JOB SAFETY SHEET

ASBESTOS IN CONSTRUCTION

What is Asbestos?

Asbestos is the name given to a group of naturally occurring minerals. Asbestos differs from other minerals, in that it forms long thin fibers instead of crystals. There are six different minerals, divided into two groups, included in the asbestos family. The two groups are Serpentine and Amphibole, and are based on the differences of their crystalline structure. Serpentine forms a sheet or layered structure. Amphiboles form a chain-like structure. Asbestos fibers are naturally occurring and stay airborne very well.

Where do you find asbestos?

Asbestos is used in many products because of their high tensile strength, flexibility, and resistance to chemical and thermal breakdown. Asbestos is used in insulation, fireproofing materials, automotive brakes, cement and wallboard materials, floor tiles and roofing materials.

Chrysotile (a member of the Serpentine group) is the most common type of asbestos found in buildings. Chrysotile makes up 90-95% of all the asbestos in the United States. The federal government declared a moratorium on asbestos production in the early 1970's. Installation of these products continued into the early 1980's.

Who is at risk of asbestos exposure?

The construction trades most at risk from asbestos are insulators, plumbers, pipefitters, electricians, sheet metal workers, roofers, bricklayers, painters, and steel workers. Any construction worker may be exposed occur during maintenance, remodeling, renovation or demolition of older buildings.

How can you become exposed?

Disturbing asbestos materials may generate airborne asbestos fibers. Asbestos is only dangerous if it becomes airborne. To be a significant health concern, asbestos fibers must be inhaled over an extended period of time. Asbestos fibers then accumulate in the lungs. As exposure increases, the risk of asbestos related diseases also increase. As long as asbestos containing materials are not damaged, the asbestos fibers do not become airborne and do not pose a health threat.

Asbestos related diseases:

- Asbestosis – is a scarring of the lung tissue. The scarring impacts the elasticity of the lungs and lowers its ability to transfer oxygen and carbon dioxide. Asbestosis is a slowly progressive disease, taking 15 to 30 years to fully develop.

- Mesothelioma – is a type of cancer. This disease attacks the lining of the space holding the lungs, called the pleura. Mesothelioma is considered to be exclusively related to asbestos exposure. Mesothelioma may take 30 to 40 years to develop.

- Lung Cancer – is a malignant tumor in the lungs. The tumor grows through the surrounding tissues, invading and blocking the air passages of the lungs. The time between exposure to asbestos and the occurrence of lung cancer may take 20 to 30 years. It should be noted that there is a multiplying effect between smoking and asbestos exposure, which creates a high susceptibility to lung cancer.

How to protect yourself?

Before you disturb asbestos (loosen the fibers) you must have special training. OSHA requires a "competent person" to be designated for all worksites that will involve asbestos work. The competent person should inspect the jobsite regularly, be knowledgeable of personal protective equipment, and supervise the work to be done to ensure all safety measures are being taken to prevent exposure to asbestos.