

PRACTICAL MOLD MANAGEMENT

JOHN GEITZ, JIF SAFETY DIRECTOR

Preamble

- Mold issues are <u>NOT</u> going away
- Contributing weather conditions are <u>NOT</u> going away
- Mold insurance coverage options may be limited, or nonexistent if losses cannot be controlled
- We need to get better at identifying issues creating mold conditions
- We need to get better at responding quickly to minimize the mold epidemic

Mold Basics

- There are over 100,000 species of mold
- Not all mold is "toxic" or "black", but many molds can be allergens and trigger adverse responses
- Mold exists in virtually all our normal environments, but elevated mold counts can cause health issues
- Just because you are not experiencing a problem, does not mean others are not
- While mold is a normal occurrence, excess mold or visible mold is a problem

Prioritize Mold

- You will likely be on the front lines of any mold issue.
- You must make moisture control a priority.
- Respond promptly to complaints.
- Mold issues can spiral out of control quickly.
- Prevention and early intervention are the keys to minimizing losses.
- Failure to respond promptly can jeopardize coverage and monopolize your time.

Develop a Plan

- Be proactive in your mold prevention activities
- Set up a work order and calendar reminder system
- Empower and train your facilities staff to seek out and identify potential problems
- Educate and communicate openly with staff and encourage reporting of suspect moisture control issues
- Identify possible problem areas and develop an action plan to control or eliminate the issue
- Mold can occur at any time of year. Be vigilant.

Control the Moisture



USEPA: "The only way to control indoor mold growth is to control moisture."



Look for all potential sources of unwanted moisture.



Moisture comes in many forms. Building envelope, weather, mechanical, manmade, etc.

Control the Mold



Outdoor humidity

Indoor humidity

Rainwater

Surface water

Ground water

Plumbing water

Sewer water

Condensation/Dew Point

Internal processes

Be A Weather Watcher

Be acutely aware of weather conditions that may increase mold risks including excessive rain, high temperatures, high humidity and elevated dew points

Monitor areas aggressively to ensure you can react quickly to changing conditions

Higher dewpoint means higher risk of indoor condensate

Check & Inspect



Proper foundation drainage

Excess water retention

Irrigation systems

Gutters and downspouts

Clogged drains

Roof leaks/Flashing

Window leaks

Plumbing systems

HVAC systems

Find the Mold



- You cannot just "look around"
- Be diligent when looking for mold
- Mold can be any color, not just black
- Look under desks, behind furniture, cardboard boxes, paper, books, closets, cabinets, above ceilings, inside air handlers, under carpet edges
- Learn to use a flashlight and train staff how to inspect

Shine The Light On Mold



A powerful flashlight can illuminate mold on surfaces that may otherwise not be visible, especially light-colored molds



Do not rely solely on overhead lighting or natural lighting



Shine the flashlight at an angle along all the surfaces to be inspected, not directly at the surface

Shine The Light On Mold



- If your initial inspection of surfaces does not detect mold, try turning off other lights and just using the flashlight.
- Do this for all suspect surfaces.
- It may require you to get down on the floor, up in the ceiling and behind furniture.
- MOVE STUFF. Mold will not always be easy to find but left alone it will get worse.

Find the Source



Work with your Response Team to identify possible contributing factors



Inspect affected areas including walls, ceilings, above ceiling tiles, closets, cabinets, drains, sinks, under furniture and carpet



If possible, use a snake cam to inspect wall cavities



Inspect surrounding areas such as exterior, halls and adjacent rooms

HVAC Involvement

- Many Mold/IAQ issues are directly related to the HVAC system and its ability to function as designed
- Inspect all the components of the system including piping, coils, drip pans, vents, ducts etc.
- Inspect air intakes and diffusers to ensure they are not blocked
- Inspect areas around fresh air intakes for possible contamination sources

Ventilate Wisely



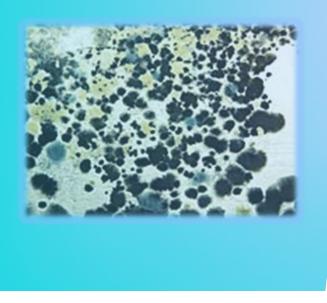
- Limit the amount of outside air during times of elevated humidity levels.
- Do not close classroom doors during the summer months
- Raise A/C set points.
 Colder is not better.
- Use fans to move air through the building.

HVAC Involvement



HVAC Involvement

Visible Mold



- Visible mold needs to be removed and the source found
- Lab testing is usually not necessary
- Small amounts can usually be safely removed with a soap and water solution
- Larger or more complicated situations may require experts
- Always ensure removal is done in accordance with industry standards

Document Efforts

Each step in your inspection process should be documented

Identify potential problems and possible solutions

Engage outside experts and resources when needed

Implement corrective strategies

Closely monitor results

Ongoing Prevention Efforts

- Be aware of seasonal influences for mold/IAQ
- Monitor <u>ALL</u> critical areas
- Train your teams. Recognition, inspection, testing, investigation, reporting
- Avoid contributing to problems
- Have a plan in place to react quickly and effectively
- Involve experts when needed
- Do not defer critical maintenance related to moisture problems

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New Construction & Renovation

- Discuss appropriate fresh air volumes with your design professionals.
- Consider performing predesign TAB of air systems.
- Demand ventilation using CO2 and humi-stats in addition to traditional thermostats.
- Commission the new HVAC and control systems.

Summary

- Preventing mold must be a priority
- Become experts in identifying conditions that can lead to mold growth
- Continuously inspect and monitor
- Take corrective action-Find the water!
- For SPELLJIF districts, at the first sign of a known mold condition, you must report and immediately involve a CIH to assist
- Time spent on prevention is time well spent