



Asbestos: What is it and why is it a concern?

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Introduction

This document is one in a series of fact sheets designed to assist you in becoming aware of the Department of Natural Resources' asbestos requirements. This particular document contains general information about asbestos such as where it may be found and the dangers it may pose. This document also identifies regulatory agencies that govern asbestos removal activities.

What is Asbestos?

Asbestos is a naturally occurring mineral fiber. Because of its unique properties, such as fire resistance, high tensile strength, poor heat and electric conductivity, and being generally impervious to chemical attacks, it was used in a number of different materials, mainly building products and brake pads, up into the 1970's. It may still be found in some products currently being manufactured.

It is estimated that there have been over 3,000 different commercial applications of asbestos containing materials (ACM). Some examples of potential asbestos containing materials include cementitious siding and wallboard (transite), asphalt and vinyl floor tile, linoleum, flooring mastics, textured paints, acoustical plaster, ceiling tiles and panels, fireproofing materials, theater curtains, blown-in insulation, boiler insulation, HVAC duct insulation, pipe insulation, chalkboards, roofing shingles and felts, joint compounds, spackling compounds and brake pads.

Asbestos fibers are very small and can only be positively identified with a special type of microscope. Bundles of asbestos fibers, called fibrils, are invisible to the naked eye. Asbestos fibers may range in size from less than one micron to 30 microns in length. There are over 25,000 microns in an inch.

Health Effects

Because of the microscopic nature of asbestos fibers, they can easily be inhaled into the body where they can accumulate and eventually leading to disease. There are three major health risks associated with asbestos exposure: asbestosis, mesothelioma and lung cancer. Studies have also indicated cancers of the mouth, throat, digestive tract and other organs may be caused by asbestos as well. There is currently no known safe level of asbestos exposure.

- Asbestosis is caused by an accumulation of asbestos fibers in the lungs, which eventually leads to the development of scar tissue. Symptoms include shortness of breath, cough, decreased ability to exercise, chest pain and eventual heart failure.



- Mesothelioma is a cancer of the lining of the lung and abdominal cavity. This cancer is rare and currently untreatable. Symptoms include shortness of breath and chest pain. Mesothelioma usually does not appear until 20 to 40 years after first exposure to asbestos.
- Lung cancer accounts for most of the deaths related to asbestos exposure. Lung cancer is affected by the type of asbestos fiber that is inhaled, smoking habits and exposure to other chemicals in addition to asbestos.

Regulatory Agencies

Because of the dangers associated with asbestos, there are a number of agencies that regulate asbestos. The Missouri Department of Natural Resources is the state agency responsible for governing asbestos abatement projects. There are also several federal agencies that govern asbestos activities. They include the U.S. Environmental Protection Agency (EPA), the United States Occupational Safety and Health Administration (OSHA) and the Department of Transportation (DOT).

Missouri Department of Natural Resources Requirements

The Missouri Department of Natural Resources is a delegated agency of the EPA for the purposes of administering 40 CFR Part 61, Subpart M, *the National Emission Standard for Asbestos*, the asbestos NESHAP. This regulation contains requirements for asbestos inspection, project notification, emission control procedures for asbestos removal, and asbestos waste disposal. Similarly, the department has delegated the requirements for enforcement of the asbestos NESHAP to the following local agencies:

Jurisdiction	Agency
Kansas City proper	Kansas City Health Department, Air Quality Section
St. Louis City proper	St. Louis Division of Air Pollution Control
St. Louis County	St. Louis County Health Department
Springfield proper	Springfield-Greene County Health Department

As delegated agencies of EPA, the department and the local agencies must enforce requirements at least as stringent as the federal requirements of the asbestos NESHAP. However, delegated agencies can have additional requirements that are stricter than the federal requirements. It is very important that you contact the appropriate agency regarding additional requirements that may apply to your project.

In addition to the requirements of the federal asbestos NESHAP, the department also has additional state regulations that govern asbestos activities. These regulations include requirements for trained and registered contractors to perform asbestos abatement work. These regulations also ensure that individuals that perform asbestos inspections, and who design and work on asbestos abatement projects, are properly trained and certified through accredited training providers. The department’s regulations governing asbestos can be found at 10 CSR 10-6.241 and 10 CSR 10-6.250.

EPA Requirements

In addition to the requirements of the asbestos NESHAP, the EPA has two additional laws, which it enforces, the Asbestos Hazardous Emergency Response Act (AHERA) and the EPA Worker Protection Rule. AHERA contains specific rules for identifying and managing asbestos contain-

ing materials in school buildings. The Worker Protection Rule extends OSHA worker protection standards to additional workers not previously covered by OSHA, primarily governmental employees. For questions about requirements under AHERA or the EPA Worker Protection Rule, you should contact EPA at 1-800-223-0425.

OSHA Requirements

OSHA requirements are in place to ensure the protection of workers who must work with or around asbestos containing materials. These requirements include such things as mandatory training for employees who will work in or around asbestos containing materials, requirements for use of personal protective equipment, respirators and protective clothing, and specific work practices that must be followed for the removal of different types of asbestos containing materials. The department recommends that individuals who will undertake projects involving asbestos containing materials, whether regulated by the department or not, perform the projects in accordance with all applicable OSHA requirements. This will help to ensure that those performing the project will be adequately protected from asbestos exposure. For more information on OSHA requirements you may contact their office at one of the numbers below:

OSHA in St. Louis (eastern Missouri area) 1-800-392-7743

OSHA in Kansas City (western Missouri area) 1-800-892-2674

Department of Transportation (DOT) Requirements

The DOT regulates the transportation of asbestos containing materials on public roadways. If you are transporting asbestos waste, the vehicle being used must be properly placarded in accordance with their requirements. For more information on DOT requirements, contact their office at (202) 366-4000.

Asbestos Contact Information

For more information on the department's asbestos requirements, contact the department's Air Pollution Control Program or one of the department's other offices listed below:

Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102
(573) 751-4817 - phone
(573) 751-2706 - fax
www.dnr.mo.gov/env/apcp

Other Department Offices

Kansas City Regional Office	Lee's Summit	(816) 622-7000
Northeast Regional Office	Macon	(660) 385-8000
St. Louis Regional Office	St. Louis	(314) 416-2960
Southeast Regional Office	Poplar Bluff	(573) 840-9750
Southwest Regional Office	Springfield	(417) 891-4300

Local Agency Contacts

Kansas City Health Department, Air Quality Section (816) 513-6314

St. Louis Division of Air Pollution Control (314) 613-7300

St. Louis County Health Department (314) 615-8923

Springfield-Greene County Health Department (417) 864-1662

Additional Asbestos Related Guidance Documents

For more specific information on the department's requirements in regard to asbestos, please reference the additional guidance documents listed below or contact the department or appropriate local agency at the contact information listed above.

- *Asbestos Requirements for Demolition and Renovation Projects*
- *Management of Nonfriable Asbestos Containing Materials*
- *Requirements for Fire Training Exercises Involving Structures*
- *Natural Disaster Assistance for Missouri Citizens - How to Handle Asbestos Containing Debris*

For more information call or write:

Missouri Department of Natural Resources

Air Pollution Control Program

P.O. Box 176, Jefferson City, MO 65102-0176

1-800-361-4827 or (573) 751-4817 office

(573) 751-2706 fax

www.dnr.mo.gov/env/apcp Program Home Page