## Lead Exposure

**1 Purpose**

This procedure is to establish guidelines for employees and contractors who may be exposed to Lead during work activities. This procedure shall be reviewed and updated annually.

**2 Responsibility**

The Supervisor shall:

* Develop standard operating procedures to comply with this program.
* Identify potential exposure to lead before work begins.
* Establish air monitoring where lead is present.
* Establish a medical surveillance program when necessary.

The Employee shall:

* Comply with procedures established to minimize potential lead exposure.
* Abide by all signs/labels/assessment reports indicating the presence of lead containing materials.
* Follow appropriate work practices to ensure that lead containing materials are not disturbed.

**3 General**

Possible locations of lead containing materials are leaded paints, leaded solders, pipes, batteries, circuit boards, cathode ray tubes, leaded glass, and demolition/salvage materials.

Common symptoms of acute lead poisoning are loss of appetite, nausea, vomiting, stomach cramps, constipation, difficulty in sleeping, fatigue, moodiness, headache, joint or muscle aches, and anemia. Long term (chronic) overexposure to lead may result in severe damage to the blood-forming, nervous, urinary, and reproductive systems.

**4 Air Monitoring**

**Initial Monitoring**

No employee shall be exposed to lead at concentrations greater than fifty micrograms per cubic meter of air averaged over an 8-hour period.

A representative sample of employees who it is believed are exposed to the greatest airborne concentrations of lead shall be monitored. Exposure monitoring shall be conducted immediately at the start of the operation which may involve lead exposure.

**Frequency of Monitoring**

If the initial determination or subsequent air monitoring reveals employee exposure to be at or above the action level but below the permissible exposure limit, the air monitoring shall be

repeated in accordance with this paragraph at least every 6 months. Air monitoring shall continue at the required frequency until at least two consecutive measurements, taken at least 7 days apart, are below the action level at which time the air monitoring may be discontinued for that employee.

Affected employees shall be notified of the results of any monitoring performed within 15 working days, either individually in writing or by posting the results in an appropriate location that is accessible to affected employees. Whenever the results indicate that the representative employee exposure, without regard to respirators, exceeds the permissible exposure limit, in the written notice shall be included a statement that the permissible exposure limit was exceeded and a description of the corrective action taken or to be taken to reduce exposure to or below the permissible exposure limit.

**Additional Monitoring**

Whenever there has been a production, process, control or personnel change which may result in new or additional exposure to lead, or whenever the employer has any reason to suspect a change which may result in new or additional exposures to lead, additional monitoring shall be conducted.

**5 Engineering and Work Practice Controls**

When the initial determination shows that the possibility of employee lead exposure exists at or above the action level the following shall be adhered to:

* Engineering controls and work practices shall be implemented. These include, but are not limited to, increased ventilation, enclosures or removing work to another location.
* Respirators shall be used during the time period necessary to install or implement engineering or work practice controls, whenever engineering and work practice controls are not sufficient to reduce exposure to or below the permissible exposure limit and in emergencies.
* Gloves, hats, vented goggles, shoes or disposable shoe covers shall be provided to employees at no cost. Protective clothing shall be cleaned and laundered at least weekly. Clothing shall also be properly disposed and repaired or replaced as necessary.
* Lunch room, hygiene, shower, and changing facilities must be provided when exposures are above the PEL.
* Warning signs should be posted in the work area where the PEL is exceeded. The signs shall read: WARNING, HAZARD, LEAD WORK AREA, NO SMOKING, EATING OR DRINKING.
* Employees' hands and faces should be washed if lead containing materials are contacted.

**6 Medical Surveillance**

A medical surveillance program must be established whenever personnel have the potential for exposure to airborne concentrations of lead in at or above the action level for more than 30 days. The following guidelines shall be followed for medical surveillance:

* All medical examinations and procedures will be performed by or under the supervision of a licensed physician and are to be provided without cost to personnel at a reasonable time and place.
* The blood sampling & monitoring shall be conducted every 6 months until two consecutive blood samples & analysis are acceptable.
* The sampling & monitoring should be performed at least monthly during the removal period. Any employee with elevated blood levels should be temporarily removed.
* Employees should be notified in writing within five days when lead levels are not acceptable. The standard requires temporary medical removal with Medical Removal Protection benefits.

**7 Multi-Contractor Worksites**

If employees working immediately adjacent to a lead abatement activity are exposed to lead due to the inadequate containment of such job, they shall be removed from the area until the enclosure breach is repaired or perform an initial exposure assessment.

**8 Training**

Lead safety awareness training shall be provided initially and annually to personnel who have the potential for exposure at or above the action level. Employees will be informed of:

* Appendices A & B of the regulation.
* The specific nature of the operations which could result in exposure to lead above the action level
* The purpose, proper selection, fitting, use and limitation of respirators, engineering controls.
* The purpose and description of the medical surveillance program and the medical removal program.

Lead safety awareness training shall be documented to include the date of training, employee name and name of trainer.

Re-training shall be conducted whenever a periodic inspection reveals, or whenever there is reason to believe, that there are deviations from or inadequacies in the employee's knowledge of known hazards, or use of equipment or procedures.