

How do I shut down my lab?

In the event of the need to halt research taking place within McMaster's laboratories (including those located at affiliated hospitals), the expectation is that all research labs will be shut down, unless granted an exemption to continue from Vice-President, Research and your Associate Dean, Research. An exemption will be considered for research associated with emergency COVID-19 funding or activities focusing on patient health and safety. It is expected that only extraordinary requests for continuation will be approved, so the following measures will be required for the majority of research labs:

- Update the emergency contact list for lab spaces and for specific equipment/facilities that are in use
- The [Equipment Maintenance Information](#) and [Equipment Specific Instructions](#) documents should be completed and available for those who will maintain critical equipment and instruments that cannot be shut down (e.g. NMR magnet)
- Ensure appropriate lab clean-up, storage of materials and equipment operations after the orderly shutdown of experiments
- Identify equipment/facilities/reagents/cultures/other consumables that will require special attention (e.g. maintenance or shutdown, certification or calibration requirement) during a closure or a reduced personnel situation, and ensure Standard Operating Procedures are updated and available
- Ensure that high hazard materials (radioactive, biohazards, chemicals) are stored and secured appropriately
- Review the **Laboratory Shut Down Emergency Checklist** (attached below) and shut down the lab in a safe and orderly fashion

Requests for permission to continue research operations should use this [form](#).

If an exemption is granted, then the following measures should be implemented to ensure the safe conduct of research:

- Adequate personnel must be available to safely conduct the research while respecting social distancing measures (e.g. maintaining at least 2m distance between personnel)
- In order to minimize hazards, ensure lab users are aware of the ongoing activities and that a communication system is in place
- Identify all non-critical activities that can be ramped down, curtailed, suspended or delayed
- If necessary, identify and train additional personnel in the operation of essential and critical equipment
- Maintain a minimum designated personnel per lab for identified and approved research – designates alternates in case of illness. Depending on the lab's requirements, individuals may gain access on alternate days; the alternates may be required should the designates become infected.

Date: _____

Laboratory Shut Down Emergency Checklist

LABORATORY CONTACT LIST

A. Principal Investigator Information

Principal Investigator Name	Department	Room Number(s)

B. Lab Contacts

	Name	Email	Phone (cell)
1 st Contact (PI)			
2 nd Contact			
3 rd Contact			

Communications

ACTION ITEM	DATE COMPLETED or N/A	NOTES
Ensure up-to-date contact list including all lab personnel, principal investigator and department.		
Ensure the contact lists above are saved where they can be remotely accessed by everyone in the lab. Include home and cell phone numbers as applicable.		
Ensure that emergency contacts listed on lab placards are up to date and posted as appropriate.		
Prepare for remote lab meetings (e.g. install Microsoft Teams or WebEx).		

Identification and Preparation

ACTION ITEM	DATE COMPLETED or N/A	NOTES
Identify all non-essential activities that can be suspended or delayed.		
Identify what cannot be left without intervention and critical dates for interventions		
Identify personnel able to safely perform essential activities and critical operations.		
Ensure that you have access to all data, notes and/or software that is needed for telecommuting work.		
Prepare a detailed list of essential research-related activities that would need to be taken care of and dates.		
Prepare an in-depth account of: <ul style="list-style-type: none"> a) ongoing activities at the time of shut down, and b) a to-do list for research recovery. 		
Prepare a document describing the plan to do during an extended shut down (e.g. committee meeting report, literature review, manuscript, online course, etc).		
Review and update the following documents: <ul style="list-style-type: none"> a) <i>Equipment Maintenance Information</i> b) <i>Equipment Specific Instructions</i> c) <i>Laboratory Emergency Preparedness Checklist</i> Refer to Forms & Downloads		

Shipping and Receiving

ACTION ITEM	DATE COMPLETED or 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.		
Contact loading dock/mail services personnel to notify them of any expected incoming shipments.		

Research Materials

ACTION ITEM	DATE COMPLETED or N/A	NOTES
Freeze down any biological stock material for long term storage.		
Consolidate storage of valuable perishable items within storage units that are connected to monitoring systems if available.		
Confirm that RG1 and RG2 inventory is up-to-date.		
Remove infectious materials from biosafety cabinets, and sterilize, disinfect, or safely store them as appropriate.		
Secure physical hazards such as sharps.		
Prepare and secure hazardous waste for pickups as appropriate.		
Ensure that all items are labeled appropriately. All working stocks of materials must be labeled with the full name of its contents and include hazards.		
Ensure all flammables are stored in flammable storage cabinets.		
Properly secure all hazardous materials in long-term storage.		

Physical Hazards

ACTION ITEM	DATE COMPLETED or N/A	NOTES
Ensure all gas valves are closed.		
Check that all gas cylinders are secured and stored in an upright position. Remove regulators and use caps.		
Elevate equipment, materials and supplies off of the floor as applicable.		
Inspect all equipment requiring uninterrupted power for electricity supplied through an Uninterrupted Power Supply (UPS) and by emergency power if available.		

Equipment

ACTION ITEM	DATE COMPLETED or N/A	NOTES
Check that refrigerators, freezers, and incubator doors are tightly closed.		
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 hazards and shut the sash.		
Turn off and unplug all non-essential equipment.		

Decontamination and Waste Management

ACTION ITEM	DATE COMPLETED or 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 or chemicals.		
Biological waste: disinfect and empty aspirator collection flasks.		
Discard all solid biological waste, including bacterial cultures grown on agar plates, in appropriate containers.		
Dispose all unwanted chemicals as appropriate.		
Collect and properly label all hazardous chemical waste.		
Request chemical hazardous waste to be collected.		
Collect radioactive material into the appropriate waste containers and request a radioactive waste pick-up.		