### WHAT COMPLIANCE METHODS MUST **EMPLOYERS USE TO CONTROL EXPOSURES?**

You must control exposures to or below the PELs using engineering controls and work practices to the extent feasible. Where feasible engineering controls and work practices do not ensure worker protection at the exposure limits, you must reduce employee exposures to the lowest levels achievable and then supplement them with respiratory protection to meet the PELs. In construction and shipyards, each work classification has specific control method requirements. In general industry, specific controls are prescribed for brake and clutch repair work. For example, you must prohibit certain practices, such as the use of compressed air, to remove asbestos.

### WHEN ARE EMPLOYERS REQUIRED TO PROVIDE RESPIRATORY PROTECTION FOR **WORKERS?**

You must provide and ensure the use of respirators I when a PEL is exceeded. In construction and shipvards, you must require workers to use respirators when performing certain work. Generally, the level of exposure determines the type of respirator needed. In addition, the standards specify the type of respirator to be used for certain asbestos work. (See CFR 1910.134.) Employees must get respirator training and medical clearance to use respirators.

### ARE EMPLOYERS REQUIRED TO PROVIDE PROTECTIVE CLOTHING FOR **WORKERS?**

For any employee exposed to airborne I concentrations of asbestos that exceed a PEL, you must provide and require the use of protective clothing such as coveralls or similar full-body clothing, head coverings, gloves, and foot coverings. You must provide fact shields, vented goggles, or other appropriate protective equipment wherever the possibility of eve irritation exists and require workers to wear them.

### MUST EMPLOYERS PROVIDE HYGIENE **FACILITIES?**

Ves. You must establish decontamination areas and I hygiene practices for employees exposed above a PEL. In addition, employees may not smoke in work areas that might expose them to asbestos.

### DO OSHA STANDARDS REQUIRE EMPLOYERS TO PROVIDE TRAINING?

es. In construction and shipyards, you must provide I training for employees exposed above a PEL and for employees involved in each identified work The specific training requirements classification. depend upon the particular class of work being performed. In general industry, you must provide training to all employees exposed above a PEL. You must also provide asbestos awareness training to employees who perform housekeeping operations, covered by the standard. You must place warning labels on all asbestos products, containers, and installed construction materials when feasible.

### WHAT ARE EMPLOYERS REQUIRED TO PROVIDE CONCERNING MEDICAL **EXAMINATIONS?**

n construction and shipyards, you must provide medical examinations for workers who, for 30 or more days per year, engage in Class I, II, or III work or experience exposure above a PEL. In general industry, you must provide medical examinations for workers who are exposed above a PEL.

### WHAT ARE THE RECORDKEEPING REQUIREMENTS FOR ASBESTOS **EXPOSURES?**

You must keep accurate records of the following:

- All measurements taken to monitor employee exposure too asbestos - 30 years;
- Medical records, including physician's written opinions – duration of the employee's employment plus 30 years; and
- Training records 1 year beyond the last date of employment.

### WHERE CAN I GET MORE INFORMATION?

Copies of Asbestos Standard for General Industry (OSHA 3095 can be ordered online or obtained from OSHA Publications Office, P.O. Box 37535. Washington, D.C. 20013-7535, by calling (292)693-1888 or at website www.osha.gov

### **ASBESTOS DUST HAZARD AVOID BREATHING DUST WEAR ASSIGNED** PROTECTIVE EQUIPMENT DO NOT REMAIN IN AREA **UNLESS YOUR WORK REQUIRES IT**

**DUST MAY BE HAZARDOUS** TO YOUR HEALTH

**BREATHING ASBESTOS** 

## **OSHA**

## **FACT**

## SHEET

**Old Dominion University Environmental Health And Safety Office** Spong Hall, suite 203 Norfolk, VA 23529 Telephone: (757)683-4495

Fax: (757)683-6025

#### WHAT IS ASBESTOS?



Asbestos is the name given to a group of naturally occurring minerals used in certain products, such as building materials and vehicle brakes, to resist heat and corrosion.

## WHAT ARE THE DANGERS OF ASBESTOS EXPOSURE TO WORKERS?



he inhalation of asbestos fibers by workers can cause serious diseases of the lungs and other organs that may not appear until years after the exposure has

occurred. For instance, asbestosis can cause a buildup of scar-like tissue in the lungs and result in loss of lung function that often progresses to disability and death. Asbestos fibers associated with these health risks are too small to be seen with the naked eye, and smokers are at higher risk of developing some asbestos-related diseases.

# ARE YOU BEING EXPOSED TO ASBESTOS?



eneral industry employees may be exposed to asbestos during the manufacture of asbestos-containing products or when performing brake and clutch repairs. In the construction industry, exposure occurs when workers disturb asbestos-containing materials during the renovation or demolition of buildings. Employees in the maritime environment also may be exposed when renovating or demolishing ships constructed with asbestos-containing materials. In addition, custodial workers may be exposed through contact with deteriorating asbestos-containing materials in buildings.

# ARE THERE ANY OSHA STANDARDS THAT COVER WORKERS EXPOSED TO ASBESTOS?WHAT IS ASBESTOS?

Yes. The Occupational Safety and Health Administration (OSHA) has the following three standards to protect workers from exposure to asbestos in the workplace:

- 29 CFR 1926.1101 covers construction work, including alteration, repair, renovation, and demolition of structures containing asbestos.
- 29 CFR 1915.1001 covers asbestos exposure during work in shipyards.
- 29 CFR 1910.1001 applies to asbestos exposure in general industry, such as exposure during brake and clutch repair, custodial work, and manufacture of asbestoscontaining products.

The standards for the construction and shipyard industries classify the hazards of asbestos work activities and prescribe particular requirements for each classification:

- Class I is the most potentially hazardous class of asbestos jobs and involves the removal of thermal system insulation and sprayed-on or troweled-on surfacing asbestos-containing materials or presumed asbestos-containing materials.
- Class II includes the removal of other types of asbestos-containing materials that are not thermal system insulation, such as resilient flooring and roofing materials containing asbestos.
- Class III focuses on repair and maintenance operations where asbestoscontaining or presumed asbestoscontaining materials are disturbed.
- Class IV pertains to custodial activities where employees clean up asbestoscontaining waste and debris.

There are equivalent regulations in states with OSHA-approved state plans.

## WHAT ARE PERMISSIBLE EXPOSURE LIMITS FOR ASBESTOS?

mployee exposure to asbestos must not exceed 0.1 fiber per cubic centimeter (f/cc) of air, averaged over an 8-hour work shift. Short-term exposure must also be limited to not more than 1 f/cc, averaged over 30 minutes. Rotation of employees to achieve compliance with either permissible exposure limit (PEL) is prohibited.

## ARE EMPLOYERS REQUIRED TO CONDUCT EXPOSURE MONITORING?

n construction and shipyard work, unless you are able to demonstrate that employee exposures will be below the PELs (a "negative exposure assessment"), you are generally required to conduct daily monitoring for workers in Class I and II regulated areas. For workers in other operations where exposures are expected to exceed one of the PELs, you must conduct periodic monitoring. In general industry, you must perform initial monitoring for workers who may be exposed above a PEL or above the excursion limit. You must conduct subsequent monitoring at reasonable intervals, and in no case at intervals greater than 6 months for employees exposed above a PEL.

## MUST EMPLOYERS CREATE REGULATED AREAS?

You must create controlled zones known as regulated areas that are designed to protect employees where certain work with asbestos is performed. You must limit access to regulated areas to authorized persons who are wearing appropriate respiratory protection. You must also prohibit eating, smoking, drinking, chewing tobacco or gum, and applying cosmetics in these areas. You must display warning signs at each regulated area. In construction and shipyards, workers must perform Class I, II, and III asbestos work (and all other operations where asbestos concentrations may exceed a PEL) within regulated areas. In general industry, you must establish regulated areas wherever asbestos concentrations may exceed a PEL.