

## Division of Administrative Affairs

# Environmental Health and Safety Policy #P&P11 Water Intrusion Policy

Version #1

Effective: 2/10/2025 Revised: New Document

## 1. PURPOSE:

The purpose of this policy is to establish guidelines and procedures for managing and mitigating water intrusion incidents within university facilities to ensure the safety of occupants, preservation of property, and continuity of operations by outlining requirements for initial response, determining extent of damage, and defining remediation procedures. This policy describes the categories of water damage and the industry recommended guidelines for effective remediation.

#### 2. POLICY STATEMENT:

This policy applies to all university-owned buildings, including residential, academic, administrative, athletic, and research facilities. It governs the responsibilities of university employees, students, contractors, and visitors in relation to water intrusion incidents.

FAU employees and contractors are responsible for immediate reporting of water intrusion incidents as defined herein.

All water intrusion incidents require immediate measures to stop the source of water, remove standing water, and protect affected areas from further damage.

FAU, accordance with IICRC S500 2015 and FAC Rule 61-31.701, does not allow Advanced Structural Drying (drying in-place) of impacted building materials if there is evidence of pre-existing damages. The initial response to a water intrusion incident is to determine and document any pre-existing damages to include detailed moisture mapping, removal of baseboards, toe kicks, carpet padding, appliances, and opening of impacted wallboards.

Remediation efforts will prioritize health and safety, including the prevention of mold growth and structural damage.

Restoration work will be conducted in compliance with the FAU Cost Containment Guidelines.

## 3. CONCEPTS AND DEFINITIONS:

- 3.1. Category 1 (Clean Water) originates from sanitary sources that presents minimal dermal, ingestion and or inhalation exposure risks. The risk may not remain minimal if the water contacts other contaminated surfaces or materials. Sources of clean water include potable water and rainwater.
- 3.2. Category 2 (Grey/Dirty Water) originates from sources that is not considered hazardous but has the potential to be hazardous and conducive to fungal amplification impacting building materials. Sources include bath, sink, and washing machine water drainage. Clean water can escalate to category 2 in less than 24 hours due to microbial activity after contact with dirty floors, carpet, or attic surfaces.

- 3.3. Category 3 (Black/Dirty Water) originates from grossly contaminated sources potentially containing hazardous pathogenic and or toxigenic agents. Sources include sewage, ground and flood waters.
- 3.4. Class 1 water damage represents the least amount of water impacting small areas and or building content.
- 3.5. Class 2 water damage represents a large amount of water impacting carpeting and porous contents of an entire space. The water incident has wicked up wallboards up to 2 feet and there is persistent elevated moisture content in building materials.
- 3.6. Class 3 water damage represents the greatest amount of water impact saturating ceilings, wallboards and insulation, subflooring, carpet, and porous content.
- 3.7. Class 4 water damage reflects specialty drying of low porosity materials such as hardwood, plaster, brick and concrete with deep pockets of saturation requiring very low specific humidity, longer drying times, and specific methods.
- 3.8. Water Intrusion Incident refers to any incident where water enters or infiltrates a structure, area, or system in an unintended or undesirable manner. Water intrusion incidents can range from minor leaks to significant flooding and may cause damage to building materials, promote mold growth, and compromise structural integrity if not addressed promptly. Proper prevention remediation efforts are critical in managing the effects of such events.

## 4. RESPONSIBILITIES:

## 4.1. Building Occupants

4.1.1. Notify Facilities of leaks and/or water damage as soon as they are discovered.

#### 4.2. Facilities

4.2.1. Repairs or contains water infiltrations in a timely manner, cleans or replaces materials damaged by water using these guidelines. Based on the scale of the incident, a 3<sup>rd</sup> party water damage/mold remediation contractor may be used to execute the procedures defined herein.

## 4.3. Water Damage/Mold Remediation Contractor

4.3.1. Responds to water/mold incidents at FAU in a timely manner, cleans or replaces materials damaged by water under the direction of FAU using these guidelines.

## 4.4. Environmental Health and Safety

- 4.4.1. Establishes the FAU requirements for identifying, managing, and mitigating water intrusion incidents.
- 4.4.2.Provides guidance on remediating water damage areas and performs assessments to determine the potential for fungal amplification and the need for environmental monitoring or testing.

## 5. PROCEDURES:

5.1. Upon discovery of a leak or flood which has resulted in water damage, building occupants must contact Facilities and EH&S immediately to address the source of water infiltration. If the incident occurs in a space under construction, the Project Manager, or other responsible person, must notify Facilities and EH&S.

- 5.2. Prior to commencing remedial activities, the category and class of the water intrusion must be determined and the work area assessed for potential safety hazards such as electrical hazards or unsafe structures. In addition, building materials that were either damaged as part of the water incident or will need to be disturbed as part of the clean-up should also be evaluated by EH&S or applicable third-party contractor for regulated hazardous materials to include, mold, lead, and asbestos prior to any remedial activities. Any remediation of impacted building materials must be performed in a way that minimize exposure to potential hazardous substances i.e., the use of wet methods or use of HEPA-filtered vacuums during the cutting of wallboards.
- 5.3. Once the source(s), category, and extent of the water intrusion has been identified, immediate action must be taken to repair the damage and minimize the spread. This may include actions to collect or contain the water such as damming or diverting it. Once the spill has been contained, remediation shall be conducted by either the Physical Plant department or a Water Damage/Mold Remediation Contractor licensed by the State of Florida DBPR.
- 5.4. If the size and complexity of the job requires more than in-house resources can safely manage, the Water Damage/Mold Remediation Contractor will be utilized depending on the location and circumstances of the water incident.
- 5.5. The Water Damage/Mold Remediation Contractor shall report to the site of the water incident within the time designated in the contract with FAU. Contractor personnel shall evaluate the water incident in accordance with industry guidelines to include possible intrusive inspections as recommended by IICRC S500 2015 and provide a detailed scope of activities necessary to resolve the water incident in accordance with the requirements herein. Once the applicable FAU department (EH&S, Facilities, Housing, etc.) agrees to the scope of activities, additional activities are not authorized without the express permission from FAU.
- 5.6. All excess water must be extracted with pumps or wet-dry vacuums. In addition to these measures, the following guidelines should be followed to address water damaged materials if the source is Category 1 water and there is no evidence of mold growth. Note that ANSI/IICRC S500-2015 no longer recommend implementing drying in-place until the impacted areas, including interstitial spaces have been evaluated for the presence of low permeance (hard to dry) materials, accumulated water in the wall frame floor tracks, and any preexisting damages. The moisture content levels of all impacted building materials should be measured and documented daily using the wood moisture equivalent % (WME) measurement feature. If building materials including carpeting are impacted by water intrusion a detailed inspection (potentially intrusive) is required by the Water Damage/Mold Remediation Contractor prior to any decision to dry in-place. In addition, a post mitigation visual mold inspection should also be performed by a licensed remediation contractor.

Table 1 - Materials

Materials	Remedial Actions
Concrete or cinder block surfaces	<ul> <li>Remove water with water extraction vacuum.</li> <li>Reduce ambient humidity levels with dehumidifier.</li> <li>Accelerate drying process with fans.</li> <li>If not exposed, vent holes or flood cuts to expose block may be necessary.</li> </ul>
Ceiling tiles and insulation	Discard and replace.
Hard surface, porous flooring (Linoleum, ceramic tile, vinyl)	<ul> <li>Vacuum or damp wipe with water and mild detergent and allow to dry, scrub if necessary.</li> <li>Check to make sure underflooring is dry; dry underflooring if necessary.</li> <li>Note that "thin set" used to set floor tiles is hydrophobic (repels water) when appropriately applied and water migration under these tiles usually reflects improper installation.</li> </ul>

Materials	Remedial Actions			
Non-porous, hard	HEPA vacuum or damp wipe with water and mild detergent and allow to dry,			
surfaces (Plastics, metals)	scrub if necessary.			
Wood surfaces	<ul> <li>Remove moisture immediately and use dehumidifiers, gentle heat, and fans for drying. (Use caution when applying heat to hardwood floors.)</li> <li>Treated or finished wood surfaces may be cleaned with mild detergent and clean water and allowed to dry.</li> </ul>			
	Wet paneling should be pried away from wall for drying.			
	<ul> <li>OSB and other engineered wood materials should, in general, be replaced after becoming saturated with moisture especially if swelling has occurred.</li> </ul>			
	For non-valuable items, discard books and papers.			
Books and papers	<ul> <li>Photocopy valuable/important items, discard originals.</li> <li>Freeze (in frost-free freezer or meat locker) or freeze-dry.</li> </ul>			
Carpet and backing	<ul> <li>Remove water with appropriate water extraction equipment.</li> <li>Discard wet carpet padding.</li> <li>Clean floor substrate with an appropriate EPA registered disinfectant.</li> <li>Carpets that are in good condition, show no evidence of mold growth (staining or odor) and do not have a porous underlayment/backing can be steam cleaned or shampooed with an appropriate EPA registered disinfectant, dried, and HEPA vacuumed.</li> <li>Carpets that show evidence of historical staining, odor, and or mold growth shall be discarded and replaced.</li> <li>Use of biocides shall not be used on impacted carpets or carpet padding.</li> </ul>			
Upholstered furniture	<ul> <li>May be difficult to completely dry and or clean. If the piece is valuable, owner may wish to consult a restoration/water damage professional who specializes in furniture. Otherwise, discard.</li> </ul>			
	<ul> <li>IICRC S500 2015 recommend detailed inspections of all hidden cavities within the impacted areas for water accumulation and pre-existing damages prior to drying in-place. Note that in Florida when &gt; 10 square feet of visible mold exist the use of a licensed mold remediator is required.</li> </ul>			
Wallboard (drywall, OSB and	<ul> <li>Ventilate the wall cavities. If possible, remove baseboard and drill ventilation holes. Insert hose(s) from the negative air mover(s) to pull moist air from the wall cavities while at the same time use a separate air blower to blow positive air into other ventilation holes. Various types and layers of paint on the wall are likely to increase the drying time if attempts are made to dry the wall from the finished side only.</li> </ul>			
other engineered wood materials)	Remove water with water extraction vacuum.			
materiais)	Reduce ambient humidity levels with dehumidifier.			
	<ul> <li>Accelerate drying process with fans only after detailed assessment of the interstitial spaces for accumulated moisture and or pre-existing damages.</li> </ul>			
	Notify EH&S regarding the extent of the damage.			
	Use of biocides shall not be used on wallboards.			
	<ul> <li>Depending on the location, the extent of the water damage and the environmental conditions, it may be necessary to remove and replace all water damaged wallboard.</li> </ul>			

- 5.7. Water damage caused by any source of water must be remediated as quickly and as thoroughly as possible to prevent fungal amplifications. However, when the water is contaminated, further actions are required than those listed in the previous section to minimize the risk of exposure to infectious or hazardous agents. If you know or suspect the source of water is contaminated with sewage, chemical or biological pollution, the guidelines below should be followed.
  - 5.7.1. Sewage or Biological Work Procedures

5.7.1.1. Cleanup of areas where there is significant water damage caused by sewage leaks

or backups must have the following controls in place:

- 5.7.1.2. Employees engaged in cleanup must have received both the Bloodborne Pathogens and Hazard Communications trainings.
- 5.7.1.3. Employees engaged in cleanup must be equipped with the proper Personal Protective Equipment (PPE). Proper PPE includes waterproof gloves, boots and eye protection at a minimum. Contact EH&S for assistance with selecting appropriate types of PPE.
- 5.7.1.4. Cleanup methods must be selected that minimize the potential for exposure via the nose, mouth, and open wounds or by inhalation of aerosols or dusts. The work area should be contained in a manner that prevents the cross contamination of other areas.
- 5.7.1.5. No eating or drinking in the contaminated area.
- 5.7.1.6. Wash hands thoroughly after removing gloves and before leaving the work area.
- 5.7.1.7. Once the source of the leak has been repaired and regardless of the amount of time in which materials have been wet, the following cleanup methods should be used in addition to those listed in the previous section:
  - Discard (in a controlled manner) and replace all impacted and contaminated carpets, ceiling tiles, upholstered furniture wallboards, and porous materials.
  - Clean all hard or non-porous surfaces using a mild detergent and disinfect by rinsing with a 1:10 bleach to water solution or an EPA registered disinfectant.

## 5.7.2.Chemical

- 5.7.2.1. If you know or have reason to suspect that there is chemical contamination, contact EH&S immediately for an assessment.
- 5.8. As soon as possible after the completion of any required remediation actions, the responsible person must notify EH&S who will assess the area(s) to determine the potential for fungal amplification and the need for environmental testing or sampling.

## 6. ENFORCEMENT:

6.1. EH&S is responsible for policy enforcement in accordance with University Policy 4.1.2 Environmental Health and Safety.

## 7. RELATED INFORMATION:

- EPA 402-K-01-001, Mold Remediation in Schools and Commercial Buildings, <a href="https://www.epa.gov/mold/printable-version-mold-remediation-schools-and-commercial-buildings">https://www.epa.gov/mold/printable-version-mold-remediation-schools-and-commercial-buildings</a>
- New York Department of Health and Mental Hygiene, Guidelines on Assessment and Remediation of Fungi in Indoor Environments, <a href="https://www1.nvc.gov/assets/doh/downloads/pdf/epi/epi-mold-quidelines.pdf">https://www1.nvc.gov/assets/doh/downloads/pdf/epi/epi-mold-quidelines.pdf</a>
- ANSI/IICRC S500 (2015) Standard and Refence Guide for Professional Water Damage Restoration

- ANSI/IICRC S520 (2015) Standard and Reference Guide for Professional Mold Remediation
- The American Conference of Governmental Industrial Hygienists (ACGIH) on *Bioaerosols for Assessment and Control*
- FAC Rule 61-31.701 Minimum Standard and Practices for Mold Assessors <a href="https://www.flrules.org/gateway/ruleno.asp?id=61-31.701">https://www.flrules.org/gateway/ruleno.asp?id=61-31.701</a>
- Florida Statues, Chapter 468, Part XVI (Mold Related Services) https://www.flsenate.gov/Laws/Statutes/2018/Chapter468/Part\_XVI

Approved and issued by order of:

Wendy Ash Graves, MBA, CSP Environmental Health and Safety

DATE: 02/10/25

## **POLICY MAINTENANCE SECTION**

Last Revision Date	02/10/25	,		
Last Revision By	Wendy Ash Graves		<u> </u>	
Next Review Due	02/10/30			
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Version	1.0			
Time-sensitive Items	N/A			

## THIS POLICY RESCINDS ALL OTHER WRITTEN DIRECTIVES REGARDING THIS TOPIC.

## 8. RECORD OF CHANGES/STATUS CONTROL:

Version	Date	Summary of Changes	Reviewed By
1.0	02/10/25	New document	W. Ash Graves
		·	Frank Novembre
			Michael Sailsman