

1.1 PURPOSE

- 1.1.1 The purpose of this policy is to prevent asbestos exposures to TERRY R PITT CONSTRUCTION employees by managing and controlling suspect asbestos containing materials.

1.2 RESPONSIBILITIES

1.2.1 Supervisor

- 1.2.1.1 Notify the safety department of proposed construction and other activities in which a potential asbestos hazard exists.
- 1.2.1.2 Verify TERRY R PITT CONSTRUCTION employees are adequately notified of and protected from asbestos abatement activities.
- 1.2.1.3 Verify that confirmed or suspected asbestos materials, such as wallboard insulation, pipe insulation, ceiling tiles and floor tiles, are not disturbed during renovation or housekeeping activities where a potential asbestos exposure may occur.
- 1.2.1.4 Verify applicable employees have received two-hour asbestos awareness training and know how to properly respond to potential asbestos hazards.

1.2.2 Safety department

- 1.2.2.1 Obtain the services of qualified asbestos inspectors to perform asbestos inspections, abatement contractors to perform asbestos abatement work, and air monitoring specialists to perform air sampling, as needed.
- 1.2.2.2 Verify that asbestos contracted work, including inspections and abatement work, is performed in accordance with the hazard communication standard.
- 1.2.2.3 Verify that any asbestos contractor performing work onsite has adequate training.
- 1.2.2.4 Investigate potential asbestos exposure incidents.
- 1.2.2.5 Review documents for proposed asbestos activities, including inspection reports.
- 1.2.2.6 Ensure compliance with applicable government regulations by using *Statements of Work* and air monitoring results.
- 1.2.2.7 Provide asbestos awareness training to employees.
- 1.2.2.8 Maintain records of inspections and abatement work.
- 1.2.2.9 Maintain documents of abatement activities.

1.3 GENERAL SAFETY

- 1.3.1 TERRY R PITT CONSTRUCTION employees are not to work on asbestos containing equipment or materials. If employees become aware of any potential exposure to asbestos, they are to immediately stop work and notify their supervisor. The supervisor is then responsible for informing the office for further information, but in no case should allow work to proceed until the exposure to asbestos has been abated. This also applies to multi contractor worksites where TERRY R PITT CONSTRUCTION personnel are exposed to asbestos due to inadequate procedures.
- 1.3.2 A comprehensive asbestos survey of all TERRY R PITT CONSTRUCTION facilities should be performed. Surveys should include, but are not limited to:
- 1.3.2.1 Areas where suspected ACM has been accidentally disturbed or is in deteriorated or friable condition.
- 1.3.2.2 Where construction activities are scheduled, the abatement of non-friable asbestos may be performed by TERRY R PITT CONSTRUCTION employees, trained in asbestos awareness, provided that the material remains non-friable during abatement.
- 1.3.3 Before an asbestos abatement project begins, determination will be made of state, local agency, and environmental regulatory notifications that are required for such work. Generally, such notifications include reporting of the date that an asbestos abatement project is going to start and when it is expected to be completed. There may be deadlines for submitting such notifications and mandatory requirements prior to and during the conduct of such work. Confirmation also will be made that the conduct of any such work complies with applicable state and other regulatory requirements for personnel licensing, certification, training, and other specifications. The responsibility for notification lies with the facility owner. This does not relieve the contractor of the responsibility to ensure it has been done.
- 1.3.4 All asbestos removal on a worksite must be done by certified people who are licensed to remove asbestos. No TERRY R PITT CONSTRUCTION employee is to work on any piping or vessel that contains *asbestos containing materials* (ACM) unless properly protected and/or the material is encapsulated and will not fragmentize or peel off when working on it.
- 1.3.5 Non-asbestos insulation is now being used in the industry and on new work installations; the highest probability for exposure will come during demolition or old insulation removal. Asbestos-containing material may be encountered in valves, vessels, piping insulation, insulation cement, mastic, floor and roof tiling, transit wall siding, caulking and automobile brake linings. Asbestos may also exist on worksites in certain gaskets, brake linings, valve packing and old insulation.
- 1.3.6 During work when the TWA and/or excursion limit for asbestos is exceeded, the company will establish and implement this written program and procedures to reduce employee exposure to or below the TWA and to or below the excursion limit by means of engineering, work practice controls and by the use of respiratory protection where required or permitted under this program.
- 1.3.7 Avoid disturbing suspect ACM. Work that involves contact with suspect ACM, such as hammering nails or cutting into suspect material, should be reviewed by the safety department.

- 1.3.8 TERRY R PITT CONSTRUCTION will perform initial monitoring of employees who are, or may reasonably be expected to, be exposed to airborne concentrations at or above the TWA permissible exposure limit and/or excursion limit. After the initial determinations, samples will be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of the employees (no greater than 6 months if exposures may exceed the TWA permissible exposure limit and/or excursion limit). The employer will institute the exposure monitoring whenever there has been a change in the production, process, control equipment, personnel, or work practices that may result in new or additional exposures above the TWA permissible exposure limit and/or excursion limit.

1.4 HEALTH EFFECTS

- 1.4.1 The hazards of exposure to asbestos will be communicated to employees who have such an exposure as part of their work. Asbestos exposure occurs in a wide variety of industrial and commercial settings.
- 1.4.2 Employees who perform housekeeping activities during and after construction activities are covered by the asbestos construction standard, 29 CFR 1926.1101, formerly 1926.58. However, housekeeping employees, regardless of industry designation, should know whether building components they maintain may expose them to asbestos. The same hazard communication provisions will protect employees who perform housekeeping operations in all three asbestos standards, general industry, construction, and shipyard employment.
- 1.4.3 Inhalation (breathing in) is the route of entry for asbestos fibers. Studies have shown that inhalation of asbestos fibers leads to increased risks of developing several diseases.
- 1.4.4 Asbestosis, lung cancer, and mesothelioma are the primary diseases caused by asbestos exposure. Others include but are not limited to pleural plaques, pleural effusion, pleural thickening, cancer of the gastrointestinal tract, and kidney cancer.
- 1.4.5 The relationship between smoking and asbestos exposure is called a synergistic effect since exposure to both greatly increases risk of disease. Workers who smoke and who are exposed to asbestos are 50 to 90 times more likely to get lung cancer than nonsmoking, non-exposed workers.

1.5 CONTROLS

- 1.5.1 Class I abatement requires as a minimum:
- 1.5.1.1 Isolation of HVAC systems with 6 mil double layer plastic or equivalent
 - 1.5.1.2 Use of impermeable drop cloths
 - 1.5.1.3 Covering or removing all objects within the regulated area
 - 1.5.1.4 Ventilating regulated areas through HEPA filtration
 - 1.5.1.5 Use of negative pressure enclosures or negative pressure glove bags in conjunction with wet methods of removal or small walk-in enclosure

1.5.2 Class II abatement requires:

1.5.2.1 Use of critical barriers

1.5.2.2 Use of impermeable drop cloths

1.5.2.3 Material should not be cut, abraded or broken unless infeasible

1.5.2.4 Thoroughly wetting material with amended water before and during removal

1.5.2.5 Removal of the material intact, if possible

1.5.2.6 Immediate bagging or wrapping of removed material

1.5.3 Class III abatement requires:

1.5.3.1 Use of wet methods and ventilation

1.5.3.2 Use of impermeable drop cloths and enclosures or glove bag system when drilling, cutting, abrading, sanding, chipping, breaking, or sawing

1.5.4 Class IV abatement requirements:

1.5.4.1 Use of wet methods and HEPA vacuums to clean up debris

1.5.4.2 Wearing of respirator if inside a regulated area

1.5.5 A negative pressure enclosure is utilized when there is a large amount of removal done in a small area or when the equipment is large enough that glove bags or mini enclosures are not feasible.

1.5.6 Negative pressure is achieved by negative air machines that pull as much as 1600 CFM. It is required to have a minimum of 4 air changes an hour inside the enclosure. The enclosure must be as airtight as possible to ensure negative pressure.

1.5.7 Local exhaust ventilation and dust collection systems will be designed, constructed, installed, and maintained in accordance with good practices such as those found in ANSI Z9.2-1979.

1.6 SAFE WORK PRACTICES

1.6.1 To help reduce worker exposure to airborne fibers, asbestos must be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state. This *wet* method must also be used when products containing asbestos are removed from bags, cartons, or containers. If this is not possible, removal must be done in an enclosed or well-ventilated area.

1.6.2 Asbestos containing materials must not be applied by spray methods. Compressed air can be used to remove asbestos containing materials only if the compressed air is used in conjunction with an enclosed ventilated system designed to capture the dust cloud created by the compressed air.

1.6.3 All hand-operated and power-operated tools which would produce or release fibers of asbestos, such as, but not limited to: saws, scorers, abrasive wheels, and drills will be provided with local exhaust ventilation systems.

Asbestos Awareness

- 1.6.4 No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos, will be removed from bags, cartons, or other containers in which they are shipped, without being either wetted or enclosed or ventilated so as to prevent effectively the release of airborne fibers.
- 1.6.5 Compressed air will not be used to remove asbestos or materials containing asbestos unless the compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air.
- 1.6.6 Sanding of asbestos-containing flooring material is prohibited.
- 1.6.7 All surfaces must be maintained as free as practicable of accumulations of asbestos containing dust and waste. Floors and other surfaces contaminated with asbestos should only be cleaned by vacuuming and/or wet cleaning methods. Where vacuuming and/or wet cleaning is not feasible, shoveling, dry sweeping, and dry cleanup of asbestos may be used. The use of compressed air for cleaning purpose is prohibited. Asbestos waste, scrap, debris, bags, containers, and equipment must be disposed of in sealed impermeable bags or containers.
- 1.6.8 Employees who perform housekeeping activities during and after construction will be covered by the standard, and signs and labels, which meet OSHA requirements, will be posted.
- 1.6.9 A regulated area is defined by OSHA to be all areas where airborne concentrations of asbestos may be present. An asbestos barricade with asbestos warning signs must be placed around the regulated area. This area must be maintained regardless of monitor results. Access to this area will be strictly controlled and limited to authorized personnel only. Entrance and exit registers must be maintained to monitor and control the number of personnel in the regulated area. Only personnel with documented training, medical clearance, and proper PPE are allowed entry into the regulated area. All personnel must be decontaminated upon exit from a regulated area, regardless of type and quantity of asbestos, method of removal, or exposure levels.
- 1.6.10 Employees who work in areas where their airborne exposure is above the PEL and/or excursion limit must wash their hands and faces prior to eating, drinking, or smoking.
- 1.6.11 TERRY R PITT CONSTRUCTION will provide clean change rooms for employees who work in areas where their airborne exposure to asbestos is above the TWA and/or excursion limit to prevent contamination of the employee's street clothes from the protective work clothing and equipment. The company will ensure that employees who are required to shower do not leave the workplace wearing any clothing or equipment worn during the work shift.

1.7 AIR MONITORING

- 1.7.1 Exposure monitoring will be conducted at the start of the operation to initially determine if any employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) in 30 minutes.
 - 1.7.1.1 The air quality is to be determined from breathing zone air samples. The samples will be representative of the 8-hour TWA and 30-minute short-term exposure. Measurements are required for documentation.

- 1.7.2 Additional monitoring will be conducted whenever there has been a change of equipment, process, control, personnel, or a new task has been initiated that may result in additional employee exposure or when an employee experiences symptoms that indicate asbestos exposure.
- 1.7.3 Determinations of employee exposure will be made from breathing zone air samples that are representative of the 8-hour TWA and 30-minute short-term exposures of each employee.
- 1.7.4 Representative 8-hour TWA employee exposures will be determined on the basis of one or more samples representing full-shift exposures for each shift for each employee in each job classification in each work area.
- 1.7.5 Representative 30-minute short-term employee exposures will be determined on the basis of one or more samples representing 30-minute exposures associated with operations that are most likely to produce exposures above excursion limits for each shift in each work area.
- 1.7.6 Area monitoring documents the exposure inside and/or outside of the containment, glove bag, or mini enclosure. This information can be used to forewarn employees of possible difficulty with engineering controls or removal methods. A higher than expected reading inside the enclosure could be caused by inadequately wetting material before abating. A higher than expected reading outside the enclosure could be caused by a bad seal in the enclosure or a faulty negative air machine.
- 1.7.7 TERRY R PITT CONSTRUCTION will establish regulated areas wherever airborne concentrations of asbestos and/or PACM are in excess of the TWA and/or excursion limit.
- 1.7.8 Before any critical barriers in an enclosure can be taken down, air samples must be taken and analyzed to show that there are no airborne fibers left inside the enclosure. Once the environmental contractor has signed off that final clearance has been achieved, the enclosure can then be dismantled.
- 1.7.9 TERRY R PITT CONSTRUCTION will, within 15 working days after the receipt of the results of any monitoring, notify each affected employee of these results. The written notification will contain the corrective action being taken by the employer to reduce employee exposure to or below the TWA and/or excursion limit.

1.8 PERSONAL PROTECTIVE EQUIPMENT

- 1.8.1 If an employee is exposed to asbestos above the TWA and/or excursion limit or where the possibility of eye irritation exists, the company will provide and ensure that the employee uses appropriate protective work clothing and equipment such as:
 - 1.8.1.1 Coveralls or similar full-body work clothing
 - 1.8.1.2 Gloves, head coverings, and foot coverings
 - 1.8.1.3 Face shields and vented goggles

- 1.8.2 TERRY R PITT CONSTRUCTION will provide information to affected employees about respirators, protective clothing, proper selection, use of protective clothing and equipment, and manufacturer's instructions for use of such clothing and/or equipment, if appropriate to the work, at no cost to the employee.

1.9 RESPIRATORY PROTECTION

- 1.9.1 Wherever the feasible engineering controls and work practices that can be instituted are not sufficient to reduce employee exposure to or below the TWA and/or excursion limit, TERRY R PITT CONSTRUCTION will use respirators to reduce employee exposure to the lowest levels achievable and will supplement them by the use of respiratory protection that complies with the requirements of this program, company's written *Respiratory Protection Policy*, and applicable regulations.

- 1.9.2 For employees who use respirators required by this section, TERRY R PITT CONSTRUCTION must provide respirators that comply with the requirements of this paragraph at no cost to the employee. Respirators must be used during:

1.9.2.1 Periods to install or implement feasible engineering and work practice controls

1.9.2.2 Work operations, such as maintenance and repair activities, for which engineering and work practice controls are not feasible

1.9.2.3 Work operations for which feasible engineering and work practice controls are not yet sufficient to reduce employee exposure to or below the TWA and/or excursion limit

1.9.2.4 Emergencies

- 1.9.3 Powered, air-purifying respirators will be available when employees choose to use them or when the respirator will provide adequate protection.

1.10 MEDICAL SURVEILLANCE

- 1.10.1 All personnel working with asbestos in class I, II, or III work and who are exposed at or above the PEL for more than 30 days a year must have medical surveillance through annual physicals and their exposure levels must be monitored and documented. All documentation will be kept for 30 years. A licensed physician must perform or supervise the exam.

1.11 EMERGENCY PROCEDURES

- 1.11.1 In the event of a spill or the accidental disturbance of confirmed or suspected ACM the area will be immediately isolated or otherwise protected from additional disturbance or personnel access.
- 1.11.1.1 This may include evacuating personnel and/or isolating the building ventilation system.
- 1.11.1.2 Notify the safety department immediately of any potential asbestos hazardous situation.
- 1.11.1.3 The safety department will provide recommended response actions to management and a written assessment of potential personnel exposures that may have occurred.

1.11.2 Suspect or confirmed asbestos materials that are friable and damaged will be immediately secured or barricaded so as to prevent disturbance.

1.11.2.1 If the content of the material is unknown a bulk asbestos sample will be collected by a state certified asbestos inspector to determine if the material contains asbestos.

1.11.2.2 If the material is confirmed to contain asbestos the safety department will perform a hazard assessment to determine the proper abatement of the material.

1.12 TRAINING

1.12.1 OSHA requires employers to institute and ensure participation in a worker training program for employees exposed to fiber levels at or above the permissible exposure limit as an 8-hour, time-weighted average (TWA) and/or the excursion limit. This training program consists of an initial training period, the duration of which is determined by the type of work the employee performs and annual refresher training. All training will be documented and maintained.

1.12.2 Two-hour awareness training in accordance with OSHA Hazard Communication standard will be given to TERRY R PITT CONSTRUCTION employees who do not perform asbestos abatement or removal operations, but may potentially disturb ACM during the course of their work.

1.12.3 Locations where employees may be potentially exposed to asbestos will be identified and included in the asbestos awareness training provided to affected company employees. Some examples of where asbestos may be found include: manufacturing of heat resistant clothing, automotive brake and clutch linings, certain building materials such as insulation, sound proofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet, fire resistant drywall, pipe and boiler insulating materials, pipeline wrap, and in sprayed on materials located on beams, in crawl spaces, and between walls.

1.12.4 Awareness training is for maintenance staff involved in cleaning and minor maintenance tasks where ACM may be accidentally disturbed. The two-hour asbestos awareness training may include:

1.12.4.1 Background information on asbestos and worker protection programs

1.12.4.2 Health effects of asbestos

1.12.4.3 Locations of ACM and the operations and maintenance program for the building

1.12.4.4 Recognition of ACM damage and deterioration

1.12.5 Training will include the potential health hazards posed to affected company employees from exposure to asbestos to include lung cancer, asbestosis, mesothelioma, colon cancer, and cancer of the stomach.

1.12.6 Employees are required to attend this training annually or when management determines necessary.

1.12.7 The company will provide, upon request, all materials relating to the employee information and training program to the assistant secretary.