

 <p>DANGER ASBESTOS CANCER & LUNG DISEASE HAZARD AUTHORIZED PERSONNEL ONLY RESPIRATORS AND PROTECTIVE CLOTHING AREA REQUIRED IN THIS AREA</p>	<h2 style="text-align: center;">ASBESTOS HAZARDS ENCOUNTERED IN THE WELDING AND CUTTING ENVIRONMENT</h2>
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INTRODUCTION

Asbestos is a fibrous mineral that was once widely used because of its heat and chemical resistance. Most uses of asbestos have been discontinued, but large amounts of asbestos are still in the workplace. Asbestos fibers can be long enough to make into cloth or paper, but most are too small to see with the naked eye. These very small fibers are a respiratory hazard when they become airborne. Overexposure can cause lung disease, lung cancer, and other cancers.

During construction or maintenance welders or cutters can be exposed to asbestos. Workers can be exposed when disturbing asbestos or simply by being present in the general work area. There are specific regulations that specify how work must be done if asbestos may be present. These regulations are to keep personnel safe from asbestos hazards.

Asbestos is found in many different materials, including the following:

- Thermal systems insulation on ducts, pipes, tanks, boilers, furnaces, etc.
- Refractory – fireproof brick, mortar and cement

- Roofing and siding – shingles, boards, coatings, cements and paints
- Floor coverings and leveling compounds
- Wall and ceiling finishes – plaster, tiles, spray-on, sheetrock
- Fire protection systems – gaskets, dampers, “firestop” compounds

NATURE OF THE HAZARD— ASBESTOS TYPES

Overexposure to asbestos fibers by inhalation can cause asbestosis (scarring of the lungs). This results in loss of lung function. It often progresses to disability and to death. It can also cause mesothelioma (cancer affecting the membranes lining the lungs and abdomen); lung cancer; and cancers of the esophagus, stomach, colon, and rectum. Common types of asbestos are: chrysotile (white asbestos), amosite (brown asbestos), and crocidolite (blue asbestos). White asbestos is the most common. Brown and blue asbestos can be the most harmful. They are usually found in high temperature thermal system insulation.

HOW TO AVOID THE HAZARD— ASBESTOS

The Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) regulate work involving asbestos. Employers must conduct surveys to identify all asbestos-containing materials. They must inform workers of asbestos materials they may contact. Also, workers that may disturb or work around asbestos must be trained to recognize which materials contain asbestos, and how to avoid hazards.

Only specially trained workers may touch, disturb and/or dispose of asbestos containing materials.

SUMMARY

- Asbestos is a mineral that was widely used due to its heat and chemical resistant properties. Asbestos can give off fibers if disturbed. Fibers are a severe inhalation hazard. Inhalation can lead to lung disease, lung cancer, and other types of cancers.
- Do not disturb materials that may contain asbestos. Only use properly trained workers, directed by authorized supervision. Typical materials are: pipe and thermal system insulation, transite wall board, floor and ceiling tile, spray-on insulation, structural coatings, galbestos siding, roofing materials and mastics.
- Asbestos work is regulated by OSHA and the EPA. Only those trained and

authorized may disturb asbestos materials.

- Employers and building owners are required to identify and label asbestos-containing materials. Make employees aware of the location and presence of these materials. Use effective training and communications.
- Special work practices are required for handling or disturbing asbestos. These include isolation with a negative pressure enclosure, disposable garments and other hygiene controls and facilities.
- Engineering controls must be used to prevent the release of asbestos fibers. Respirators must also be worn when there is a possibility of overexposure.

INFORMATION SOURCES

Two pamphlets summarizing OSHA rules dealing with asbestos are available: (in single copies) "Asbestos Standard for General Industry" and "Asbestos Standard for Construction Industry." These can be obtained by sending a self-addressed mailing label to the OSHA Publications Office, Room N-3101, Washington, D.C. 20210, telephone 202-219-4667 or from any local OSHA office.

EPA basic information is available at the following website:
www.epa.gov/asbestos/pubs/help.html

NIOSH information is available at the following website:
www.cdc.gov/Niosh/topics/Asbestos