WATER DAMAGE AND MOLD REMEDIATION - THE CLEANUP

Five Decision-making factors affecting water damage and mold cleanup.

1. **Time of Response**: Mold growth can occur within 48-72 hours of water impact. Immediate action (although not always possible) is the best method of controlling/limiting mold growth. Initial response actions should be completed within the first 72 hours as listed in *AET's Alert - Assessing Flood Damage* is found below.

    - Remove/wet vacuum any standing water
    - Dispose of unwanted wet porous items including contents and funishings
    - Clean-out all mud and debris in contact with wood panels, joists and beams.
    - Remove carpeting and padding
    - Open up interior doors to allow air to circulate freely.
    - Commence drying as soon as possible.

2. **Water Quality**: The extent of sewage or chemical contamination is critical in flood/water damage decision-making. Clean water refers to water from broken water lines, melting ice/snow, rain water, etc. Gray water includes water from dishwashers, washing machines, sump pump failures, etc. Black water refers to toilet overflows or sewer backups. Black water includes flooding from sea waters, rivers and streams. Naturally, higher levels of cleaning and disinfecting is needed as remediation extends between clean and black water.

3. **Occupancy Conditions**: Infants, children, the elderly and individuals with pre-existing health condtions such as immune suppressed persons and persons with chronic lung disease/asthma are most susceptible to the health effects of mold, bacteria and viruses. Remediation in a warehouse may not be as stringent in regards to removal, drying and disinfecting as in hospitals, schools, nursing homes and residences.

4. **Size of Mold Growth**: AET recommends all water damage events be investigated by an environmental professional. At a minimum, this must include a review of the clients decision-making regarding items to be removed/discarded vs. dried; verification that remaining items are dry by moisture measurement testing as well as follow-up inspection of affected builiding materials/items by informed persons regarding potential mold re-growth.

5. **Type of Mold**: Inhalation of mold spores, fragments or metabolites (regardless of mold species) can lead to adverse health effects primarily allergic reactions. However, mold project design considerations must include additional mold stringent procedures where the mold species produce potent mycotoxins. Example mold species which produce mycotoxins include Aspergillus, Penicillium, Fusarium, Trichoderma, and Memnoniella. The reference to black mold as found in many media articles is typically related to Stachybotrus which also produces mycotoxins.

Decision-making based on the type of materials water damaged

Porous Materials	Recommended Action
Books and Papers	Discard unless valuable
Carpet and Padding	Discard
Ceiling Tiles	Discard
Cellulose Insulation	Discard
Fiberglass Insulation	Discard
Upholstered Furniture	Discard unless valuable antique
Wallboard	Remove to a height where dry readings are achieved
Clothing, draperies and other cloth items	Discard or launder

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CONTINUED

Non-Porous Materials	Recommended Actions
Concrete or Cinderblock	Dry and treat with disinfectant
Linoleum, Ceramic Tile, Vinyl	Wet vacuum unless surface has buckled or dislodged, then remove (check if asbestos containing)
Plastics, Metals, Glass	Vacuum or wet wipe with mild detergent and allow to dry.
Wood surfaces	Dry unless warped or buckling and verify moisture content with moisture meters

Recommended Water Damage/Remediation Procedures

1. Identify the source(s) of water infiltration and repair as necessary. Continue to look for other sources/pathways throughout the remediation process.
2. Turn off the HVAC system, seal supply/return grills with plastic sheeting.
3. Remove/wet vacuum any standing water.
4. Isolate mold work areas using plastic sheeting. Install air filtration devices equipped with HEPA filters to vent the work area and achieve negative pressure.
5. Dispose of unwanted, wet porous items including insulation in attics and crawl spaces.
6. Cleanout all dirt, sand or other debris associated with moisture infiltration.
7. Remove affected carpeting and padding.
8. Perform moisture measurement testing to identify beginning/end points of water impact.
9. Remove affected drywall, paneling, etc. to expose wall cavities. Remove insulation in wall cavities.
10. Visually inspect wall cavities and continue to remove wall coverings until dry, non-affected surfaces are found.
11. Initiate/continue drying within the spaces. Verify the extent of drying including within wall cavities by daily moisture measurement testing.
12. Apply disinfectant to remaining surfaces to help eliminate future mold growth within the space.
13. Perform final cleaning by HEPA vacuuming all surfaces free of dust, dirt and debris. Confirm cleaning by visual inspection.
14. Perform mold spore air quality sampling to evaluate the completeness of the remediation process. Perform additional remediation, drying and cleanings as necessary to achieve reliable results.

AET specializes in rapid response to water damage events. AET's professional services are designed, implemented and supervised by Certified Industrial Hygienist (CIHs). We are committed to the health and safety of the current/future occupants of buildings we remediate where water damage/mold has occurred. Our solutions are proven and sustainable.

Please contact Mr. Alan Sutherland, CIH, CHMM at 610-891-0114 or 1-800-9696-AET to answer your water damage/mold concerns.