**Lead Exposure Protection Program Compliance**

**Allowable Airborne Exposure Levels**

University employee shall not be exposed to airborne lead concentrations greater than 50 micrograms per cubic meter of air (50 ug/m3) averaged over an 8-hour workday. If an employee is exposed to lead for more than 8 hours in any workday, the allowable exposure level shall be reduced for that day as follows: allowable exposure level in ug/m3 equals 400 divided by the hours worked that day. For example, a 10-hour shift would have an allowable exposure of 400/10 = 40 ug/m3.These levels are established regardless of whether an employee is wearing a respirator.

OR-OSHA has established 50 ug/m3 as the permissible exposure limit (PEL) and 30 ug/m3 as the action level (AL).Exposures at or above the PEL mandates additional precautions to be taken to protect the worker. Exposures at or above the AL but below the PEL requires the supervisor to take measures to avoid reaching the PEL. If a project/job will create airborne lead levels exceeding 50 ug/m3, the work will be contracted out to a firm experienced in removing lead based paint.

**Exposure Monitoring**

Supervisors will identify jobs that will create airborne lead levels and contact EHS to arrange air monitoring for the purpose of determining initial exposure and developing future criteria for this written program. Monitoring will include documentation of the job, weather conditions, temperature, air movement and note as much information as possible regarding engineering controls, work practices, type of coating, and removal process. Data will be collected until an adequate amount of data is acquired to make a determination of the type of exposure, if any, which is occurring with specific jobs. Employees involved in the monitoring will be required to comply with these guidelines.

Results from the monitoring will be shared with the involved employees. If a job is found to exceed the Permissible Exposure Level (PEL), that job type will be suspended until controls (engineering and/or administrative) have been put into place to reduce the exposure level below the PEL.

Post-job dust sampling may be completed to assure adequate cleaning of area or to determine potential hazards.

These results will determine if additional monitoring is necessary.

**Engineering Controls**

In all cases, engineering controls will be viewed as the preferred method of controlling the potential hazard. The work environment will be separated from the rest of the building environment when necessary. This will vary from project to project and may include protections such as shutting off ventilation systems, creating barriers to separate the work area or working during shifts when the building is not normally occupied.

Engineering controls will also be considered in terms of how to minimize the exposure to workers to a level as low as possible and preferably below the action level. This should be accomplished by analyzing each task to determine what feasible controls are available and notifying EHS of those controls that could be incorporated into this written program.

**Work Practices**

Each job should be evaluated to determine the method which will create the least amount of potential exposure. Standard operating procedures will be prepared by the department or supervisor that describes work practices to minimize airborne dust for the specific hazard. Certain practices may be prohibited when air monitoring suggests the PEL will be exceeded.

**Respiratory Protection**

Respirators will be used when a potential for lead exposure exists. Prior to issuance of a respirator the employee must be entered in EHS's [Respiratory Protection program](http://safety.uoregon.edu/content/respiratory-protection-program). In almost all cases, half-mask, air-purifying respirators with high efficiency filters will be issued. Qualitative fit tests will be performed at the time of initial fitting and annually thereafter.

All employees using respirators will have gone through EHS's respiratory training program and will follow the university's written Respirator Protection Program.

**Protective Clothing**

Protective clothing will be provided by the department for employees with the potential for lead exposure at or above the AL, or where possibilities for eye or skin irritation exist. Protective clothing shall include, coveralls or equivalent, and may include gloves, hats and disposable shoe coverlets as well as any other necessary protective clothing to perform the necessary job. Workers must remove contaminated clothing prior to leaving the worksite.

Disposable clothing will be disposed of as frequently as necessary but used for no period greater than one week. On-disposable clothing shall be laundered by the university on a basis no greater than weekly. Contaminated clothing will be put in plastic bags to be stored in a closed container labeled as follows:

CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING.DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL REGULATIONS.

Notification that the clothing was potentially contaminated with lead will be made to the person or company responsible for the laundry when non-disposable clothing is used. This notification will be done by the person arranging for the laundry. Copies of the notification must be kept on file for review.

Employees will be instructed to remove contaminated clothing before leaving the worksite.

Disposable clothing shall be disposed of properly.

**Housekeeping**

In jobs creating dust, such as paint removal by sanding, workers will be required to clean the workspace once the sanding is completed. This will include a minimum of vacuuming surfaces with a HEPA vac to the point where no visible dust remains. HEPA filters will be disposed of through EHS.HEPA filters will be replaced according to standard operating procedures that minimize the creation of airborne dust. Damp mopping shall also be used to minimize dust.

In non-painting jobs, all surfaces will be maintained as free from lead accumulation as possible.

**Hygiene Practices**

Food and tobacco products will not be allowed to be present or consumed in the lead work areas. Cosmetics may not be applied in the lead work area.

Employees shall wash their hands after working on a lead exposure project and shower if necessary.

**Medical Surveillance**

The university will institute a medical surveillance program for all employees who are or may have been exposed to lead at or above 30 ug/m3(the OR-OSHA Action Level) for more than 30 days per year. Medical surveillance will include offering the above employees biological monitoring in the form of blood sampling and analysis for lead and zinc protoporphyrin at least every 6 months; medical consultations for employees whose blood lead tests exceed 40 ug/100g, and employees who seek advice on reproduction concerns. Employees whose blood lead levels exceed 40 ug/100g will be offered more frequent testing.

Employees will be notified of biological monitoring results within five working days after the receipt of the results. Those employees with blood lead levels exceeding 40 ug/dL, require medical removal with medical removal protection benefits.

The University Health Center or their contracting physician will be used for medical examinations, consultations with EHS staff and blood testing. The University Health Center has been provided with a copy of the OR-OSHA regulations regarding lead.

Employees hired into positions which will require potential exposure to airborne lead for 30 days per year or more, will be offered a medical examination prior to their initial assignment.

In the event of questions among the EHS staff of the appropriateness of an exam or blood test, the OR-OSHA regulations and University Health Center will be consulted.

**Medical Removal**

In the event an employee's blood lead level exceeds the OR-OSHA standards of 40 ug/100 g, the employee will be removed from the lead exposure and other work shall be provided at the same pay rate as their usual position. Blood testing will be conducted on a monthly basis following a removal until the blood lead level drops below 40 ug/100g.The employees shall have two consecutive blood samples below 40 ug/100g before being returned to their regular duties. The university shall provide up to eighteen months of medical removal protection benefits on each occasion that an employee is removed from exposure to lead. Medical removal protection benefits shall mean that the university shall maintain earnings, seniority and other employment rights and benefits of the employee as though the employee had not been removed from normal exposure to the lead.

**Signs**

Signs will be posted on the exterior of worksites where workers may create a potential airborne lead exposure. Worksites which will not exceed the PEL will have signs posted stating “AUTHORIZED PERSONNEL ONLY” at the entry to the worksite. Authorized personnel for this purpose will mean workers who are working the actual project, or workers who are not working on the project and have a need to be at the location and have been trained on Appendices A & B of the OR-OSHA lead code and are following the university's written program. Final decision of who is considered authorized personnel will rest with EHS.

In worksites where it is anticipated that the PEL will be exceeded, a sign reading “WARNING, LEAD WORK AREA, POISON, NO SMOKING OR EATING” shall be posted.

**Trainings**

Employees with potential exposure to airborne lead will be informed of the contents of Appendices A & B of OAR 437 Division 2, Subdivision Z (1910.1025).It shall be the responsibility of the individual supervisors to notify EHS of the employment of a new employee or the new task for an existing employee that will require training and/or medical monitoring. It shall be the responsibility of EHS to train or delegate the training of the new employee.

Annual retraining is required for those employees subject to exposures at or above the action level or for whom the possibility of skin or eye irritation exists.

**Recordkeeping**

EHS will maintain all records related to lead exposures. These forms will include the date, number duration and location of each sample as well as a description of the sampling procedure. They will also include the type of respirator worn, the name, social security number and the job classification of the employee monitored. Any environmental variables that could affect the results will also be noted on these forms. These records will be maintained 40 years or for the duration of employment plus 20 years, whichever is longer.

Medical surveillance records will include the employee’s name and a description of the employee’s duties. Any written opinions from the physician will be included as will any air monitoring results which were requested by or furnished to the physician. In addition, employee medical complaints will be included.

EHS will keep a copy of any medical examination results released to the University as well as any written work history which was presented to the physician and a copy of biological monitoring results. These records will be maintained 40 years or for the duration of employment plus 20 years, whichever is longer. Departments will be responsible for notifying EHS of persons who should be included in the medical surveillance program.

If medical removal should be required, records of the employee’s name, social security number and dates of removal shall be maintained. A description and statement of the removal will be included.

Records will be made available to OR-OSHA when requested. Medical removal and medical records will remain confidential except where required to be released by federal or state law. Employees may have access to their file upon request.

Prior to disposal of any of these records after the prescribed time, the university will notify the director of OR-OSHA and will transfer those records to the director upon request.

**Environmental Monitoring Observation**

Any employee or their designated representative may observe any monitoring of employee exposure to lead. Employee or their representatives should notify EHS of their interest in observing monitoring and EHS will make arrangements at the earliest opportunity. Any observer will be required to comply with this written program.

PLAN REVISIONS *(Revisions will also be made as required by OR-OSHA regulations.)*
Original Preparation Date:March 12, 1992
Latest Revision Number:14
Latest Revision Date:December 5, 2011
Authorization: EHS Director