



Lead-Based Paint Management Program

Public Safety Department
Environmental, Health and Safety (EHS) Division
Standard Operating Procedure (SOP) #38

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Purpose

Lafayette College has developed this management plan to protect the College community from exposure to lead hazards through the application of administrative and engineering controls. This plan outlines the College's policies regarding day-to-day maintenance of lead hazards and the planned or accidental disturbance of lead.

Lead is a naturally occurring, highly toxic soft metal that was added to paint to make it last longer, resist moisture, speed drying, and adhere to surfaces better. Lead was a common component in paints until 1978 when it was banned for residential use because of health concerns.

All building surfaces painted before 1978 shall be assumed to contain lead-based paint, even if only a single layer of many contains lead. Additionally, a lead-based paint inspection of surface coatings was conducted of all Lafayette College owned property constructed prior to 1980. The inspection was conducted by SSM Group, Inc. in accordance with the U.S. Department of Housing and Urban Development (HUD) "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing". The corresponding report and lead-based paint inventory is maintained by Public Safety's Environmental, Health and Safety Division.

The presence of lead-based paint (LBP) in a building does not mean that the health of the occupants is endangered. When left undisturbed and in good condition, lead-based paint does not pose a health threat.

Scope

This policy establishes procedures to ensure that LBP is properly identified and managed in accordance with applicable regulations. Contractors are also expected to comply with these regulations and procedures.

Definitions

Child-Occupied Facility – A building, or portion of a building, constructed prior to 1978, visited regularly by the same child under age 6, on at least 2 different days per week, provided that each day's visit lasts at least 3 hours and the combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours.

Hazardous Waste Lead-Based Paint Material – Lead-based paint waste for which a representative sample exhibits the characteristic of toxicity for lead (TCLP analytical results at or above 5 mg/l).

Lead-Based Paint – LBP is defined by the EPA as paint or other surface coatings that contain lead equal to or greater than 1.0 mg/cm² by XRF testing or 0.5% by weight for chip sampling.

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Lead-Based Paint Abatement – A set of measures designed to permanently eliminate lead-based paint hazards in accordance with standards established by the EPA (40 CFR 745.223). The term *does not include renovation and remodeling activities* by contractors whose primary intent is not to permanently eliminate or reduce lead-based paint hazards, but is instead to repair, restore or remodel a given structure or dwelling.

Lead Paint Activities – With respect to target housing, the term includes risk assessment, inspection and abatement. With respect to a public building the term includes identification of lead-based paint and materials containing lead-based paint, de-lead and removal or lead activities where the specific purpose of the work is to abate lead-based paint or lead-based paint hazards.

Lead-Based Paint Hazard – A condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, or lead-contaminated paint that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects.

Lead Hazard Evaluation – A quantitative determination of employee exposure to lead that includes full-shift personal air samples that are representative of the monitored employee's regular, daily exposure to lead.

Lead Hot Work – Burning, cutting or torch burning of materials that have lead-containing coatings or paint.

OSHA Action Level (AL) for Lead – An exposure of 30 ug/m³ as averaged over the course of an eight-hour workday.

OSHA Permissible Exposure Limit (PEL) for Lead – A time-weighted average exposure of 50 ug/m³ as measured over the course of an eight-hour workday.

Target Housing – Target housing is residential housing built before 1978 including private housing and public housing. The term does not include the following: housing built after 1978, zero bedroom units such as efficiencies, lofts, residence halls, housing leased for less than 100 days, housing for the elderly, and rental housing inspected by a certified inspector and found to be free of lead-based paint.

Regulatory Requirements

The management of lead is largely regulated by the following government agencies:

- Environmental Protection Agency
 - Renovation, Remodeling, and Painting (RRP) – 40 CFR 745
- Pennsylvania Department of Environmental Protection
 - Hazardous Waste Disposal – Title 25, Chapters 260 – 270
- Occupational Safety and Health Administration
 - Lead in Construction – 29 CFR 1926.62
 - Lead in General Industry – 29 CFR 1910.1025

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Roles and Responsibilities

Environmental, Health and Safety

- Maintain the College's Lead Management Plan
- Perform air monitoring of at-risk employees as requested by project managers, supervisors, or employees.
- Maintain the College's lead-based paint surveys of residence halls, target housing, and other facilities.
- Keep all records relating to lead exposure including hazard assessments, sampling data, and all contractor renovation records.
- Waste characterization and disposal.

Finance and Business Services

- Provide to occupants moving into College apartments or target housing information on all lead-based paint data for the unit to be occupied.
- Provide to occupants moving into College apartments or target housing an EPA pamphlet entitled "Protect Your Family from Lead in Your Home".
- Obtain occupant signature on lead disclosure form and submit to EHS for recordkeeping.

Project Managers or Supervisors Overseeing Contractors

- Notify EHS of any renovation or maintenance projects within target housing or child-occupied facilities that may involve disturbance of painted surfaces.
- Notify EHS of paint surface preparation and removal projects or other dust/fume generating construction or maintenance projects that could be reasonably anticipated to create dust/fumes that could impact occupied areas.
- Ensure that EHS receives a copy of all contractor records for work performed in target housing and child-occupied facilities under the EPA's RRP rule.

Project Managers or Supervisors of College Employees

- Request lead hazard evaluations for employees.
- Notify EHS of unusual conditions or changes in work practices that would make initial lead hazard evaluations non-representative of actual exposure.
- Ensure employee attendance at EHS safety training.
- Enroll employees exposed to lead above the OSHA action level into a respiratory protection program, including medical surveillance and EHS respiratory protection program training and fit testing.

Employees

- Participate in safety training.
- Participate in medical surveillance program, if necessary.
- Follow proper procedures to prevent disturbance of lead-containing materials while performing assigned tasks.
- Use engineering controls, personal protective equipment and follow administrative controls designed to minimize lead exposure.

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- Notify supervisors of unusual conditions or changes in work practices that would make initial lead hazard assessments non-representative of actual lead exposures.

Project Oversight

Lead-Based Paint Activities

All *lead-based paint activities* shall be conducted by an EPA-certified abatement contractor. Lead-based paint activities include inspection, risk assessment, and abatement being performed in target housing and child-occupied facilities.

Renovation, Repair, and Painting Projects

Effective April 2010, EPA's Renovation, Repair, and Painting (RRP) rule requires that contractors performing renovation, repair, and painting projects that disturb LBP in homes and child-occupied facilities built before 1978 be certified and must follow specific work practices. **Temporarily unoccupied or vacant housing rentals are not exempt from the requirements of the RRP rule.**

The following minor repairs or maintenance activities are not covered under the RRP rule:

- Activities that disturb 6 ft² or less of paint per room.
- Activities that disturb 20 ft² or less on the exterior of a building.

Minor repairs and maintenance activities do not include window replacement and projects involving demolition or prohibited practices such as burning, torching, sanding, grinding, or other high speed operations.

Occupants of College apartments (with children under 6) and target housing shall be provided with the EPA pamphlet entitled "*Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools*" prior to renovations or maintenance activities that disturb more than two square feet of lead-based paint. An adult occupant must provide a written acknowledgement of receipt of notification.

Determination of Employee Lead Exposure

OSHA has established a permissible exposure limit (PEL) of 50 µg/m³ (50 micrograms of lead per cubic meter of air) averaged over an eight-hour period. The established action level of 30 µg/m³, is the level at which compliance with the OSHA Lead in Construction Standard (29 CFR 1926.62) is required. The following table indicates the anticipated exposure levels of some common construction activities.

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APPENDIX V: 3-1. LEAD-RELATED CONSTRUCTION TASKS AND THEIR PRESUMED 8-HOUR TWA EXPOSURE LEVELS

> 50 to 500 µg/m ³	> 500 µg/m ³ to 2,500 µg/m ³	> 2,500 µg/m ³
Manual demolition	Using lead-containing mortar	Abrasive blasting
Dry manual scraping	Lead burning	Welding
Dry manual sanding	Rivet busting	Torch cutting
Heat gun use	Power tool cleaning without dust collection systems	Torch burning
Power tool cleaning with dust collection systems	Cleanup of dry expendable abrasive blasting jobs	
Spray painting with lead paint	Abrasive blasting enclosure movement and removal	

Lafayette College employees are prohibited from performing the tasks listed in the above table unless an exposure assessment has been conducted which documents that the employee will not be exposed above the PEL.

Additionally, any College employee performing tasks where there is a potential for exposure to lead from LBP must be provided appropriate training and PPE as required under OSHA regulations.

Upon request, EHS shall perform lead hazard exposure assessments for construction or lead hot work tasks having the potential to expose employees to lead levels above the OSHA action level or 30 µg/m³. The assessments shall include air monitoring and observation of work practices and engineering controls typically used for each task. EHS shall provide the employee and supervisor with a written copy of the sampling results and findings of the assessment. The report will describe any required changes in work practices or engineering controls based upon observations of the task in order to reduce the exposure and also notify the employee of the frequency of follow-up sampling if applicable.

Procedures for Working with Lead-Based Paint

- Chemical Strippers – When complete stripping is required, chemical strippers that do not contain Methylene Chloride, shall be used to remove as much paint as possible.
 - Wet Scrubbing – Use a wet scrubber such as plastic or steel wool pads to remove rust or loose paint to reduce dust and aid in collecting debris.
 - Wet Sanding – Wet-sand chemically stripped surfaces or whenever sanding is required.
 - Scraping – Scraping loose paint with hand tools is acceptable.
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- HEPA Vacuum Equipped Power Stripping Equipment – Powered paint stripping tools must be evaluated by supervisors and approved by EHS prior to use.
- Hydro, Sand or Glass Bead Blasting – All projects requiring this operation to completely remove paint must be conducted by a PA DEP licensed lead abatement contractor.
- Wet Cleanup – Wet wipe all sanded and surrounding surfaces after wet-sanding or sanding patching/filler. Dispose of rags in normal trash.
- Vacuum Cleanup – All vacuums must be equipped with HEPA filters.
- Tarps – Place adequate coverings over furniture, floors, ventilation, shrubs, grounds and other surfaces so all residue is captured for proper disposal.
- Saw Cutting Painted Wood Trim, Doors, etc. – Saw materials using wood or metal cutting tools. Saw dust, metal filings and paint residue must be HEPA vacuumed and wet cleaned either during or immediately after cutting is completed.
- Hydro-Washing Painted Surfaces – Hydro-washing equipment pressures are to be set no higher than needed to clean surfaces and remove loose paint. Total removal of paint is prohibited using this process.

Waste Disposal

EHS shall perform waste stream characterization of suspected lead-containing waste materials by laboratory analysis using EPA Toxicity Characteristic Leaching Procedure (TCLP). EHS shall coordinate waste disposal of lead-containing materials.

If no TCLP testing is done, all waste generated from LBP related work must be assumed to be a hazardous waste. This is a cost-effective assumption for small incidental quantities of waste.

Training

- *Lead-based paint activities* can only be conducted by an EPA-certified abatement contractor. In order to inspect work sites, take samples, or supervise LBP projects in target housing, a person must also be an EPA-certified abatement contractor.
- Effective April 2010, all work in target housing or a child occupied facility during which 6 ft² or more of LBP will be disturbed, regardless if it is an abatement or incidental disturbance as part of a renovation or repair, must be performed by an EPA-certified contractor.
- Any College employee performing tasks where there is the potential for exposure to lead from LBP must be provided appropriate training as required by applicable sections of OSHA's lead and hazard communication standards.

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Record Keeping

- EHS maintains all documents relating to lead exposure including hazard assessments, sampling data, waste disposal manifests, medical records, and all correspondence.
- Supervisors maintain lead hazard exposure assessments of the employees they supervise.
- Finance and Business Services will forward all occupant lead paint disclosure forms to EHS.