

Version 1.0 9/18/18 KF

Mold is a common occurrence in cold rooms. The surface(s) in a cold room can quickly become contaminated with mold if improper work practices occur. Potential health problems can arise due to the inhalation of mold spores and research can be affected due to contaminated materials. Because many cold rooms are shared between multiple groups, a single individual can create problems affecting all users. Decontamination by an outside company can be very costly and preventative measures should be in place to prevent contamination from reaching that point.

Preventing mold growth in cold rooms can be achieved by controlling condensation and moisture, removing materials that contribute to or promote mold growth, and decontaminating regularly.

To achieve these goals, follow these guidelines:

Storage Protocol:

1. Allocate specific storage space(s) for each laboratory. Each laboratory will then be responsible for ensuring that nothing stored within designated storage space(s) are harboring mold.
2. **DO NOT store porous or absorptive materials such as: cardboard, Styrofoam, and paper products in cold rooms.** Metal or plastic containers are allowed.
3. Replace wood shelves with open stainless steel shelves.
4. DO NOT store items on the floor or leave items in the sink.
5. Label experiments in progress with name, date and responsible Principle Investigator (PI).
Note: Unlabeled samples should be discarded by laboratory managers
6. Label equipment with PI name.
7. Do not store media or culture plates long term unless properly sealed inside plastic bags or containers (DISCARD immediately if showing signs of contamination)
8. Dispose of trash (paper towels, tubes, etc.) outside of cold room.
9. Promptly clean up spilled liquid (e.g., buffers, media).
10. Keep door firmly shut.
11. Promptly report water leaks, ice buildup, frost, excessive condensation to Facilities Management ASAP (530) 752-1655

Preventative Cleaning Protocol:

- Keep surface(s) clean. Clean cold room monthly (at a minimum). Clean more often if necessary.
- Wear appropriate Personal Protective Equipment (PPE) – safety goggles, disposable gloves, enclosed shoes and a lab coat.
- Document cleanings using a log sheet.
- Wipe down plastic surfaces with freshly prepared 1:10 dilution of household bleach*.
- Wipe metal surfaces (including tops and bottoms of shelves) with 70% ethanol – DO NOT USE BLEACH ON METAL
- Sweep, mop floor, and wipe walls with freshly prepared 1:10 dilution of household bleach*.
- Clean sink with 1:10 dilution of household bleach* and rinse quickly.
- Wipe down door gasket with 1:10 dilution of household bleach*, followed by 70% ethanol.
 - An alternative is to use Bio-Fresh CD : <http://www.nucalgon.com/products/iaq/bio-fresh-cd>
 - This is utilized by campus Facilities Refrigeration shop for the purpose of cleaning gaskets

Regularly inspect stored items for mold. If item(s) are contaminated, promptly remove/discard or otherwise decontaminate using either 70% ethanol or freshly prepared 1:10 dilution of household bleach*.

NOTE: Make sure you have adequate ventilation while cleaning the cold room – take breaks as needed & clean small areas at a time to minimize exposure to cleaning agent fumes.

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Preventative Maintenance Covered by Facilities

Facilities performs annual maintenance on the walk-in fridges and freezers.

They do the following:

- Clean door gaskets
- Clean grills
- Clean/check fan coils
- Clean/check refrigeration unit
- Replace insulation, lights, and gaskets as needed
- They will check for ice, frost or abnormal condensation
- They will NOT clean shelves, walls, sinks or the door

Keep freezer/fridge contact information current – Facilities will contact you about the PM to be done on the walk-in in your lab area



Responding to a Potential Mold Situation



SCENARIO

A

Water intrusion, no visible mold

Advised Action:

If there is water intrusion alone, and no visible presence of mold, there is no need to contact EH&S, unless the respondent or occupant would like assistance in understanding the extent of the water damage. EH&S can use the thermal imaging camera to detect levels of moisture behind walls, in floors, in equipment, etc. In addition, they can also use a moisture meter that can pinpoint/detect the exact location of moisture.

SCENARIO

B

Water intrusion/small amount of mold

Advised Action:

If there is moisture in an area and it looks like there is a small amount of mold (and it is still wet), and the maintenance respondent/occupant feels comfortable with addressing the issue, EH&S does not need to be contacted for an assessment.

If the maintenance respondent plans to replace the section of material that has mold, then this can be cut out (if drywall) or removed (i.e. ceiling tile), and disposed of in regular waste. Ensure moisture issue is corrected before replacing any materials.

If the maintenance respondent/occupant plans to salvage the material/structure that has mold growth, and it does not have significant damage from the water or mold:

1. Ensure moisture issue is corrected before proceeding.
2. Use proper Personal Protective Equipment (PPE) – this includes skin covering, safety glasses and appropriate gloves. If the use of an N-95 respirator is desired, please contact EH&S at 752-1493.
 - a. Spray a 10% bleach solution on the affected mold area and let sit for 15 minutes.
 - b. Wipe down and air dry or dry out with a fan.
3. If at any time the caller or the respondent is uncomfortable with the situation, they can feel free to contact EH&S and someone from the group will assist.

SCENARIO

C

Either a large amount of mold or dry mold

Advised Action:

It is prudent to contact EH&S prior to conducting work. EH&S can offer recommendations before repairing/replacing materials.

NOTE

In all situations where mold is beginning to grow, or has been growing for some time, the most critical step is to control the moisture. However, it is rarely necessary for a sample of mold to be taken to determine genus or species, as all mold is dealt with and abated in the same manner.

If at any time, there is anyone who feels uncomfortable around the presence of mold, please contact EH&S at 752-1493.