

POLICY STATEMENT

Exposure to asbestos leads to diseases including lung cancer. In order to prevent such illness in employees, this company adheres to all applicable regulations concerning asbestos safety.

RESPONSIBILITIES

Preventing illness as a result of asbestos exposure is a cooperative effort between this company and its employees.

Employer Responsibilities

It is the responsibility of this company to:

- Ensure employees are trained in the processes and procedures to avoid asbestos-related illnesses;
- Ensure no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air (0.1 f/cc) as averaged over an 8-hour day.
- Ensure no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of
- 30 minutes. (Excursion Limit / EL)
- Assess asbestos operations for potential to generate airborne fibers;
- Measure employee exposure if exposure may surpass the PEL;
- Institute a medical surveillance program for all employees exposed to airborne concentrations of asbestos at or above the PEL and/or EL;
- Keep an accurate record of exposure measurements;
- Set apart areas where concentrations of asbestos exceed PEL and/or EL for authorized personnel only;
- Ensure appropriate communication regarding presence of asbestos hazards to prevent exposure;
- Use appropriate control methods to reduce employee exposure to asbestos at or below permissible limits;
- Ensure employees have access to personal protective equipment that will sufficiently reduce their exposure to asbestos;
- Keep employees from lunchroom facilities in protective work clothes that might be contaminated; and
- Provide all other protections against asbestos exposure as required by regulations, laws and industry best practices.

Employee Responsibilities

Employees are expected to follow this and all other safety policies and follow the instructions of supervisors to avoid exposure to asbestos:

- Never eat, drink, chew tobacco or gum, or apply cosmetics in regulated areas;
- Actively participate in training efforts; and
- Use, store and clean any personal protective equipment appropriately.

TRAINING

We will ensure every employee is provided training on Asbestos exposure and safety. This training will be provided at no cost to the employee during working hours.

Training will use only training material that is appropriate in content and vocabulary to educational level, literacy, and language of employees.

Training Components

The safety coordinator will ensure that every employee will be trained in the following minimum elements:

- How employees can safeguard their health from asbestos exposure
- Health effects of asbestos;
- Locations where exposure to asbestos may present a hazard;
- signs of damage and deterioration of asbestos-containing materials;
- Proper response to fiber release episodes; and
- Where to find OSHA housekeeping requirement standards (and how to follow them).

Training Records

Training records will include the following information:

- The dates of the training sessions.
- The contents or a summary of the training sessions.
- The names and qualifications of persons conducting the training.
- The names and job titles of all persons attending the training sessions.

Employee training records will be maintained for 3 years from the date on which the training occurred.

POLICY

Facts about Asbestos

Introduction

Asbestos is a widely used, mineral-based material that is resistant to heat and corrosive chemicals. Depending on the chemical composition, fibers may range in texture from coarse to silky. The properties that make asbestos fibers so valuable to industry are its high-tensile strength, flexibility, heat and chemical resistance, and good frictional properties. (See Table 1 for a partial list of asbestos-containing products and building materials that have been used during the last 100 years in the United States.)

Asbestos fibers enter the body by inhalation of airborne particles or by ingestion and can become embedded in the tissues of the respiratory or digestive systems. Years of exposure to asbestos can cause numerous disabling or fatal diseases. Among these diseases are asbestosis, an emphysema-like condition; lung cancer; mesothelioma, a cancerous tumor that spreads rapidly in the cells of membranes covering the lungs and body organs; and gastrointestinal cancer.

Since 1972, however, the Occupational Safety and Health Administration (OSHA) has regulated asbestos exposure in general industry, thereby causing a significant decline in exposures resulting from the use of asbestos-containing materials. The revised standard continues to protect workers, in general, who are exposed to asbestos-containing materials but now includes provisions that apply to workers performing brake and clutch repair and to those doing housekeeping in buildings and facilities where asbestos-containing materials exist.

This portion of the booklet contains an overview of OSHA's worker protection requirements for exposure to asbestos in general industry and describes the steps an employer must take to reduce the levels of asbestos in the workplace. The revised rule lowers the permissible exposure limit (PEL), contains mandatory methods of control for brake and clutch repairs, and provides training provisions for maintenance and custodial workers. (OSHA has developed a separate standard for asbestos in the construction industry.)

Provisions of the Standard

OSHA sets out several provisions employers must follow to comply with the asbestos standard. The agency has established strict exposure limits and guidelines for exposure monitoring, medical surveillance, recordkeeping, regulated areas and communication of hazards.

Permissible Exposure Limits

Time-Weighted Average (TWA): The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter of air (0.1 f/cc) as averaged over an 8-hour day.

Excursion Limit (EL): The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of 30 minutes.

OSHA has adopted the term “excursion limit” to refer to the short-term permissible exposure limit to be consistent with the terminology used by the American Conference of Governmental Industrial Hygienists (ACGIH).

Exposure Monitoring

Except for brake and clutch repair where a “preferred” control method is used, each employer who has a workplace or work operation covered by this standard must assess all asbestos operations for their potential to generate airborne fibers.

Where exposure may exceed the PEL, employee exposure measurements must be made from breathing zone air samples representing the 8-hour TWA and 30-minute EL for each employee.

Initial monitoring also must be performed for all employees who are, or may reasonably be expected to be, exposed to airborne concentrations of asbestos at or above the PEL and/or EL unless the collected data demonstrate that asbestos is not capable of being released in airborne concentrations at or above the PEL and/or EL when materials are being processed, used, or handled.

Asbestos-Containing Materials Found in Buildings

Subdivision	Generic Name	Asbestos (%)	Dates of Use	Binder/Sizing
Surfacing material	sprayed- or troweled-on	1–95	1935–1970	Sodium silicate, portland cement, organic binders
Preformed thermal insulating products	batts, blocks, and pipe covering 85% magnesia calcium silicate	15 6–8	1926–1949 1949–1971	magnesium carbonate calcium silicate
Textiles	cloth blankets (fire) felts: blue stripe red stripe green stripe sheets cord/rope/yarn tubing tape/strip curtains (theater, welding)	100 90–95 80 90 95 50–95 80–100 80–85 90 60–65	1910–present 1920–present 1920–present 1920–present 1920–present 1920–present 1920–present 1920–present 1920–present 1945–present	none cotton/wool cotton cotton cotton cotton/wool cotton/wool cotton/wool cotton/wool cotton
Cementitious concrete-like products	extrusion panels: corrugated flat flexible flexible perforated laminated (outer surface) roof tiles clapboard and shingles: clapboard siding shingles roofing shingles pipe	8 20–45 40–50 30–50 30–50 35–50 20–30 12–15 12–14 20–32 20–15	1965–1977 1930–present 1930–present 1930–present 1930–present 1930–present 1930–present 1944–1945 unknown–present unknown–present 1935–present	portland cement portland cement
Paper products	corrugated: high temperature moderate temperature indented millboard	90 35–70 98 80–85	1935–present 1910–present 1935–present 1925–present	sodium silicate starch cotton and organic binder starch, lime, clay
Roofing felts	smooth surface mineral surface shingles pipeline	10–15 10–15 1 10	1910–present 1910–present 1971–1974 1920–present	asphalt asphalt asphalt asphalt

If initial monitoring indicates that exposures are above the PEL and/or EL, periodic monitoring must be conducted at intervals no greater than every six months. If either

initial or periodic monitoring statistically indicates that employee exposures are below the PEL and/or EL, the employer may discontinue monitoring for those employees whose exposures are represented by such monitoring.

The employer must reinitiate 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 to asbestos above the PEL and/or EL, or when the employer has reason to suspect that a change may result in new or additional exposures above the PEL and/or EL.

Affected employees and their representatives must be allowed to observe monitoring and must be notified in writing, either individually or by posting results in an accessible location within 15 working days after the receipt of the results of monitoring. This written notification must contain the corrective action being taken by the employer to reduce employee exposure to asbestos on or below the PEL and/or EL wherever monitoring results indicate that the PEL and/or EL has been exceeded. If monitoring is being observed in a regulated area, the observer must be provided proper protective clothing and equipment.

Medical Surveillance

The employer must institute a medical surveillance program for all employees who are or will be exposed to airborne concentrations of asbestos at or above the PEL and/or EL. All medical examinations and procedures must be performed by or under the supervision of a licensed physician. Such exams must occur at a reasonable time and place and must be provided at no cost to the employee. At a minimum, such examinations must include a medical and work history; a complete physical examination with emphasis on the respiratory system, the cardiovascular system and the digestive tract; a chest X-ray; pulmonary function tests; respiratory disease standardized questionnaire as set forth in 29 CFR 1910.1001

Appendix D, Part 1, of the standard; and any additional tests deemed appropriate by the examining physician. These examinations must be made available annually. Chest roentgenograms must be conducted in accordance with Table 2.

Years since first exposure	Age of Employee		
	15 to 35	35 to 45	45+
0 to 10	Every 5 years	Every 5 years	Every 5 years
10+	Every 5 years	Every 2 years	Every 1 year

Recordkeeping

The employer must keep an accurate record of all exposure measurements taken to monitor employee exposure to asbestos. This record must be kept for 30 years. The

employer also must maintain an accurate record for each employee subject to medical surveillance.

This record must be maintained for the duration of employment plus 30 years. In addition, the employer must maintain all employee training records for one year beyond the last date of employment by the employee.

All records must be made available to the commissioner of labor, affected employees, former employees and designated representatives in accordance with 29 CFR Part 1910.1020. When the employer ceases to do business and there is no successor to receive the records for the prescribed period, the employer must notify the director of NIOSH at least 90 days prior to the disposal of records.

Also, if handling, using or processing any products made from or containing asbestos are exempted, the employer must establish and maintain accurate records of objective data that exempt these products. These records must be kept for the duration of the employer's reliance upon the data.

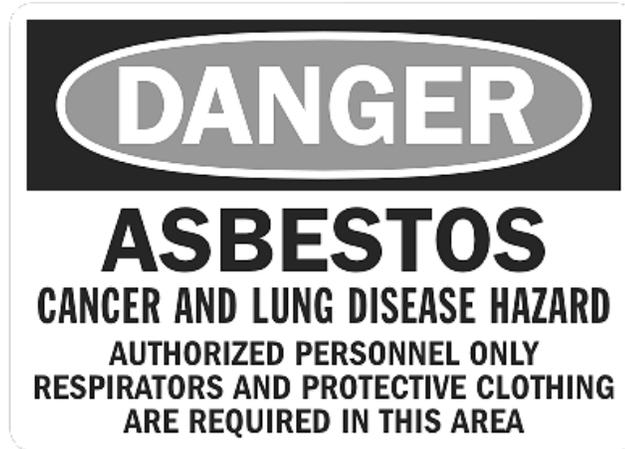
Building and facility owners also are required to maintain records about the presence, location and quantity of asbestos-containing material and presumed asbestos-containing material in the building or facility. These records must be kept for the duration of ownership and must be transferred to the successive owners.

Regulated Areas

The employer must establish and set apart a regulated area wherever airborne concentrations of asbestos and/or presumed asbestos-containing material exceed the PEL and/or EL. Only authorized personnel may enter regulated areas. All people entering a regulated area must be supplied with and are required to use an appropriate respirator.

No smoking, eating, drinking, chewing tobacco or gum, or applying cosmetics is permitted in regulated areas.

Warning signs must be provided and displayed at each regulated area and must be posted at all approaches to regulated areas. Where necessary, signs must bear pictures or graphics, or be written in appropriate language so that all employees understand them. These signs must bear the following information:



In addition, warning labels must be affixed to all asbestos products (raw materials, mixtures, scrap) and to all containers of asbestos products, including waste containers that may be in the workplace. The labels must comply with the requirements of 29 CFR 1910.1200(j) of OSHA's Hazard Communication Standard and must include the following information:



Labels or safety data sheets (SDSs) are not required where asbestos fibers have been modified by a bonding agent, coating, binder or other materials, if the manufacturer can demonstrate that during handling, storing, disposing, processing or transporting no airborne concentrations of fibers of asbestos in excess of PEL and/or EL will be released or if asbestos is present in a product in a concentration of less than 1 percent.

Communication of Hazards

Building / Facility Owners Duties

The communication of asbestos hazards is vital. Employees engaged in housekeeping activities in public and commercial buildings with installed asbestos-containing materials may be exposed to asbestos fibers. Building owners are often the only and/or best source of information concerning the presence of previously installed asbestos-containing building materials. The standard requires building owners and employers of potentially exposed employees to institute the following practices:

- In buildings built before 1980, treat thermal system insulation and sprayed-on and troweled-on surfacing materials as asbestos-containing materials, unless properly analyzed and found not to contain more than 1 percent asbestos.
- Train employees who may come in contact with asbestos-containing materials to deal safely with them.
- Treat asphalt and vinyl flooring materials installed no later than 1980 as asbestos-containing, unless properly analyzed and found to contain no more than 1 percent asbestos.

INFORMATION AND TRAINING

Employers must develop a training program for all employees who are exposed to airborne concentrations of asbestos at or above the PEL and/or EL. Training must be provided prior to or at the time of initial assignment and at least yearly thereafter. The training program must inform employees about ways in which they can safeguard their health.

In addition, employers must provide an awareness training course for employees who do housekeeping operations in facilities where asbestos-containing materials or presumed asbestos-containing materials are present. The elements of the course must include the health effects of asbestos; locations; signs of damage and deterioration of asbestos-containing materials and presumed asbestos-containing materials; the proper response to fiber release episodes; and where the housekeeping requirements are found in the standard. This training must be held annually and conducted so that all employees understand it. Also, all training materials must be available to the employees without cost and, upon request, to the commissioner of labor or her designee.

METHODS OF COMPLIANCE

Control Methods

To the extent feasible, engineering and work practice controls must be used to reduce and maintain employee exposure at or below the PEL and/or EL. The standard, therefore, requires the employer to institute the following measures:

- Design, construct, install and maintain local exhaust ventilation and dust collection systems according to the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979.
- Provide a local exhaust ventilation system for all hand-operated and power-operated tools such as saws, scorers, abrasive wheels, and drills that produce or release fibers of asbestos.
- Handle, mix, apply, remove, cut, score or work asbestos in a wet state to prevent employee exposure.
- Do not remove cement, mortar, coating, grout, plaster or similar materials containing asbestos from bags, cartons or other containers that are being shipped without wetting, enclosing or ventilating them.
- Do not sand floors containing asbestos.
- Do not use compressed air to remove asbestos or materials containing asbestos unless the compressed air is used in conjunction with a ventilation system designed to capture the dust cloud created by the compressed air.
- Use a negative-pressure enclosure/HEPA vacuum system or a low-pressure/wet cleaning method during automotive brake and clutch inspection, disassembly, repair, and assembly operations. An equivalent method also can be used if the employer demonstrates that the method being used achieves the required exposure reductions. (See 29 CFR Part 1910.1001 Appendix F, Part C, of the standard.)
- Where no more than five pairs of brakes or five clutches are inspected, disassembled, repaired or assembled weekly, the employer may use the control methods or work practices as set forth in 29 CFR Part 1910.1001 Appendix F, Paragraph D, of the standard.
- Where engineering and work practice controls have been instituted but are insufficient to reduce exposure to the required level, the employer must supplement them by using respiratory protection. Where the PEL and/or EL is exceeded, the employer must establish and implement a written program to reduce employee exposure to or below the PEL and to or below the EL by means of engineering and work practice controls and by the use of respirators where required and permitted.

Written plans for the program must be available upon request to the Commissioner of Labor or his designee, and employees and their representatives. These plans must be reviewed and updated, as necessary, to reflect significant changes in the compliance program.

Employee rotation cannot be used as a means of compliance with the PEL and/or the EL.

RESPIRATORY PROTECTION

Respirators must be selected, provided and used in the following circumstances:

- While feasible engineering and work practice controls are being installed or implemented
- During maintenance and repair activities, or other activities where engineering and work practice controls are not feasible
- In work situations where feasible engineering and work practice controls are not yet sufficient to reduce exposure to or below the pel and/or el
- In emergencies

Respirators must be selected from among those approved by NIOSH under the provisions of Title 42, CFR Part 84. The employer must also provide a powered, air-purifying respirator in lieu of any negative-pressure respirator when the employee chooses it and when the respirator provides adequate protection. And, where respiratory protection is required, the employer must develop a respiratory protection program in accordance with 29 CFR 1910.134 (b)–(d) (except (d) (1) (iii)) and (f) through (m). The respirators and the respiratory protection program must be provided to employees free of charge.

Employees who use a filter respirator must use a high-efficiency filter and must change filters whenever an increase in breathing resistance is detected. Employees who wear respirators must be allowed to wash their faces and respirator facepieces whenever necessary to prevent skin irritation associated with respirator use. An employee must not be assigned to tasks requiring the use of respirators if a physician determines that the employee is unable to function normally wearing a respirator or that the employee's safety and health or that of others would be affected by the employee's use of a respirator. In this case, the employer must assign the employee to another job or give the employee the opportunity to transfer to a different job that does not require the use of a respirator. The job must be with the same employer, in the same geographical area, and with the same seniority, status, and rate of pay, if such a position is available.

The employer must ensure that a respirator issued to an employee fits properly and exhibits minimum facepiece leakage. Employers also must perform quantitative or qualitative fit tests, whichever are appropriate, at the time of initial fitting and at least every year for each employee wearing tight-fitting respirators. Protocols for fit tests are set forth in 29 CFR 1910.134, Appendix A, of the standard. Tests must be used to select facepieces that provides required protection. (See Table below)

Assigned Protection Factors		
Type of Respirator	Half Mask	Full Facepiece
Air-purifying Respirator	10	50
Powered Air-purifying Respirator	50	1,000
Supplied air respirator or airline respirator		
Demand mode	10	50
Continuous flow mode	50	1,000
Pressure-demand or other positive-pressure mode	50	1,000
Self-contained Breathing Apparatus (SCBA)		
Demand Mode	10	50
Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	–	10,000

Protective Clothing

For any employee exposed to airborne concentrations of asbestos that exceed the PEL and/or EL, the employer must provide at no cost to the employee, and require the use of, protective clothing, such as coveralls or similar full-body clothing, head coverings, gloves and foot coverings. In addition, wherever the possibility of eye irritation exists, face shields, vented goggles or other appropriate protective equipment must be provided and worn.

Asbestos-contaminated work clothing must be removed in change rooms and placed and stored in closed, labeled containers that prevent dispersion of the asbestos into the ambient environment. Protective clothing and equipment must be cleaned, laundered, repaired or replaced to maintain effectiveness.

The employer must provide clean protective clothing and equipment at least weekly to each affected employee. The employer must inform any person who launders or cleans asbestos-contaminated clothing or equipment of the potentially harmful effects of exposure to asbestos. In addition, the employer must be certain that the person doing the cleaning or laundering has been properly instructed on how to effectively prevent the release of airborne fibers in excess of the permissible exposure limits. For example, asbestos must never be removed from protective clothing by means of blowing or shaking.

Contaminated clothing and equipment taken out of change rooms or the workplace for cleaning, maintenance or disposal must be transported in sealed impermeable bags or other closed impermeable containers and must be appropriately labeled.

Hygiene Facilities & Practices

Employees who are required to work in regulated areas must be provided with clean change rooms, shower facilities and lunchrooms. Change rooms must have two separate lockers or storage facilities — one for contaminated clothing, the other for street clothing. They must be far enough apart to prevent accidental contamination of the employee’s street clothes. Employees must shower at the end of the shift and cannot leave the workplace wearing any clothing or equipment worn during the work shift. Lunchroom facilities must have a positive-pressure filtered air supply and must be readily accessible to employees. See Figure 1.

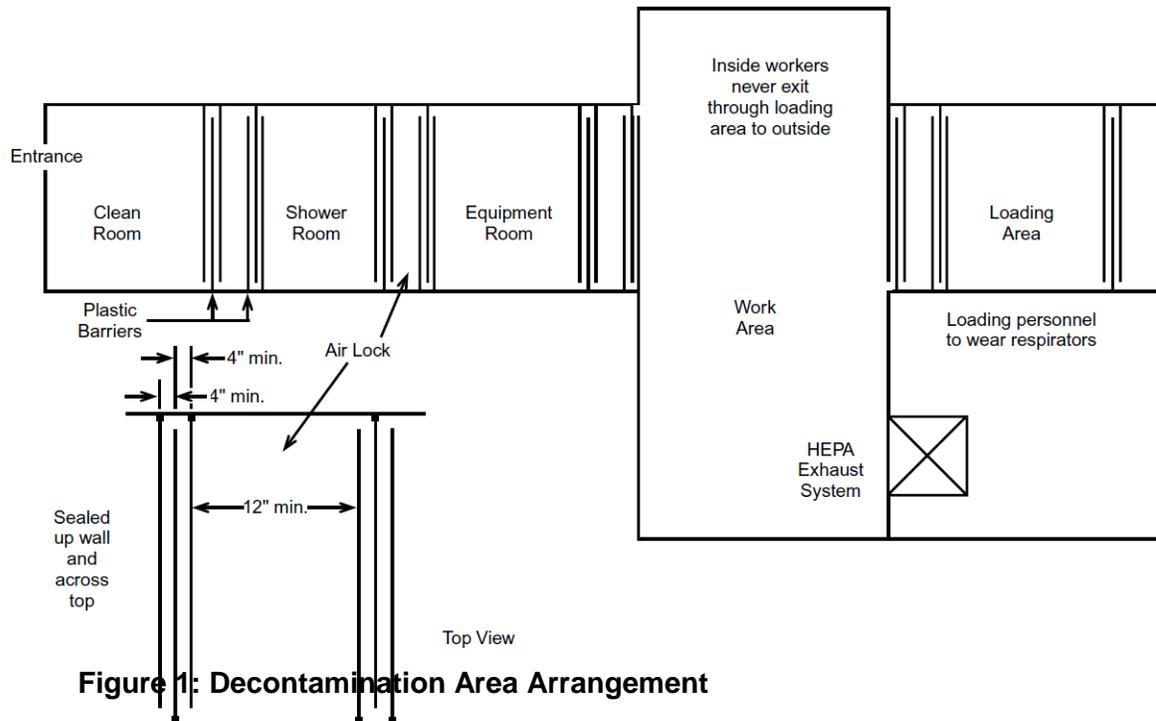


Figure 1: Decontamination Area Arrangement

The employer must ensure that employees do not enter lunchroom facilities with protective work clothing or equipment unless surface asbestos fibers have been removed by vacuuming or some other method that removes dust without causing the asbestos to become airborne. The employer also must ensure that employees wash their hands prior to eating, drinking, or smoking. Smoking is prohibited in regulated areas.

Housekeeping

All surfaces must be maintained as free as possible of accumulations of waste containing asbestos or asbestos dust. The preferred methods of cleanup are wet cleaning and/or vacuuming with HEPA-filtered vacuuming equipment. Compressed air may not be used to clean surfaces contaminated by asbestos at any time. Whichever cleanup method is chosen, the equipment must be used and emptied in a manner that minimizes the reentry of asbestos into the workplace.

The employer also must ensure that all spills and sudden releases of asbestos-containing materials are immediately cleaned up, that sanding asbestos-containing floors is prohibited, and that low abrasion pads at speeds lower than 300 rpm and wet methods are used. If the floor has sufficient finish, brushing or dry buffing is permissible. If workers are required to buff or wax asbestos-containing resilient floors, building and facility owners must identify the installed material and inform employees and employers of employees doing such housekeeping work.

Asbestos waste, scrap, debris, bags, containers, equipment and asbestos-contaminated clothing consigned for disposal must be collected and disposed of in sealed, labeled, impermeable bags or other closed, labeled impermeable containers.

FORMS AND ATTACHMENTS

On the following page, please find the Asbestos Training Record Sheet.

This form may be reproduced for the purposes of implementing and maintaining a safety and health program.

