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.