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*Occupational Safety & Health ♦ Environmental Health ♦ Laboratory Safety Industrial  
Hygiene ♦ Radiation Safety ♦ Hazardous Waste ♦ Pollution Prevention*

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# **OLD DOMINION UNIVERSITY**

## **LEAD MANAGEMENT PLAN**

**Administered by**

**ENVIRONMENTAL HEALTH AND SAFETY OFFICE**

Prepared by

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## Policy Statement on Lead

### A. Purpose

This is a statement of Old Dominion University policy to establish the process for compliance with OSHA's Lead Exposure in Construction (29 CFR 1926.62), OSHA's Lead Exposure in General Industry (29 CFR 1910.1025), and the Virginia Lead-Based Paint Activities Regulations 18 VAC 15-30-10 through 820.

### B. Scope

This plan applies to all Old Dominion University employees where their handling of lead-containing substances presents a risk of being exposed to lead through inhalation or ingestion. It applies primarily to work involving the disturbance of lead-containing and lead-based paint, but also to work with solders and molten lead used in pipe joints. Employees exposed to lead as part of normal repair and maintenance (O&M) of University property are covered under either Lead Exposure in Construction (29 CFR 1926.62) or Lead Exposure in General Industry (29 CFR 1910.1025). Abatement, which is the intentional removal, replacement, or enclosure of items containing lead-based paint in order to eliminate future exposure, is covered under the Virginia Lead-Based Paint Activities Regulations 18 VAC 15-30-10 through 820.

## C. Policy

The University is dedicated to providing safe and healthful work facilities for students and employees, and complying with federal and state occupational health and safety standards. Administrators, project managers, faculty, staff and students all share responsibility for minimizing their exposure to lead. The Lead Management Plan shall be implemented for all facilities at Old Dominion University where potential exposure to lead may occur. The plan shall be reviewed and evaluated for its effectiveness periodically, and updated as necessary.

**Key to the success of this plan is the awareness at the supervisor and worker levels of the possibility of disturbing lead during repair and maintenance work. Take steps to prevent exposure to lead at any level. Call the EHSO at 683-4495 if you have any questions.**

## Duties and Responsibilities

- A. Environmental Health & Safety Office (EHSO) shall:
1. Develop and distribute the written Lead Management Plan;
  2. Assist in identifying employees requiring training and coordinate same. The training content will depend upon the nature of the activity:
    - a. Employees who have the potential to be exposed to lead at any level, and are not working in construction, must be informed annually of the contents of 29 CFR 1910.1025, Appendix A (Substance Data Sheet for Occupational Exposure to Lead) and Appendix B (Employee Standard Summary).
    - b. Employees who have the potential to be exposed to lead at or above the action level of 30 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ), and are working in construction, must be provided a training program as outlined in 29 CFR 1926.62(l).
  3. Maintain records of employee participation in training;
  4. Perform exposure monitoring as requested by supervisors;
  5. Coordinate assessment of materials to determine lead content as necessary to determine exposure potential;
  6. Maintain lead inventory information;
  7. Provide technical guidance to personnel at all levels of responsibility concerning lead, hazard evaluation, training and hazard control; and,
  8. Review periodically the lead management plan and revise as necessary.

- B. Departments of Facilities Management and Design & Construction shall:
1. Oversee contracts requiring disturbance of lead-containing and lead-based materials;
  2. Identify requirements for compliance with applicable Federal and State lead regulations in contract specifications;
  3. Coordinate material assessment and provide lead-based paint inventory information to EHSO;
  4. Interface with contractors where enforcement of related contract provisions is required;
  5. Maintain submittal documents and related records from abatement contracts in a manner that is readily retrievable in case of a regulatory inspection;
  6. Communicate requirements to contractors;
  7. Ensure lead waste is managed through the EHSO; and,
  8. Ensure that paint used contains less than 0.06% lead, which is considered lead-free by the Consumers Product Safety Commission (CPSC).
- C. Supervisors shall:
1. Assure that all employees who have a potential to be exposed to lead have received the appropriate training;
  2. Assure that employees under their control follow the lead-based paint work practices described in this program;
  3. Arrange for exposure monitoring through EHSO where needed to document exposure levels or provide negative exposure assessments;
  4. Initiate medical surveillance for any employee who has the potential for exposure to lead as outlined in 29 CFR 1910.1025 or 29 CFR 1926.62;
  5. Coordinate assessment of materials to determine lead content as necessary to determine exposure potential; and,
  6. Report any problem associated with implementation of the Lead Management Plan in the work area to EHSO.
- D. Employees shall:
1. Perform his/her work as safely as possible and follow all safety procedures;
  2. Comply with the provisions of the Lead Management Plan and work practices identified for individual tasks;
  3. Complete an At Work or Work Related Accident/Injury Report and submit to Human Resources for any lead related medical issues.
  4. When involved with any exposure to lead workers shall wash their hands, arms and faces prior to eating, drinking, applying cosmetics or smoking.

## Hazard Assessment

Prior to maintenance, renovation or demolition activities of painted building surfaces at ODU, an assessment shall be made of the materials to determine lead content of the affected surfaces. **For any operation or task where the potential to disturb lead exists, ODU is required to conduct an initial employee exposure assessment to determine whether employees may be exposed to lead at or above the action level of 30 ug/m3.** If repair work, demolition or other activities can result in any exposure to lead the **EHSO should be notified for a determination.** Unless a task conducted with lead containing material is not anticipated to create dust or debris initial employee monitoring may be required. This initial determination will require the employee to be monitored utilizing a sample pump unless previously collected data demonstrates conclusively that no employee will be exposed to lead in excess of the action level. Where monitoring is required for the initial determination, it may be limited to a representative number of employees who are reasonably expected to have the highest exposure levels. The EHSO will assist and provide all sampling equipment necessary to conduct the assessment. All lead-related work tasks will be conducted in accordance with current OSHA Lead in Construction Standards

## Paint Assessment & Testing

Generally, buildings constructed after 1978 do not contain lead-based paint, but may have lead-containing paint. **For buildings constructed prior to 1978, lead-based paint assessments must be performed for any surface that will be disturbed and is suspected of containing lead-based paint.** If the paint is lead-containing, exposure monitoring, training and respiratory protection may be required. Determinations will be made after evaluation by the EHSO.

If a lead-based paint inventory exists for the surfaces involved in the work, Project Managers shall refer to the inventory for the location of lead-based paint. If an inventory does not exist, and the building was constructed prior to 1978, substrate testing will be required to ascertain the existence of lead-based paint.

## Exposure Monitoring

**Exposure monitoring may be required for maintenance activities involving the disturbance of lead or lead-containing paint, unless the same type of job has been assessed previously.** Initial monitoring may be limited to a representative sample of those employees exposed to the greatest concentrations of airborne lead. This result is then attributed to the other employees of the group. A review of any previous assessment can be used to decide if additional monitoring is necessary.

## **Lead Awareness Training**

Where there is a potential exposure to airborne lead at any level, and the work is not classified as construction, the employee must be informed of the contents of 29 CFR 1910.1025 Appendix A (Substance Data Sheet for Occupational Exposure to Lead) and Appendix B (Employee Standard Summary). Where there is a potential exposure to lead at any level and the work is classified as construction training shall be provided concerning lead hazards according to the requirements of OSHA's HAZCOM Standard for the construction industry including requirements concerning warning signs and labels, MSDS's, and employee information and training. This information transmission must be repeated at least annually for each employee and will be provided by EHSO.

## **Medical Surveillance**

In accordance with OSHA 29 CFR 1910.25 and 1926.62, employees who are performing construction work and are occupationally exposed on any day to lead at or above the AL, shall have initial medical surveillance consisting of biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin (ZPP) levels.

## **Respiratory Protection**

Workers engaged in lead work will require respiratory protective equipment when anticipated exposures may exceed the PEL.

The use of respiratory protection shall be in accordance with OSHA 29 CFR 1910.134, Respiratory Protection, and ODU's Respiratory Protection Program.

## Glossary of Terms

**Exposure Assessment:** The initial determination to find if any employee may be exposed to lead at or above the action level. Until the assessment is completed, employees shall assume that the exposure is above the PEL, but not more than ten times the PEL. Employee protective measures shall be implemented, including respiratory, other personal protective equipment, change areas, hand washing facilities, biological monitoring, and training.

**Lead-based paint (LBP) :** LBP is any paint or other surface coatings containing more than 0.50 percent lead by weight, or equal to or more than 1.0 milligrams per square centimeter.

**Lead-containing paint (LCP):** LCP is, for OSHA compliance purposes, paint containing lead at any detectable level.

**Permissible Exposure Limit (PEL):** The OSHA limit for lead exposure. It is 50  $\mu\text{g}/\text{m}^3$ , averaged over an 8-hour workday, commonly referred to as the Time-Weighted Average, or TWA.

**Project Manager:** A person in Facilities Maintenance or Design & Construction who manages large scale projects and is responsible for ensuring that the contractor conforms to all applicable LBP codes and regulations.

**XRF:** X-Ray Fluorescence analyzer is a device that measures the lead content in paint and other materials. Readings are expressed in milligrams of lead per square centimeter ( $\text{mg}/\text{cm}^2$ ).