



**MOLD = GOLD:**  
**Are YOU**  
**KIDDING?**

BY JEFFREY M. SLIVKA

In 2002, I wrote “Mold Is Gold: Or Is It?” for *CFMA Building Profits*. My work was prompted by headlines touting mold as a golden opportunity for inspectors, consultants, and remediators – not to mention civil attorneys.

During the past several years, mold has spawned an entire cottage industry. But, is mold really the tort risk that contractors and their insurance companies once feared?

### **Not as Bad as We Thought**

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Most would agree: We are past the sudden shock of “toxic” mold and, although this issue still flourishes, the window of opportunity for “striking gold” appears to be closing.

Although mold makes headlines every once in a while, it’s typically on the local news, with most of us listening with much less interest than we had several years ago.

We also receive the occasional press release on the latest court decision, usually in favor of the defendant, but “toxic” mold just doesn’t seem to grab our attention the way it once did.

Contrary to expectations, mold did not become the mass environmental tort originally predicted, primarily due to lack of credible evidence.

Now that mold exclusions are common in CGL policies and the risk is underwritten by environmental insurance, mold has had a minimum impact on the insurance industry.

Today, many would agree that mold and its associated liability is quite manageable with the proper knowledge, risk management techniques, and a little common sense.

This article will focus on what we have learned since the onset of mold-related lawsuits in the late 1990s – but first, let’s have a quick review.

### **A Myriad of Molds**

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Molds are part of the fungus family, which also includes mildew, yeasts, and mushrooms. This family of organisms serves a very useful purpose, breaking down organic matter and recycling it for future use by plants and animals.

Mold can be found in every ecological environment in the world (in soil, on trees, in buildings), virtually anywhere that three conditions exist:

- temperatures between 40-100° F,
- constant moisture, and
- an available food source (cellulose or carbon-based material).

Generally speaking, mold ceases to grow unless *all three of these conditions* are present.

### **WHEN IS MOLD “TOXIC?”**

Unfortunately, many fungi and molds release highly toxic gases as by-products of their primary and secondary metabolic processes. Some do it when they consume certain organic materials. For example, mold growing on wallpaper often

*continued on page 22*

releases toxic arsine gas if the wallpaper contains arsenic pigments for coloring. (That's why it's important to identify a mold's host material.)

Referred to as mycotoxins, other types of molds release toxins naturally as they grow. And, don't think the problem ceases just because mold stops growing: When it comes to indoor air quality, the greatest risk period begins as the mold "dries out." Why? Because as it dries, mold releases spores into the environment, which can cause or exacerbate such breathing problems as allergies and asthma. Also, those spores will begin to grow new mold if dispersed onto damp areas.

### WHICH SPECIFIC MOLDS ARE "TOXIC?"

The majority of molds pose little or no health risks to humans; however, some do. The two most often in the headlines are *Stachybotrys* and *Aspergillus*. (Both of these have many variations. For simplicity, I will refer to them in general terms.)

#### **Stachybotrys**

*Stachybotrys*, also called Black Mold, is a greenish-black fungus found worldwide. It is mycotoxic (producing substances toxic to humans which inhibit or prevent the growth of other organisms) and saprophytic (feeding off organic material). *Stachybotrys* colonizes particularly well in materials that are high in cellulose.

This includes certain building materials, such as drywall or gypsum board, fiberboard, ceiling tiles, wooden structures, even books and papers that are water-damaged or continually moist. *Stachybotrys* typically needs constant moisture to proliferate.

Because *Stachybotrys* produces potent toxins, exposure to this particular mold can have an adverse affect on the central nervous system, and upper and lower respiratory tracts. In addition, it can cause eye and skin irritation, chronic fatigue, and have adverse reproductive effects.

But, *Stachybotrys* is not the only culprit responsible for the increased attention of health and environmental professionals, state and federal agencies, and of course, the media.

#### **Aspergillus**

*Aspergillus* has grabbed headlines for almost 10 years. It's a ubiquitous fungus with characteristics similar to *Stachybotrys*. *Aspergillus* has similar effects on human health, with one big difference – this mold has a fatality rate as high as 75% in people with compromised immune systems (e.g., those with

low white blood cell counts due to bone marrow transplants, cancer treatments, AIDS, and major burns). For this reason, *Aspergillus* poses an increasingly common threat in hospitals and other healthcare facilities.

#### **Cladosporium**

*Cladosporium*, which may be misidentified as a type of *Aspergillus* or *Stachybotrys*, is probably the most common indoor and outdoor mold that we encounter. It produces olive green to brown to black colonies on a variety of host materials. This mold often grows on the construction materials and supplies present at project sites.

While it has been known to create allergic reactions, *Cladosporium* produces no mycotoxins – so, adverse effects on humans are minimal, and then only in high concentrations.

### THE HEALTH IMPLICATIONS

The health implications of "toxic" mold continue to be debated almost daily. However, the debate does not center on mold itself. The experts agree that mold has been a likely cause of acute allergic reactions in humans for many years. Also, mold spores are known to worsen asthmatic and other respiratory symptoms.

The debate involves the degree of toxicity, and whether or not exposure to "toxic" mold can be lethal. This debate continues because people react to mold spores in different ways based on: 1) the type of mold, 2) the indoor/outdoor environment, and 3) individual tolerances.

Because of these variables, it's also difficult to establish the maximum and minimum mold levels or spore concentrations deemed "hazardous" to human health. That's why, unlike many hazardous substances, federally mandated permissible exposure limits (PELs) have not been established for mold.

Broadly defined, PELs specify the airborne concentration of a substance that, if exceeded for a period of time, will have adverse effects on human health. To oversimplify, each person's immune system responds to mold in varying ways. This is very different than asbestos and silica, which have established PELs.

### 2007: Lessons Learned

In 2000, many in the industry were referring to mold as the next asbestos. Phrases like "Protect Your Children Against Killer Mold" were common in advertisements for remediation contractors. Experts predicted that mold's impact on the

*continued on page 24*

insurance industry would rival the pollution claims of the 1960s and 1970s. Some even said it would induce the demise of some insurance companies. At the time, who knew?

All those predictions appear to have been inaccurate. While we still have to deal with the health implications, unsightly appearance, and earthy smell of mold, the problem is viewed very differently today. We have gained some perspective through education, experience, and a little sanity. Now we deal with mold more prudently than when the first major cases arose.

**BODILY INJURY VS. PROPERTY DAMAGE**

The first major mold cases created a major stir in many financial communities for two reasons:

- 1) So many people had been exposed to mold on a daily basis that it had the potential to be the next mass environmental tort, and
- 2) The insurance industry could have been forced to defend billions of dollars in bodily injury claims.

According to the Insurance Information Institute, there were about 3,000 lawsuits filed in 1999 that involved mold. Based on the latest data, over 10,000 lawsuits were filed in 2005 – most, if not all, claiming mold-related injuries.

Over half were bad faith claims against insurance companies; the rest were against designers, contractors, homeowner associations, and property management companies. These numbers are now beginning to decline for three reasons: CGL

policy exclusions, fewer claim dollars paid, and difficulty providing evidence of injury.

**CGL Policy Exclusions**

The first involves mold, fungal, or microbial-matter exclusions added to CGL policies. Carriers were panicked by the early statistics. In a 2005 article on toxic mold litigation, Richard Morgan and Charles Schoenwetter state that insurers paid out about \$1.3 billion in mold-related claims in 2001. In 2002, the amount increased to \$3 billion. While most of those claims originated with homeowners, the numbers were staggering nonetheless.

To protect themselves from astronomical payouts and possible bankruptcy, many CGL carriers began attaching mold exclusions to their policies in 2001. By 2003, the Insurance Services Office, Inc. (ISO), the organization that standardizes certain types of insurance policy forms, issued its own set of mold exclusions for carriers who offer CGL coverage under the ISO CGL forms.

By 2004, mold exclusions were common. Today, you would be hard-pressed to find a CGL policy without such an exclusion. As anticipated, these exclusions are significantly reducing the number of claims filed against commercial insurance companies.

**Fewer Claim Dollars Paid**

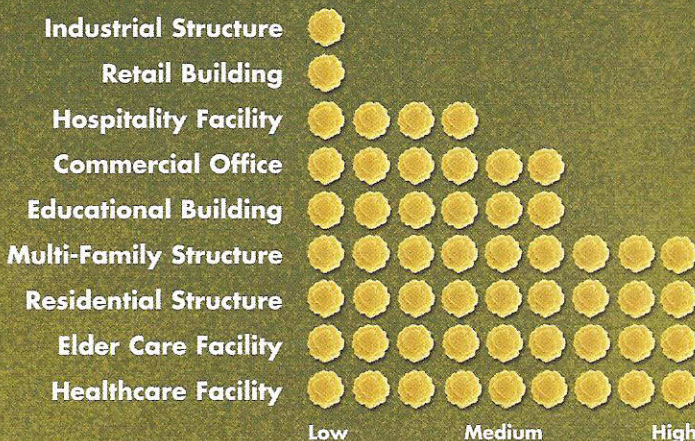
The second reason for the change is the lack of severity in awarded damages. When payouts are made, they are much less than experts anticipated seven years ago. Guy Carpenter & Co., a leading global re-insurance intermediary, estimated that today's mold-related construction defect claims average \$10,000-\$20,000. In 2000, many anticipated that average to be at least 10 times higher.

**Providing Evidence of Injury**

The third – and probably biggest driver – is the lack of credible evidence of injury. During recent years, few bodily injury lawsuits or claims have created a causal connection between the existence of mold and the plaintiff's physical symptoms.

Even when the *Stachybotrys* or *Aspergillus* molds are present, many plaintiffs experience difficulty proving their case

**Exhibit 1: Ranking of Mold Risk by Building Type**



Source: New Day Underwriting Managers LLC, 2007 Market Update

RISK/EXPOSURE



# Contrary to EXPECTATIONS, **MOLD** did not become the **MASS ENVIRONMENT TORT** originally PREDICTED . . .

due to the lack of expert testimony connecting the injury or symptoms to the mold. Today, most recoverable claims involve property damage, which is easier to prove. You can see the damage, and it's pretty unattractive. You can smell it, and the smell can be extremely unpleasant.

Mold can also breach the integrity of a structure, causing direct property damage. So, successful lawsuits today usually lead with property damage and attach bodily injury claims to increase the monetary demand. This is contrary to what many thought would happen when this issue first surfaced.

#### **TYPE OF CONSTRUCTION**

In 2000, everyone knew that contractors involved in residential and/or habitational-related work (along with those performing HVAC and roofing/siding, including EIFS work) would have the most exposure to mold liability.

While this still holds true, we've learned that nearly every contractor may be exposed to water intrusion and mold liability.

#### **A \$500,000 Mistake**

Years ago, very few experts acknowledged that landscapers and excavation/grading contractors even had such an exposure. However, there have been lawsuits that alleged liability on the part of excavation/grading contractors because of poor or inadequate grading, which led to ponding on the property or water intrusion into the structure.

In *Haynes v. Adair Homes*, in March 2005, an Oregon jury concluded that a family was entitled to more than \$500,000 in property damages and personal injury damages from a home-builder due to mold growth.

The homeowners successfully argued that poor site preparation and inadequate grading and landscaping allowed water to enter the basement and create a moldy condition. The lesson? Even if liability is not expected to be substantial for your contractor type, your company cannot afford to be ignorant of mold liability issues. Both education and prevention are important regardless of the type of work your company performs.

#### **Who Is at Greatest Risk?**

Exhibit 1 illustrates in general terms the "conventional wisdom" of many insurance experts regarding potential mold exposure by building type. When it comes to the actual building type, many experts believe that the construction of healthcare facilities presents the greatest exposure to mold liability.

Overall, healthcare facilities, elder care facilities, single-family residential structures, and multi-family habitational structures are considered high exposure building types. Contractors who build these structures have the highest potential to expose third parties to mold, primarily from a completed operations standpoint.

Those in healthcare or elder care facilities with compromised or suppressed immune systems can be more susceptible to ill health effects from mold. Residential and multi-family habitational structures have various occupants, from children to the elderly, who also may have compromised or impaired immune systems. In addition, people spend large amounts of time in their homes, increasing the potential for exposure.

Educational structures and commercial office buildings pose a medium- to high-risk of exposure: Schools house populations of young people and children, and workers in commercial office buildings span multiple generations – and, the time spent within these structures varies considerably. (As we all know, some full-time employees spend just as much time in the office as at home.)

Hospitality facilities are considered a medium risk, since the populations tend to be transient, but in close quarters. Retail and industrial structures are considered low risk since these spaces are often large and have transient populations. Because of their size and scale, occupants tend to be farther away from mold sources. Also, industrial spaces may be highly ventilated or only partially enclosed, reducing the impact of exposure.

Keep in mind that the degree of exposure varies greatly depending on such factors as structural design, quality of the design and construction firm, owner sensitivity to mold and

*continued on page 26*

moisture intrusion, construction materials and products, construction scheduling and sequencing, maintenance, and project location. But, project location has less of an impact than once believed.

### THE GEOGRAPHIC MYTH

Warm, humid climates are not the only places where mold can flourish. Based on data over the past seven years, we know that mold grows in every climate, including such traditionally overlooked areas as Nevada, Arizona, New Mexico, and Texas. When examining structures in these areas, we now analyze the exposure inside the structure – not just the weather – since most problems come from within.

Consider this list of activities, processes, or problems that can increase relative humidity in condominiums, hotels, resorts, retail sites, and casinos:

- *Spills, burst pipes, roof leaks, toilet overflows, and guest abuse of air conditioning systems:* When it comes to the actions of guests, this exposure is almost uncontrollable.
- *Damp areas from fountains, pools, spas, and other aesthetic features:* Many of these systems and structures can easily increase relative humidity in the structure and cause an imbalance in the HVAC system.
- *Condensation from improperly positioned or poorly installed vapor barriers:* It's simple physics – air moves from warm to cold and, in warm geographic locations, from outside through the building envelope toward the cooled rooms. There may be vapor barriers (such as EIFS systems and vinyl wallpaper) collecting moisture and creating condensation.
- *Imperfect systems:* Inadequate design, improper construction, and incorrect maintenance of mechanical, window, or roofing systems create or exacerbate moisture problems that lead to mold.
- *Weather:* Changes in construction sequencing and product exposure due to unexpected weather can wet vulnerable construction material, such as concrete, drywall, and/or lumber. For example, unexpected snow or rain could surprise contractors in dryer climates.
- *Construction sequencing:* When trades are not scheduled correctly, it can be an invitation for mold issues later. For example, if drywall is installed before the concrete is completely dry, moisture in the concrete can “wick up” into the drywall and create an extensive problem that is not identified during construction.

We now understand that climate, while a consideration, is only one factor that comes into play when assessing exposure to mold. And, we understand the insurance issues surrounding mold liability more clearly as well.

### Insurance Issues

Carriers who offer CGL insurance now routinely exclude mold, fungi, and/or microbial-matter coverage. So, if a contractor is searching for true mold liability coverage, it can be found under environmental insurance programs.

Aside from mold, environmental insurance has seen substantial growth during the past 10 years because many contractors and property owners value it as a funding mechanism for environmental loss.

To secure mold liability coverage in the construction industry, a contractor needs to purchase either Contractor's Pollution Liability (CPL) or Pollution Legal Liability (PLL) coverage.

A CPL policy provides coverage for bodily injury, property damage, clean-up costs, and defense costs arising from pollution conditions (including mold) that result from construction work and activity. This policy is offered to any type of contractor.

While CPL is operation-specific, PLL coverage is location-specific. The PLL provides coverage for third-party bodily injury, property damage, clean-up costs, and defense costs from pollution conditions on, at, under, or emanating from a designated location.

It can also provide coverage for first-party or onsite clean up of pollution conditions, including mold. So, if your company owns property (anything from quarries to maintenance shops to retail structures to habitational condominiums), it should consider PLL coverage.

### COUNTING THE COST

Environmental insurance has seen a steady decrease in rates during the past 10 years. When it comes to mold coverage under a CPL or PLL, the cost for such coverage has dropped from 25% to as much as 40% (depending on the carrier and coverage secured) since the early 2000s. In addition, more carriers are willing to offer mold coverage under the CPL.

In 2001, only one carrier was willing to offer mold coverage for residential or habitational projects and contractors. Today, there are at least five carriers willing to cover these risks.

continued on page 28

Also, general capacity (per project or practice program) has increased to \$25 million compared to 2001, when it was fairly difficult to secure even \$5 million in coverage.

## Mold Remediation

Even with all the innovative technology introduced during the past five years (from magic mist solutions to mold dogs), the most prevalent, and recommended, remedial technique continues to be the removal of all porous material.

If removal is not possible, then the second-best solution is the cleaning of all contaminated materials with a detergent mixture. However, because spraying tends to spread spores, it's important to mist materials, not spray them.

When attempting to reuse such semi-porous material as fabric or furniture, you should engage a professional restoration consultant/contractor to ensure proper restoration.

Nearly every federal agency has established some type of awareness program or remediation guideline, whether for commercial use, residential application, or worker safety. The two most prominent remediation documents are still the New York City Department of Health and Mental Hygiene's (DOHMH) "Guidelines on Assessment and Remediation of Fungi in Indoor Environments" and the EPA's "Mold Remediation in Schools and Commercial Buildings."

### REMEDICATION CERTIFICATION PROGRAMS

It's becoming easier to discern quality mold remediation contractors from fly-by-night operations. Today, many states have licensing programs or regulations to ensure that contractors who conduct mold assessment and remediation services are properly trained and licensed, and follow minimum standards that protect worker health and building occupants.

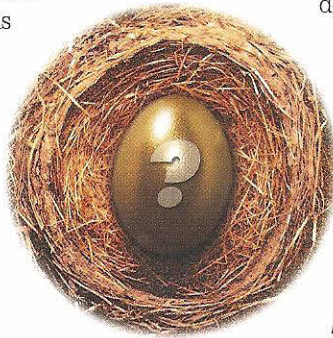
One newly formed association with a certification program is the National Association of Mold Professionals (NAMPP). This non-profit organization was established to develop and promote the mold inspection and remediation industry.

NAMPP's certification course has been approved by the National Association of Certified Home Inspectors (NACHI) and the Institute of Inspection, Cleaning and Restoration Certification (IICRC). For more information on the certification process, go to [www.moldpro.org](http://www.moldpro.org).

The Mold Inspection Consulting and Remediation Organization (MICRO) has established the Certified Mold Remediation Contractor (CMRC) designation, which is primarily a self-study program. Visit [www.moldcareer.com/mold-remediation-contractor-cmrc.php](http://www.moldcareer.com/mold-remediation-contractor-cmrc.php) to learn more.

The Indoor Air Quality Association (IAQA) was established in 1995 to promote uniform air quality standards, procedures, and protocols. This association has several certification programs involving mold inspection, consulting, and remediation.

Go to [www.iaqa.org/education/general\\_info.htm](http://www.iaqa.org/education/general_info.htm), for a description of their educational programs.



When searching for a remediation contractor with certified inspectors, consultants, and/or remediators, remember the value of expertise and experience when dealing with airborne-related contaminants. This should be your primary concern.

### WIMPs: The Musclemen of Mold Prevention Programs & Preparedness

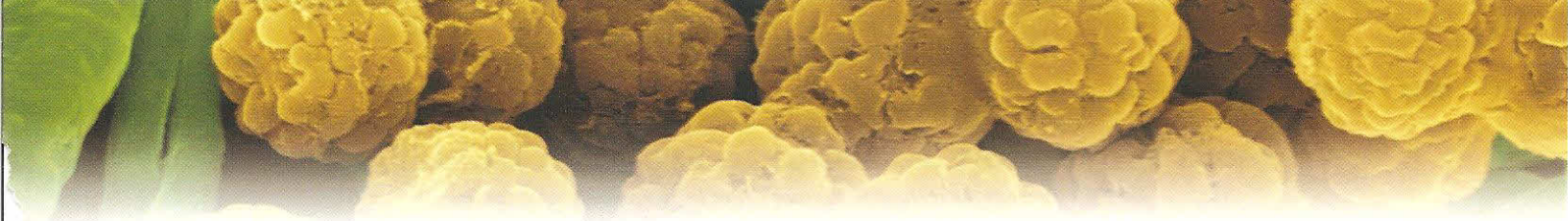
Prior to 2002, many of us thought a WIMP was an irresolute, wishy-washy weakling. But, soon after, we learned that it was an acronym for Water Intrusion and Management Program, a contractor's prevention and response plan for moisture and water intrusion.

*Note: Without a WIMP, a contractor is unlikely to qualify for the mold coverage in its environmental insurance policy.*

WIMPs represent one of many different types of "Mold Prevention Programs." Some are one-page statements that discuss how the company feels about water intrusion and mold; others are comprehensive programs that address all aspects of construction and mold.

Many contractors, especially those performing operations with high or medium mold hazards and pursuing CPL insurance coverage, know exactly what a mold prevention program is and what it requires.

Mold prevention programs can be part of the corporate health and safety program, part of the overall quality assurance/quality control program, or a totally separate and distinct corporate program. They can even be developed for a specific project.



Regardless of where they exist, mold prevention programs should contain at least six basic components:

- 1) **Objective:** The contractor must establish the purpose of the document – reducing liability, increasing competitive advantage, enhancing services, etc.
- 2) **Corporate Responsibilities:** From top management to field personnel, every employee must be responsible for executing some aspect of the program in order for it to succeed.
- 3) **Training Requirements:** Field personnel should have extensive training in response protocol and prevention, while office staff and executives only need introductory or general education. Each employee should be aware of the impact mold could have on the company.
- 4) **Preventative Measures and Alternatives:** This section addresses techniques to prevent water intrusion. Used as a guide for onsite personnel and tenants, it often includes general information, as well as specific “how to” instructions (such as explanations on the use of mold resistant materials or products).  
  
The effectiveness of your company’s entire program can be determined by the thoroughness of this section.
- 5) **Response Procedures:** This addresses remediation once mold is found in a structure or building. Depending on the extent of the affected area, experts in the field of air quality and mold remediation may be engaged; however, many contractors have personnel certified in response procedures.
- 6) **Background and Educational Information:** This is usually an addendum of resource information on the different types of mold and fungi.

When developing a mold prevention program, focus on managing the exposure during the design, pre-construction, construction, and post-construction phases. (See the Snip It/Clip It on page 30 for specific guidelines.)

## Conclusion

Much has changed when it comes to mold. Once predicted to be a bane for contractors, a boon for lawyers, and a bustling cottage industry, mold has settled into a manageable risk. Education, combined with experience, seems to have controlled an environmental issue with massive tort potential.

The construction industry can keep mold from growing out of control, regardless of the type of construction being performed

– provided that contractors understand their risk exposure; maintain the correct insurance coverage; sustain their mold prevention programs; and proactively respond to conditions involving moisture, water intrusion, and mold growth. **BP**

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*Don't Miss the  
Mold Prevention &  
Response Program Guidelines  
on Page 30!*



### Web Resources:

1. **Insurance Information Institute:** [www.iii.org](http://www.iii.org)
2. **Buildings:** “Protecting Against . . . a Rise in Toxic Mold Litigation,” Richard Morgan and Charles Schoenwetter, June 2005 @ [www.buildings.com/articles/detail.aspx?contentID=2518](http://www.buildings.com/articles/detail.aspx?contentID=2518)
3. **Insurance Services Office, Inc.:** [www.iso.com](http://www.iso.com)
4. **New York City DOHMH:** “Guidelines on Assessment and Remediation of Fungi in Indoor Environments” @ <http://home2.nyc.gov/html/doh/html/epi/moldrpt1.shtml>
5. **EPA:** “Mold Remediation in Schools and Commercial Buildings” @ [www.epa.gov/mold/mold\\_remediation.html](http://www.epa.gov/mold/mold_remediation.html)

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