

New Rules

What Causes It

MOLD

How to Avoid It

Until recently, there were varying standards and no regulations mandating how mold is handled. As the result of House Bill 329 passed by the 78th Texas Legislature in 2003, new mold rules have been developed and were adopted (with amendments) by the Board of Health (BOH) effective April 27, 2004. Twenty days after notice of these rules are published in the Texas Register, they will become effective. Notice in the Register is currently anticipated to be May 10, 2004.

In the future, “mold consultants, contractors and workers” will be required to receive training and licensing in order to conduct mold-related activities. There will be a “grace period” through January 1, 2005 to allow for this.

What is mold? Molds are small spore bearing structures found almost everywhere. They will only grow if organic nutrients and a moisture source is present. It is a generic term for fungus. Mildew is a fungus but not a mold, which only grows with excessive moisture and can easily be cleaned up (white stuff on plants, residue in showers). Molds and mildews break down what we build up and are a necessary part of our surroundings.

The factors for mold growth are a water source, food source (food stuff, wood, paper, linoleum, paint, dead skin), and lack of ventilation. Buildings and residences are perfect habitats for mold growth. They have lots of food – everything from cellulose-based products to flaked skin, with temperatures ranging from 40-100 degrees Fahrenheit and lots of nooks and crannies. Molds thrive in environments where there is a lack of ventilation like wall cavities, sub-floors, inside

cabinets, beneath wall/floor coverings and behind ceiling tiles.

There are various methods of water where mold can come from. For example, roof leaks, failure in flashings, windows design and installation, leaky pipes, condensation, exterior penetrations, poor ventilation, janitorial issues, landscaping such as ground water and sprinklers. The occupant also contributes with aquariums, laundry, cooking, bathing and fountains.

There are categories of water that influence mold growth. Building materials wet from clean water such as a inside pipe burst generally have to be wet for more than 24-48 hours to cause a mold problem whereas gray water such as aquariums, washing machines and dishwasher can cause a problem in as few as 12 – 24 hours and black water such as sewage, sea water, rising water, should be addressed immediately – at least within 4 hours. However, the sooner the better with all water.

A microbial investigation should be performed based on the evaluation of the following factors:

- Is there current or past water damage?
- Is visible mold present on interior finishes?
- Are occupants complaining of health issues which coincide with the presence of water damage?
- Is there evidence of hidden microbial growth (i.e. odors) and/or is there evidence of past moisture problems?
- Are ambient moisture levels high? (moisture meters)
- Is there standing water in the HVAC system (examination of building layout and HVAC system)

It is impossible to eliminate all mold from our environments. However, we can control the levels of mold in our indoor environment. There are microbe-contaminated surfaces everywhere in buildings and residences. The problems arise when there are high concentrations of pollutants such as mold or dust in the air. Mold is not the only cause of indoor air quality (IAQ) issues; however, it is the most common one. Other causes of poor indoor air quality may be building renovations, inadequate HVAC systems, water or moisture incursion, and poor building maintenance.

Being proactive is always the best way to avoid these issues. Some things you can do to be proactive are to establish a designated IAQ person, keep good maintenance records, document all complaints and actions, have a plan of action ready prior to problems and check insurance coverage – do you have coverage for mold?

When you do have a water loss incident you should take immediate action. Investigate the problem, eliminate the source of water, check surrounding areas for water impact, dry wet items within 24-48 hours, sooner depending on the source of water. Use wall checks to sample for any hidden growth (but do not disturb) and if necessary plan for remediation.

There is a difference between growth and contamination. Growth is where there is visible areas of active mold and unseen active mold growth such as inside a wall cavity or behind wall paper and above ceiling tiles. The porous materials cannot be cleaned. However, contamination is typically settled spores with no active growth and 90 percent of the contents can be cleaned.

Remediation is the clean up and removal of mold in the structure and personal property to levels less than outdoors. Remediation is successfully completed when both the level and type of mold found indoors is comparable to the level naturally occurring outdoors.

Remediation can be broken into several categories from simple clean up when there is minor growth like bathroom grout and condensation, to full enclosure when there is extensive growth (more than 20 square feet). When it comes to extensive growth, after first fixing the moisture cause that led to the growth, remediation procedures would include establishment of regulated areas and critical barriers, negative pressure enclosures/containment and effective HEPA filtration and confirmation with particle testing. Also included is providing decontamination chambers for workers and equipment, providing or managing on site security, removal and disposal of remediated waste, and the application of approved microbial treatment to remediated areas. Verify the work area is ready for post-remediation monitoring with an independent third party, e.g., visual and particle count, and document all project work for post remediation close-out documentation. (Continue to communicate with occupants as appropriate.)

Should the ducts be cleaned? If there is substantial airborne microbial contamination, the HVAC system should be cleaned. If the ducts are flex duct, they should be removed and replaced. Ducts which have an inner lining should also be replaced rather than cleaned. Filters on the HVAC system should be replaced after the remediation is complete even if there was only minimal contamination.

WHAT NOT TO DO:

- Do NOT tear out materials that have been wet for more than 24 hours.
- Do NOT paint over or try to hide discolored or damaged materials
- Do NOT investigate areas without controls in place.
- Do NOT do or say something just to do it or say it. Know what and why.

Timing is everything. A timely reaction to water losses will ensure less expense to fix any damages.

Environmental Response of Texas, Inc. is a wholly owned subsidiary of Spray Systems Environmental (headquartered in Tempe, AZ since 1983). They are an environmental contractor who performs asbestos abatement, lead paint removal and mold remediation.