

# ASBESTOS AWARENESS

## Supplement to Standard Training Module

### TRAINING REQUIREMENTS OVERVIEW

This standard Vivid training module provides a general overview of the asbestos standard for general industry. The module focuses on asbestos in building construction and insulation. However, the presented information is applicable to potential exposure in manufactured products and component parts.

It is important to note that facilities **must** have a written site-specific asbestos compliance program in place, when employee exposure limits are exceeded. In addition, facilities **must** train their employees on the specific plans.

**In addition to this general overview, employees must receive facility-specific information. This additional training must cover:**

1. **All employees with potential exposure to asbestos (work around or with), or actual exposure below allowable exposure limits must receive facility-specific information in addition to the general overview. The additional training must cover:**
  - Presence, location and quantity of asbestos in the facility
  - Results of asbestos exposure monitoring in the facility
  - Location of all asbestos-regulated areas, and the warning signs and labels used

Frequency: Training **must** be provided at the time of initial employment, or when the employee's actual or potential asbestos exposure changes.

2. **Employees exposed to airborne concentrations of asbestos at or above the allowable exposure limits must receive additional facility-specific information. The additional training must cover:**
  - Quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos
  - Location of all asbestos-regulated areas
  - Engineering controls and work practices associated with the employees job assignment
  - Specific procedures implemented to protect employees from exposure

- **Purpose, proper use, and limitations of respirators and protective clothing**
- **Purpose and description of the employers' medical surveillance program**
- **Results of asbestos exposure monitoring in the facility, in writing**
- **Names, addresses and phone numbers of public health organizations which provide information, materials, and/or conduct smoking cessation programs**
- **Requirements for posting signs and affixing labels and the meaning of the required signs and labels**

Frequency: Training **must** be provided at the time of initial employment, and at least annually, thereafter.

3. **Employees who perform housekeeping activities (cleaning, building maintenance, etc.) must receive additional facility-specific information.**  
The additional training **must** cover, at a minimum:

- **Location of asbestos and potential asbestos containing materials in the facility**
- **Recognition of asbestos and potential asbestos containing material damage and deterioration**
- **Requirements in the standard, relating to housekeeping activities**
- **Proper response to fiber release episodes**

Frequency: Training **must** be provided at the time of initial employment, and at least annually, thereafter.

## **GENERAL OVERVIEW OF THE STANDARD**

### **ASBESTOS – 29 CFR 1910.1001**

**PURPOSE:** To provide effective control measures of actual or potential exposure to asbestos, through appropriate engineering and work practices and procedures for working with or handling asbestos containing materials (ACM) or presumed-asbestos containing materials (PACM).

1. **SCOPE:** Applies to all occupational exposures in covered general industries, except construction (29 CFR 1910.1101) and shipbuilding (29 CFR 1910.1001)

2. **PERMISSIBLE EXPOSURE LIMIT:** The employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of the following:
  - Time-weighted average (TWA) - 0.1 fibers per cubic centimeter of air (0.1 f/cc) as an 8-hour time-weighted average (TWA).
  - Excursion Limit - 1.0 fiber per cubic centimeter of air (1 f/cc) as averaged over a sampling period of thirty (30) minutes.
  
3. **EXPOSURE MONITORING:** Determinations of employee exposures are required from breathing zone air samples that are representative of 8-hour TWA and 30-minute short-term exposures. These samples are to be determined on the following basis:
  - 8-hour TWA – one or more samples representing full-shift exposures for each shift for each employee in each job classification.
  - 30 minute short-term – one or more samples representing 30-minute exposures associated with operations that are most likely to produce exposures above the excursion limit - for each shift for each employee in each job classification.

Initial Monitoring - required for employees who are, or may reasonably be expected to be exposed to airborne concentrations at or above the TWA and/or excursion limit. If objective data is available that demonstrates that airborne concentrations of asbestos are not capable of being released in excess of the TWA and excursion limits then initial monitoring is not required.

Periodic Monitoring – required at a frequency to represent with reasonable accuracy the levels of employee exposure. For employees whose exposures may be expected to exceed the TWA or excursion limits, periodic monitoring must take place at least every six months.

If initial or periodic monitoring statistically indicates that employee exposures are below the TWA and/or excursion limit, the employer may discontinue monitoring only for those employees. Additional monitoring is required whenever there is a change in the production, process, control equipment, personnel, or work practices that may result in a change in exposure.

Employee Notification – Employers must notify employees of monitoring results in writing, within 15 working days of receiving sampling results. The notification must include the corrective actions the employer is taking to reduce employee exposures, whenever the TWA and/or excursion limits were exceeded.

4. **REGULATED AREAS:** Employers must establish regulated areas wherever airborne concentrations of ACM or PACM are in excess of the TWA and/or excursion limits. Requirements are stated for the employer to:
- Demarcate the area from the rest of the workplace to minimize the number of persons exposed to asbestos.
  - Restrict access to authorized persons
  - Require each person entering the area to be provided with an appropriate respirator
  - Prohibit employees from eating, drinking, smoking, chewing tobacco, and applying cosmetics in the area

5. **METHODS OF COMPLIANCE:** Requirements are stated for:

Engineering, Administrative, and Work Practice Controls – controls to reduce exposures to at or below the TWA and/or excursion limit through:

- Local exhaust ventilation
- Particular tools, with local exhaust ventilation
- Wet handling methods to reduce emission of airborne fibers
- Limiting the handling of asbestos containing materials, using compressed air, sanding, grinding, cutting, or other operations that may cause airborne emission

Compliance Program – where the TWA and/or excursion limit is exceeded, controls to reduce exposures to at or below the TWA and/or excursion limit. The written program must:

- Include a periodic review and update to reflect significant changes in the status of the program
- Be provided to employees and governmental agencies upon request
- Ensure that employee rotation is not used as means of controlling employee exposure
- Include specific compliance methods detailed in the standard, for brake and clutch repair, if applicable

6. **RESPIRATORY PROTECTION:** Requirements are stated for when employees are required to use respiratory protection to reduce asbestos exposures to below the TWA or excursion limit. Respirators must be used during:
- Periods necessary to install or implement feasible engineering and work practice controls
  - Work operations such as maintenance and repair activities, for which engineering and work practice controls are not feasible
  - 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

- Emergencies

A respiratory protection program must be established under 29 CFR 1910.134 (Respiratory Protection), in combination with additional requirements stated in the asbestos standard for:

- Selection and type of respirator used
- Rights of the employee to choose a specific (appropriate) type of respirator
- Limitations to the assignment of employee tasks, based on medical examinations

7. **PROTECTIVE WORK CLOTHING AND EQUIPMENT:** If an employee is exposed to asbestos above the PEL or where the possibility of skin or eye irritation exists, personal protective equipment (coveralls, gloves, head/foot coverings, goggles and other clothing) must be provided at no cost to the employee. Requirements for policies and procedures for care and use of work clothing and equipment are outlined for:
  - Removal of clothing in designated change rooms
  - Storage and labeling of contaminated clothing and equipment
  - Cleaning, laundering, repair and replacement
  - Disposal
8. **HYGIENE FACILITIES:** When employee exposures are in excess of the TWA and/or excursion limits, the employer must provide appropriate personal hygiene facilities. Specific requirements are listed for the provision of:
  - Change rooms
  - Showers
  - Lunchrooms
  - Hand and face washing facilities
9. **COMMUNICATION OF HAZARDS TO EMPLOYEES:** The employer must institute a means to communicate asbestos hazards to employees who may work with or around ACM or PACM. Requirements include:
  - Determine the presence, location, and quantity of installed ACM or PACM
  - Maintain records relative to the determination, location, and quantity of ACM or PACM, including material safety data sheets (MSDS). All records are to be transferred to successive building owners
  - Notify employees of asbestos hazards and areas where the employee may come in contact with such materials
  - Post warning signs at each regulated area, approaches to regulated areas, and other areas employees may be expected to enter.
  - Ensure that employees comprehend all asbestos warning signs

- Label all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers. Labels and warning signs have certain specifications identified by the standard.
10. INFORMATION AND TRAINING: The employer must implement a training program for all employees who are exposed to airborne asbestos concentrations at or above the TWA and/or excursion limits, and ensure their participation. Training shall be conducted at the time of initial assignment, and annually thereafter – and in a manner which the employee is able to understand. The following must be included:
- Health effects associated with asbestos
  - Relationship between smoking and exposure to asbestos producing lung cancer
  - Quantity, location, manner of use, release, and storage of asbestos, and the specific nature of operations which could result in exposure to asbestos
  - Engineering controls and work practices associated with the employees job assignment
  - Specific procedures implemented to protect employees from exposure
  - Purpose, proper use, and limitations of respirators and protective clothing
  - Purpose and description of the employers' medical surveillance program
  - Content of the asbestos standard (29 CFR 1910.1001), including appendices
  - Names, addresses and phone numbers of public health organizations which provide information, materials, and/or conduct smoking cessation programs
  - Requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels

Additional awareness training and information must be provided to employees who perform housekeeping activities in an area which contains ACM or PACM.

11. HOUSEKEEPING: Defined housekeeping practices and procedures are required to be in place for areas that contain ACM or PACM, to maintain all work areas and work surfaces as free as practical from ACM/PACM waste, debris, and dust. Housekeeping practices and procedures must:
- Require the clean up of all spills and sudden releases of material containing asbestos as soon as possible
  - Prohibit the use of compressed air to clean surfaces
  - Require the use of HEPA-filtered vacuuming equipment for vacuuming asbestos containing waste and debris

- Restrict shoveling, sweeping and dry cleanup to only those instances where vacuuming is not feasible
  - Define disposal methods for asbestos containing materials, including the required use of impermeable containers
12. **MEDICAL SURVEILLANCE:** The employer shall institute a medical surveillance program for all employees who are exposed to airborne asbestos concentrations at or above the TWA and/or excursion limits. Medical surveillance program requirements are stated for:
- Examinations by a physician
  - Pre-placement examination
  - Periodic examinations
  - Termination of employment examinations
  - Physicians written opinion
13. **RECORDKEEPING:** Requirements are stated for employer records retention, including:
- Employee exposure monitoring
  - Medical surveillance records
  - Employee training records

## REFERENCE MATERIALS

### Publications

*Asbestos Fact Sheet*

Can be downloaded at:

<http://www.osha.gov/OshDoc/data/AsbestosFacts/asbestos-factsheet.pdf>

*Asbestos Standard for the Construction Industry*

Publication # 3096

Can be downloaded at: <http://www.osha.gov/Publications/osha3096.pdf>

### Websites

OSHA website:

<http://www.osha.gov/SLTC/asbestos/>

<http://www.osha.gov/SLTC/respiratoryprotection/index.html>