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VERMICULITE, SENSITIVE ISSUE, SENSITIVE APPROACH

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Across The Board Property Inspections

For some years now vermiculite has been in the public eye as a health concern for home owners and buyers. Having the knowledge to educate our clients about this issue is important. Once they understand the facts they are more likely to be comfortable in purchasing a home with vermiculite insulation. However they should be able to deal with the potential risk safely.

Let's start off by talking about how vermiculite insulation is produced. It is a small silver and gold to gray brown mineral that is dug out of the ground and heated to 1000 C causing it to puff. Of course it does not burn, and when puffed it has good insulating properties and therefore is a good insulating material.

Figure 1. Vermiculite Insulation



Our concern with vermiculite insulation is its possible asbestos content. When vermiculite contains asbestos, it is in small concentrations. The exact type of asbestos is called amphibole asbestos. Asbestos fibers are incredibly small and can move past the hairs in our airway that stop most foreign materials from entering our lungs. Once in our lungs the asbestos fibers scar our lung tissue, which can lead to asbestosis, and mesothelioma, two potentially fatal diseases. We have to remember that most people have to be exposed to much more than 1 or 2 fibers before they develop either of these diseases.

If the vermiculite in our walls or attic is not disturbed, we stand very little chance of health risk. This material must be friable, or to say it another way, must have the potential to become airborne before it is of any risk to us.

All vermiculite insulation materials are not a concern. The only materials that are of concern are those that came from the Libby Mine in Montana. This mine has been closed since 1990 so any new vermiculite products produced after that time should test safe. The vermiculite insulation product "Zonolite" is of particular concern as we know this product came from the Libby Mine. We may be able to identify it by empty bags in the attic reading "Zonolite". If unsure a sample of the vermiculite must be tested to determine if it contains asbestos. Environmental companies can do these tests, however it may be more costs effective to treat it as asbestos without a test in some cases.

Advising the Client

While we now know that vermiculite does not pose a significant health risk if left undisturbed, there still may be some reasons for having it removed. Homeowners may be concerned with how it affects their resale value. Renovations may be another good reason to have it removed, or any other reason that the material may be disturbed.

When advising our client it is important that they have an asbestos abatement done by a professional contractor. A contractor taking out asbestos from an attic would first have to set up a containment area in the area where the work would be performed. They will also set up a machine to create negative air pressure in this space. After removing the asbestos they will HEPA vacuum the area and encapsulate it with a sticky glue like substance to keep any missed fibers from becoming airborne. There should also be air quality tests done by an environmental consultant to ensure the procedure was done properly. We can see how this is much more expensive than having a duct cleaning contractor removing it with his vacuum truck. Having the work done this way would most likely result in the contamination of the rest of the house. We have to remember that those vacuum trucks are not HEPA filtered, so we are potentially blowing asbestos fibers around outside as well. It would be fair to say that if the removal of asbestos is not done properly, it is best left alone.

Figure 2. Below illustrates an example of the improper removal of vermiculite insulation.

Figure 2. Vermiculite in attic



I hope that this information will help you better educate and advise your clients on vermiculite and asbestos issues.

Please e-mail or phone me with your questions or comments at ben@acrosstheboardinspections.com or 291-8075.