

A REASONED APPROACH TO MOLD CONTAMINATION

Best Practices

Indoor air quality is a broad field that continues to impact safety, health, and environmental professionals. But the shift in focus over the last five years from general concerns such as adequate ventilation and sick building syndrome to mold contamination has caught many practitioners by surprise. Today, safety managers, industrial hygienists, loss prevention specialists, and risk assessors are frequently being asked to explain mold contamination to building occupants, the media, and the public.

Unfortunately, many professionals are struggling to identify the current best practices in regards to mold – a reasonable way to evaluate potential contamination and implement control measures. With limited time, safety and health experts try to make sense of media reports, liability concerns, and scientific research. As they dig deeper, many have found that media reports are often condensed sound bites, legal cases tend to emphasize the extremes of liability in an effort to win or fend off a claim, and scientific reports are filled with technical jargon or narrow limitations that restrict their application to the real world. Without good information, positions related to mold situations are inclined to polarize. The extreme positions can be categorized as *fungiphobics*, those who are frightened by a single mold spore, and those who refuse to accept any possibility of health-related problems due to mold exposure, the *mold minimizers*.

The first step in developing a reasonable approach to mold is to understand that there *is* a reasonable approach. Many safety and health professionals have the mistaken impression that liability concerns, based on high-profile lawsuits, are the driving force in the industry. In the absence of federal or state regulations related to mold control, attorneys are clarifying the industry standard of care, not creating their own. By carefully examining generally available industry reference documents relating to mold, attorneys have been able to identify points of commonality which they correctly interpret as a de facto industry standard of care.

Unfortunately, many safety professionals are asked to talk intelligently about the mold situation in general and/or make decisions about mold contamination conditions in their facilities without even understanding what the industry reference materials are, let alone the points of intersection between them.

While there is some variation in which references really form the core of the mold control industry, the following eight documents are cited frequently.

1. American Conference of Governmental Industrial Hygienists; *Bioaerosols: Assessment and Control*; 1999
2. American Industrial Hygiene Association; *Report of Microbial Growth Task Force*; 2001
3. Environmental Protection Agency; *A Guide for Mold Remediation in Schools and Commercial Buildings*; 2001
4. Health Canada; *Fungal Contamination in Public Buildings*; 1995
5. Institute of Inspection Cleaning and Restoration Certification; *Standard and Reference Guide for Professional Water Damage Restoration S500*; 1999
6. Occupational Safety and Health Administration; *A Brief Guide to Mold in the Workplace*; Safety and Health Information Bulletin 03-10-10
7. New York City Department of Health; *Guidelines on Assessment and Remediation of Fungi in Indoor Environments*; 2000

Recently, a new document related to mold came onto the scene. Titled the *S520 Mold Remediation Standard*, it was produced by the same organization that developed the Water Damage Restoration Standard. Many industry participants and observers were hopeful that the S520 would explain the standard of care that has been emerging from the multitude of documents and court dockets over the past few years. While it does clarify specific mold contamination and removal practices, the S520 also embodies a significant philosophical shift from the other guidance publications regarding the evaluation of mold conditions. As such, the S520 may ultimately contribute as much confusion as clarification to the process of mold control as it adds another document that safety and health professionals must consider.

Given this profusion of documents, many safety and health managers have turned to summary articles or textbooks that are available to explain this material, such as Wonder Makers Environmental's *Fungal Contamination: A Comprehensive Guide for Remediation*.

Despite the fact that guidance for mold situations is coming from a variety of sources, there is a surprising consistency in the overall tone and approach. Some key consensus points that should frame any mold discussion include:

- The understanding that mold is a biological agent. Since it has the ability to grow under the right conditions, isolation and deferred action to remove the source of the problem may not be possible as it is with asbestos materials. In such situations, the delay may allow mold contamination inside a building to grow to a point where it poses a hazard greater than when initially discovered.
- Mold growth means that there is or has been moisture intrusion in the building. Removing surface mold contamination and not identifying and correcting the underlying moisture problem would be tantamount to a doctor treating symptoms rather than the disease itself.

- Exposure to mold spores and other byproducts (microbial volatile organic compounds, mycotoxins, connecting filaments, etc) does cause real health symptoms. These symptoms can range from mildly annoying allergic reactions to serious, and even life-threatening, ailments.
- Individuals respond to mold exposure in a variety of ways. There is a large variation in individual susceptibility to the same exposure levels and the possibility of a person becoming sensitized to a specific specie of mold growing in a certain location. When added together this means that the range of potential responses to fungal exposure is greater than what is seen for many industrial chemicals.
- There are a variety of guidelines currently available to assist in interpreting mold contamination situations, but no comprehensive federal regulations.

Even while there is an expanding consensus on how to deal with mold contamination, there is continuing controversy about what constitutes contamination. “How much mold does it take to cause health problems?” and “What symptoms are actually caused by mold exposure?” are the pivotal questions of many mold disputes.

This debate primarily pits anecdotal data against scientific data. Oftentimes safety and health professionals become caught in the middle of a tangled conflict between the testimonies of people with whom they are working (anecdotal data), and the lack of solid scientific research clearly stating the hazards of various molds. Because science has not yet clearly found the connecting link between toxic mold exposure and many reported health symptoms, some people remain skeptical about the health threat mold can present.

Fortunately, current research may be pushing toward a resolution of the discrepancy between reported and diagnosed symptoms related to mold exposure. A recent report from a group of American doctors¹ not only substantiates the reports of many disputed symptoms linked to mold, but identifies a number of diagnostic tests that are effective in verifying adverse mold exposure. In addition, the researchers discuss a drug therapy that is effective in alleviating even the most significant symptoms.

As always, communication is the key. Even if all of the controversies around mold are resolved, the proper communication of that information may ultimately turn out to be just as important as having the information. To communicate clearly and convincingly, a safety professional should emphasize that the subject of mold exposure and control is complex, with many diverse opinions. Despite this diversity of opinion, an industry standard of care is in place which avoids the two extremes of *mold minimizers* and *fungiphobics*.

Staying in the scientifically defensible center, emphasizing the protection of occupants, workers, and building structures, and promoting the goal of a safe environment rather than pristine or spore-free indoor air, will help the safety and health professional navigate the tricky terrain of mold discussions.

¹ Sick building syndrome in water damaged buildings: generalization of the chronic biotoxin-associated illness paradigm to indoor toxigenic fungi; Ritchie C. Shoemaker, Judith M. Rash, Elliot W. Simon

About the Author

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