a building that may be painted or have dust on its surface, e.g. walls, stair treads, floors, railings, doors, window sills, etc.
Calcium	A nutrient that helps make bones strong. If you do not have enough calcium in your diet, your body will absorb more lead.
Carcinogen	A substance that can cause cancer.
Certified	Describes people who have completed training and other requirements to allow them to safely perform risk assessments, inspections, or abatement work.
Certified firm	A company, partnership, corporation, sole proprietorship, association, or other business entity that performs lead-based paint activities to which a state agency or EPA has issued a certificate of approval.



Certified inspector	An individual who has been trained by an accredited training program and certified by a state agency or by EPA to conduct inspections. A certified inspector also samples for the presence of lead in dust and soil for the purposes of clearance testing after abatement has been performed.
Certified abatement worker	An individual who has been trained by an accredited training program and certified by a state agency or by EPA to perform abatements.
Certified project designer	An individual who has been trained by an accredited training program and certified by a state agency or by EPA to prepare abatement project designs, occupant protection plans, and abatement reports.
Certified risk assessor	An individual who has been trained by an accredited training program and certified by a state agency or by EPA to conduct risk assessments. A risk assessor also samples for the presence of lead in dust and soil for the purposes of abatement clearance testing.
Certified supervisor	An individual who has been trained by an accredited training program and certified by a state agency or by EPA to supervise and conduct abatement projects, and to prepare occupant protection plans and abatement reports.
CFR—The Code of Federal Regulations	The regulations of the various federal agencies arranged into a numbered sequence for easy referral .
Chalking	The effect of light and oxygen on paint binders—usually due to weathering—that causes a powder to form on the film surface.
Characteristics	EPA has identified four characteristics of a hazardous waste: ignitable; corrosive; reactive; and toxic. Any solid waste that exhibits one or more of these characteristics is classified as a hazardous waste under RCRA.
Chelation therapy	The medical treatment in which a drug that is attracted to metals (such as lead) is infused into a patient’s vein. The drug binds to the metal in the blood, and both are passed by the kidney in urine.



Chemical stripping	The use of chemicals to strip off paint. Chemical stripping is usually done with solvents or corrosive pastes.
Chewable surface	An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an “accessible surface” as defined in 42 U.S.C. 4851b(2)). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.
Child-occupied facility	A building, or portion of a building, constructed before 1978 that is visited regularly by the same child, 6 years of age or under, on at least two different days within any week (Sunday through Saturday period), provided that each day’s visit lasts at least 3 hours and the combined weekly visits total at least 6 hours, and the combined annual visits total at least 60 hours. Child-occupied facilities may include, but are not limited to, day-care centers, preschools and kindergarten classrooms.
Chronic effect	A response to exposure which may take days, months or years to develop.
Clearance examination	Visual examination and collection of environmental samples by an inspector or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control intervention, rehabilitation, or maintenance job that disturbs lead-based paint.
Clearance levels	Values that indicate the maximum amount of lead permitted in dust on a surface following completion of an abatement activity.
cm	Centimeter; 1/100 of a meter. There are about 2.5 cm in one inch.
Code of Federal Regulations (CFR)	Same as CFR.



Common area	A portion of a building that is generally accessible to all occupants. Such an area may include, but is not limited to, hallways, stairways, laundry and recreational rooms, playgrounds, community centers, garages, and boundary fences.
Competent person	One who is capable of identifying existing and possible lead hazards in the surroundings or working conditions and who has the authority to take prompt corrective measures to eliminate them.
Component or building component	Specific design or structural elements or fixtures of a building, residential dwelling, or child-occupied facility that are distinguished from each other by form, function, and location. These include, but are not limited to, interior components such as: ceilings, crown molding, walls, chair rails, doors, door trim, floors, fireplaces, radiators and other heating units, shelves, shelf supports, stair treads, stair risers, stair stringers, newel posts, railing caps, balustrades, windows and trim (including sashes, window heads, jambs, sills or stools and troughs), built-in cabinets, columns, beams, bathroom vanities, counter tops, and air conditioners; and exterior components such as: painted roofing, chimneys, flashing, gutters and downspouts, ceilings, soffits, fascia boards, rake boards, cornerboards, bulkheads, doors and door trim, fences, floors, joists, lattice work, railings and railing caps, siding, handrails, stair risers and treads, stair stringers, columns, balustrades, window sills or stools and troughs, casings, sashes and troughs, and air conditioners.
Compliance program	The written program that is required under the OSHA Lead Standard for your employer to have before beginning a job where lead is present.
Composite sample	A single sample made up of individual subsamples. Analysis of a composite sample produces the average data for all subsamples.
Containment	A process to protect workers and the environment by controlling exposures to the lead-contaminated dust and debris created during an abatement project.



COSH	Short for "Committee (or Coalition) on Occupational Safety and Health." A COSH group is a group of unions, workers, and professionals working together for safer and healthier working conditions.
Deciliter (dL)	The unit of measure for blood lead levels. The prefix "deci-" means "one-tenth." One deciliter is roughly the same as about one-tenth of a quart, or about 3.4 fluid ounces.
Demolition	The removal of walls (plaster or gypsum) or building components (windows or doors) by sledge hammer or similar tool. If the surfaces are covered with lead-based paint, demolition will create high levels of lead dust. This is a Class 1 Task under the OSHA lead standard.
Detection limit	The minimum amount of a substance that can be reliably measured by a particular method.
Deteriorated paint	any interior or exterior paint or other coating that is peeling, chipping, chalking or cracking, or any paint or coating located on an interior or exterior surface or fixture that is otherwise damaged or separated from the substrate.
Direct-reading XRF	An analyzer that displays lead concentrations as calculated from the lead K X-ray intensity without a picture of the spectrum. Usually expressed in mg/cm ² .
Dripline	Dripline means the area within three feet surrounding the perimeter of a building.
Dust-lead hazard	A dust-lead hazard is surface dust in a residential dwelling or child-occupied facility that contains a mass-per-area concentration of lead equal to or exceeding 40 µg/ft ² on floors or 250 µg/ft ² on interior window sills based on wipe samples.
Dust removal	A form of interim control that involves initial cleaning followed by periodic monitoring and recleaning, as needed.
Dwelling unit	The room or group of rooms within a residential premises used or intended for use by one family or household for living, sleeping, cooking and eating.



EBL child	See Elevated blood lead level (EBL).
Efflorescence	When salt rises to the surface of a material, such as masonry, plaster, or cement, caused by the movement of water through the material. Paint or encapsulants may not adhere to a surface contaminated with efflorescence.
Environmental intervention blood lead level (EIBLL)	A confirmed concentration of lead in whole blood equal to or greater than 20 µg/dL (micrograms of lead per deciliter) for a single test or 15–19 µg/dL in two tests taken at least three months apart.
Elevated blood lead level (EBL)	An excessive absorption of lead in a child. Determined by a confirmed concentration of lead in whole blood of 20 µg/dL (micrograms of lead per deciliter of whole blood) for a single venous test or of 15-19 µg/dL in two consecutive tests taken three to four months apart.
Encapsulant	A substance that forms a barrier between lead-based paint and the environment. Usually a liquid-applied coating (with or without reinforcement materials) or a covering material applied with an adhesive.
Encapsulation	The application of an encapsulant. One method of abatement.
Enclosure	Rigid, durable construction materials that are mechanically fastened to the substrate in order to act as a dust-tight barrier between lead-based paint and the environment. One method of abatement.
Engineering controls	Changes that can be made in the work environment to reduce hazards on the job. OSHA requires employers to make changes in the workplace environment whenever possible to protect worker health and safety.
EPA— Environmental Protection Agency	A federal agency that studies environmental problems and develops regulations to protect human health and the environment.
Evaluation	Risk assessment, paint inspection, reevaluation, investigation, clearance examination, or lead hazard screen.



Exposure monitoring	Air monitoring within an employee's breathing zone to determine the amount of contaminant (e.g., lead) to which he/she is exposed.
Exterior work area	An exterior paved area, soil area, outdoor porch, stairway or other element of trim or walls on the exterior of a building.
<i>Federal Register</i> (FR)	A document published daily by the federal government that contains either proposed or final regulations or notices.
Fetus	An unborn baby from 7 to 8 weeks after fertilization up until birth.
Field blank	A clean sample of the medium used for testing (e.g., filter or wipe) that has been exposed to the sampling conditions, returned to the laboratory, and analyzed as an environmental sample.
Final medical determination	The written opinion given by a doctor that a worker be removed from lead exposure.
Friction surface	An interior or exterior building surface subject to abrasion or friction, such as a window or stair tread.
Generator	Any person whose act or operation produces hazardous waste identified or listed in 40 CFR Part 261 or whose act causes a hazardous waste to come under regulation (40 CFR 260.10).
GFCI	Short for "ground fault circuit interrupter." This is a very sensitive switch which your employer can use to prevent workers from getting an electrical shock. Each extension cord should have its own GFCI.
Gram	A metric unit of weight. A penny weighs about two grams. The abbreviation for gram is "g."
Hazardous waste	Any waste as defined in 40 CFR 261.3 (RCRA). RCRA's definition means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (a) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (b) pose a substantial present or potential hazard to human health or the environment or when improperly treated, stored, transported, or disposed of, or otherwise managed.



Heat gun	A device capable of heating lead-based paint, causing it to separate from the substrate.
HEPA or High Efficiency Particulate Air Filter	A filter that is 99.97% efficient at filtering out particles of 0.3 microns or greater from a body of air.
HEPA vacuum	A vacuum cleaner which filters air through a HEPA filter.
Housing receiving Federal assistance	Housing which is covered by an application for HUD mortgage insurance, receives housing assistance payments under a program administered by HUD, or otherwise receives more than \$5,000 in project-based assistance under a Federal housing program administered by an agency other than HUD.
HUD—Department of Housing and Urban Development	This federal agency regulates public and some federal assisted housing. HUD published the <i>Guidelines for the Evaluation and Control of Lead-based Paint Hazards in Housing</i> which provide guidance on all aspects of lead-based paint detection and abatement.
HVAC system	The heating, ventilating, and air-conditioning system in any building. The HVAC system should always be turned off before lead abatement work begins.
Impact surface	An interior or exterior building surface that is subject to damage by repeated sudden force, such as certain parts of door or window frames.
Indian Housing Authority (IHA)	A public housing agency established (a) by exercise of a tribe's powers of self-government independent of state law, or (b) by operation of state law providing specifically for housing authorities of Native Americans.
Industrial hygienist	A person who is trained and experienced in looking for safety and health hazards in the workplace and determining the impact of those hazards on the community and workers.
Initial medical surveillance	A set of special blood tests required by OSHA's Interim Final Lead in Construction standard when working with lead. This is also referred to as biological monitoring.



Inspection	A surface-by-surface investigation to determine the presence of lead-based paint. A report is then issued that identifies if there is lead-based paint present and where it is located.
In-place management	See interim controls.
Interim controls	A set of measures designed to temporarily reduce human exposure or likely exposure to lead-based paint hazards. They may include specialized cleaning, repairs, maintenance, painting, temporary containment, ongoing monitoring of lead-based paint hazards or potential hazards, and the establishment and operation of management and resident education programs.
Interior window sill	The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.
Laboratory analysis	A determination of the lead content in a sample by specific laboratory equipment and methods.
Latex paint	A waterborne emulsion paint made with synthetic binders such as 100-percent acrylic, vinyl acrylic, terpolymer, or styrene acrylic; a stable emulsion of polymers and pigment in water.
Lead (inorganic)	An element, represented by the symbol Pb. Its atomic structure is permanently arranged and is not changed by chemical reactions. Lead can combine chemically with other atoms or molecules to make new compounds. Lead is considered a heavy metal; “heavy” because lead weighs more than the same volume of water, and “metal,” because when it is refined from raw ore into its pure form, lead can be hammered or drawn into shapes.
Lead-accredited laboratory	A laboratory that has been evaluated and received accreditation through EPA’s National Lead Laboratory Accreditation Program (NLLAP) to perform lead measurement or analysis, usually over a specified period of time.
Lead-based paint	Paint or other surface coatings that contain lead equal to or in excess of 1.0 milligrams per square centimeter or more than 0.5 percent by weight.



Lead-based paint activities	In the case of target housing and child-occupied facilities: inspection, risk assessment, and abatement.
Lead-based paint hazard	hazardous lead-based paint, dust-lead hazard or soil-lead hazard as identified in §745.65. (See also paint-lead hazard, dust-lead hazard and soil-lead hazard.)
Lead-based paint hazard control	Activities to control and eliminate lead-based paint hazards, including interim controls and abatement.
Lead-based paint-free certification	Describes a rental dwelling certified by a certified lead-based paint inspector to contain no lead at or above 1.0 mg/cm ² .
Lead-based paint hazard-free dwelling	A dwelling that contains no lead-based paint and has interior dust and exterior soil lead levels below the applicable EPA or state/Indian Country standards.
Lead-hazard screen	A limited risk assessment activity that involves limited paint and dust sampling.
Lead-specific detergent	A cleaning agent manufactured specifically for cleaning and removing leaded dust or other lead contamination.
m ³	Short for "cubic meter." It is a metric unit of volume. You breathe between 1 and 2 cubic meters of air every hour when you are working. A cubic meter is about the size of a blue U.S. Post Office box.
Manifest	The shipping document—EPA form 8700-22— your employer will use for identifying the quantity, composition, origin, routing, and destination of hazardous waste during its transport from the point of generation to the point of treatment, storage, or disposal.
Medical removal	The temporary removal of workers due to elevated blood lead levels as defined in the OSHA Lead Standard (currently 50 µg/dL).
Medical removal protection	Your employer must pay your salary if you are medically removed from a lead abatement job. Your employer must pay you as long as the job exists or up to 18 months.



Medical surveillance program	A special program of medical exams an employer must make available to workers under the OSHA lead standard.
mg	Milligram. There are one thousand milligrams in a gram.
mg/cm ²	Milligrams (mg) per square centimeter (cm ²). When surfaces are tested for lead using an XRF analyzer, the amount of lead is measured in milligrams of lead per square centimeter (mg/cm ²). When a paint chip sample is taken from a measured area, the results may also be provided in mg/cm ² .
Micrograms	One millionth of a gram: µg; the prefix “micro-” means “1/1,000,000 of” (one millionth of).
Multifamily dwelling	A building that contains more than four separate residential dwelling units. One or more persons may live in each unit.
NIOSH	National Institute for Occupational Safety and Health. A federal agency which does research and suggests new laws on occupational health and safety to OSHA. NIOSH tests and certifies respirators.
Occupational	Having to do with the workplace and working.
Off-site paint removal	The removal of paint at a site away from the abatement project, such as stripping lead-based paint from the surface of a component (e.g., a door) at the facilities of a commercial paint-stripping operation. Such procedures are often performed in chemical tanks.
On-site paint removal	The removal of lead-based paint down to the bare substrate usually through heat, chemical or mechanical means. The affected surface/component usually remains in place on the premises during this removal process.
OSHA— Occupational Health and Safety Administration	The main federal agency that issues and enforces safety and health standards in the workplace.
Paint chip sample	A sample of paint that is removed from a surface (down to the substrate) and analyzed for lead content.



Paint-lead hazard	A paint-lead hazard is any of the following: (1) Any lead-based paint on a friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor) are equal to or greater than the dust-lead hazard levels identified in paragraph (b) of this section. (2) Any damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component (such as a door knob that knocks into a wall or a door that knocks against its door frame). (3) Any chewable lead-based painted surface on which there is evidence of teeth marks. (4) Any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.
Paint testing	The determination of the presence or the absence of lead-based paint on deteriorated paint surfaces or painted surfaces to be disturbed. Paint testing must be done by certified lead-based paint inspector or risk assessor.
Performance characteristic sheet (PCS)	A document developed by EPA and HUD that provides information on portable XRF instruments. The PCS describes how to calibrate the XRF, tells when test results may not provide a valid analysis, and gives other important information about the XRF.
Permanently covered soil	Soil that has been separated from human contact by the placement of a barrier consisting of solid, relatively impermeable materials, such as pavement or concrete. Grass, mulch, and other landscaping materials are not considered permanent covering.
Permissible exposure limit (PEL)	The maximum worker exposure to lead under the OSHA lead in construction standard. No employee may be exposed to lead at airborne concentrations greater than 50 µg/m ³ averaged over an 8 hour period.
Personal protective equipment (PPE)	Equipment for protecting the eyes, face, head, and/or arms and legs. Includes protective clothing, respiratory devices, and protective shields: PPE is used when hazards are encountered that may cause bodily injury or impairment.



Personal samples	Air samples collected from within the breathing zone of a worker, but outside the respirator. The samples are collected with a personal sampling pump, pulling one to four liters/minute of air.
Physician or other licensed health care provider (PLHCP)	an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide, or be delegated the responsibility to provide some or all of the health care services required by the medical evaluation section of OSHA's respiratory protection standard [1910.134(e)].
Pigments	Chemicals that have color or properties which affect color. Usually, a small amount of these chemicals is mixed with another material to color all of the material. Lead carbonate and lead oxide are chemical forms of lead used as pigments.
Play area	An area of frequent soil contact by children of less than six years of age, as indicated by the presence of play equipment or toys or other children's possessions, observations of play patterns, or information provided by parents, residents or property owners.
Poly	Short for polyethylene sheet plastic. This is a plastic sheet that is used to protect surfaces while lead-based paint abatement or interim controls are being done.
ppm	"Parts per million," meaning the weight of one part per weight of the total amount of material. For example, a lead concentration of 1 ppm expresses the ratio of one gram of lead dissolved into one million (1,000,000) grams of water.
Primary prevention	The process of controlling lead hazards to prevent exposure before a child is poisoned.
Public Housing Agency (PHA)	Any state, county, municipality, or other governmental entity or public body (or agency or instrumentality thereof) which is authorized to engage or assist in the development or operation of housing for low income families.
Quality assurance (QA)	A system of activities involving planning, quality control, quality assessment, reporting, and quality improvement to ensure that a product or service meets defined standards of quality within a stated level of confidence.



Quality control (QC)	The overall system of technical activities whose purpose is to measure and control the quality of a product or service so that it meets the needs of users. The aim is to provide a level of quality that is satisfactory, adequate, dependable, and economical.
Random sample	A sample drawn from a population in a way that allows each member of the population to have an equal chance of being selected. Random sampling is a process used to identify locations for the lead-based paint inspections in multifamily dwellings.
RCRA	Resource Conservation and Recovery Act of 1976. What we commonly refer to as RCRA is an amendment to the Solid Waste Disposal Act of 1965. RCRA was amended in 1980 and 1984 by the Hazardous and Solid Waste Amendments.
Reevaluation	In lead hazard control work, the combination of a visual assessment and collection of environmental samples performed by a certified risk assessor to determine if a previously implemented lead-based paint hazard control measure is still effective and if the dwelling remains lead-safe.
Regulation or Rule	All or part of any federal statement of general or particular applicability and future effect designed to: (1) implement, interpret, or prescribe law or policy or (2) describe the federal Department's organization or its procedure or practice requirements.
Renovation	Work that involves construction tasks such as window replacement, weatherization, remodeling, or modification of any existing structure that results in the disturbance of painted surfaces.
Representative sample	A sample of a material to be disposed of (e.g., painted components, waste sample pile, or waste stream) which can be expected to exhibit the average properties of that type of debris.
Residential dwelling	(1) A detached single family dwelling unit, including attached structures such as porches and stoops; or (2) a single family dwelling unit in a structure that contains more than one separate residential dwelling unit in which one or more people may live.
Resident	A person who lives in a dwelling.



Risk assessment	An on-site investigation to determine the existence, nature, severity, and location of lead-based paint hazards. The risk assessor will provide a report explaining the results of the investigation and how to reduce the lead-based paint hazards.
Room equivalent	An identifiable part of a residence, such as a room, a house exterior, a foyer, staircase, hallway, or an exterior area (exterior areas contain items such as play areas, painted swing sets, painted sandboxes, etc.). Closets or other areas adjoining room equivalents should be designated room equivalents only if large.
Sample site	A specific spot on a surface being tested for lead concentration or contamination.
Screening	The process of testing children to determine if they have elevated blood lead levels.
Secondary prevention	The process of identifying children who have elevated blood lead levels through screening, and then controlling or eliminating the sources of further exposure.
Sodium rhodizonate	A chemical used to test a paint sample for the presence of lead. A positive test is characterized by a pink or red discoloration of the paint film cross section or of the applicator tip.
Sodium sulfide	A chemical used to test a paint sample for the presence of lead. A positive test is characterized by a gray or black discoloration of the paint film cross section.
Soil-lead hazard	A soil-lead hazard is bare soil on residential real property or on the property of a child-occupied facility that contains total lead equal to or exceeding 400 parts per million ($\mu\text{g/g}$) in a play area or average of 1,200 parts per million of bare soil in the rest of the yard based on soil samples.
Solid waste	As defined in RCRA means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. Does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under the Clean Water Act, or special nuclear or by-product material as defined by the Atomic Energy Act of 1954.



Spectrum analyzer XRF	A type of XRF analyzer which provides the operator with a plot of the energy and intensity of both “K” and “L” X-rays, as well as a calculated lead concentration.
Spiked sample	A sample prepared by adding a known mass of the substance to be analyzed (e.g., leaded dust) to a specific amount of matrix sample (e.g., one dust wipe). The known concentration of the substance to be analyzed is compared against the laboratory's results to check for accuracy.
Standard	Used in two ways in this manual: (a) levels established by law or regulation, such as 1.0 mg/cm ² ; (b) materials to which known quantities of lead have been applied; used to evaluate the accuracy and performance of the XRF analyzer, usually called Standard Reference Materials.
Storage	The holding of hazardous waste for a temporary period, after which the hazardous waste is treated, disposed of, or stored elsewhere.
Subsample	A representative portion of a sample. A subsample may be either a field sample or a laboratory sample. A subsample is often combined with other subsamples to produce a composite sample.
Substrate	A surface upon which paint or varnish has been or may be applied. Examples included in the HUD <i>Guidelines</i> are: wood, plaster, metal, brick, drywall, and concrete. Substrates can contain lead absorbed from paint or from other sources.
Substrate correction	Reducing the apparent lead reading by the level attributable to the substrate. The substrate correction level is determined by taking a total of 6 readings on two different locations of each bare substrate. The Performance Characteristic Sheet must be consulted to determine if substrate correction is needed for the analyzer being used.
Substrate effect	The returning of backscattered radiation from the paint, substrate or underlying material to the XRF analyzer. When counted as lead X-rays by an XRF, this radiation contributes to the bias. The inspector may have to adjust for this effect when using some XRF analyzers.
Tack cloth	A soft, sticky, lint-free cloth used to clean dust off of surfaces that cannot be washed.



Target housing	Any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any one or more children age 6 years or under resides or is expected to reside in such housing for the elderly or persons with disabilities) or any 0-bedroom dwelling (e.g. dormitory, studio apartment).
Tertiary prevention	Providing medical treatment to children with elevated blood lead levels to prevent more serious injury or death.
Testing combination	A unique surface to be tested that is characterized by the room equivalent, component, and substrate type.
Title X (10)	The Residential Lead Hazard Reduction Act of 1992. It requires the government to regulate people's exposure to lead much more closely than had been done in previous years.
Toxicity characteristic leachate procedure (TCLP)	One of the tests for the determination of whether a solid waste is classified as a hazardous substance.
Trisodium phosphate (TSP) detergent	A detergent that contains trisodium phosphate.
Trough	See window trough.
µg	Microgram. The prefix "micro-" means 1/1,000,000 (or one millionth); a microgram is 1/1,000,000 of a gram and 1/1,000 of a milligram; equal to about 35 billionths of an ounce.
Visual assessment	Looking for (1) deteriorated paint; (2) visible surface dust, debris and residue as part of a risk assessment or clearance examination; or (3) the completion or failure of a hazard reduction measure.
Visual inspection	The visual examination of a residential dwelling or a child-occupied facility following an abatement to determine whether or not the abatement has been successfully completed.
Visual examination	The examination of a residential dwelling or a child-occupied facility to determine the existence of deteriorated lead-based paint or other potential sources of lead-based paint hazards.



Wet sanding or wet scraping	A process of removing loose paint in which the painted surface to be sanded or scraped is kept wet to minimize the spread of paint chips and airborne dust.
Window trough	For a typical double-hung window, the portion of the exterior window sill between the interior window sill (or stool) and the frame of the storm window. If there is no storm window, the window trough is the area that receives both the upper and lower window sashes when both are lowered. Sometimes inaccurately called the window “well.”
Window well	the space that provides exterior access and/or light to a window that is below grade, i.e., below the level of the surrounding earth or pavement.
X-ray fluorescence	the emission of X-rays from excited atoms produced by the impact of high-energy electron, other particles, or primary beam of other X-rays.
X-ray fluorescence analyzer (XRF)	An instrument which estimates lead concentration in milligrams per square centimeter (mg/cm ²) using X-ray fluorescence.
ZPP test	Zinc protoporphyrin test. It is a type of blood test which can show a person's lead exposure over the previous two to three months.



Resources

U.S. EPA Regional Offices

USEPA Region I
Lead Coordinator
John F. Kennedy Federal Building
One Congress Street
Boston, MA 02203
617-565-3471

USEPA Region VI
Lead Coordinator
1445 Ross Avenue, 12th Floor
Dallas, TX 75202-2733
214-665-7577

USEPA Region II
Lead Coordinator
290 Broadway
New York, NY 10007-1866
732-321-6671

USEPA Region VII
Lead Coordinator
726 Minnesota Ave.
Kansas City, KS 66101
913-551-7518

USEPA Region III
Lead Coordinator
1650 Arch St.
Philadelphia, PA 19103
215-814-2084

USEPA Region VIII
Lead Coordinator
999 18th St. - Suite 500
Denver, CO 80202-2466
303-312-6021

USEPA Region IV
Lead Coordinator
61 Forsyth St
Atlanta, GA 30303-3104
404-562-8998

USEPA Region IX
Lead Coordinator
75 Hawthorne St.
San Francisco, CA 94105-3901
415-744-1094

USEPA Region V
Lead Coordinator
77 West Jackson Boulevard
Chicago, IL 60604
312-886-7836

USEPA Region X
Lead Coordinator
1200 Sixth Ave.
Seattle, WA 98101
206-553-1985

OSHA Regional Offices

OSHA Region I
133 Portland Street, 1st Floor
Boston, MA 02114
617-565-7164

OSHA Region IV
1375 Peachtree St., NE, Suite 587
Atlanta, GA 30367
404-347-3573

OSHA Region II
201 Varick St.
New York, NY 10014
212-337-2378

OSHA Region V
230 South Dearborn St.
Room 3244
Chicago, IL 60604
312-353-2220

OSHA Region III
Gateway Building, Suite 2100
3535 Market Street
Philadelphia, PA 19104
215-596-1201

OSHA Region VI
525 Griffin St., Room 602
Dallas, TX 75202
214-767-4731



OSHA Region VII
City Center Square
1100 Main St., Suite 800
Kansas City, MO 64105
816-426-5861

OSHA Region VIII
1999 Broadway, Suite 1690
Denver, CO 80202-5716
303-391-5858

Federal Agencies

Agency for Toxic Substances and Disease
Registry (ATSDR)
Office of Policy and External Affairs
404-639-0501
atsdr1.atsdr.cdc.gov

Centers for Disease Control and Prevention
(CDC)
Lead Poisoning Prevention
404-639-3311
www.cdc.gov

Environmental Protection Agency
TSCA assistance hotline
202-554-1404
www.epa.gov/lead

Private Organizations

Alliance to End Childhood Lead Poisoning
227 Massachusetts Ave., NE
Suite 200
Washington, DC 20002
202-543-1147
www.aeclp.org

Association of Occupational and
Environmental Clinics
1010 Vermont Ave, NW #513
Washington, DC 20005
202-347-4976

Environmental Defense Fund
1875 Connecticut Ave., NW
Suite 1016
Washington, DC 20009
202-387-3500
www.edf.org

OSHA Region IX
71 Stevenson St. Room 420
San Francisco, CA 94105
415-744-6670

OSHA Region X
1111 Third Avenue, Suite 715
Seattle, WA 98101-3212
206-553-5930

National Institute for Environmental Health
Science (NIEHS)
919-541-0752
www.niehs.nih.gov

National Institute for Occupational Safety and
Health (NIOSH)
800-35-NIOSH
www.cdc.gov/niosh

Department of Housing and Urban
Development
Office of Health Homes and Lead Hazard
Control
202-755-1785
www.hud.gov/offices/lead
HUD USER 800-245-2691

National Center for Healthy Housing
10227 Wincopin Circle, Suite 205
Columbia, Maryland 21044
410-992-0712
www.enterprisefoundation.org/howwork/
housing/leadsafe.htm

National Lead Information Center
800-424-LEAD
www.epa.gov/lead/nlic.htm

Society for Occupational and Environmental
Health
6728 Old McLean Village Dr.
McLean, VA 22101
703-556-9222

Resources



The Environmental Information Asso.
4915 Auburn Ave., Suite 303
Bethesda, MD 20814
301-961-4999
www.eia-usa.org

National Lead Abatement Council
P.O. Box 535
Olney, MD 20832
301-924-5490

