# Environmental hazards

Many materials used in past construction contained hazardous materials such as asbestos, lead, and formaldehyde. Testing and analysis of such hazardous materials is not within the scope of a property inspection since such testing requires a laboratory with professionals licensed for handling and working with hazardous materials. I am not qualified as an expert, and I am not licensed in the State Illinois or Missouri in any field relating to environmental hazards, hazardous materials, or testing or opinions of such hazardous materials. However, because I am familiar with construction time periods, many of the materials used during those time periods, and what many of the hazardous materials look like, it is possible to put all the clues together to determine that there is a good possibility that a hazardous material might be present. Therefore, your inspection report will indicate that such materials "might" or "could" be present. Remember that laboratory testing will be necessary to make a definitive determination as to whether such materials are present.

## Asbestos

If you want to know for certain whether asbestos-containing materials (or other hazardous materials) exist on the property, consult with a qualified asbestos testing or Remediation Company, an industrial hygienist, a hazardous materials specialist, or other qualified expert.

Most asbestos was used in construction prior to 1980, although some homes built later than 1980 have asbestos materials since contractors were allowed to use up their existing inventories.

The Environmental Protection Agency (EPA) states that asbestos presents a health hazard if it is "friable" (damaged, crumbling, or in a deteriorated condition that allows the release of fibers into the air). If asbestos fibers are inhaled or swallowed, they can have serious health effects which may not appear until many years later. Asbestos can cause asbestosis, a scarring of the lungs that leads to breathing problems and heart failure. It can also cause cancer of the lungs and mesothelioma, a rare cancer of the chest or abdomen lining.

Special regulations exist for the removal and disposal of asbestos, so a permit from a health or safety authority might be required before proceeding, as well as a permit for the disposal of any hazardous materials. Since asbestos apparently does not cause any problems if it is not disturbed, in many cases it can remain in place with the owner aware of specific precautions regarding its care and maintenance. Any disturbance of the material, though, should be done by qualified personnel with experience handling asbestos materials.

If your home was built before 1985, I recommend that you read "Asbestos in the Home," published by the Consumer Products Safety Commission. Further guidance is also available from the Environmental Protection Agency. Asbestos vinyl flooring, such as Linoleum, typically has a coating of asbestos on the bottom and was widely used in homes and commercial buildings until the 1960s. Experts say that if it is left alone, asbestos flooring presents the lowest level of asbestos risk, although cutting, scraping, or otherwise damaging asbestos flooring can create dust containing asbestos fibers.

Asbestos was commonly used in the manufacturing of the "popcorn" or "cottage cheese" ceiling texturing material until 1978 when it was banned. Many of these ceilings are still around, though. This form of asbestos is considered safe as long as it is not scraped, damaged, or otherwise broken loose to allow asbestos fibers to be released into the air. Most of these ceilings have been painted by now, which means that the asbestos is encapsulated and, therefore, typically safe. I suggest that if you paint

your popcorn ceilings, spray-paint them rather than brushing or rolling in order to prevent damage. If you are going to remove the material, have it tested before proceeding. If it does contain asbestos, I recommend consulting the testing company for removal recommendations.

Asbestos can also be found in some types of attic insulation and some types of ceiling acoustic tiles, as well as many other places depending on when the home was built. Another very common area where asbestos still exists in our homes is as insulation on exhaust flues on forced air furnaces (typically in the attic; see *Figure 1*) and water heaters (see *Figure 2*). Asbestos exhaust flue insulation, also called asbestos pipe wrap, is one of the more hazardous uses of asbestos because it is less stable than other forms of asbestos materials due to the heat from the exhaust flues. Generally it is safe to assume that insulated pipes contain some sort of asbestos pipe insulation material. Because asbestos pipe insulation is prone to deterioration, most authorities consider it a friable asbestos material and a health hazard.

Figure 1. Possible asbestos insulation on furnace exhaust flue in attic.

Figure 2. Possible asbestos insulation on water heater exhaust flue.

You and your family should use caution if asbestos materials are suspected, and regular homeowner monitoring and maintenance to protect suspected materials from damage or otherwise being disturbed.

## Lead

If you have any concern about lead paint, particularly if you are buying a property that is more than thirty years old, or if you will have young children living on or visiting the property, click here to read information about lead paint from the Consumer Product Safety Commission.

## Formaldehyde

Formaldehyde has been an important chemical used to manufacture building materials and household products. It can also be a byproduct of combustion, so it could be present indoors and outdoors on your property. If you have any concern about formaldehyde, click here to read about formaldehyde at the web site of the Environmental Protection Agency.

If you have any questions about anything, simply contact me.