

The Construction Industry Lead Exposure Standard

(29 CFR 1926.62)

Workers may be exposed to lead on the job. Lead can be found in many materials that are widely used in jobs such as highway repair, construction work, bridge work, tunnel work, metal work, plumbing, painting, and welding.

Workers can be exposed to lead fumes (when a metal is heated, the vapor is called a fume) and lead dust from sanding, painting, excavation, demolition, cutting, renovation, and blasting.

Lead can accumulate in the kidneys, bones, and nervous system when inhaled and ingested resulting in various health problems. Treatment involves removing lead from the body very quickly.

The Construction Lead Standard applies to all construction, alteration and/or repair, painting and decorating. The standard protects workers from overexposure to lead. The Occupational Safety and Health Administration (OSHA) Lead Standard for the Construction Industry has been revised to conform with the OSHA lead standard for General Industry.

The Construction Industry Lead Standard includes:

Action Level

The Action Level is an exposure to lead without the use of respirators to an airborne concentration of 30 micrograms per cubic meter of air ($30\mu\text{g}/\text{m}^3$) calculated as an eight-hour Time Weighted Average (TWA). If workers are exposed at or above the action level for more than 30 days per year, the employer must provide a periodic medical surveillance program for the workers.

Permissible Exposure Limit

The employer is required to ensure that no worker is exposed to concentrations of lead in excess of the Permissible Exposure Limit (PEL), which is an eight hour TWA of $50\mu\text{g}/\text{m}^3$ (50 micrograms per cubic meter).

Certain activities are presumed to expose workers to levels greater than the PEL. In those tasks/operations, the employer must provide protective measures until the exposure levels are lowered.

The tasks are:

- demolition or salvage of structures where lead or materials containing lead are present;
- removal or encapsulation of materials containing lead;
- new construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead;
- installation of products containing lead;



- lead contamination from emergency cleanup;
- transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- maintenance operations associated with construction activities described above.

If workers are involved with any of these tasks or are doing a job where monitoring has been done and lead levels are at or above the PEL of $50 \mu\text{g}/\text{m}^3$ for an eight hour time weighed average, then the employer must provide the following at no cost to the worker:

1. Respirators including medical screening, fit testing and training on the proper use and maintenance of the respirator.
2. Change rooms, showers, soap and towels so that workers will not bring any lead dust home.
3. Protective clothing and equipment, including cleaning, laundering, repair and replacement, as needed.
4. A voluntary medical surveillance program (physical exams, blood tests), to be performed under the supervision of a licensed physician. This program is designed to detect any health effects from exposure to lead.
5. Lunchroom or eating areas accessible to workers that are free from lead contamination.
6. A Medical Removal Protection Program which protects workers' pay status, seniority and other employment rights and benefits if the worker has been removed from his job because of a lead level at or above $50 \mu\text{g}/\text{dl}$ (deciliter) and has a medical condition that can worsen from lead exposure.
7. A written Compliance Program that must provide for frequent and regular inspections of job sites, materials and equipment by a "competent person." A *"competent person"* is someone who can identify lead hazards and who is authorized to promptly take action to eliminate those hazards. This written program must be revised and updated every six months.

The standard also requires annual training for all Lead workers that include the following:

1. A review of the contents of the standard,
2. The specific nature of operations that can cause exposure to lead,
3. The engineering and work practice controls used to keep lead levels as low as possible,
4. The purpose, proper selection, fit, use, and limitations of respirators,
5. The purpose and description of the surveillance and medical removal protection program,
6. Workers' rights under the standard to access medical and exposure records,
7. Medical treatment information to lower Blood Lead Level,
8. Review of material safety data sheets,
9. The contents of the Compliance Plan,
10. Work practice controls such as:
 - a. Banning smoking and eating in the work areas.
 - b. Keeping all surfaces as free as possible from a build up of lead dust by using vacuum cleaners equipped with HEPA filters.
11. Warning signs required in each work area,
12. Recordkeeping – employers must keep and maintain records of exposure monitoring, medical surveillance and temporary medical removal records for 30 years after a worker's employment ends,
13. All materials relating to the training program and a copy of the standard must be made available to all employees.