



Natural Disaster Assistance for Missouri Citizens - How to Handle Asbestos Containing Debris

Asbestos

Asbestos is a naturally occurring mineral fiber. Due to its unique properties, it was used in a number of different building materials into the 1970s and may still be found in some products currently being manufactured. It is estimated that manufacturers used asbestos in more than 3,000 different commercial applications.

Examples of these materials include:

- Cementitious siding and wallboard (transite).
- Asphalt and vinyl floor tile and sheet flooring.
- Flooring mastics.
- Textured paints.
- Acoustical plaster.
- Ceiling tiles and panels.
- Fireproofing materials.
- Heater curtains.
- Blown-in insulation.
- Boiler insulation.
- HVAC duct insulation.
- Pipe insulation.
- Chalkboards.
- Roofing shingles and felts.
- Joint compound spackling compounds.
- Brake pads.

Potential Health Effects from Asbestos Exposure

There is no known safe level of asbestos exposure. Asbestos fibers are very small and can migrate through the body's natural defense system into the lungs, where they can cause damage to the respiratory system.

There are three major health risks associated with asbestos exposure:

- Asbestosis, which is a scarring of the lungs.
- Mesothelioma, which is a cancer of the lining of the lungs and the abdominal cavity.
- Lung cancer.

Categories of Asbestos Containing Materials

There are three categories of asbestos containing materials:

- Friable asbestos containing materials.
- Category I non-friable asbestos containing materials.
- Category II non-friable asbestos containing materials.

Friable asbestos containing material is any material containing greater than one percent asbestos that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure. These materials will more readily produce asbestos fibers if disturbed or removed. Examples of friable materials include sprayed or troweled materials such as acoustical ceiling spray, boiler insulation, paper pipe insulation and drop-in ceiling tile.

Category I non-friable asbestos containing material is asbestos containing packings, gaskets, resilient floor coverings and asphalt roofing products containing more than one percent asbestos. The asbestos in Category I materials is more tightly bound in the matrix of the material. These materials are less likely to generate asbestos fibers if they are in good condition and are not subject to sanding, grinding, cutting or abrading. Also, any vapor barrier on resilient floor coverings such as sheet vinyl or tile is considered friable asbestos if the flooring is removed in a manner that causes the vapor barrier to delaminate or separate from the covering.

Category II non-friable asbestos containing material is any non-friable material, other than category I materials, that contain more than one percent asbestos. The asbestos tends to be more tightly bound in the matrix of these materials. If not removed prior to demolition or renovation these materials have a higher probability of becoming crumbled, pulverized or reduced to powder, which may make it subject to regulation. If removed properly, these materials are not regulated by the department. Examples of category II materials include transite wall or roof shingles, wall board or cement pipe.

Identifying Asbestos Containing Materials

The department requires institutional, commercial, public, industrial or residential structures, excluding residential structures that contain four or fewer dwelling units, to be inspected for the presence of asbestos prior to being renovated or demolished. This inspection must be performed by a Missouri-certified asbestos inspector.

In the case of a natural disaster where a building has been damaged, this inspection should be performed prior to beginning cleanup activities to ensure asbestos containing materials are not being disturbed. Prior to inspection, the debris should be kept wet to minimize the potential for any emissions of asbestos to occur. In the event a building has become structurally unstable, demolition can proceed without first having the structure inspected. The building should be kept wet to minimize any potential asbestos emissions. After the danger of the unsafe structure has been eliminated, the resulting debris must be inspected.

For residential structures that contain four or fewer dwelling units there is an exemption from this inspection requirement, unless the demolition or renovation project involves multiple buildings under the control of the same owner or operator within close proximity to one another, or the structure is to be burned as part of a fire training exercise. However, this does not mean that asbestos found in these exempt structures is not dangerous if disturbed. If you suspect damaged material might contain asbestos, the department recommends you not further disturb the material until it can be determined if it is asbestos containing or not. For the purpose of identifying asbestos containing materials, the department recommends you obtain the services of a Missouri-certified asbestos inspector to positively identify any suspect materials or that you assume the material contains asbestos. It is recommended any debris be kept wet until an adequate determination of the presence of asbestos can be made.

Requirements for Removal of Regulated Asbestos

If the demolition or renovation to an institutional, commercial, public, industrial or residential structure, excluding residential structures that contain four or fewer dwelling units, will involve greater than 160 square feet, 260 linear feet, or 35 cubic feet of friable asbestos containing materials, then the removal of the asbestos is regulated by the department. For projects that meet these thresholds, a Missouri registered contractor and certified asbestos workers must be used to perform the abatement of the material. If buildings have been demolished or destroyed by a natural disaster prior to removing the asbestos, then any debris subsequently contaminated by asbestos must also be handled as asbestos containing waste.

The department must be notified about all abatement projects involving greater than a threshold amount of asbestos and for all demolition projects regardless of whether asbestos is present or not. Typical notification requirements would require a 10 working day notification. However, in the case of buildings that have been damaged as a result of a natural disaster, the department will waive this 10-day notice requirement. However, notice should be sent to the department within 24 hours of either starting a regulated abatement or demolition project.

There is no requirement to use a Missouri registered contractor for asbestos removal for unregulated demolition or renovation projects that involve less than the threshold levels listed above for friable asbestos containing materials, non-friable asbestos containing materials or asbestos containing materials from exempt residential structures. However, using trained professionals for the removal of asbestos containing materials is recommended.

Other agencies, such as the Occupational Safety and Health Administration, or OSHA, also have requirements for the safe handling of asbestos containing materials. For OSHA related requirements contact OSHA in St. Louis at 800-392-7743 or in Kansas City at 800-892-2674.

Precautions to Take to Minimize Asbestos Exposure

If damaged materials are suspected of containing asbestos, it is recommended the materials not be disturbed until it can be properly identified. If you elect to remove or disturb asbestos containing materials from unregulated demolition or renovation projects, proper precautions should be taken to minimize any potential exposure.

1. Seal off work areas where asbestos containing materials may be present, and take care not to track asbestos dust into other areas.
2. Always wear an approved respirator and disposable protective clothing. Decontaminate yourself before going into uncontaminated areas.
3. When working with asbestos containing material, keep the material wet to keep emission of asbestos fibers to a minimum.
4. Avoid breaking the material into smaller pieces. While smaller pieces may be easier to handle, this will increase the possibility of asbestos emissions.
5. Place any material you remove into appropriate leak tight disposal packaging or containers while the material is wet.
6. Transport the asbestos waste material to an approved disposal facility in an enclosed dumpster or truck lined with plastic sheeting.

Waste Disposal Requirements for Asbestos Contaminated Debris

All asbestos containing waste, whether from a regulated or unregulated demolition or renovation project is a waste material and must be disposed of at a permitted solid waste disposal facility that will accept the material. Asbestos containing materials should never be burned for disposal, as this will generate the emissions of asbestos fibers into the air, and is in violation of the department's open burning restrictions. For regulated projects, the department has stringent requirements for the packaging and labeling of asbestos containing waste materials. While the department has no requirements for packaging and labeling of asbestos containing waste materials from unregulated projects, you should still make arrangement with the disposal facility that you intend to use to determine what packaging and labeling requirements they may have for acceptance of the materials at their facility.

Locating Trained Asbestos Professionals

The Missouri Department of Natural Resources' Air Pollution Control Program maintains lists of all Missouri-certified asbestos inspectors and all Missouri registered asbestos abatement contractors. These lists are available on the department's website at www.dnr.mo.gov/env/apcp/asbestos.htm or by contacting the Air Pollution Control Program at 573-751-4817.

Local Agencies

Prior to proceeding with a project, you should always check with local agencies to ensure there is not more stringent requirements for asbestos removal or that permits for demolition or renovation are not required.

In Missouri, there are four local agencies to which the department has delegated asbestos related activities. If you are in one of the jurisdictions listed below you should coordinate your asbestos-related activities through the following offices:

Jurisdiction	Agency	Telephone
Kansas City	Kansas City Health Department	816-513-6314
St. Louis City	St. Louis Division of Air Pollution Control	314-613-7300
St. Louis County	St. Louis County Health Department	314-615-8924
Springfield	Springfield-Greene County Health Department	417-864-1662

Asbestos Contact Information

For more information about 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

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. The documents can be downloaded from the department's website at www.dnr.mo.gov/pubs/index.html.

- *Asbestos: What is it and why is a Concern* – (PUB2077)
- *Asbestos Requirements for Demolition and Renovation Projects* – (PUB2157)
- *Management of Nonfriable Asbestos Containing Materials* – (PUB2156)
- *Requirements for Fire Training Exercises Involving Structures* – (PUB2029)