

## **MAJOR PROGRAM POINTS**

# **"THE OSHA LEAD STANDARD IN GENERAL INDUSTRY... A REFRESHER PROGRAM"**

**Training For  
THE OSHA LEAD STANDARD**

**Quality Safety and Health Products, for Today...and Tomorrow**

## OUTLINE OF MAJOR PROGRAM POINTS

The following outline summarizes the major points of information presented in the videotape program. The outline can be used to review the program before conducting a classroom session, as well as in preparing to lead a class discussion about the program.

- **Lead has many uses in Industry and Construction.**
  - However, it can cause serious health problems.
  - It can even prove fatal in large amounts.
  - OSHA instituted the Lead Standards for General Industry and Construction to protect workers from harmful effects.
  
- **Inhaling and swallowing are the most common ways that lead can enter the body.**
  - Lead is absorbed into the bloodstream.
  - It then circulates throughout the body.
  
- **"Chronic Overexposure" develops when:**
  - Small amounts of lead are absorbed.
  - The lead accumulates over a long period of time.
  
- **"Acute Overexposure" occurs when:**
  - A large amount of lead is absorbed over a short period of time.
  
- **Either type of overexposure can lead to serious damage to:**
  - Blood.
  - Kidneys.
  - Nervous System.
  - Reproductive System.
  
- **Acute Overexposure can cause:**
  - Seizures.
  - Coma.
  - Even death.
  
- **If you experience any symptoms of lead overexposure:**
  - Talk to your supervisor.
  - Consult your doctor.

- **To comply with the OSHA Lead Standards, your employer has developed a written Exposure Control Plan.**
  - Explains precautions you should take to prevent exposure.
- **The Plan also includes details about your company's:**
  - Air Monitoring procedures.
  - Exposure Controls.
  - Hygiene Facilities and Practices.
  - Personal Protective Equipment.
  - Medical Surveillance Program.
- **Your employer will provide you with necessary training and safety equipment.**
  - You must put these things to good use.
- **The Medical Surveillance Program is a very important part of the Exposure Control Plan.**
  - It is vital that you participate in this program.
- **One of the first things that you must do is give a blood sample.**
  - Establishes the amount of lead you already have in your blood.
  - Is used as a "baseline" for future tests.
- **You will also need to fill out detailed medical and work histories, and have a thorough examination.**
  - Doctors will evaluate this information to determine if you can work around lead.
  - For instance, a condition such as anemia could magnify harmful affects of lead exposure.
  - Asthma would make it difficult to wear a respirator.
- **Medical Exams and Blood Tests will continue as long as you are on the job.**
  - Will take place at different intervals, depending on lead concentration and blood test results.

- **Medical removal is sometimes necessary to protect workers from harmful affects of lead overexposure. It can be caused by:**
  - An elevated Blood Lead Level.
  - A medical condition which could affect the way your body reacts to lead.
  
- **Medical Removal gives your body time to filter lead out of your system.**
  
- **If you are removed, for 18 months (or until your work assignment ends) your employer will maintain your:**
  - Regular earnings.
  - Benefits.
  - Job Status.
  - Seniority
  
- **You will be allowed to return to your work assignment when:**
  - The lead in your blood returns to acceptable levels.
  - The doctor gives you a "stamp of approval".
  
- **If you are planning on having children, OSHA recommends that you maintain a Blood Lead Level significantly lower that the level that normally requires Medical Removal.**
  - If you have questions, talk to your supervisor or doctor.
  
- **The primary cause of exposure to lead is the production of airborne lead particles.**
  - Dust.
  - Fumes.
  
- **Air Monitoring is usually required to determine what:**
  - Personal Protective Equipment may be needed.
  - Other controls should be used to limit exposure.

- **You may need to help sample the air to determine lead levels.**
  - An Air Pump is strapped to your waist.
  - A Sampling Cassette is taped to your shoulder (within 6 inches of your mouth and nose).
  - A filter in the Sampling Cassette collects lead particles from the air.
  
- **The filter can then be tested to determine the airborne lead concentration in your workplace.**
  - Measured in micrograms per cubic meter.
  
- **If the amount of lead in the air equals or exceeds OSHA's Action Level (30 micrograms per cubic meter) then your employer must:**
  - Provide employee training.
  - Conduct periodic Air Monitoring.
  - Implement Medical Surveillance.
  
- **OSHA will not permit a worker to be exposed to a lead concentration higher than an average of 50 micrograms per cubic meter.**
  - This is the Permissible Exposure Limit (PEL).
  - If concentrations of lead are higher than the PEL, controls must be implemented to limit exposure.
  
- **You will be notified in writing of the results of Air Monitoring.**
  - If they are above the PEL, your employer will explain what controls are being implemented.
  
- **Engineering Controls:**
  - Reduce the amount of airborne lead in the work environment.
  - Include things such as mechanical ventilation systems.
  
- **Administrative Controls:**
  - Are also used to reduce the amount of lead you may be exposed to.
  - Include job rotation and shorter work shifts.

- **Work Practice Controls:**
  - Have to do with how you perform your work.
  - May include procedures such as spraying surfaces with water to keep down dust.
  
- **Dealing with dust and debris that may be contaminated is an important aspect of Work Practice Controls.**
  - Excessive dust can be removed from work areas using HEPA vacuums.
  - Don't shovel or sweep up debris unless authorized (it can increase dust).
  
- **If Work Practice Controls cannot reduce airborne lead to acceptable levels, respirators must be used.**
  - Must also be worn when airborne lead concentrations are unknown.
  - You must be "fit tested" for any respirator you wear.
  
- **Qualitative Fit Testing:**
  - Detects "noticeable" leakage between your skin and the respirator face-piece.
  - Relies on your sense of smell.
  
- **Quantitative Testing:**
  - Uses a machine to measure the exact amount of leakage.
  
- **When wearing your respirator, remember to:**
  - "Snug up" the straps.
  - Check the seal between your skin and the face-piece.
  - Keep the face-piece clean and free of lead dust.
  - Change filters (on cartridge respirators) if they become clogged.

- **You also need to know what types of hazards each respirator is designed for:**
  - Cartridges designed for dust and mist won't necessarily protect from Organic Vapors (such as given off by a paint solvent).
  - You may need to combine cartridges to get adequate protection.
  - Some situations may require a Supplied Air Respirator.
  
- **You may need other Personal Protective Equipment and clothing if lead concentrations are above the Action Level.**
  - The specific Clothing and PPE may vary from job to job.
  - The purpose is to prevent unnecessary exposure to lead.
  
- **To protect yourself adequately, you also need to use Hygiene Facilities and Practices to reduce chances of lead exposure.**
  
- **If you have a "Clean Room" available you should use it to:**
  - Change into clean work clothing at the beginning of a shift.
  - Store personal clothing to prevent contamination.
  
- **When you take a break:**
  - Wash your hands and face before eating.
  - Do not enter "Eating Areas" wearing work clothing or PPE.
  
- **You also need to know how to properly remove contaminated clothing.**
  - Do it only in a designated "Dirty Area".
  - Use a HEPA vacuum to remove loose lead dust.
  - Never try to shake or knock off dust and debris (creates air contaminants).
  - Deposit contaminated clothing in appropriate containers.

- **Removing Lead Dust from hair and skin is also important.**
  - Shower at work if facilities are provided.
  - If no showers are available, wash your face and hands thoroughly.
  - Shower immediately upon arriving at home, if you haven't showered at work.
  - You don't want to expose your family to lead contamination.

**\* \* \* SUMMARY \* \* \***

- **Lead is a toxic substance that can cause serious health problems.**
- **The OSHA Lead Standards require employers to provide training and equipment necessary to work safely in environments where lead may encountered.**
- **You must take an active role in protecting yourself from lead contamination.**
- **Become familiar with the Lead Standard for your industry.**
- **Read your company's Lead Exposure Control Plan.**
- **Wear the appropriate PPE.**
- **Follow Safe Work Practices.**
- **Use good Hygiene Practices.**