

## 1.1 PURPOSE

- 1.1.1 The purpose of this policy is to protect TERRY R PITT CONSTRUCTION workers from the adverse effects of lead exposure and to maintain compliance with OSHA 1910.1025.

## 1.2 RESPONSIBILITIES

### 1.2.1 Safety department

- 1.2.1.1 Provide notification and technical assistance in the implementation of this procedure
- 1.2.1.2 Maintain all records and documentation under this policy

### 1.2.2 Supervisor

- 1.2.2.1 Responsible for identifying potential employee exposures to lead
- 1.2.2.2 Develop standard operating procedures to comply with written program
- 1.2.2.3 Responsible for implementing the elements of the lead control program and holds authority to institute appropriate changes to ensure employee protection
- 1.2.2.4 Schedule air monitoring with safety department
- 1.2.2.5 Schedule employees for necessary medical testing
- 1.2.2.6 Ensure proper use of protective equipment by employees and monitor its effectiveness
- 1.2.2.7 Ensure the availability and proper use of hygiene facilities
- 1.2.2.8 Inform safety department of health concerns with potential exposures to lead

### 1.2.3 Employee

- 1.2.3.1 Responsible for complying with procedures established by supervisor to minimize potential lead exposure
- 1.2.3.2 Inform supervisor if they have health concerns that may be pertinent to lead exposure

## 1.3 GENERAL SAFETY

- 1.3.1 If TERRY R PITT CONSTRUCTION employees become aware of any potential exposure to lead, they are to immediately stop the work and notify a supervisor. The supervisor is then responsible to inform the office for further information, but should not allow work to proceed until the exposure has been abated. This also applies to multi contractor worksites where TERRY R PITT CONSTRUCTION personnel are exposed to lead due to inadequate procedures.
- 1.3.2 All contractors and subcontractors working on multi-employer worksites will be notified of the potential for exposure.

- 1.3.3 This policy applies to all work where an individual may be occupationally exposed to lead. Work includes alteration and repair including painting and decorating, 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 that contain lead, installation of products containing lead, lead contamination/emergency cleanup and transportation, disposal, storage or containment of lead, or materials containing lead.
- 1.3.4 If, based on initial hazard assessment, TERRY R PITT CONSTRUCTION has any reason to anticipate employee exposure to lead, an exposure assessment will be conducted. Any painted surface suspected to contain lead will be tested prior to performing any work on the surface. Planned work activities and materials will be evaluated with the safety department for the presence of lead.

## 1.4 HEALTH HAZARDS

- 1.4.1 The dangers of lead come from breathing in too much lead dust or fumes. There is also a risk of swallowing lead if an employee touches food, cigarettes, cosmetics, etc., when hands are contaminated by lead.
- 1.4.2 Employees will be trained on the health effects of lead, including acute lead poisoning symptoms, which include loss of appetite, nausea, vomiting, stomach cramps, constipation, difficulty sleeping, fatigue, moodiness, headache, joint/muscle aches, and anemia.
- 1.4.3 Employees will be trained on the potential chronic health effects from long term exposure to lead. Most of the effects take time to show up. When lead enters the body, it gets into the bloodstream and from there into organs and body tissues. If the body takes in more lead than it can naturally eliminate, the lead builds up and, over time, can cause severe and irreversible damage to the blood forming, nervous, urinary, and reproductive systems.
- 1.4.4 Chronic overexposure to lead can cause more serious problems that rarely show symptoms until it is too late to reverse them. A very large dose of lead can have almost immediate effects. It can cause seizures, coma, and in a matter of days, death.

## 1.5 EXPOSURE LIMITS AND MONITORING

- 1.5.1 The permissible exposure limit (PEL) for lead is 50  $\mu\text{g}/\text{m}^3$  averaged over an 8-hour period. The action level for lead is 30  $\mu\text{g}/\text{m}^3$  averaged over an 8-hour period.
- 1.5.2 TERRY R PITT CONSTRUCTION will strive to assure that no employee is exposed to lead at concentrations greater than 50  $\mu\text{g}/\text{m}^3$  of air averaged over an 8-hour period. Methods and the means to control this will be accomplished on a project-to-project basis, by engineering and/or administrative controls over personal (respiratory) protection, and monitoring.
  - 1.5.2.1 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 employer will repeat air monitoring in accordance with this paragraph at least every 6 months. The employer will continue air monitoring 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 employer may discontinue monitoring for that employee.

# Lead Awareness

- 1.5.3 Initial monitoring may be limited to a representative sample of those employees exposed to the greatest concentrations of airborne lead. Representative exposure sampling is permitted when there are a number of employees performing the same job, with lead exposure of similar duration and level, under essentially the same conditions. For employees engaged in similar work, the standard requires that the members of the group reasonably expected to have the highest exposure levels be monitored. This result is then attributed to the other employees of the group.
- 1.5.4 TERRY R PITT CONSTRUCTION will periodically review and revise this program to reflect the most recent exposure monitoring data available, but in no case will the time period exceed 12 months between reviews.
- 1.5.5 TERRY R PITT CONSTRUCTION provides employees or their representatives the opportunity to observe exposure monitoring of toxic materials or harmful physical agents. TERRY R PITT CONSTRUCTION's procedure for allowing observation includes:
  - 1.5.5.1 Explaining the measurement procedure
  - 1.5.5.2 Allowing observation of all steps related to the measurement procedure
  - 1.5.5.3 Disseminating the results when returned by the laboratory
  - 1.5.5.4 Providing an observer with proper personal protective devices
  - 1.5.5.5 Assuring that observers comply with all applicable safety and health procedures
- 1.5.6 Exposure monitoring will be conducted at the start of the operation to initially determine if any employee is exposed to lead at or above the action level. Full shift personal samples will be representative of regular, daily exposure to lead. Analysis of air monitoring results will be conducted by a certified lab.
- 1.5.7 Additional monitoring will be conducted whenever there has been a change of equipment, process, control, personnel, a new task has been initiated that may result in additional employee exposure, or when an employee experiences symptoms that indicate overexposure to lead.
- 1.5.8 If the initial monitoring reveals employee exposure to be below the action level the measurements need not be repeated. If the initial determination or subsequent monitoring reveals employee exposure to be at or above the action level but below the PEL, the employer will repeat monitoring at least every 6 months until at least two consecutive measurements are below the action level. If the initial monitoring reveals that employee exposure is above the PEL, the employer will repeat monitoring quarterly until at least two consecutive measurements are below the PEL.
- 1.5.9 The employer will establish and implement a written compliance program to reduce exposures to or below the PEL solely by means of engineering and work practice controls. Written plans will include at least the following: 1. A description of each operation in which lead is emitted 2. A description of the specific means that will be used to train employees to meet compliance including engineering plans 3. Technology considered in meeting the PEL 4. Air monitoring data 5. A detailed schedule for implementation 6. A work practice program 7. An administrative control schedule. The written program must be revised and updated at least annually.

## 1.6 MEDICAL SURVEILLANCE AND REMOVAL PROGRAM

- 1.6.1 TERRY R PITT CONSTRUCTION supports the practices necessary for early detection of lead exposure. The medical surveillance program supplements the primary goals of the lead exposure control program of preventing disease through elimination or reduction of airborne concentrations of lead and sources of ingestion. The medical surveillance provisions incorporate both initial and ongoing medical surveillance.
- 1.6.2 Medical surveillance, including biological monitoring, will be provided if and when an employee is exposed to airborne lead at or above the PEL for more than 30 days. Medical surveillance will include examinations and consultations.
- 1.6.2.1 Medical examinations and procedures will be performed by or under the supervision of a licensed physician.
- 1.6.2.2 Medical surveillance is provided at no cost to the employee.
- 1.6.3 TERRY R PITT CONSTRUCTION will remove employees from work who have exposures to lead at or above the action level each time a periodic and a follow-up blood sample indicates that blood lead levels are at or above 50 micrograms per deciliter of whole blood. TERRY R PITT CONSTRUCTION will also remove employees from work who have exposures to lead at or above the action level when a health care professional determines that they have medical conditions which, when exposed to lead, places them at greater risk for health problems.
- 1.6.3.1 Any employee with elevated blood levels should be temporarily removed. Sampling and monitoring should be performed at least monthly during the removal period. Employees should be notified in writing within 5 days when lead levels are not acceptable. The standard requires temporary medical removal with medical removal protection benefits.
- 1.6.4 If the physician who is implementing TERRY R PITT CONSTRUCTION's medical program makes a final written opinion recommending the employee's removal or other special protective measures, the employer must implement the physician's recommendation.
- 1.6.5 Employees who have been medically removed because of high blood lead level will have follow-up testing within two weeks after removal. Employees will not be permitted to return to work having an exposure at or above the action level until the employee's blood lead level is below 40 µg/dl and is released by the initial consulting physician.
- 1.6.6 Annual examinations will be conducted for each employee whose blood lead level tested at or above 40 µg/dl at any time in the previous 12 months. Complete confidentiality of other detected medical conditions unrelated to the employee's exposure to lead will be maintained.
- 1.6.7 TERRY R PITT CONSTRUCTION will implement and act consistently with any special protective measures or limitations recommended by the consulting physician.
- 1.6.8 The blood sampling and monitoring should be conducted every 6 months until two consecutive blood samples and analyses are acceptable. The sampling and 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.

## 1.7 RECORDKEEPING

- 1.7.1 TERRY R PITT CONSTRUCTION maintains employee exposure and medical records to document ongoing employee exposure, medical monitoring, and medical removal of workers. This data provides a baseline to evaluate the employee's health properly.
- 1.7.2 Employees or former employees, their designated representatives, and OSHA will have access to exposure and medical records.
- 1.7.3 The exposure assessment records will include:
  - 1.7.3.1 Dates, number, duration, location, and results of samples taken, including a description of the sampling procedure used to determine representative employee exposure
  - 1.7.3.2 Description of sampling and analytical methods used and evidence of their accuracy
  - 1.7.3.3 Type of respiratory protection worn, if any
  - 1.7.3.4 Name, social security number, and job classification of the monitored employee and all others whose exposure the measurement represents
  - 1.7.3.5 Environmental variables that could affect the measurement of employee exposure
- 1.7.4 TERRY R PITT CONSTRUCTION will maintain, for at least the duration of employment, an accurate record for each employee subject to medical removal, including:
  - 1.7.4.1 Name and social security number of the employee
  - 1.7.4.2 Date on each occasion that the employee was removed from current exposure to lead and the corresponding date which the employee was returned to former job status
  - 1.7.4.3 Brief explanation of how each removal was or is being accomplished
  - 1.7.4.4 Statement about each removal indicating whether the reason for removal was an elevated blood level
- 1.7.5 Exposure monitoring records include exposure assessment, medical surveillance results, medical removals, objective data for exemption from requirement for initial monitoring, procedures for making records available, and procedures for transfer of records.

## 1.8 CONTROLS

- 1.8.1 This lead protection policy for TERRY R PITT CONSTRUCTION will be implemented when employee exposure exceeds the permissible exposure limit (PEL).
- 1.8.2 This program is TERRY R PITT CONSTRUCTION's written strategy and schedule for protecting workers from lead exposure. It incorporates all relevant information that relates to this goal, so that

TERRY R PITT CONSTRUCTION may determine whether problems and solutions (including alternatives) relating to lead exposure have been appropriately analyzed.

- 1.8.3 This program is intended to reduce employee exposure at or below the PEL. When all feasible engineering and work practice controls that can be instituted are not sufficient to reduce employee exposure to acceptable levels, appropriate respiratory protection will be provided to supplement such controls. Respiratory and any other necessary PPE will be provided to employees at no cost.
- 1.8.4 The jobsite, materials, and equipment will be regularly inspected.
- 1.8.5 Ventilation is one common protection against overexposure to airborne lead. It may be provided by a mechanical system used with enclosures or in containment situations. Or, it may be a local portable ventilation system. Shrouded tools with ventilation are another option. OSHA requires that when ventilation is used to control exposure, employers must measure the ventilation system's effectiveness at least every three months.
- 1.8.6 In enclosed spaces, all surfaces coated with toxic preservatives will be stripped for a distance of at least four inches from the area of heat application.
- 1.8.7 Choose materials and chemicals that do not contain lead for construction projects.
- 1.8.8 To reduce lead exposure is to rotate jobs so that each individual has less exposure to lead. If this type of administrative control is used, employers must keep records documenting who is rotated, where and when.
- 1.8.9 Isolation consists of keeping employees not involved in the blasting operations as far away from the work area as possible, reducing the risk of exposure.
- 1.8.10 Reduce workers' exposure to lead and the likelihood that they will ingest lead.
- 1.8.11 Ensure that the exposure does not extend beyond the worksite.
- 1.8.12 Reduce the movement of lead from the worksite. Work clothing must not be worn away from the jobsite. Under no circumstances should lead contaminated work clothes be laundered at home or taken from the worksite, except to be laundered professionally or for disposal following applicable federal, state, and local regulations.
- 1.8.13 TERRY R PITT CONSTRUCTION will review this program at least every six months to revise it as necessary. TERRY R PITT CONSTRUCTION will ensure a copy of this written plan is available at the worksite.

## 1.9 PROTECTIVE CLOTHING AND EQUIPMENT

- 1.9.1 TERRY R PITT CONSTRUCTION will provide workers who are exposed to lead above the PEL or for whom the possibility of skin or eye irritation exists with clean, dry protective work clothing and equipment that is appropriate for the hazard at no cost to employee.
- 1.9.2 Appropriate protective work clothing and equipment used on construction sites includes:

- 1.9.2.1 Disposable coveralls and separate shoe covers may be used, if appropriate, to avoid the need for laundering
- 1.9.2.2 Gloves, hats, and shoes or disposable shoe coverlets
- 1.9.2.3 Vented goggles or face shields with protective spectacles or goggles
- 1.9.2.4 Welding or abrasive blasting helmets
- 1.9.2.5 Respirators
- 1.9.3 Damaged or torn protective clothing will be promptly repaired or replaced.
- 1.9.4 At the end of the shift, employees must remove their contaminated work clothing according to these rules, shower, and leave the work clothing in the change room. Clothing and personal clothing are to be stored in separate areas so they do not take lead dust home with them. Workers are not allowed to leave a worksite wearing lead-contaminated clothing or equipment.
  - 1.9.4.1 TERRY R PITT CONSTRUCTION will contract an industry-specific cleaning service to launder reusable coveralls. They will be notified in writing of presence of lead.

- 1.9.4.2 Disposal or laundry containers must be labeled:

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.

## 1.10 RESPIRATORY PROTECTION

- 1.10.1 Respirators are required when ventilation, job rotation, and other engineering and administrative controls are not enough to reduce lead exposure below the PEL and TERRY R PITT CONSTRUCTION will provide them at no cost to workers.
- 1.10.2 Respirators will be used during periods when an employee's exposure to lead exceeds the PEL, including periods necessary to install or implement engineering or work practice controls, and work operations for which engineering and work practice controls are insufficient to reduce employee exposures to or below the PEL.
- 1.10.3 TERRY R PITT CONSTRUCTION will give an employee the right to request a respirator even if lead levels are not high enough to require one.
- 1.10.4 TERRY R PITT CONSTRUCTION will select the appropriate respirator that will provide adequate protection.
- 1.10.5 A half-mask air-purifying respirator is required when performing tasks with the lowest levels of lead exposure above the PEL. These tasks include:
  - 1.10.5.1 Using a sledgehammer or similar tool to manually demolish walls or other building components coated with lead based paint
  - 1.10.5.2 Manual scraping and sanding of a surface with lead-based paint

- 1.10.5.3 Using a heat gun to melt lead paint on a surface prior to scraping
- 1.10.5.4 General cleanup in lead containing areas
- 1.10.5.5 Removing dirt, scale, or paint from structures with lead-based paint using power tools with dust collection systems. Tools might include grinders, brushes, needle guns, or sanders
- 1.10.5.6 Spray painting
- 1.10.6 A powered air-purifying respirator is the choice for tasks with the next highest levels of lead exposure. These include:
  - 1.10.6.1 Repainting, repairing, or relining high-pressure acid tanks lined with specialized tile or lead brick held in place with lead-containing mortar or grout.
  - 1.10.6.2 Lead turning using torch melting or fusing of lead or alloyed lead to another lead object.
  - 1.10.6.3 Removing dirt, scale, or paint from lead based painted structures with power tools that do not have dust collection systems.
  - 1.10.6.4 Clean up after blasting with dry expendable abrasives on lead-based paint structure.
  - 1.10.6.5 Moving or removing the enclosures within which abrasive blasting is performed. These enclosures usually have quite a bit of lead residue.
- 1.10.7 An appropriate supplied air respirator (SAR) is needed for the jobs that risk exposure to especially high levels of lead in the air. They include:
  - 1.10.7.1 Abrasive blasting with sand, steel grit, steel shot, aluminum oxide, etc.
  - 1.10.7.2 Using an acetylene torch or arc welder to weld, cut, or burn on steel structures whose coatings or paint contain lead.
- 1.10.8 Where daily airborne exposure to lead exceeds  $50 \mu\text{g}/\text{m}^3$ , affected workers must don respirators before entering the work area and should not remove them until they leave the high-exposure area or have completed a decontamination procedure.
- 1.10.9 TERRY R PITT CONSTRUCTION will provide NIOSH certified powered, air-purifying respirators to employees when a respirator is required or equivalent which provides adequate protection. This information is included in the respiratory protection program.

## 1.11 HOUSEKEEPING

- 1.11.1 Proper housekeeping is necessary where there is lead exposure or the potential of lead exposure to keep airborne lead levels below permissible limits. This requires a regular housekeeping schedule adapted to exposure conditions onsite.
- 1.11.2 If employees come in contact with lead containing materials, hands and faces should be washed immediately following exposure to lead-containing materials.



1.11.3 TERRY R PITT CONSTRUCTION will provide hygiene facilities for workers and assure they follow good hygiene practices. Showers, where feasible, will be provided as close as practical to the work area for employees exposed at or above the PEL.

1.11.3.1 Feasibility will be based on: location, availability of acceptable water supply, climate, and duration of job.

1.11.4 Never take food, beverages, tobacco products, or cosmetics into work areas with lead exposure at or above the PEL. Employees must wash carefully before handling any of these items.

1.11.5 Compressed air will not be used to clean the work area or protective clothing.

1.11.6 Shoveling, dry or wet sweeping or brushing will only be used when vacuuming with a HEPA-filtered vacuum is not practical or feasible.

## 1.12 EMPLOYEE NOTIFICATION

1.12.1 Employees should be informed of 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, purpose, and a description of the medical surveillance program and the medical removal program.

1.12.2 Affected employees will 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 will be included a statement that the permissible exposure limit was exceeded along with a description of the corrective action taken or to be taken to reduce exposure to or below the PEL.

1.12.3 Warning signs should be posted in the work area where the PEL is exceeded. Employees are also informed of lead hazards through training.

1.12.3.1 Warning signs in each work area where employee exposure to lead is above the PEL may include WARNING/LEAD WORK AREA/POISON/NO SMOKING OR EATING.

1.12.3.2 Employees must abide by any signs/labels/assessment reports indicating the presence of lead containing materials and should not disturb lead-containing materials. Appropriate work practices should be followed to ensure the lead containing materials are not disturbed.

1.12.4 If employees working immediately adjacent to a lead abatement activity are exposed to lead due to the inadequate containment of such job, their employer will either remove the employees from the area until the enclosure breach is repaired or perform an initial exposure assessment.

## 1.13 TRAINING

1.13.1 TERRY R PITT CONSTRUCTION's training program will inform employees of specific hazards associated with their work environment, protective measures, and other important topics.

- 1.13.2 Training will be required for employees whose work activities may contact lead containing materials but do not disturb the material during their work activities. TERRY R PITT CONSTRUCTION will provide training for each employee who has potential exposure to lead at time of hire, during orientation or before assignment to areas containing lead, and provide refresher training annually.
- 1.13.3 Training for lead awareness will include, at a minimum, where employees may find lead containing materials such as in lead paints, leaded solders, pipes, batteries, leaded glass, circuit boards, cathode tubes, and salvage materials.
- 1.13.4 Training will be documented and will include dates of training, employee name, and trainer name.
- 1.13.5 Employees will be trained on the purpose, selection, fitting, use, and limitations of respirators. They will be trained on possible engineering controls and on the medical surveillance program.
- 1.13.6 TERRY R PITT CONSTRUCTION employees will be trained on the following:
  - 1.13.6.1 Content and purpose of the OSHA lead standard
  - 1.13.6.2 Specific nature of the operation involving exposure to lead
  - 1.13.6.3 Proper respirator use and fit testing procedures
  - 1.13.6.4 Control measures and hygiene practices used by TERRY R PITT CONSTRUCTION to control employee exposure to lead
  - 1.13.6.5 Medical surveillance and biological testing programs
  - 1.13.6.6 Health effects associated with over exposure to lead dust and fumes
  - 1.13.6.7 Employees access to medical and exposure records