

## **EXPLAINING MOLD CONTAMINATION SITUATIONS**

### **Proper Communication of a Complex Safety and Health Issue to a Diverse Audience**

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Safety, health, and environmental professionals are often on the front lines of emerging issues that change the way we think about accident prevention or improved health. As such, it should be no surprise that 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.

While there were some warning signs in the last three to five years that mold was becoming a dominant concern in the indoor air quality arena the explosion of interest in the last two years has been fueled by media reports, liability concerns, and scientific research. Unfortunately, media reports are often significantly 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 often filled with either technical jargon which makes them difficult to understand or narrow limitations which restrict their application to the real world. Therefore it is important for those tasked with estimating risk or communicating the facts about a mold exposure situation to *understand the big picture, make reasoned decisions, and communicate information clearly and convincingly.*

#### **Clarifying the Big Picture**

The safety professional who addresses the mold topic from a compilation of media reports is woefully unprepared to present sensible information. While most media reports, either electronic or print, are not intentionally false, they often lead to incorrect interpretations of the data for two reasons. Time and space limitations mean that information must be condensed. Content limitations means that information must be simplified for the intended viewer or reader. This dual combination of condensing and simplifying is not conducive to understanding the nuances of complex situations where proper decision making involves the integration of many factors.

As a result, many situations, such as those dealing with mold infestation, have the shades of gray edited away to something which is more black and white. In many stories, this problem is compounded by the reporter's slant which effectively means that gray areas are not separated into black *and* white, but into black *or* white.

This condensation and simplification feeds into a second trend of media reporting which also limits its usefulness to a safety professional trying to understand or explain the larger concept.

Stories that involve controversy are generally considered to be better press material. As such, a predictable pattern develops for information related to emerging safety or health issues. This pattern has been played out hundreds of times with stories about such things as asbestos, the pesticide Alar, and now mold. In all these cases, initial stories bring heightened awareness of a potential problem, but do so in a sensationalist way. This desire to highlight controversy in any particular area often results in mixed, or even contradictory, messages being presented by the same source over time. For example, the media focused almost exclusively on the dangers of asbestos for many years in its coverage of that subject. Then the tact of the majority of the coverage switched to proclaim that we had overreacted to it as a nation. This same pattern appears to be emerging with mold stories. For the last several years media reports emphasized the dangers and the reported health problems associated with this material. Now, however, some articles are keeping the subject alive by emphasizing problems with mold remediation projects or situations where the dangers were overestimated.

Since it's difficult to see the big picture by simply following stories in the popular press, safety and health professionals must dig deeper to get the "straight skinny" on mold issues. Articles in technical magazines, industry trade publications, science journals, and the like can provide much needed details to the outlines of the problems described in the television and newspaper reports. In addition, attendance at a variety of conferences where the subject is discussed will give safety and health professionals the range of opinions necessary for them to start developing their own approach to a mold contamination situation.

By reviewing a variety of materials, including mold guidelines published by the EPA, New York City Department of Health, and the American Conference of Governmental Industrial Hygienists to name a few, the safety and health professional will quickly discover that the edges of the big picture are fairly well delineated. Some of these edge pieces that circumscribe the mold communication puzzle 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 most industrial chemicals.
- There are a variety of guidelines currently available to assist in interpreting mold contamination situations, but no comprehensive federal regulations.

A number of additional edge pieces which define the general consensus of thought regarding the bigger mold picture could be added, but the items above should be enough to convince safety and health professionals that their response to potential mold exposure should follow a pattern similar to that employed by the many organizations that deal with risk from potential radiation sources. The concept of ALARA is one which seems to transfer well from radiation protection to the current mold situations. Using the ALARA acronym would allow the safety and health professional to make decisions regarding potential mold exposure that would keep levels of the spores and byproducts “as low as reasonably achievable” (ALARA).

## **Making Rational Decisions**

While considering the ALARA concept helps in understanding the big picture of mold contamination, it also leads directly to the second aspect of communicating mold information to a varying audience. Communication, no matter how clear, does not substitute for good decision making. It is generally counterproductive to explain the big picture of a mold contamination situation if the decisions that were made ignored the factors that make up the big picture. This is why decisions about mold should not be based strictly on the perceived risk of current liability.

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 reality, the legal profession is only filling in the center pieces of the puzzle; the edges have already been laid in place. 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; Occupational Safety and Health Administration Technical Manual Chapter 6; 1995
7. New York City Department of Health; Guidelines on Assessment and Remediation of Fungi in Indoor Environments; 2000

If time does not allow for full review of the base reference materials safety professionals should at least avail themselves of some of the summary articles or textbooks that are available to explain this material, such as *Fungal Contamination: A Comprehensive Guide for Remediation*, published by Wonder Makers, Inc.

Only when practitioners understand the industry standard of care as well as the attorneys will they be able to limit their liability when making mold related decisions and then explaining those decisions to sometimes skeptical audiences. Finally, remember that if time or information constraints are impacting your ability to manage or discuss a situation, the ALARA principal is an excellent fallback position.

## Effective Communication

Even if someone understands the big picture of mold contamination and has been able to make rational decisions in order to manage it, the proper communication of that information may ultimately turn out to be just as important as proper decision making. To communicate clearly and convincingly, a safety professional should emphasize that the subject of mold exposure and control is complex with a diversity of opinions. Despite this diversity of opinion, an industry standard of care is in place which stays away from the two extremes. In many of my discussions I have characterized these extremes as the *mold minimizers* (those individuals who are not willing to accept that mold exposure can be harmful) and the *fungiphobics* (people who call for the total elimination of mold spores from the indoor environment).

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

## Learn From History

Safety and health professionals who feel overwhelmed by the flood of information relating to mold should take a deep breath and take heart. The profession has successfully wrapped its arms around complex issues in the past and become the moderating influence which allowed real change to happen. For example, we successfully dealt with the surge of interest in chemical exposures and the subsequent hazard communication standard. We have weathered the storm of media interest in asbestos, lead, confined spaces, and ergonomics. There's no doubt that we can do the same with mold.

## About the Author

*Michael A. Pinto* currently serves as Chief Executive Officer of Wonder Makers Environmental, Inc. He has more than 30 years of safety and environmental experience from jobs in the private sector, the non-profit arena, and regulatory agencies. Michael is the author of five books, including *Fungal Contamination: A Comprehensive Guide for Remediation*, over 150 published articles, and 18 commercial training programs. He can be reached at [map@wondermakers.com](mailto:map@wondermakers.com).