

Environmental Health and Safety Manual

Policy Number: EH&S 1-10

Title: Microbiological Control After Water Intrusion

Effective Date: 12/94 Revision: 2/97 Number of Pages: 4

**PURPOSE:** To establish a mechanism for microbiological control after water intrusion in a safe and

efficient manner.

**SCOPE:** University wide.

#### **DEFINITIONS:**

**Dilute Bleach Solution:** One (1) part commercial bleach (i.e. Clorox) to nine (9) parts water, for a 1:10 ratio.

Fungi: Yeasts and molds.

**HEPA:** High Efficiency Particulate Air.

**Spores:** The reproductive bodies of a fungus.

**Water Intrusion:** Includes but is not limited to flooding, high humidity, wet carpet, or other fixtures, such as furniture.

### **PROCEDURES:**

## I. User Responsibility

- 1. If water intrusion is noted by a worker, he/she should immediately report the problem to the supervisor. The supervisor must immediately contact:
  - a. Physical Plant

West Campus: 4-2400 East Campus: 2-6400

Residential Operations: 2-6686 b. Environmental Health and Safety: 2-6410

# II. Physical Plant Responsibilities

If there is *no visible mold growth* on the carpeting or fixtures in the work area, workers can perform the following tasks wearing disposable gloves and eye protection.

- 1. Notify the Department of Environmental Health and Safety and the affected Department Head/designee of the problem area.
- 2. Introduce 100% outdoor air to remove odors, if possible.
- 3. Determine the source of the water intrusion (i.e. roof damage, window damage, plumbing concern, etc.). Repair all structural damage or design flaws. Inspect and maintain all similar structures to prevent repeated problems.
- 4. Remove and dispose of all wet ceiling tiles within 24 hours which cannot be properly dried and disinfected. Replace them with new ceiling tiles within 24 hours, but not before the water source has been removed.
- 5. Dry all wet light fixtures after securing power under the Lockout/Tagout Policy.
- 6. Water soaked furniture and carpet should either be replaced or cleaned with a dilute bleach solution. Water damaged furniture made of particle board or pressed wafer board should be discarded. If the carpet is to be removed, see Step 12.
- 7. Leave all file cabinets and desk drawers open to facilitate airflow in drying the carpet underneath.
- 8. Remove and dispose of nonessential wet files and paperwork, as directed by the affected department. Remove any essential wet paper from the flooded area to a location where it can be dried, photocopied, and discarded or dried and treated with a spray that kills microbes (decontamination).
- 9. Remove as much water as possible from the wet carpet using a wet-vacuum.
- 10. Upon completion of wet vacuuming, shampoo the carpet with a dilute bleach solution twice, within 30 minutes.
- 11. Rinse the carpet with plain water to remove the bleach solution. Take steps to ensure that the carpet is totally dry within 24 hours of treatment, using fans or dehumidifiers, and/or opening windows. If the carpet cannot be dried within 24 hours, the carpet must be discarded.

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12. If it is determined that the carpet will be removed, Physical Plant personnel shall remove the carpet. If there are suspect asbestos-containing floor tiles beneath the carpet, and the tiles are coming up during carpet removal, the Department of Environmental Health and Safety will be notified. Depending on the size of the carpet, either the Department of Environmental Health and Safety or an outside asbestos abatement contractor shall remove the carpet.

If there is *visible mold growth* on the carpet or fixtures in the work area, workers shall perform the above steps wearing disposable gloves, eye protection, and disposable clothing. Respiratory protection will be used as directed by the Department of Environmental Health and Safety. These additional steps shall occur:

- 1. Shut off the HVAC system in the work area, if possible, prior to any remediation work, and seal all openings (i.e. supply and return vents, doorways) leading outside the work area with at least 6 mil plastic sheeting.
- 2. Replace Step 8 above with: Upon completion of wet vacuuming, shampoo the carpet with a bleach solution of four (4) parts commercial bleach to one (1) part water, twice, within 30 minutes.
- 3. Discard any non-cleanable items (i.e. torn furniture).
- 4. After remediation work is completed and upon approval from the Department of Environmental Health and Safety, the ventilation system can be reactivated.

Note: In order for any individual to wear a respirator, he/she must have a successful physical examination and receive written physician's approval on the ability to wear a respirator, attend a respiratory protection training session, and pass a respirator fit test. Training and fit testing are provided by the Department of Environmental Health and Safety.

### III. Department of Environmental Health and Safety Responsibilities

- 1. The Department of Environmental Health and Safety may perform pre-, during, and/or post-clean up air sampling or material testing within the work area, as necessary.
- 2. Coordinate the removal of asbestos-containing floor tiles, if necessary.

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3. Give clearance for use of work area after clean up when visible mold growth was evident.

**INQUIRIES/REQUESTS:** Environmental Health and Safety

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**RELATED FORMS:** 

**RELATED DOCUMENTS:** Flood Response, Policy 1-9