

**Discontinuing/Shutting Down Laboratory/Shop/Studio Activities**

This checklist is intended to facilitate an orderly shutdown of labs/shops/studios, should it be needed. Please contact your Department Chair, Departmental Lab Safety Representative, or OLFS directly at [labfieldsafety@cmich.edu](mailto:labfieldsafety@cmich.edu) or 989-774-4474 with questions about how to secure hazards or safely suspend operations.

**Shutdown Checklist**

Preparing:

ITEM	Complete	N/A	Notes
Identify all non-critical activities that can be discontinued, curtailed, suspended or delayed.			
Identify personnel able to safely perform essential activities (e.g., maintaining cryogenic liquid levels in storage freezers, equipment, etc.)			
For those items that cannot be suspended without unreasonable loss of data, organisms, reagents or finances, determine a plan to maintain them using the minimum possible number of personnel, and the shortest amount of time on campus. Include activities/equipment that would be unsafe, irreversibly damaged, or detrimentally impacted if left unmonitored.			

Communications:

ITEM	Complete	N/A	Notes
Ensure lab members are knowledgeable of the plan to suspend operations and what activities, if any, will need to be maintained during the closure and who will do them.			
Create a contact list including personal contact information for all lab personnel, Principal Investigator, lab and/or department administrators, and other appropriate personnel.			
Ensure the contact list is saved where it can be remotely accessed by everyone in the lab. Include email addresses and home and cell phone numbers.			
Test your phone tree or email group to facilitate emergency communication amongst lab researchers and staff.			
Ensure that emergency contacts listed on <a href="#">the lab door sign</a> are up to date and the sign is posted.			



Receiving:

ITEM	Complete	N/A	Notes
Do not order any new research materials except those items needed to support minimal critical functions.			
Cancel orders for non-essential research materials if they have not yet shipped (e.g., standing orders).			
Ensure any packages potentially containing dry ice are managed properly and that department staff are aware of their pending arrival.			

Research Material Shipping:

ITEM	Complete	N/A	Notes
Discontinue research material shipments.			
Verify receiving collaborators are able to take possession of any shipments already in transit.			

Research Materials:

ITEM	Complete	N/A	Notes
Freeze down any biological stock material for long-term storage.			
As possible, consolidate storage of valuable perishable items within storage units that have backup systems.			
Fill dewars and cryogen containers for sample storage and critical equipment.			
Identify key personnel who will be responsible for maintaining cryogenic liquid levels in these devices.			
Consult with IACUC about current animal care recommendations/needs.			
Properly secure all hazardous materials in long-term storage.			
Ensure all flammable liquids are stored in flammable storage cabinets.			
Ensure that all items are labeled appropriately. All working stocks of materials must be labeled with the full name of the contents and stored in closed containers.			
Where possible, remove all chemicals and glassware from benchtops and fume hoods and store in cabinets or appropriate shelving.			

Request <a href="#">waste pickups</a> for peroxide forming compounds or other chemicals (i.e. piranha etch) that may become unstable over time.			
Collect contents of any acid/base baths and request waste pickup.			
Remove infectious materials from biosafety cabinets, and autoclave, disinfect, or safely store them as appropriate.			
Secure inventory of controlled substances and verify logs /documentation.			
Secure physical hazards such as sharps.			
Ensure all radioactive materials are locked/secured inside a refrigerator, freezer, or lockbox.			

Physical Hazards:

ITEM	Complete	N/A	Notes
Ensure all gas valves are closed.			
Turn off appliances, computers, hot plates, ovens, and other equipment. Unplug equipment if possible.			
Check that all gas cylinders are secured and stored in an upright position with the main cylinder valve closed. Remove regulators and install protective valve caps.			
Elevate equipment, materials and supplies, including removal of			

electrical wires and chemicals from the floor to protect against flood damage.			
Inspect all equipment requiring uninterrupted power for electricity supplied through an Uninterrupted Power Supply (UPS) and by emergency power (emergency generator).			

Equipment:

ITEM	Complete	N/A	Notes
Check that refrigerator, freezer, and incubator doors are secured and that each is labeled with the PI name and contact information, contents, and hazards. (See last page)			
Biosafety cabinets: surface decontaminate the inside work area, close the sash and power down. Do NOT leave the UV light on.			
Fume hoods: Clear the hood of all active experiments and close the sash.			
Check compressed gas cylinder levels for systems that will require gas supply (such as gloveboxes) and identify key personnel who will be responsible for replacing cylinders if needed.			
Check on any vacuum pumps that are used to maintain equipment during shutdown (i.e. oil level).			

Review proper shut down procedures and measures to prevent damage from power surge of research equipment.			
Shut down and unplug sensitive electric equipment.			
<b>Tissue culture incubators:</b> Ensure that the power supply to the incubator is switched off and discard culture dishes/flasks, disinfect with 70 % ethanol solution, and empty any water trays associated with the equipment.			
If the incubator is equipped with an automatic disinfection program, run it overnight, following the manufacturer's instructions.			
<b>Bacteriological incubators:</b> Ensure that the power supply to the incubator is switched off, remove any culture dishes and wipe down the incubator with 70% ethanol solution.			

#### Decontamination

ITEM	Complete	N/A	Notes
Decontaminate areas of the lab as you would do routinely at the end of the day.			
Decontaminate and clean any reusable materials that may be contaminated with biological material.			

Waste Management:

ITEM	Complete	N/A	Notes
Collect and properly label all hazardous chemical waste. Segregate incompatible chemicals by means of a physical barrier (e.g., plastic secondary bins or trays). Refer to the RMEHS and OLFS website to help identify how all laboratory waste streams should be collected, packaged, and managed in the lab			
Submit a <a href="#">Waste Collection Request</a> for chemical hazardous waste to be collected			
Biological waste: Disinfect and empty aspirator collection flasks.			
Collect all solid biological waste in appropriate containers and place out for collection as per your building's procedure.			

Security

ITEM	Complete	N/A	Notes
Ensure all lab entrances are secured. Ensure key personnel who will support critical functions have appropriate access.			
Where appropriate, ensure windows are closed.			
Secure lab notebooks and other data.			

Secure any laptops that are to remain in the lab.			
If Controlled Substances are needed during lab shutdown operations or other animal emergencies ensure that those performing the essential tasks know how to access.			

General Area

ITEM	Complete	N/A	Notes
Remove all perishable and open food items for the lab break areas, kitchenettes and personal spaces.			