

## **Diamond Environmental Services, Inc.'s Most Frequently Asked Questions (FAQs)**

The following are our most frequently asked questions (FAQs) concerning asbestos and mold.

### **Asbestos**

#### *What is asbestos?*

Asbestos is a group of naturally occurring minerals. The three most common types of asbestos are: a) chrysotile b) amosite c) crocidolite

Asbestos is commonly used as an acoustic insulator, thermal insulation, fire proofing and in other building materials. Asbestos fibers are incredibly strong and have properties that make them resistant to heat. Asbestos is often found in ceiling tiles, pipe and vessel insulation, blown on to structural beams and ceilings, in floor tile, linoleum and mastic.

#### *Why is asbestos a hazard?*

Asbestos is made up of microscopic bundles of fibers that may become airborne when distributed. These fibers get into the air and may become inhaled into the lungs, where they may cause significant health problems. Researchers still have not determined a "safe level" of exposure but we know the greater and the longer the exposure, the greater the risk of contracting an asbestos related disease. Some of these health problems include:

Asbestosis - a lung disease first found in navel shipyard workers. As asbestos fibers are inhaled, they may become trapped in the lung tissue. The body tries to dissolve the fibers by producing an acid. This acid, due to the chemical resistance of the fiber, does little to damage the fiber, but may scar the surrounding tissue. Eventually, this scarring may become so severe that the lungs cannot function. The latency period (meaning the time it takes for the disease to become developed) is often 25-40 years.

Mesothelioma - a cancer of the pleura (the outer lining of the lung) and/ or the peritoneum (the lining of the abdominal wall). This form of cancer is peculiar because the only known cause is from asbestos exposure. The latency period for mesothelioma is often 15-30 years.

Cancer - caused by asbestos. The effects of lung cancer are often greatly increased by cigarette smoking ( by about 50%). Cancer of the gastrointestinal tract can also be caused by asbestos. The latency period for cancer is often 15-30 years.

Despite the common misconception, asbestos does not cause head-aches, sore muscles or other immediate symptoms. As mentioned above, the effects often go unnoticed for 15-40 years.

#### *When is asbestos a hazard?*

Asbestos is not always an immediate hazard. In fact, if asbestos can be maintained in good condition, it may be acceptable to leave it alone and periodic surveillance performed to monitor it's condition. It's only when asbestos containing materials are disturbed or the materials become damaged that it becomes a hazard. When the materials become damaged, the fibers separate and may then become airborne. In the asbestos industry, the term "friable" is used to describe asbestos that can be reduced to dust by hand pressure. "Non-friable" means asbestos that is too hard to be reduced to dust by hand. Non-friable materials, such as transite siding and floor tiles are exempt from certain portions of state regulations, provided it does not become friable. Machine grinding, sanding and dry-buffing are ways of causing non-friable materials to become friable.

### *How are asbestos containing materials maintained?*

Friable asbestos can be maintained in place utilizing several techniques. Encapsulation involves applying a thick layer of an encapsulant, much like latex paint, that binds the surface of the material together and prevents the release of fibers; however this usually is not enough of a coating to protect against damage. When damage is likely to occur, removal may be the best option.

### *When is it necessary to remove asbestos containing materials?*

There is no law that says asbestos has to be removed. It is only when the material can no longer be maintained in good condition and /or the airborne concentrations of asbestos are measured to be too high, or when the building is to be demolished or renovated, that removal may become the only option.

In these instances, asbestos may only be removed by Licensed Asbestos Abatement Contractors, utilizing Licensed Workers and Supervisors. These requirements do not necessarily apply to private residences.

### *When is it required to have a building inspection or survey?*

There are now state and federal regulations that require all material that has not been tested to be presumed to contain asbestos. Only inspection and sampling may rebut the required presumption.

Any building owner who is renovating or demolishing a building is required by federal law to have their buildings surveyed for asbestos containing materials. Buildings are not permitted to be demolished if there is asbestos present. Also, public and private schools, K-12, are required by AHERA, the Asbestos Hazard Emergency Response Act, to be inspected and have a

management plan prepared, which is to be maintained and available for public inspection.

### *How is asbestos removed?*

When removal is conducted, a licensed contractor must notify the appropriate regulatory agency ten days in advance of removal. Some projects are required to have a project design that details how the contractor will perform the removal.

Upon approval from the appropriate regulatory agency, workers construct a containment, sealing all possible entries and exits to prevent air from escaping from the containment. Containments are maintained under negative pressure and the air is exhausted through special filters that make sure the air exhausted is safe. A decontamination unit is built on to the containment, where workers change into disposable suits and respirators upon entering, and shower before exiting the work area, so as not to contaminate the area around the containment by tracking out asbestos on their clothes or body. Next, the contractor wets down the material, which helps reduce the airborne fiber count. As the material is wetted, it is scraped from the surfaces and collected in specially labeled disposal bags. When a bag is full, it is sealed well, wiped down and placed into a second bag, which is also sealed. The bags are placed in a load-out chamber to await transfer to a specially lined waste trailer. When all the visible material is removed and bagged, the bags are loaded out to the waste trailer.

At this point, the contractor must have a qualified consultant perform a visual inspection and air test, to ensure that the area is safe to reoccupy. After the clearance monitoring is conducted and the air counts are within the accepted levels, only then is the containment removed.

Other abatement techniques, such as removal of pipe insulation via a glove-bag or a mini-containment, are also conducted following procedures outlined by the appropriate regulatory agencies

### *Where does asbestos go after it is removed?*

After removal, the sealed bags are transported by a licensed, insured, abatement contractor or a licensed asbestos hauler, to an EPA Approved Landfill, where it is buried. Disposal manifests are generally required to ensure the waste arrived at the landfill for appropriate disposal. Under the authority of the EPA, there is a list of landfills approved to take asbestos containing waste.

### *How can I tell if I have Asbestos in my Building?*

The only way to tell if a building material contains asbestos is to have a representative piece(s) analyzed. You can send a licensed inspector to take bulk samples to the laboratory, where they

are analyzed under the microscope to determine the content. Both state and federal regulations require building owners to presume that any suspect material is asbestos until a laboratory analysis is conducted. Any material that contains less than one percent asbestos is considered non-regulated. In some cases, it is possible for you to send us a small sample for analysis. Please contact us for details.

### *Who do I call if I have a concern?*

If you have any concerns or would like to schedule an appointment to discuss your situation call **Diamond Environmental Services, Inc.** at 574-246-9902 or click the button below and complete our convenient online form.

## Molds

### *What are molds?*

Molds are small microscopic organisms, present virtually everywhere, inside and outside. Molds are fungi and are needed to break down dead material and recycle nutrients in the environment. Mold needs a food source to grow-any organic material such as leaves, paper, wood, and moisture. Since molds grow by digesting the organic material, they will gradually destroy whatever they grow on. Mold can often be seen in the form of discoloration, frequently green, gray, brown, or black and also white and other colors. Molds are very tiny and lightweight, and travel easily through the air.

### *What are sources of moisture in my home?*

Many sources can cause moisture in your home, including:

Flooding

Leaking roofs

Plumbing leaks

Humidifiers

Damp basement or crawl spaces

Wet clothes drying indoors

Clothes dryers vented indoors

### *How can I be exposed to molds?*

You are exposed to some mold every day, usually by touching, eating or breathing it. When mold is growing on a surface, spores can be released into the air where they can be easily inhaled. A person who ingests or inhales a large number of spores may suffer adverse health effects.

### *What health effects can be caused by exposure to mold?*

Molds can produce health effects through inflammation, allergy, or infection. Allergic are the most common following mold exposure. These include:

Respiratory problems, such as wheezing, difficulty breathing and shortness of breath

Nasal and sinus congestion

Burning, watery or reddened eyes

Dry, coughing

Skin rashes or irritation

### *Should I be concerned about mold in my home?*

When airborne mold spores are present in large numbers, they can cause skin irritations, allergic reactions, asthma episodes, infections and other respiratory problems for people. Exposure to high spore levels can cause the development of an allergy to the mold. Mold also can cause structural damage to your home.

### *Can my home be tested for mold?*

Yes, if the mold contamination is extensive, it can cause high air borne spores exposures, which can cause health problems. Homeowners must hire a contractor to test their homes. Even if testing is done, no standards exist to judge what are acceptable amounts of mold. Testing cannot determine whether health effects will occur. Mold is normally found outdoors and counts fluctuate from day to day depending on the season. Due to the uncertainties associated with testing for molds. If you can see or smell mold, testing is usually not necessary.

### *What is stachybotrys?*

Stachybotrys is a greenish-black, slimy mold found only on cellulose products (such as wood or paper) that have remained wet for several days or more. Stachybotrys doesn't grow on concrete, linoleum or tile. According to the U.S. Centers for Disease Control; and prevention (CDC), all molds should be treated the same with respect to potential health risks and removal. All molds should be handled with caution.

In 1994, the CDC investigated whether exposure to stachybotrys might be related to pulmonary hemorrhage, also known as bleeding lungs, in infants in Cleveland, Ohio. They concluded that there was a strong association between stachybotrys and bleeding lungs.

My belongings were soaked when my basement flooded. What should I do?

Carpets, paper and other absorbent materials can grow mold after getting soaked. In general, it is best to throw out those items. Other items made of glass or metal should be cleaned and disinfected.

### *How can I clean moldy surfaces?*

1. The surfaces first need to be cleaned with soap. · Use non-ammonia soap or detergent in hot water and scrub the entire area affected by the mold. Never mix bleach with ammonia; the fumes are toxic.

Use a stiff brush or cleaning pad on block walls or uneven surfaces.

Rinse clean with water.

2. The next step is to disinfect surfaces to help prevent mold from coming back.

Disinfect the area with a solution of water and bleach (1/2 cup of bleach per gallon of water). Straight bleach will not be more effective. When mixing or using the solution, make sure the windows are open.

For spraying large exterior areas, a garden hose and nozzle can be used.

Let disinfecting areas dry naturally. This extended time is important to kill all the mold.

### *How can I reduce my exposure to the mold while cleaning it up?*

During the cleanup of molds, many spores may be released into the air. Mold counts in air are typically 10 to 1,000 times higher than background levels during the cleaning and removal of mold-damaged materials. To prevent health effects, there are several ways you can protect yourself while cleaning up the mold.

Anyone with a chronic illness, such as asthma or emphysema, should not do the cleanup

Use a hepa filter respirator to reduce the mold spores you breathe in.

Wear protective clothing that is easily cleaned or discarded.

Wear rubber gloves.

Do not allow family members or bystanders to be present when you are doing the cleanup.

Work over short time spans and take breaks in a fresh air location.

Open the windows in your house during and after the cleanup.

Shut off heat or air conditioning to prevent mold spores from being spread around the home.

Tightly cover the air return vent if there is one in the affected area.

Turn on an exhaust fan or place a fan in a window to blow air out of the affected room to the outside (make sure the air is being blown outside the home, not into another room).

Double bag materials before you remove them from a contaminated area.

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**Diamond Environmental Services, Inc.**