

## UNIVERSITY OF CHICAGO MEDICAL CENTER

**POLICY NAME:** MOLD PREVENTION AND RESPONSE PLAN  
**POLICY NUMBER:** S04-35  
**ISSUE DATE:** JANUARY 18, 2012  
**REVISED DATE:** MARCH 21, 2018  
**REVIEW DATE:** MARCH 21, 2018

### **PURPOSE:**

The purpose of this plan is to provide those with responsibilities for flood and mold prevention and response with the steps that are needed to help prevent these events as well as successfully respond to the events.

### **DEFINITIONS:**

**Molds-** Molds are a part of the natural environment and generally do not pose a hazard to healthy individuals. Molds are fungi that can be found anywhere indoors or outdoors throughout the year. Molds may produce adverse health effects such as allergy-like reactions in some but not all individuals. There are currently no regulatory exposure standards or recommendations for airborne concentrations of mold or mold spores with regard to concentration or species of mold spores.

### **POLICY:**

The University of Chicago Medical Center (UCMC) shall identify and correct conditions present within UCMC facilities that permit mold growth while protecting the health of building occupants and workers involved in mold cleanup.

### **PROCEDURES:**

See also Appendix A – Water Damage Cleanup and Mold Prevention and Appendix B- Mold Remediation (removal) Guidelines for guidelines in cleaning up water damaged materials. Refer to the S05-10-17 Flood Emergency for procedures in responding to floods.

### **Authority and Responsibility**

Departments are responsible for:

1. Notifying the Environmental Health and Safety Office x5SAFE if there is visible mold, moldy odors or other concerns about mold. Also notify Infection Control x21365 if mold is identified in a patient care area.
2. Notifying the Plant Department at 26295 for a repair of any moisture issues, or water infiltration especially with visible mold growth as soon as found;
3. Do not disturb any visible mold growth
4. Providing access when an investigation and/or remediation is needed;
5. Arranging for removal of furniture, equipment, etc. from the remediation area prior to start of remediation; and
6. Ensuring subordinates vacate the area prior to start of remediation.

## UNIVERSITY OF CHICAGO MEDICAL CENTER

Environmental Health & Safety (EH&S) is responsible for:

1. Conducting walkthrough investigations of mold complaint areas;
2. Determining the presence, location, size and source of mold growth;
3. Providing any recommendations for mold remediation and contacting the appropriate department for remediation;
4. Providing guidance or education for personal protection according to Appendix A
5. Notify Infection Control if mold identified in a patient care area upon discovery
6. Notify Plant of water issues upon discovery.
7. Notify Radiation Safety if events are discovered in a radiation use area

Plant is responsible for:

1. Identifying and correcting the source of moisture or water infiltration within 48 hours or as soon as possible once reported; including but not limited to:
  - a. Repair plumbing leaks and leaks within building structures as soon as possible;
  - b. Fix all sources of recognized moisture problems as soon as possible;
  - c. Investigating the possibility of hidden mold behind walls as needed
  - d. Maintain low (less than 60%) indoor humidity levels relative humidity; and
  - e. Inspect HVAC systems regularly for condensation, keep drip pans clean, flowing properly and unobstructed.
2. Contacting EH&S, Environmental Services, University Risk Management and others by calling the Call Center and activating the Everbridge Water Leak paging group for any Level II flood events as defined in S05-10-17 Water Leak and Flood Emergency Plan
3. Performing mold remediation and cleanup for medium or larger sized projects in accordance with this policy utilizing the personal protection equipment noted in Appendix A and guidelines in Appendix B.
4. Procuring the services of qualified mold remediation contractors, as necessary for large (>50 ft per Appendix B) remediation projects. For these projects refer to Administrative Policy 07-08 Infection Control during Construction/Renovation for requirements that must be fulfilled to minimize risk of dispersal of mold spores. If method 3, 4 or 5 is used as part of clean up an Infection Control Risk Assessment (ICRA) needs to be completed.

University Risk Management is responsible for:

1. Promptly contacting an outside cleaning company for property insurance related claims of water exposures to properly address conditions that may lead to mold growth. Mold discovered due to unreported exposure or unrelated to a recent water event is not covered under the property insurance coverage.

Environmental Services (EVS) is responsible for:

1. Performing superficial mold cleanup activities on walls, ceilings or floors in compliance with Infection Control's Environmental Cleaning and Disinfection Policies.
2. Responding in accordance to Appendix A
3. Cleaning as appropriate using the Methods 1-5 in Appendix B.

Infection Control is responsible for:

1. Evaluation of risk to patients and measures to prevent exposure to mold spores that may be dislodged during remediation.
2. Reviewing Infection Control Risk Assessment for areas in which patients may be present or pass through.

## UNIVERSITY OF CHICAGO MEDICAL CENTER

4. Providing any recommendations for mold remediation and contacting the appropriate department for remediation if in a patient care area;

### **Mold Sampling**

EH&S will *not* conduct surface or air sampling for mold or mold spores during initial investigations. Since no federal agencies have set standards or recommendations for acceptable levels of mold or mold spores, sampling cannot be used to determine if there is an overexposure to mold. In most cases, if visible mold growth is present, sampling is unnecessary. Appropriate remediation strategies can usually be made on the basis of a visual inspection. If deemed important to clinical care of patients, Infection Control may perform airborne mold sampling.

During large scale (greater than 50 sf) mold remediation projects if deemed necessary, airborne mold spore sampling will be conducted by an outside contractor coordinated by EH&S before and after remediation to gather information on the success of the remediation project.

### **INTERPRETATION, IMPLEMENTATION, AND REVISION:**

The Institutional Safety and Environment of Care Committee will evaluate the effectiveness of the Mold Prevention and Response Plan at least every three years. Revisions to the program and/or policy content will be made as needed to improve program effectiveness, align with UCM standard of work practices and comply with applicable regulatory requirements.

### **REFERENCES:**

1. Illinois Department of Public Health Environmental Health Fact Sheet: Mold and Your Health <http://www.idph.state.il.us/envhealth/factsheets/mold.htm>
2. Environmental Protection Agency Mold Remediation in Schools and Commercial Buildings <https://www.epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide>
3. Occupational Safety and Health Administration Safety and Health Topics <http://www.osha.gov/SLTC/molds/>
4. Infection Control Policy Section 02-09 Environmental Cleaning and Disinfection
5. Administrative Policy 07-08 Infection Control During Construction/Renovation
6. S05-10-17 Water Leak and Flood Emergency Plan

---

Marco Capicchioni  
Vice President Facilities, Design, Planning and Construction

---

Sharon O'Keefe  
President

**UNIVERSITY OF CHICAGO MEDICAL CENTER**

**APPENDIX A**

**Water Damage Cleanup and Mold Prevention\*** Guidelines for Response to Clean Water Damage within 48 Hours to Prevent Mold Growth- source [EPA Document](#)

<b>Water-Damaged Material</b>	<b>Actions</b>
Books and papers	<ul style="list-style-type: none"> <li>• For non-valuable items, discard books and papers.</li> <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 style="list-style-type: none"> <li>• Remove water with water extraction vacuum.</li> <li>• Check to make sure under flooring is dry; dry under flooring if necessary.</li> <li>• Reduce ambient humidity levels with dehumidifier.</li> <li>• Accelerate drying process with fans.</li> </ul>
Ceiling tiles	<ul style="list-style-type: none"> <li>• Discard and replace.</li> </ul>
Cellulose insulation	<ul style="list-style-type: none"> <li>• Discard and replace.</li> </ul>
Concrete or cinder block surfaces	<ul style="list-style-type: none"> <li>• Remove water with water extraction vacuum.</li> <li>• Accelerate drying process with dehumidifiers, fans, and/or heaters.</li> </ul>
Fiberglass insulation	<ul style="list-style-type: none"> <li>• Discard and replace.</li> </ul>
Hard surface, porous flooring (Linoleum, ceramic tile, vinyl)	<ul style="list-style-type: none"> <li>• Vacuum or damp wipe with water and mild detergent and allow drying.</li> <li>• Scrub surface, if necessary.</li> <li>• Check to make sure under flooring is dry; dry under flooring if necessary.</li> </ul>
Non-porous, hard surfaces (Plastics, metals)	<ul style="list-style-type: none"> <li>• Vacuum or damp wipe with water and mild detergent and allow drying.</li> <li>• Scrub if necessary.</li> </ul>
Upholstered furniture	<ul style="list-style-type: none"> <li>• Remove water with water extraction vacuum.</li> <li>• Accelerate drying process with dehumidifiers, fans, and/or heaters.</li> <li>• May be difficult to completely dry within 48 hours.</li> </ul>
Wallboard (Drywall and gypsum board)	<ul style="list-style-type: none"> <li>• May be dried in place if there is no obvious swelling and the seams are intact. If not, remove, discard, and replace.</li> <li>• Ventilate the wall cavity, if possible.</li> </ul>
Window drapes	<ul style="list-style-type: none"> <li>• Follow laundering or cleaning instructions recommended by the manufacturer.</li> </ul>
Wood surfaces	<ul style="list-style-type: none"> <li>• Remove moisture immediately; use dehumidifiers and fans for drying.</li> <li>• Treated or finished wood surfaces may be cleaned with mild detergent and clean water and allowed to dry.</li> <li>• Wet paneling should be pried away from wall for drying.</li> </ul>

## UNIVERSITY OF CHICAGO MEDICAL CENTER

---

These guideline are for damaged caused by clean water. If you know or suspect that the water source is contaminated with sewage, radioactive sources, chemical or biological contaminants, contact EH&S immediately so that other departments can be coordinated if needed (i.e. Infection Control, Office of Research Safety, Radiation Safety). If mold growth has occurred or materials have been wet for more than 48 hours, refer to “Mold Remediation Guidelines” Appendix B

UNIVERSITY OF CHICAGO MEDICAL CENTER

APPENDIX B

**Mold Remediation Guidelines\***source [EPA document](#)

The following table provides mold remediation guidelines. Select the method most appropriate for the situation from the table and locate the method description below the table. If hidden mold is discovered or suspected such as behind wallboard or under flooring, recalculate the total area affected and contact Safety if the size of the remediation project becomes greater than 50 sf.

**Clean-up Methods**

Method 1	Use water extraction vacuum and/or steam clean. If standing water is greater than 1 inch, use a pump to remove the water.
Method 2	Clean surfaces with liquid detergent and warm water solution. Damp-wipe wooden surfaces with a 1:10 ratio bleach and water solution.
Method 3	Use dehumidifiers to remove water vapor and fans for drying materials. Barriers to mold spores must be in place, contact Infection Control for an IC risk assessment for patient care areas
Method 4	Use high efficiency particulate air (HEPA) vacuum after completely dry. Contact Infection Control for an IC risk assessment for patient care areas
Method 5	Discard - remove water-damaged or moldy materials that cannot be salvaged. Seal in impermeable plastic bags and dispose of as general waste. Contact Infection Control for an IC risk assessment for patient care areas

\*Adapted and modified from the U.S.E.P.A. "Mold Remediation in Schools and Commercial Buildings.

\*\*The use of an N-95 disposable respirator requires a medical evaluation, proper training and a fit test. Please refer to the [Respiratory Protection Program](#) for more information.

**UNIVERSITY OF CHICAGO MEDICAL CENTER**

**SMALL - Total Surface Area Less Than 10 Square Feet**

Affected Material to be removed	Clean-up Methods	Personal Protective Clothing	Containment
Books and papers	4,5	N-95 disposable respirator**, disposable gloves and safety goggles	Keep area unoccupied and utilize dust suppression methods
Carpet and backing	1,2,3,4,5		
Ceiling tiles	5		
Cellulose insulation	5		
Concrete or cinder block	1,2,3,4		
Fiberglass insulation	5		
Hard surface, porous flooring (linoleum, ceramic tile, vinyl)	1,2,4		
Non-porous, hard surfaces (plastics, metals)	1,2,4		
Upholstered furniture	1,3,4,5		
Wallboard (drywall, gypsum board)	3,4,5		
Wood surfaces	1,2,3,4		

**MEDIUM - Total Surface Area Affected Between 10 and 50 Square Feet**

Books and papers	4,5	N-95 disposable respirator**, disposable gloves, safety goggles and disposable overalls	Keep area unoccupied and utilize dust suppression methods; cover adjacent unaffected surfaces with plastic sheeting in the area that could become contaminated
Carpet and backing	1,2,3,4,5		
Ceiling tiles	5		
Cellulose insulation	5		
Concrete or cinder block	1,2,3,4		
Fiberglass insulation	5		
Hard surface, porous flooring (linoleum, ceramic tile, vinyl)	1,2,4		
Non-porous, hard surfaces (plastics, metals)	1,2,4		
Upholstered furniture	1,3,4,5		
Wallboard (drywall, gypsum board)	3,4,5		
Wood surfaces	1,2,3,4		

**LARGE - Total Surface Area Affected Greater Than 50 Square Feet**

Large scale remediation projects shall be appropriately remediation by an outside contractor. Contact Safety if mold growth is greater than 50 Square Feet. See Appendix C.

# UNIVERSITY OF CHICAGO MEDICAL CENTER

## Appendix C

This appendix is intended to provide standards for Mold Remediation contractors for **large** projects.

Mold remediation will generally follow the “[Mold Remediation in Schools and Commercial Buildings](#)” guidelines as published by the United States Environmental Protection Agency (USEPA) as well as other state of the art industry publications and peer-reviewed guidelines such as the New York City Department of Health “Guidelines on Assessment and Remediation of Fungi in Indoor Environments” (2000), Institute of Inspection Cleaning and Restoration Certification Standard and Reference Guide for Professional Mold Remediation (II CRC S520 – December 2003), and Bioaerosols Assessment and Control, 1999, published by the American Conference of Governmental Industrial Hygienists. The Mold Remediation Contractor shall perform this work in accordance with all applicable regulations including, but not limited to the Illinois Environmental Protection Agency (IEPA), United States Environmental Protection Agency (USEPA), United States Department of Transportation (USDOT), Illinois Department of Labor, and United States Department of Labor (USDOL) Occupational Safety and Health Administration (OSHA).

The EH&S office may at any time ask the Mold Remediation Contractor to provide documentation of regulatory or method compliance.

[OSHA Fact Sheet: Fungi Hazards and Flood Cleanup](#)

### 1.2 **Laws, Regulations and Standards:**

- A. The following laws, regulations and standards are incorporated by reference:
  - 1. 29 CFR 1910.134 - OSHA Respiratory Protection Standard
  - 2. 29 CFR 1910.1200 - OSHA Hazard Communication Standard

### 1.3 **Submittals by the Contractor:**

- A. The Mold Remediation Contractor shall be ready to provide upon request to the University of Chicago Medical Center (UCM) EH&S office the following:
  - 1. Copies of current respirator fit tests and written notification from a licensed health care professional certifying that the employees are permitted to wear respirators.
  - 2. A copy of the Contractor’s written Respiratory Protection Program that indicates compliance with 29 CFR 1910.134.
  - 3. A copy of Material Safety Data Sheets (MSDS) for any chemicals to be used during the project, as defined by 29 CFR 1910.1200. Any biocides used by the Contractor must be EPA registered for the intended use and used in accordance with the manufacturer’s instructions. MSDS and the specific applications/uses planned for the biocides must be submitted prior to use for review and approval by the UCM Project Manager.
  - 4. A copy of the Air Exchange calculations for the containment area(s) as specified.



## UNIVERSITY OF CHICAGO MEDICAL CENTER

- B. Upon completion of the project, the Contractor shall submit to the UCM Project Manager:
  - 1. Daily Project Log(s) detailing work practices used, personal protective equipment worn, list of employees and visitors at the jobsite, list of employees and visitors in the controlled work area, and any other information which is deemed to impact the project.
  - 2. Waste Manifests.

### 2.0 – MOLD REMEDIATION ITEMS

#### 2.1 **Tools and Equipment:**

All tools and equipment shall conform at least to minimum industry standards.

- A. Negative air machines shall provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.
- B. Respirators shall be NIOSH approved and furnished with P100 filters for protection against mold contaminants such as those anticipated in the work. Other filters may be required if Contractor is exposed to other contaminants including, but not limited to, gases, vapors, dusts, mists, and fumes.
- C. Contractor is responsible for complying with OSHA rules and regulations for other safety equipment such as hard hats, eye protection, gloves, footwear and any other safety devices used on the site.
- D. Shovels and scoops shall be rubber or plastic, suitable for use in a plasticized containment. Metal shovels are not permitted.
- E. Scrapers, brushes, utility knives and other hand tools shall be of good quality and suitable for the intended uses. The contractor shall keep an ample supply on hand for the completion of the work.

#### 2.2 **Materials:**

- A. **Remediation materials:**
  - 1. Polyethylene sheeting for all applications shall be flame retardant 6-mil nominal thickness for floors and drop cloths, and 4 mil for walls and ceilings.
  - 2. Adhesive tape shall be 2” or 3” duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
  - 3. Spray adhesives shall not be utilized unless approved by the UCM Project Manager.
  - 4. Disposal bags shall be 6 mil.
  - 5. Disposable worker suits, hoods, and foot coverings shall be TYVEK or similar.
  - 6. Any biocides used by the Contractor must be EPA registered for the intended use and utilized in accordance with the manufacturer’s directions. Material Safety Data Sheets (MSDS) and the specific applications/uses planned for the biocides must be submitted prior to use for review and approval by the UCM Project Manager.

## UNIVERSITY OF CHICAGO MEDICAL CENTER

- B. Installed materials which become a part of the work shall be of good quality, non-lead bearing, free of asbestos and conform to the respective reinstallation specifications, per the UCM Project Manager.

### 3.0 – MOLD REMEDIATION IMPLEMENTATION

#### 3.1 Employee Training, Qualifications and Medical Screening:

- A. Mold Remediation supervisors and workers shall be trained in the hazards of mold contamination under OSHA's Hazard Communication standard (29 CFR 1910.1200) and familiar with mold remediation practices. Workers shall be trained in the use and limitations of respirators in accordance with OSHA's Respiratory Protection Standard (29 CFR 1910.134) and in the use of any additional protective clothing in accordance with OSHA's Protective Equipment standard (29 CFR 1910.132 and 20 CFR 1910.133).
- B. Medical Screening: All Contractor personnel shall have physical exams and respirator fit testing results documented and maintained on-site.

#### 3.2 Personal Protective Equipment (PPE):

- A. Respiratory Protection: Respiratory protection shall be worn by all persons in controlled areas who are actually or potentially exposed to airborne fungal spores from the start of the remediation project until the controlled areas have passed final standards.
  - 1. Respiratory protection will include half-facepiece or full-facepiece National Institute for Occupational Safety and Health (NIOSH) approved respirators with filters designed for protection against P100 aerosols. The Contractor shall provide additional filter protection as needed for other gases, vapors, mists or fumes as appropriate, for example, in conjunction with the use of biocides. The filters shall be replaced as frequently as required by 29 CFR 1910.134.
  - 2. Contractor shall have a written respiratory protection program in accordance with OSHA 29 CFR 1910.134 including but not limited to, medical screening, semi-annual fit testing, training, cleaning and maintenance.
  - 3. Respiratory protection shall not be removed while in the controlled area.
  - 4. The Contractor shall provide authorized visitors with suitable respirators and applicable personal protective clothing.
- B. Protective Eyewear: Chemical splash goggles shall be provided if there is a potential for spills or splashes of liquids or contact with mists and full-facepiece respirators are not worn.
- C. Protective Work Clothing: Protective work clothing shall include impermeable coveralls (Tyvek or equivalent), impermeable foot covers, and work gloves. Chemical-resistant gloves shall be provided when biocides or other chemicals are used that may contact the hands.
- D. Contractor shall provide protective work clothing (Tyvek or equivalent), foot covering, work gloves and chemical gloves to the UCM Project Manager or designated representative(s).

## UNIVERSITY OF CHICAGO MEDICAL CENTER

### 3.3 **Hygiene Practices:**

- A. All persons entering the work area are required to wear appropriate PPE and follow proper entry and exit procedures.
- B. Eating, drinking, smoking, chewing gum or tobacco, and applying of cosmetics are not allowed in the work area.
- C. All persons leaving the contaminated work area are required to decontaminate using a single or double chamber decontamination unit. Decontamination shall be performed by HEPA vacuuming the exterior of the Tyvek suit before removal. The decontamination unit shall be attached to or located within the work area.

### 3.4 **Work Area (Controlled Area) Isolation and Preparation:**

#### A. **Contractor shall:**

- 1. Notify or Post, as applicable:
  - a. Post Construction Warning signs that access to the work area is prohibited.
  - b. Post Entry and Exit Log
  - c. Post list of telephone numbers for:
    - (1) UCM Project Manager reachable 24 hours per day
    - (2) Contractor's representative reachable 24 hours per day
- 2. Secure the work area from entry by occupants or unauthorized personnel by providing physical barriers and/or lockable doors.
- 3. Separate Work Areas from Occupied Areas
  - a. Seal off all doorways and corridors that will not be used for passage during work.
  - b. Install barriers in all openings larger than 4' x 8', consisting of wood or metal framing and 6-mil polyethylene sheeting, per the UCM Project Manager.

#### B. **Preparation:**

- 1. The UCM Project Manager shall arrange with Plant for the shut down and isolation of heating, cooling and ventilation systems and lock-out/tag-out power, as necessary.
- 2. Apply critical seals to all windows, corridors, doorways, grilles, diffusers, and other penetrations or openings with 4-mil poly and tape.
- 3. Erect 6-mil polyethylene containment walls.
- 4. Cover floors with two (2) layers of 6-mil poly with seams staggered and taped and extending 12" up walls, unless otherwise specified by the UCM Project Manager.
- 5. If necessary, a dehumidifier(s) should be installed inside the enclosure to maintain relative humidity levels at or below 60%.
- 6. Provide negative air machines to create a pressure differential in the contained area. Pressure differential shall exceed -0.02 inches of water column and six (6) air changes per hour at a minimum. Contractor shall provide an additional negative air machine per controlled area as backup in case of machine failure. Negative air machines shall be exhausted

## UNIVERSITY OF CHICAGO MEDICAL CENTER

exterior to the building. Exceptions may be granted by the UCM Project Manager.

7. Once operational, the containment system shall be inspected daily by the Contractor. Damages and defects will be repaired immediately upon discovery.
8. Maintain emergency and fire exits.

### 3.5 **Remediation Procedures:**

- A Stop all work if there is a break in the containment barriers or failure of the negative air pressure differential. Alleviate problems before continuing remediation.
- B. Limit use of any aqueous materials during remediation. If necessary, ensure that drying time is minimized (expedite drying process) to prevent further mold growth.
- C. Porous materials should be removed or cleaned in the following manor:
  1. Molding materials such as gypsum board, fiber board products such as lay-in ceiling tiles, pressboard furniture, etc. should be discarded. These materials cannot be properly cleaned.
  2. Materials such as clothing, fabric covered furniture, carpets, etc. with mold growth on the materials should be discarded.
- D. Semi-Porous materials, like wood, painted materials, and concrete should be cleaned in the following manor:
  1. Molding surfaces should first be thoroughly HEPA vacuumed. The materials should then be cleaned with a diluted biocide solution applied with a nylon brush or scrub pad. The diluted biocide solution should then be allowed to remain on the materials long enough to be effective, per the manufacturer's recommendations. After the wait period the materials should be wiped clean.
  2. If the mold growth has penetrated below the surface of the materials, sanding or wire brushing should be utilized. Care should be made to not compromise the structural integrity of the semi-porous material. The material should then be cleaned via D1.
  3. If the structural integrity of a load bearing component is in question, the material should be evaluated by the UCM Project Manager to determine if the material needs replacing or if the surrounding structure needs reinforcement before removal.
- E. Non-Porous material, like metal and plastic products, should be cleaned in the following manor:
  1. Surfaces should first be thoroughly HEPA vacuumed. The materials should then be cleaned with a diluted biocide solution. The diluted biocide solution should then be allowed to remain on the materials long enough to be effective, per the manufacturer's recommendations. After the wait period the materials should be wiped clean.
- F. Clean-up waste and debris as they are generated so as to not allow waste and debris to accumulate. Wrap or bag all demolished and removed materials in 6-mil poly sheeting or 6-mil poly bags.

## UNIVERSITY OF CHICAGO MEDICAL CENTER

### 3.6 **Waste Disposal and Equipment Load-Out:**

- A. When preparing equipment for load-out, seal openings to prevent escape of internal contamination, or open up equipment, remove filters and make equipment interiors accessible for cleaning and decontamination.
- B. Packaging mold contaminated waste and debris:
  - 1. All mold-contaminated waste including debris, containment poly, critical barrier materials, personal protective equipment, vacuum and negative air machine HEPA filters and other mold-contaminated items shall be properly packaged for disposal.
  - 2. Use 6 mil bags with “gooseneck” seal, or other impermeable containers.
  - 3. Wrap large or irregular items in 2 layers of 6 mil poly sheeting and seal with tape.
  - 4. Sharp, jagged or other items that may puncture poly shall be packaged in rigid impermeable containers such as drums or boxes or wrapped in alternative protective covering before sealing in bags or 6 mil poly.
  - 5. Mold-contaminated waste shall be disposed in landfills accepting construction debris. Waste shipment records shall be returned to the UCM Project Manager.

### 3.7 **Final Cleaning and Decontamination:**

- A. All visible accumulations of mold contamination, debris, tools, waste and unnecessary equipment shall be removed from the work area.
- B. HEPA-vacuum and wipe all surfaces within containment.
- C. Final cleanup of the work area should be made so that all surfaces are thoroughly clean and dry inside the controlled area. If surfaces are to be covered with a fungistat paint or coating, the enclosure should first be inspected by the UCM Project Manager. The fungistat should then be allowed to dry for a minimum of 12 hours before any reconstruction.
- D. HEPA air filtration machines can then be placed in open loop scrubbing mode. Negative pressure is no longer needed at this point.
- E. If deemed necessary by the UCM Project Manager, post remediation air testing may then be performed after a minimum of 90 minutes have lapsed since the final cleaning and visual inspection has been completed. Post remediation air testing shall be considered satisfactory when (1) indoor spore counts are lower than outdoor spore counts as determined by air sampling, and, (2) when indoor counts of the following organisms are equal to or lower than the outdoor counts of the same organisms: *Aspergillus-Penicillium*-like, *Stachybotrys*, *Ascospores*, *Ulocladium*, *Chaetomium*, and *Fusarium*.
- F. If post remediation air testing is not satisfactory, the Contractor is responsible for repeating the cleaning process as necessary, at no additional cost, until post remediation air testing is successful.
- G. Contractor is responsible for additional costs if clearance sampling does not meet the clearance criteria established within this document. These costs include but are not limited to costs for laboratory analytical costs.

## UNIVERSITY OF CHICAGO MEDICAL CENTER

### 3.8 **Demobilization:**

- A. The UCM Project Manager shall provide written notification of project completion for each work area. The Contractor may tear down only after receipt of the written notification.
- B. Remove critical barriers and seals.
- C. Restore previously removed items.
  - 1. Re-mount fixtures and other previously dismantled.
  - 2. Return moveable objects to their original locations.
  - 3. Re-establish electric systems and other utilities that were shut down or locked out.
- D. Walk-through shall be conducted and punch list completed for each cleared work area within two days of clearance testing. All punch list items shall be completed within five working days of walk through.
- E. Contractor is responsible for and shall coordinate all punch list walkthroughs with the UCM Project Manager following installation of re-built materials.