

Clearheart Construction Co., Inc.

Asbestos Awareness

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NIOSH Pocket Guide to Chemical Hazards - Asbestos

On some job sites, employees may have potential exposure to asbestos while performing their job function if precautionary steps noted below are not taken. Asbestos can be found in older tile flooring, pipe and mechanical insulation, plaster, fireproofing, soundproofing, roofing materials, and in sprayed-on materials located on beams, in crawl spaces, and between walls. Additionally, asbestos materials are used in the manufacture of heat-resistant clothing, automotive brake and clutch linings, and a variety of building materials. Undisturbed, it is perfectly safe.

Because of the above, asbestos awareness training is required for employees who work in areas that contain or may contain asbestos. Asbestos training must be documented.

Asbestos is not a specific mineral, but rather a fibrous form of various minerals. It is a remarkable product because it is resistant to corrosive chemicals, it is a nonconductor of electricity, it has a high tensile strength (equal to that of steel wire), and is resistant to heat (it will not burn, but will disintegrate at extremely high temperatures). Some forms of asbestos, such as chrysotile, can be spun into thread. In fact, one pound of chrysotile can produce 30,000 feet of thread - it is that fine. Other types of asbestos have fibers which can not be spun, but are excellent for their frictional properties (brakes) and their insulation and sound deadening properties. The actual minerals found in asbestos include iron, magnesium, silica, and water. A truly remarkable product which has been serving mankind since the ancient Greeks and Romans.

Unfortunately, asbestos has a down side that has been discovered and statistically documented in recent years -- **it is hazardous to your health.**

There are two types of asbestos, friable and non-friable.

Friable asbestos can be crumbled with hand pressure and is likely to emit minute fibers can cause serious long term health effects. Fluffy sprayed-on materials used for fireproofing, insulation, or sound proofing are considered to be friable.

Non-friable asbestos, undisturbed, poses no health risk. Vinyl-asbestos floor tile or roofing felt are considered non-friable if intact and generally do not emit airborne fibers unless subjected to sanding, sawing and other

aggressive operations. Asbestos-cement pipe or sheet can emit airborne fibers if the materials are cut or sawed, or if they are broken.

The health hazards associated with asbestos are caused by the microscopic fibers which, when released, enter the deepest portion of the lung (past your natural defenses such as hairs, mucus, cilia, and macrophages). Scar tissues can develop and the lung stiffens thus reducing gas exchange. This is called asbestosis. Another disease associated with asbestos is lung cancer. High exposure levels of asbestos increases one's chance of lung cancer by a factor of five. Mesothelioma, a disease caused primarily by exposure to amosite and crocidolite, can be fatal. Lastly, though not likely, it is possible to get cancer of the stomach and colon.

The health hazards associated with asbestos are chronic and, as such, present themselves after a long period of time.

Asbestos Awareness Training is required for all employees who work in areas that contain or may contain asbestos. This training will be documented.

Steps to avoid asbestos exposure:

1. Under no circumstances will asbestos containing material (ACM) or presumed asbestos containing material (PACM) be disturbed during work activities.
2. If you believe the materials you will be working with contain asbestos, do not disturb the material and contact your supervisor.
3. Obey all asbestos warning signs and labels. ACM and PACM will not be disturbed.
4. If our employees are working on a multi-contractor worksite adjacent to a Class I asbestos abatement job and possible exposure occurs because of inadequate containment (an unlikely scenario because not only would the containment be faulty, the negative pressure system would have to fail), they are to immediately remove themselves from the area until the breach and containment systems is repaired.
- 5 All exposure to thermal system insulation and sprayed-on and troweled-on surfacing material will be assumed to be asbestos exposure unless results of laboratory analysis show that the material does not contain asbestos. For the record, permissible exposure to airborne asbestos fibers may not exceed 0.1 fibers per cubic centimeter of air (0.1 f/cc) averaged over the 8-hour workday, and 1 fiber per cubic centimeter of air (1.0 f/cc) averaged over a 30 minute work period.