



Weekly Safety Meeting

Your Safety Is Our Business®

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Chemical Hazards – Working Safely with Lead

It used to be thought that only children were exposed to lead poisoning hazards, which occurred mostly from eating lead-based paint chips from doors or windows in the home. This is no longer the case. Studies conducted over the past few years now suggest many adults are exposed to lead in the work place and suffer from varying degrees of lead poisoning. These studies have also shown that eating lead-based paint chips is not the only, or even the primary, way for lead to enter the body. Workers that use lead-based paints or work with items that may contain small amounts of lead may be creating lead dust and lead fumes that settle on their clothing, furniture, carpets, drapes, and contaminate the air.

Lead exposure is a serious issue that many workers face every day. Lead exposure can happen in any industry and during a variety of job activities. Lead is common in a wide range of materials including paints and other coatings, lead mortars, and base metals, which may be welded on or abrasive blasted. Lead presents a potentially serious occupational health hazard when the lead-containing particulates become airborne.

When ingested, lead accumulates in the blood, bones, and soft tissue of the body. High concentrations of lead in the body can cause death or permanent damage to the central nervous system, the brain, the kidneys, and red blood cells. Even low levels of lead may increase high blood pressure in adults. Infants, children, pregnant women, and fetuses are more vulnerable to lead exposure than others because the lead is more easily absorbed into growing bodies and their tissues are more sensitive to the damaging effects of the lead.

Exposure to lead occurs through breathing of lead dust, fumes, or mist and by ingestion of lead dust on cigarettes, chewing tobacco, makeup, or food.

Common jobs on a worksite that might expose a worker to lead include:

- Renovating or demolishing structures that have lead-painted surfaces;
- Removing lead-based paint or spray painting with lead-based paint;
- Sandblasting steel structures that are painted with lead;
- Grinding, cutting, or torching metal surfaces that are painted with lead;
- Welding, cutting, or removing pipes, joints, or ductwork that contain lead or are painted with lead;
- Lead soldering;
- Cutting or stripping lead-sheathed cable; and
- Cleaning up sites where there is lead dust.

All workers who may be exposed to lead must be trained in the hazards of lead. Air sampling is used to determine if workers are exposed to lead above the action level (AL) of 30 micrograms per cubic meter of air or above the permissible exposure limit (PEL) of 50 micrograms of lead per cubic meter of air, averaged over an 8-hour shift. Exposures above the AL or PEL will trigger additional requirements including engineering controls, proper housekeeping, washing



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facilities for hand and face washing, additional worker training, respiratory protection, medical monitoring, and additional air sampling. The employer must have a written compliance plan.

Most of the people that work directly with lead recognize that it is hazardous and take precautions to protect themselves. It is the workers that are exposed to lead and are not aware of it that are at most risk. This includes construction workers - especially those that work on bridges, tunnels, water towers and similar structures - painters, demolition workers, hazardous waste haulers, shipyard workers, and possibly anyone that works in a structure that has been coated with lead based paints. Also possibly at risk is anyone that lives near a lead abatement project that has not established adequate containment to prevent contamination of the surrounding community.

Precautions that workers can take to avoid getting overexposed:

- Use safe work practices such as wetting down paints and coatings to keep dust out of the air.
- Change clothes and wash up before eating, drinking, or smoking. Eat, drink, and smoke only in clean areas.
- Use personal protective equipment like gloves, special clothing, and a respirator.
- Make sure the respirator fits and is worn and maintained properly.
- Change clothes and wash up before going home. Lead dust on clothes or in the car could expose the family to lead. Children are more susceptible to lead than adults.

Lead may negatively affect the blood system, nervous system, kidneys, and reproductive organs. A worker who is exposed to lead above the action level must have a blood test to determine the amount of lead in the blood. If the blood test results indicate that the worker has been overexposed to lead, then the worker must be removed from working with lead.

Breathe lead and you could be dead!!



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Safety Meeting Sign-In Sheet

<i>Supervisor:</i>	<i>Subject:</i>
<i>Location:</i>	<i>Date:</i>
<i>Conducted By:</i>	<i>Trainer Signature:</i>

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests

