



## FREQUENTLY ASKED QUESTIONS

### MOLD DECISION-MAKING - HIDDEN MOLD/MUSTY ODORS

My building tenants are complaining about a strong musty odor in their office space. We have had some previous water leaks in this area, performed the necessary cleanup and there is no apparent visible mold on building surfaces.

**MOLD ODORS:** It is not uncommon to have a perceived musty odor by building occupants without visual confirmation of mold growth on exposed building materials. That musty, mildew-like odor associated with mold growth originates from microbial volatile organic compounds (MVOCs) given off by mold during the digestion/metabolism of water impacted building materials (i.e. its food source). The primary MVOCs for mold include acetone, hexane, ethanol and isopropanol, which are released in the ppb range and can be detected by air sampling

Numerous studies have demonstrated wall cavities are under positive pressure in relation to the adjacent interior occupied space and resulting airflow migrate odors through the wall at openings, electrical switches, etc. Mold is frequently found on the back of drywall within wall cavities and may not be present on the exposed surface. Wet fiberglass batting within the wall cavity can also cause odors. Inspections for hidden mold should be performed when strong odors persist and no visible mold is observed on exposed finishes.

#### THREE (3) HIDDEN MOLD INSPECTION METHODS:

- 1. Direct Inspection:** Involves cutting (usually 16" to 24" square) holes on the walls to expose the interior wall cavities. Multiple holes may have to be cut/repaired, but this method is the best investigative tool.
- 2. Boroscope:** Inspects wall cavities by drilling approximately 1/4" diameter holes into the walls and inserting the boroscope probe. Boroscopes can be equipped with a camera, but usually have a limited viewing potential.
- 3. Infrared Camera:** Evaluates water impact inside wall cavities by measuring the temperature differences between surfaces. This tool is non-invasive and allows large wall surfaces to be scanned and help to delineate start/end points for mold remediation.

#### RECOMMENDED RESPONSE ACTIONS FOLLOWING A WATER LEAK:

**Step #1:** Have trained maintenance staff wet vacuum or otherwise remove any standing water, dispose of unwanted porous items and initiate drying. Mold growth will commence within 24-72 hours of water impact on building materials

**Step #2:** Should visible mold growth occur, contact a mold professional to develop a scope of work for remediation (remove, clean, and/or dry the affected building materials). Do not rely on merely cleaning the surfaces with a bleach solution and/or repainting.

**Step #3:** Wherever mold odors persist, expand the mold inspection and remediation efforts to include hidden mold such as within wall cavities.

**Step #4:** Most importantly, identify and fix the source of water infiltration or your mold problem will continue.

**CONCLUSION:** Mold professionals are uniquely trained to use a combination of investigative tools to evaluate hidden mold locations and develop a scope of work for mold remediation. Verification that all affected building materials have been removed and remaining surfaces have been cleaned and dried is essential to eliminate mold regrowth and resulting odors.

When you need professional mold advice email Alan Sutherland, CIH, CHMM at [a.sutherland@aetinc.biz](mailto:a.sutherland@aetinc.biz) or call 610-891-0114. We provide nationwide services; phone consultations are free. Check out the full range of environmental contracting/consulting services on our website [www.aetinc.biz](http://www.aetinc.biz).