

APPENDIX B – WATER DAMAGE RESTORATION GUIDELINES

Excess Water Removal - Excess water removal is essential at the beginning point of restoration procedures. Removal of excess water may be achieved by physical means such as mopping or soaking up excess moisture from hard surfaces or furnishings. However, water removal usually involves the use of more sophisticated techniques and equipment such as pumps, or specially designed commercial wet vacuuming equipment.

Evaporation - Once excess water is removed, remaining water must be changed from a liquid to a vapor by promoting evaporation. Normally, this is accomplished efficiently with specialized air-moving equipment.

Dehumidification - Once moisture is evaporated from structural materials and contents into the air, the moisture must be removed from the air through dehumidification, or it must be externally exhausted. Failure to dehumidify may result in substantial secondary damage and present a significant health hazard.

Temperature Control - Both evaporation and dehumidification are greatly enhanced by controlling the temperature in a confined environment. Additionally, microorganisms' growth is temperature related. Thus, temperature modification and control is an important basic principle for safe, effective drying.

Monitoring - The damaged structure must be monitored starting with the initial assessment and evaluation, and continuing throughout the restoration process. Monitoring procedures may include, but are not limited to the following:

- Temperature and humidity readings;
- Updating drying progress status; and
- Checking the moisture content of structural wood and other materials with a moisture meter.

When applicable, monitoring also must include checking equipment operation, work progress and indoor environment quality. Drying Standards have been developed and are available in Appendix C.

Inspection - Following the removal of excess water and installation of drying and dehumidification equipment, a detailed inspection must be conducted that considers the extent of water migration, the types and quantities of affected materials and the degree of apparent damage. The information obtained may be used to analyze the extent of damage and to determine the job scope. Professional testing equipment and the principles of psychrometry must be used to formulate a plan to dry and restore, or replace both structural materials and contents. A comprehensive inspection may include, but is not necessarily limited to, the following:

- Identifying and evaluating health and safety hazards;
- Determining the source of water;
- Determining the need to protect floor covering materials and contents;
- Determining the extent of moisture intrusion;
- Determining the job scope;
- Evaluating flooring materials;
- Evaluating inventories and/or contents;
- Evaluating the HVAC system, if affected;
- Assess other structural materials (walls, ceilings, etc.);
- Documenting preexisting conditions not related to the current loss (wear, urine contamination, delamination, etc.); and
- Establishing drying goals.

Floor covering evaluation - It is recommended that a determination be made as to whether floor-covering materials (e.g. carpet, cushion, vinyl, wood, laminates) are salvageable. Considerations may include, but are not necessarily limited to the following:

- Construction integrity; and
- Porosity and potential health effects from contaminants.

Disposition of floor coverings and the ability to salvage them will be determined according to Appendix C.

Structural Materials - Throughout the restoration process, it is essential that effort is directed toward anticipating secondary damage and attending to other structural components that may require drying, or demolition and replacement. This is especially important if water remains in contact with building materials longer than 24 hours, such as water on flooring in contact with gypsum board. These components may include, but are not necessarily limited to the following:

- Ceilings;
- Walls;
- Built-in furnishings and fixtures;
- Insulation; and
- Structural wood.

Occupant Evacuation - For areas with extensive water damage, determine if occupants need to be evacuated from the damaged area, and, if so, estimate the duration of time. Factors used to make this determination may include, but are not necessarily limited to the following:

- Contamination;
- Obvious indications of high levels of microbiological or chemical contamination; and
- Presence of occupants who are immunocompromised, have mold allergies, asthma or other applicable medical conditions.

Training - Employees performing category 2 water (gray water) and category 3 water (black water) damage restoration must be trained in Universal Precautions in the Bloodborne Pathogen training and General Electrical Principles/Electrical Safety training.

Personal Protection - Persons working in or around Category 3 water during the initial stage of decontamination, cleaning and biocide application must be equipped with personal protective equipment (PPE) including but not necessarily limited to the following:

- Rubber knee-high boots;
- Rubber gloves; and
- Safety goggles (preferred) or safety glasses.

An evaluation must be made to determine the necessity for respiratory protection and protective suits. In the case of overhead hazards or contamination, hard hats must also be worn.