Mold Response Guidelines
In accordance with:

EPA Document 402-K-02-003 (A Brief Guide to Mold, Moisture and Your Home) EPA Document 402-K-01-001 (Mold Remediation in Schools and Commercial Buildings)

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Program Description

The purpose of this document is to provide guidance for University Housing staff when responding to mold related issues within the residence halls.

Mold Basics

Mold is a part of the natural environment that aids in the decomposition of leaves, trees and other natural outdoor organic materials. Mold spores are invisible to the human eye and are continually floating around outside in nature. However, when those spores make their way into the indoors and are exposed to wet/humid areas they can begin to grow. It is impossible to eliminate all mold and mold spores in the indoor environment due to the ingress and egress of daily human activity.

Mold is found almost everywhere and can grow on wood, paper, carpet, foods, insulation, ceiling tiles, clothing, and painted walls as long as moisture and oxygen are present. There are numerous species of molds that all have the potential to cause health effects especially those with allergies or respiratory problems. Mold needs water/moisture to grow, and maintaining indoor moisture and humidity levels between 30-60 percent will reduce the likelihood of indoor mold growth.

Mold Sampling

Per the EPA, “in most cases, if visible mold growth is present, sampling is unnecessary”. It is important to recognize that there are currently no EPA, OSHA or other federal standards regarding mold. Therefore, sampling cannot be used as a method of compliance.

Generally, mold sampling is conducted to determine the scope of contamination, the type of spores present and for clearance or post remediation testing. Environmental Health and Safety can conduct mold sampling, send the samples for lab analysis and provide University Housing with the lab report analysis and interpretation of the lab report.

The University Housing can have sampling conducted in the following situations:

- At the recommendation of Facilities Services Sanitation Safety, Certified Industrial Hygienist or licensed remediation contractor
- Post remediation by independent contractor

The Department of University Housing does not recognize personal purchased settling plate or “do it yourself” mold sampling kits. These methods are non-volumetric, non-quantifiable and not relative to airborne concentrations. This method of sample collection does not follow the analytical methods recommended by the American Industrial Hygiene Association (AIHI) or other professional organizations.

Mold Remediation

If the presence of mold requiring remediation is present, it will either be performed in-house by University Housing housekeeping staff or by a third-party contractor. University Housing uses the EPA guidance of 10 square feet to aid in the determination of whom will perform the remediation. Should area affected by mold be greater than 10 square feet or require complex remediation outside of the capabilities of housekeeping the university’s restoration contractor(s) is recommended.

Release of Records

The formal release of documentation in the form of lab reports, remediation reports, etc. is controlled through the Public Records Request for the University of Tennessee, Knoxville.

https://communications.utk.edu/media-and-internal- relations/public-records-requests/

This does not prohibit the designated University Housing representative from openly discussing the results with the affected parties(s). Questions that can't be answered through the interpretation of results portion of the sample report will be deferred to Environmental Health and Safety.

Response and Communication

1. **Receipt of Complaint or Concern:**
   All initial complaints or concerns to be forwarded to the University Housing safety supervisor (University Housing maintenance superintendent in absence).

   Hall director (assistant HD in absence) will communicate with student/parent and schedule onsite inspection of the space and follow up as required.

2. **On Site Investigation**
   On-site investigations could be coordinated one of two ways depending on the information available at the time and scheduling conflicts within the members.

   Option 1:

   - Inspection team should consist of at least 2 or more of the following staff; University Housing maintenance superintendent, housekeeping superintendent, facilities sanitation safety representative, University Housing safety supervisor and a residence life representative (hall director or Assistant hall director).
   - Investigate presence, source and document extent of problem (photos as necessary).
   - Site investigation team to collaboratively determine next steps.

   Option 2:

   - Inspection team consisting of building housekeeping supervisor and area housekeeping coordinator directed by protocol email.
   - Investigate presence, source and document extent of problem. (Photos as necessary).
   - Report out finings to University Housing maintenance superintendent, housekeeping superintendent, and University Housing safety supervisor.
   - Determination of next steps as necessary.

3. **Communications**

   - Investigation team will coordinate and communicate with housekeeping should situation warrant their involvement.
   - Residence life will communicate with student as required on next steps such as (temporary rooming assignments, item inventory process, etc.

- Housekeeping Superintendent to be point person should any laundering services required to coordinate with hall staff and outside vendor per the Student Laundering Protocol.
- Safety Supervisor will provide an internal investigation summary as required to include actions plans. Distribution will include: investigation team, associate director of housing services, hall director, and UT EHS director, assistant director of residence life and associate director of residence life.

4. Project Management

- If UT housekeeping performs remediation they will document actions taken and by whom through School Dude work order system by completing or creating work order as required.
- All project management documentation will be filed within University Housing data repository utilizing Office 365 One Drive.

Common Genus of Mold

Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential	Comments
Alternaria	One of the most commonly reported airborne spores Worldwide. Often common in outdoor air. Usually not observed in large numbers in outdoor air. Soil, dead or dying plants, foodstuffs, textiles	Wallboard paper backing, wood, other various cellulose-containing materials. Commonly found in settled dust and as normal settled spores on carpets, drapes textiles, etc.	Common allergen. Type I allergies (hay fever and asthma); Type III hypersensitivity pneumonitis. Common cause of extrinsic asthma.	Alternaria is commonly found in elevated numbers on water-intruded building materials and in higher spore numbers in the air with respect to the outside when growth on wet building materials occurs.
Chaetomium	Growing on dung, dead leaves, wood.	Cellulose substrates, especially wallboard, cardboard and wood. Not normally seen growing indoors unless the building material has been wetted. Unusual / Not Normal to be growing indoors.	Type I (hay fever and asthma) allergies.	Chaetomium is a water- indicating mold. Spores of this type of mold should not be observed in significantly higher numbers in the air above background
Cladosporium	The most common spore type reported in the air worldwide. Found on dead and dying plant litter, and soil.	Commonly found on wood and wallboard. Commonly grows on window sills, textiles and foods.	Type I (hay fever and asthma), Type III (hypersensitivity pneumonitis) allergies.	A very common and important allergen source both outdoors and indoors.
Epicoccum	Commonly found everywhere. Grows on plant debris, insects and soil.	Capable of growing on several different substrates, notably wallboard and paper.	Type I (hay fever and asthma) allergies.	Very common in the summer, especially in the Midwest and during harvest time.
Nigrospora	Commonly found everywhere. Grows on decaying plant material	Does not normally grow on building materials, but occasionally can be found growing on wallboard.	Type I (hay fever and asthma) allergies.	
Ascospores	Common everywhere. Constitutes a large part of the airspora outside. Can reach very high numbers in the air outside during the spring and summer. Can increase in numbers during and after rainfalls.	Very few of this group grow inside. The notable exception is Chaetomium, Ascotricha and Peziza.		

Basidiospores	Commonly found everywhere, especially in the late summer and fall. These spores are from Mushrooms.	Mushrooms are not normally found growing indoors, but can grow on wet lumber, especially in crawlspaces. Sometimes mushrooms can be seen growing in flower pots indoors.	Some allergenicity reported. Type I (hay fever, asthma) and Type III (hypersensitivity pneumonitis).	Among the group of Mushrooms (Basidiomycetes) are dry rot fungi Serpula and Poria that are particularly destructive to buildings.
Penicillium/Aspergillus	Common everywhere. Normally found in the air in small amounts in outdoor air. Grows on nearly everything.	Wetted wallboard, wood, food, leather, etc. Able to grow on many substrates indoors.	Type I (hay fever and asthma) allergies and Type III (hypersensitivity pneumonitis) allergies.	This is a combination group of Penicillium and Aspergillus and is used when only the spores are seen. The spores are so similar that they cannot be reliably separated into the respective genera.
Smuts, myxomycetes	Commonly found everywhere, especially on logs, grasses and weeds.	Smuts don`t normally grow indoors, but can occasionally be found on things brought from outside and stored in the house. Myxomycetes can occasionally grow indoors, but need lots of water to be established.	Type I (hay fever and asthma) allergies.	Smuts and myxomycetes are a combined group of organisms because their spores look so similar and cannot be reliably distinguished from each other.

Source: Pro Tec Inspection Services http://www.protec-inspections.com/wp-content/uploads/2017/03/Sample-ProTec-Mold-Report.pdf