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**BASIC MOLD REMEDIATION PROCEDURE DOCUMENT**

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## 1.0 Introduction

### 1.1 Purpose

The purpose of Emory's Basic Mold Remediation Procedures is to provide instruction on how to perform Level 1 and, in some cases, Level 2 remediation as described in the *Mold Remediation* section of Emory's Mold Operations and Maintenance Program Manual. The procedures provide instruction to control hazards that can be injurious to faculty, staff, students, and contractors as well as guidance on appropriate personal protective equipment selections when hazards cannot be eliminated by engineering or administrative controls.

### 1.2 Scope

This document applies to all University Campus Services and Housing personnel for University-owned facilities and operations, as well as subcontractors hired to work at University-owned facilities and operations.

### 1.3 Responsibilities

#### ***Environmental Health and Safety Office (EHSO)***

- Development and administration of the Basic Mold Remediation Procedures.
- Reviewing reported health concerns/complaints.
- Assisting with mold assessments and inspections.
- Providing assistance with training and technical assistance on mold hazards and basic remediation levels.
- Documenting training.
- Approving products used within facilities and residences to help minimize contribution to indoor contamination.
- Coordinating remediation activities.
- Pre-qualifying third-party consultants and contractors.
- Reviewing, updating, and evaluating overall effectiveness of the Mold O & M program.

#### ***University Housing***

University Housing has primary responsibility for implementation, management, and enforcement of the Mold O & M Program Manual in their areas. This entails ensuring that:

- Maintenance activities (i.e. changing HVAC filters within residences) are coordinated on a regular basis.
- Appropriate maintenance has been completed and communicated to employees in each maintenance area.
- Appropriate disciplinary action is taken in situations of violation of the program.
- Maintenance personnel use work practices, engineering controls, and products/materials that minimize release of pollutants in residences.
- Complaints/concerns are reported to EHSO in a timely manner.
- Complaints/concerns are documented.
- Coordinating access to buildings for EHSO investigation or any remediation activities.

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- Ensuring good housekeeping practices in their areas.
- Removing visible moisture accumulation on windows, walls, and other surfaces as soon as possible.
- Drying wet areas or materials within 24-48 hours.
- Using the heating, ventilating, and air conditioning (HVAC) system effectively.
- Maintaining appropriate relative humidity.
- Keeping windows closed and secure.
- Not damaging or altering bathroom vents.
- Minimizing excessive humidity in bathrooms.
- Keeping clothes dryer vents properly connected so exhaust goes directly to outdoors.

***Campus Services***

- Attending required training.
- Ensuring that personnel use work practices, engineering controls, and products/materials that minimize release of pollutants in facilities.
- Ensuring that appropriate maintenance has been completed and communicated to employees in their areas.
- Reporting complaints/concerns to EHSO in a timely manner.
- Coordinating access to buildings for EHSO investigations or remediation activities.
- Coordinating maintenance activities on a regular basis.
- Documenting complaints/concerns.

**1.4 Training Requirements**

Refer to the Mold Operations and Maintenance Program Manual for training topics. Training should be received prior to any remediation activities.

**1.5 Recordkeeping Requirements**

- All original documents shall be maintained in the EHSO central files.
- Documentation shall be retained for at least five years or as required by law, whatever period is longer.
- The EHSO Training Manager will retain all records from EHSO-provided training in EHSO central files.
- Supervisors should document training sessions provided to personnel. Individual training records such as this should be documented using a tracking system.
- The Program requires documentation of water intrusions events, occupant/tenant complaints, responses actions, and follow-up.

**2.0 Procedures**

EHSO should be notified prior to any mold remediation project. EHSO and Campus Services will determine if the remediation will be conducted by Emory personnel or a contractor with experience in mold remediation. The work area should be unoccupied at the time of the work. Small projects (Level I) usually can be completed quickly, so relocation of the occupants will not be necessary. Vacating tenants, residents, and/or

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employees from spaces adjoining the work area is usually not necessary, but is recommended in the presence of infants (less than 12 months old), persons recovering from recent surgery, immune suppressed people, or people with chronic inflammatory lung diseases (asthma, hypersensitivity pneumonitis and severe allergies).

- Wear rubber or vinyl gloves, appropriate clothing and shoes, eye protection, and tight fitting N95 disposable respirator during cleanup of the area.
- The use of a dust mask/disposable paper type respirator such as the N95 may trigger compliance measures per the federal respiratory protection standard (1910.134) including a written respiratory protection program with worksite-specific procedures and medical evaluation of employees.
- Individuals using personal protective equipment (PPE) shall follow Emory's Personal Protective Equipment Guideline.
- Turn off all HVAC Equipment and cover vents with plastic sheeting if near work area.
- Exercise caution around any electrical equipment or fixtures.
- Make sure the work area is well ventilated, but isolated from non-work areas at all times during the removal process.
- Do not use a standard fan in an area where mold is present or suspected.

### 3.0 During Remediation

Approved Emory personnel or a contractor with experience in mold remediation will conduct remediation activities.

- Read and follow the instructions and material safety data sheets (MSDS) of all chemicals used.
- Wipe all surfaces with a non-ammonia soap or mild detergent in water to remove surface molds.
- Use a stiff brush or cleaning pads with detergent and water on all uneven (rough) surfaces.
- If sanding or a dry wire brush is used to remove visible mold or water damage on hard surfaces, a vacuum cleaner with HEPA filters should be used to capture dust released by the process.
- Damp wipe all surfaces clean with water - Use a wet/dry vacuum if necessary.
- **NOTE:** The use of biocides is not permitted, but over-the-counter disinfectants may be used (never mix ammonia with bleach).

### 4.0 Upon Completion of Remediation

Based on the amount of mold contamination, EHSO will determine if post-remediation sampling should be conducted prior to build-back.

- Damp wipe all surfaces clean with water - Use a wet/dry vacuum if necessary.
- **NOTE:** The use of biocides is not permitted, but over-the-counter disinfectants may be used (never mix ammonia with bleach).
- Let all materials dry overnight or until thoroughly dry.
- Remove and discard all porous or cellulose materials (e.g. drywall) that appear to have mold on them.
- **NOTE:** Suspect asbestos-containing materials (e.g. drywall, joint compound, flooring, etc.) must be sampled by EHSO prior to remediation to determine asbestos content. Asbestos-containing materials (ACM) must be abated by

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licensed asbestos abatement contractors.

- Before cutting out drywall, tape plastic sheeting six inches beyond the wet or moldy area and tape down to limit release of mold or dust into the area.
- Contaminated absorbent material should be sealed in plastic sheets that are taped closed before removing from the area for disposal.
- HEPA vacuum clean the entire work area and areas used by workers as a means of egress at completion
- Wipe clean all surfaces in the work area and, if warranted, areas used by workers as a means of egress at completion of the cleaning and removal process.
- Wash hands and face thoroughly.
- HEPA vacuum all clothes and shoes during any break during remediation activities and at completion of the remediation.
- Dispose of respirator and wash other personal protective equipment.

## 5.0 Post-Remediation Sampling

The work area should be unoccupied following completion of the work until a visual assessment has been conducted by EHSO and reoccupation has been approved and documented by EHSO. Based on the scope of the project, EHSO may conduct post-remediation sampling. If post-remediation sampling is conducted, the work area should remain unoccupied until confirmation of acceptable airborne microbial concentrations has been received and documented by EHSO

## 6.0 Reassessment of the Work Area and Remediation Activities

- EHSO will reassess the work area upon request and immediately following completion of remediation activities.
- EHSO's reassessment of the work area and remediation activities will be accomplished by:
  - Identifying and evaluating remediation processes;
  - Reassessing problems that have been identified by elevated post-remediation air samples; and
  - Re-evaluating the effectiveness of remediation activities.

## 7.0 References

- OSHA [Personal Protective Equipment Standard – 29 CFR 1910.132-138](#)
- OSHA [Non-mandatory Compliance Guidelines for Hazard Assessment and PPE Selection – 1910 Subpart I App B](#)
- [PPE Guideline](#)
- [Mold Remediation in Schools and Commercial Buildings, US EPA \(current\)](#)
- [Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health and Mental Hygiene \(current\)](#)
- [ANSI/ASHRAE Standard 62.1\(current\)](#)
- ANSI/ASHRAE Standard 55-2004
- [IICRC S520 \(current\)](#)
- [Centers for Disease Control and Prevention Mold Clean-up Fact Sheet](#)
- [General Sanitation Requirements for Mold \(California\)](#)
- [Texas Mold Assessment and Remediation Rules \(TMARR\)](#)