home inspection

The Whole Truth About Mold Remediation

by Bryan King

Your Triangle listing is four months old and it needs to move. You have a potential buyer and they love it. But the inspector found WHAT? MOLD! What do you do now? There are solutions!

Although the potential health effects of mold and its damaging effects on homes are nothing new, only recently have they become serious concerns. Mycotoxins, usually found on the mold spores (the reproductive seeds) can cause toxic reactions when inhaled. Killing the mold does not always get rid of the mycotoxins, which become airborne easily when disturbed.

Mold requires three things to live and grow: 1) the right temperature (typically 60° to 90° F, although mold grows at cooler temperatures, too. Remember that college "science project" when you accidentally grew mold in your dorm refrigerator?); 2) food (any cellulose-based material like sheetrock or wood); and 3) water. The only requirement we can effectively control is water.

Many contractors (in or out of the mold industry) believe a treatment with Clorox® or a biocide will kill mold and therefore eliminate the mold problem. They are wrong. Mold must be removed, not just killed.

Not only does applying a biocide or bleach solution to large areas of mold not kill the harmful mycotoxins, it actually encourages mold growth! Most bleaches are primarily water straight out of the bottle; during application the bleach is diluted to a 5:1 water solution. Although the moldy area looks clean and has a bleached white surface, the mold can come back in just a few months. Last month I was asked to look at a property that had been "cleaned of mold" using bleach. In less than a year, the sheetrock walls were covered in shades of black and green!

Household detergent or disinfectant can be used on small areas of mold growth (less than a couple of square feet) on a nonporous material. However, rags or sponges should be placed in plastic bags and discarded, never re-used. Porous materials and larger areas should be remediated by a professional mold remediator to ensure the effectiveness of the cleaning and that no cross contamination has occurred.

The American Conference of Governmental Industrial Hygienists (ACGIH) who wrote the "mold Bible," reports: "effective remediation of water-damaged or microbially contaminated buildings involves (a) the use of appropriate techniques to promote rapid drying, and (b) complete removal of contaminated materials."

Mold removal starts with the porous material on which it grows, *e.g.* sheetrock. Non-porous surfaces can be cleaned with a quatenery ammonium all hard surfaces and HEPA vacuuming, brushing, or sanding. Since most molds grow only 40-50 microns deep, most wood components may be cleaned effectively.

This is not a do-it-yourself project. A properly conducted mold remediation project utilizes engineering control methods such as negative pressure enclosures with HEPA—equipped air filtration devices, HEPA vacuuming, and a system of airlocks or a decontamination unit for access to the work area. Work areas are sealed off from non-contaminated areas and placed under negative pressure to control migrations of spores. Filters in air filtration devices are changed at least daily and more often in the early phases of the job.

Certified mold remediators wear proper personal protective equipment such as a respirator, a Tyvek suit that doesn't breath, and rubber gloves. This protective gear requires more effort for the technician to work. Technicians often work in an environment that is quite dirty. When the technician leaves the work area, even for a break, much of his or her protective gear must be discarded.

Currently are no state or federal regulations that govern the mold remediation industry. However, due to the number of court cases involving mold contamination, there has emerged an "industry standard" and "recognized training and certification of contractors" that should be observed during any mold remediation project. Approved methods should be contained within the following documents: ACGIH Bioaerosols: Assessment and Control, IICRC (Institute of Inspection of Cleaning and Restoration Certification) S500 Standard, and the EPA Guidelines for Mold Remediation in Schools and Commercial Buildings. Training and certifications should be through the IAQA (Indoor Air Quality Association), IICRC, or other identity instructing in the above referenced methods.

What does mold remediation cost? Equipment, mold-specific liability insurance and employee training are expensive. Yet because of the high media profile of mold damage, prices vary widely from one company to another. Contractors who recently bid on the same job offered prices from $9,000 to $90,000!

When mold abatement is done properly, there is no reason your buyers shouldn't go forward with their purchase. Then take a few moments to advise them on how to prevent mold in their new home. 1. Keep the crawl space dry by using good ventilation and a moisture barrier. 2. If there is a bad leak in the house, use fans and ventilation to dry it within 48 hours. 3.Keep the air conditioner and furnace in good working order to help prevent mold growth.

Remember, mold is ubiquitous.
You can't escape it, but you can treat it. ★

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