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## NEW MEXICO ENVIRONMENT DEPARTMENT

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# **Asbestos and Fires**

Disclaimer: This document is intended for information purposes ONLY, and may not in any way be interpreted to alter or replace the coverage or requirements of the asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61, Subpart M.

#### **BACKGROUND**

Asbestos is a common fibrous rock found worldwide which has been used in various products for over 4,500 years. Asbestos may be found almost everywhere. It has been used in over 3,000 different products such as textiles, paper, ropes, wicks, stoves, filters, floor tiles, roofing shingles, clutch facings, water pipe, cements, fillers, felt, fireproof clothing, gaskets, battery boxes, clapboard, wallboard, fire doors, fire curtains, insulation, brake linings, etc.

Nearly everyone is exposed to asbestos, in some form and to some degree, every day. Asbestos containing construction materials were used throughout the nation and naturally occurring asbestos has been reported in at least sixteen different mining districts in New Mexico. Although asbestos is common in the state, the presence of asbestos may not be a problem provided that it is not disturbed and fibers are not released into the air.

Adverse health effects associated with asbestos exposure have been extensively studied for many years. These studies and epidemiological investigations have demonstrated that breathing asbestos dust (fibers) and/or ingesting asbestos is a health hazard. Primary diseases associated with the inhalation of asbestos fibers are asbestosis, lung cancer, and mesothelioma.

#### ASBESTOS AND FIRES

Asbestos is one of the most heat-resistant materials known to man but can be highly toxic when asbestos containing materials (ACM) are burnt or damaged. Exposing ACM to fire or extreme heat can make the material brittle and breakable, also known as friable. When ACM becomes friable, the likelihood that asbestos fibers will be released in the air increases. Airborne asbestos fibers can be inhaled or ingested by anybody within the area of the release (i.e. residents, emergency responders, cleanup workers, etc.).

Smoke from fire contains carbon monoxide, fine particulate matter, water vapor, carbon dioxide, hydrocarbons and other organic or inorganic substances. Some of the substances found in smoke can contain toxins, including asbestos fibers, especially when construction materials such as roofing, drywall, insulation, ceiling tiles, flooring and asphalt are present.

Ashes, partially burned materials and unburned materials are left behind by fire. These debris are usually removed offsite and some of the materials contain asbestos. The only way to determine if asbestos is present is to have the material sampled by a certified professional.

### PROTECTING YOURSELF DURING CLEANUP

The Centers for Disease Control recommends that people remain at least 1,000 feet away from burning debris piles and wear appropriate protective clothing. Fire will not destroy asbestos and precaution should be taken after the fire is out. Homeowners can conduct cleanup of their property but they often use licensed asbestos abatement contractors. Sifting or removing rubble and debris may expose you to friable ACM. A respirator fitted with special asbestos filters should be used to protect you from exposure. Wetting the materials before removal and disposal will help reduce exposure to you and your neighbors. Although homeowners can conduct cleanup of their property, they often use licensed asbestos abatement contractors. When professionals clean up ACM they use the following safe handling practices.

- Sampling for ACM is the only way to know if asbestos is present. Polarized Light Microscopy is the only acceptable method to test for asbestos. If you are unsure and do not want to sample, treat the material as if it was ACM. Sampling is usually done to prove that ACM is not present.
- Respirators with asbestos filters and Tyvek-style clothing is recommended when inspecting burn sites. At the end of the inspection, decontamination procedures for clothing and respirators should be followed.
- Where suspected or known ACM is present at a burn site, the debris should be stabilized by wetting and covered with plastic sheeting until it is scheduled to be removed. Windblown materials can release hazardous asbestos fibers to the air.
- Adequate wetting of ACM is required for all removal and demolition operations.
  For small areas use a spray dispenser for wetting. For large areas use a water hose
  with a nozzle for a fine, low-pressure spray or mist to reduce dust and airborne
  ACM. A wetting agent or surfactant may be mixed with water to improve
  effectiveness.
- Avoid mixing suspected ACM with other debris. If suspected ACM is mixed with other materials, all the material should be assumed to be contaminated.
- Contaminated debris and material should be adequately watered down, double-bagged in thick plastic sheeting, recorded on a manifest and disposed of as ACM.
- Spraying vehicles with water before leaving the property is advised, whether or not they are transporting ACM.
- ACM must be disposed of at a landfill approved to receive asbestos. In New Mexico, only the Keers Landfill in Mountainair, phone (505) 828-2650 and the Otero/Lincoln County Landfill in Alamogordo, phone (575) 439-4355, are approved to accept asbestos waste.
- If you hire someone to transport the asbestos containing waste, they must be registered with the Solid Waste Bureau. Call the Solid Waste Bureau at (505) 827-0197 for a list of registered asbestos haulers.

#### SOURCES FOR ADDITIONAL ASBESTOS RELATED INFORMATION

- If you have any questions, please call the New Mexico Asbestos Hotline at 1-800-224-7009, or send an e-mail to <a href="mailto:asbestos.aqb@state.nm.us">asbestos.aqb@state.nm.us</a>
- In Bernalillo County contact the Albuquerque Environmental Health Department at (505) 768-2600, for their most current form and requirements
- Send renovation and demolition notices to: AIR QUALITY BUREAU
   525 Camino de los Marquez, Santa Fe, New Mexico, 87505
- Employers can contact the Occupational Health and Safety Bureau (OHSB) of the Environment Department at (505) 476-8700 for OSHA regulations pertaining to the handling of asbestos.
- All asbestos containing waste must be deposited at a waste disposal site that is operated in accordance with 40 CFR 61.154.
- Call the Solid Waste Bureau (505-827-0197) or the Asbestos Hotline (800-224-7009) for current information regarding which landfills are allowed to accept ACM. The Solid Waste Bureau has regulations pertaining to asbestos disposal.
- When handling demolition or renovation of school (K 12) structures, contractors should be aware of additional requirements under the U.S. Environmental Protection Agency (EPA) Asbestos Hazard Emergency Response Act (AHERA). The PCB Asbestos Program of the Solid Waste Bureau of the Environment Department handles this function. The Solid Waste Bureau may be called at (505) 827-0197.
- All contractors who remove asbestos materials must be licensed by the New Mexico Construction Industries Division, phone (505) 827-7030.
- The asbestos Model Accreditation Plan, or MAP, sets requirements for any person who inspects for ACM in elementary and secondary schools, and private and commercial buildings. The MAP definition for public and commercial buildings includes most of the facilities that are subject to the asbestos National Emissions Standard for Hazardous Air Pollutants. Call Ms. Elvia Evering at (214) 665-7575 for information regarding asbestos inspector qualifications. For further guidance information regarding asbestos bulk sampling refer to EPA's Asbestos Sampling Bulletin dated September 30, 1994.