

**BACKGROUND**

Spokane Regional Clean Air Agency (Spokane Clean Air) administers of commercial and residential structures. This includes the proper identification (surveying), notice, removal and disposal of asbestoscontaining materials, including vermiculite.

**What is vermiculite?** Vermiculite is a silver-gold to gray-brown mineral that has the unusual property of expanding into worm-like accordion-shaped pieces when heated. The expanded vermiculite is a light-weight, fire-resistant, absorbent, and odorless material. These properties allow vermiculite to be used to make numerous products, including insulation. Vermiculite attic insulation is a pebble-like product and is usually light brown or gold in color.

## Is vermiculite insulation a problem?

Vermiculite itself has not been shown to be a health problem. However, some vermiculite insulation contained asbestos fibers, which can cause problems if inhaled. As long as this kind of vermiculite-based insulation remains undisturbed behind intact walls or in unoccupied attic spaces and does not become airborne, it should not be a concern.

Of particular concern is Zonolite® Attic Insulation, which was vermiculite extracted from the Libby Mine in Montana. They closed in 1990.

While in operation it produced 80 percent of the world's supply of the material, which was used as building insulation and a soil conditioner. The vermiculite



from the Libby mine was contaminated with asbestos. If you believe that your home may contain vermiculite insulation, it is reasonable to assume that it may be contaminated with asbestos.

Breathing in microscopic asbestos fibers has been associated with diseases such as asbestosis, mesothelioma and lung cancer. Asbestos-containing materials are not a health concern if left intact (not disturbed or damaged.)

## What should I do if I have vermiculite insulation in my attic?

Do not disturb it. Any disturbance has the potential to release asbestos fibers into the air. It is strongly recommended that:

- Vermiculite insulation be left undisturbed in your attic. Spokane Clean Air requires that all loose vermiculite be treated as asbestos-containing material.
- You should not store boxes or other items in your attic if retrieving them will disturb the insulation.
- Children should not be allowed to play in an attic with open areas of vermiculite insulation.
- If you plan to remodel or conduct renovations, hire professionals trained and certified to safely handle, remove and dispose of asbestos containing materials.
- It is possible that vermiculite attic insulation can sift through cracks in the ceiling, around light fixtures, or around ceiling fans. You can prevent this by sealing the cracks and holes that insulation could pass through.

**See reverse side for the requirements related to the removal and disposal of loose vermiculite.**

## Is my health at risk from previous exposure?

If you removed or disturbed vermiculite insulation, it is possible that you inhaled some asbestos fibers. Also, the disturbance may have resulted in the fibers being deposited into other areas of the home. Exposure to asbestos increases your risk of developing lung disease. That risk is made worse by smoking. In general, the greater the exposure to asbestos, the greater the chance of developing harmful health effects. Disease symptoms may take several years to develop following exposure. If you are concerned about possible exposure, consult a physician who specializes in lung diseases (pulmonologist).

## Removal of vermiculite

You should never attempt to remove vermiculite insulation yourself. Hire professionals trained and certified to safely remove the material.

Unlike other materials which are not regulated if they contain 1% or less asbestos, all loose vermiculite (e.g., vermiculite insulation, vermiculite block fill) must be treated as asbestos-containing material, regardless of its asbestos content. This is largely due to problems obtaining representative samples along with current uncertainties with existing testing techniques.

Any renovation project that could potentially disturb vermiculite should only be done by a professional, certified abatement contractor for safe handling and disposal.

Again, all loose vermiculite is presumed to be asbestos containing material and therefore must be handled in accordance with specific work practices per Spokane Clean Air's Regulation I, Section 9.06.B, available online or by contacting Spokane Clean Air.

## Disposal of vermiculite

Per the policies and procedures of Waste Management and Graham Road Recycling and Disposal Facility, **all vermiculite must be disposed of using the same standards that apply to asbestos-containing materials.** This includes that the material be adequately wet, sealed in leak-tight containers, properly labeled, etc.

## Certified asbestos removal professionals

Spokane Clean Air maintains a list of asbestos service providers. The list is available on-line at [www.SpokaneCleanAir.org](http://www.SpokaneCleanAir.org), or by calling (509) 477-4727. It is always recommended to thoroughly research companies prior to hiring.

## More information and resources

More information is available by contacting Spokane Clean Air at 477-4727, or visit [www.SpokaneCleanAir.org](http://www.SpokaneCleanAir.org).

\*Some of the content for this fact sheet is from Current Best Practices for Vermiculite Attic Insulation, a brochure published in 2003 by the EPA and the ATSDR. This fact sheet includes regulatory information specific to asbestos requirements for Spokane County, SRCAA Regulation 1, Article 9.