

# **1 - Asbestos: Safety Training**

EH&S – MGA

## **Goals: This safety session should teach you to:**

- A. Recognize the long-term deadly dangers of exposure to asbestos.
- B. Use a respirator and proper personal protective equipment (PPE) be protected from asbestos exposure.
- C. Use engineering controls and proper work practices to avoid releasing asbestos.

## **OSHA Regulations: 29 CFR 1910.1001**

### **1. Asbestos was, and still is, a widely used substance.**

- A. Its fibers are tough, flexible, heat- and fire-resistant, and it provides effective insulation and soundproofing.
- B. It may be found in ceiling and floor tiles, insulation materials, in car brake and clutch linings, and in heat-resistant clothing.
- C. When the fibers stay bonded together, asbestos is safe.

### **2. Asbestos is a serious health hazard causing deadly illnesses that may take years to develop.**

- A. Asbestosis is an untreatable lung disease causing shortness of breath. It may lead to death from cardiac or respiratory failure.
- B. Mesothelioma is a cancer of the chest lining and is always fatal.
- C. Since asbestos affects the lungs, it is especially dangerous to smokers.

### **3. Asbestos is dangerous when it becomes friable—meaning that it crumbles and releases airborne fibers that can be inhaled or ingested.**

- A. Floor tiles are usually safe unless they are sanded.
- B. Sprayed-on insulation may deteriorate over time and release fibers.
- C. Renovation and demolition projects are a prime source for the release of asbestos fibers and require rigid safety procedures.

### **4. OSHA has set strict permissible exposure limits (PELs) for asbestos.**

- A. Respirators are required for workers exposed to more than 0.1 fiber per cubic centimeter of air (0.1f/cc) averaged over an 8-hour workday and 1 fiber per cubic centimeter of air (1f/cc) averaged for a 30-minute work period.
- B. In addition to supplying respirators and protective clothing, employers must have a complete respiratory protection program including employee training and annual retraining, employee medical evaluation and fit-testing for respirators.

**5. Where airborne asbestos exceeds OSHA's limits, employers must use engineering controls or work practices to reduce these levels.**

- A. Local exhaust ventilation and dust collection systems are very important when a process uses saws, drills, or other tools that could release asbestos fibers.
- B. Wetting asbestos is another effective way to keep fibers out of the air.
- C. In addition, OSHA prohibits certain practices like sanding flooring materials that contain asbestos or using compressed air to remove asbestos or asbestos containing materials without a ventilation system to capture the dust.

**6. Regulated areas—areas where airborne asbestos levels exceed OSHA's limits**

- A. These areas must be set aside and warning signs must be posted:

**DANGER ASBESTOS  
CANCER AND LUNG DISEASE HAZARD  
AUTHORIZED PERSONNEL ONLY  
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED**

- B. No one must eat, drink, smoke, chew tobacco or gum, or apply cosmetics in these areas.
- C. Personnel must not leave the workplace wearing the protective clothing worn in the restricted area.

**7. Good housekeeping will help keep these fibers out of the air and lungs.**

- A. Keep all surfaces as free of asbestos-containing dust as possible.
- B. Use high-efficiency particulate air (HEPA) vacuums to clean up asbestos containing material.
- C. Use wet-cleaning methods and dampen asbestos wastes before disposal.
- D. Dispose of all wastes in clearly labeled, closed containers.

**Summation:**

Asbestos can present a serious health hazard. Respirators and protective clothing must always be used when there is asbestos dust. Following proper safety procedures is necessary at all times.