minerals that can separate into microscopic needle-like fibers. The most common of these minerals are *Chrysotile, Amosite*, and *Crocidolite*. Once released into the atmosphere, the size and shape of these fibers permit them to remain airborne for long periods of time and thus contaminate the building environment.

If inhaled, these needle-like fibers can cause three specific asbestos-related diseases: *Asbestosis* (a fibrous scarring of the lungs), *Lung Cancer*, and *Mesothelioma* (a cancer of the lining of the chest or abdominal cavity). These diseases do not develop immediately after inhalation of asbestos fibers and typically have a latency period ranging from 15 to 30 years and sometimes as long as 40 to 50 years from first exposure before symptoms appear.

Asbestos-Containing Materials

Asbestos has been used in more than 3,000 different products over the last 100 years primarily because of its thermal insulating, fire retardant, and chemical resistant properties. Some common products in buildings that may contain asbestos include but are not limited to pipe insulation, vinyl and ashpalt, floor materials, ceiling tile, spray-on fire proofing, roofing materials, boiler wrap insulation, fire doors, plaster walls, and old electrical wire insulation. Employees, tenants, and custodial maintenance workers may be exposed to ACM during maintenance, renovation, or disturbance activities.

Should you have questions or desire additional information regarding the NESHAP issues in this brochure, please contact the DEQ at Michigan Department of Environmental Quality, Air Quality Division, P.O. Box 30260, Lansing, MI 48933, 517.335.4639 and/or on the web at http://www.michigan.gov/deq click on Air, then Asbestos NESHAP Program.

The MIOSHA Asbestos Program performs the following services:

- Approves asbestos-related training courses.
- Accredits professionals in the asbestos abatement industry.
- Licenses asbestos abatement contractors.
- Maintains databases of approved trainers, licensed contractors, accredited individuals, and asbestos projects.
- Investigates asbestos-related compliance issues.
- Reviews AHERA management plans.

For additional information, please contact us at:

Michigan Department of Licensing and Regulatory Affairs
Michigan Occupational Safety & Health Administration
Construction Safety and Health Division
Asbestos Program
7150 Harris Drive
P. O. Box 30671
Lansing, Michigan 48909-8171
517.322.1320 office • 517.322.1713 fax
www.michigan.gov/asbestos
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FORM # MIOSHA-CSH-N16 Ruby

Asbestos & Fire Fighter

Responsibilities

Asbestos Program

MI SHA

This brochure is provided as a general summary of the responsibilities of fire fighters in regard to building surveys and employee training.

Asbestos Issues for Fire Fighters

Building owners often are the only or best sources of information concerning asbestos hazards within their building. Therefore, they, along with employers of potentially exposed employees, are assigned specific duties under the Michigan Occupational Safety & Health Administration (MIOSHA) asbestos regulations (Parts 305 and 602). To comply with these regulations, a thorough asbestos inspection must be conducted of all pre-1981 building facilities (excluding owner-occupied residential housing). This survey must identify the presence, location and quantity of asbestos-containing materials (ACM) and/or presumed asbestos-containing materials (PACM) within the building.

In emergency situations, fire fighters often do not know the condition of a building or the potential hazardous materials within a building in which the emergency is occuring. Their main goal is to provide rescue when necessary and to extinguish the fire in a safe manner.

So what protection would a fire fighter need to reduce possible exposure to asbestos when working a fire under emergency conditions? Since asbestos is a hazard by inhalation, the focus must be on donning proper respiratory protection. General Industry Part 74, Fire Fighting, and Part 451, Respiratory Protection, specifically address the requirement for Self Contained Breathing Apparatus (SCBA) during interior structural fire fighting. In other operations where there is potential for exposure to particulates from the structure, MIOSHA recommends no less than a full-face negative pressure respirator equipped with HEPA (P-100) filters.

State and Federal Asbestos Regulations and Controlled Burns

Fire departments use older buildings/houses for controlled burns during fire fighter training. This training allows a unique opportunity for fire-fighters to experience a realistic situation for fire training. This section of this brochure attempts to explain asbestos-related regulations for such training exercises which are not recognized as emergency situations.

The State and Federal Asbestos Regulations that potentially apply to controlled burns are the National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulation and the MIOSHA Part 305, Asbestos For General Industry Standard.

Employees of fire departments, whether paid or volunteer, performing fire training activities fall under Part 305 [*the Asbestos for General Industry Standard* (29 CFR 1910.1001)]. If asbestos is present in a building used for controlled burn training, personal air monitoring to evaluate employee exposure to asbestos must be performed. If exposures exceed the permissible exposure limits, other requirements under the standard are triggered.

NESHAP is enforced by the Michigan Department Environmental Quality (DEQ Air Quality Division. Because DEQ views controlled burns as a demolition activity, NESHAP regulations typically apply to controlled burns. Of particular importances is the need to notify DEQ prior to a controlled burn training exercise. **Please contact DEQ at 517.241.7463 for specific NESHAP requirements.**

To avoid triggering asbestos regulations under MIOSHA Part 305 and NESHAP, fire departments should conduct control burned training only on buildings that are free of ACM.

Frequently Asked Questions

A building/house is given to the fire department for training exercises. Should it be used for a controlled burn?

If the fire department wishes to use the building/house for a controlled burn, an asbestos building inspection must be performed. This inspection/survey will denote the presence, quantity, and location of all ACM. The ACM must be appropriately addressed prior to the burn. All ACM should be removed from the building/house prior to a controlled burn to avoid triggering regulations under MIOSHA Part 305 and NESHAP.

Finally, once all ACM has been appropriately addressed, the fire fighters may utilize the building/house for a controlled burn.

The building/house is inspected for asbestos and it contains friable asbestos-containing pipe insulation and non-friable asbestos-containing roofing. Can it be utilized for search and rescue training?

The building/house may be utilized for search and rescue training as long as the ACM is not disturbed. Therefore the fire fighters could not cut through the roof or disturb the asbestos containing pipe insulation.

In summary, if a building/house is given to the fire department for training purposes, what are the two options?

A. Inspect the building/house and remove the ACM. Once abated, the building/house may be used for a controlled burn or search and rescue training.

B. Inspect the building/house and leave the ACM. The building/house may be used for search and rescue training if the ACMs are not disturbed.

How can DEQ and LARA assist fire departments with asbestos-related issues?

When a house is inspected by an accredited inspector, all samples obtained can be passed through DEQ, Air Quality to the state laboratory. At this time, the state laboratory has the capability to analyze the samples without charge.

Additionally, if a member of the fire department obtains Asbestos Building Inspector training and applies for accreditation, the Michigan Department of Licensing and Regulatory Affairs (LARA), Michigan Occupational Safety & Health Administration (MIOSHA) Asbestos Program will waive the accreditation fee.

Background of Asbestos

Asbestos is the name of a group of naturally occurring