**Laboratory Ramp-Down Checklist**

Preparing:

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| ITEM/TASK | Complete | N/A | Notes |
| Identify all non-critical activities that can be ramped down, curtailed, suspended or delayed. |  |  |  |
| Identify personnel able to safely perform essential activities. |  |  |  |
| Ensure that individuals performing critical tasks have been adequately trained and understand whom to contact with technical or safety questions.  |  |  |  |
| Cross‐train research staff to respond to the laboratory in the event of an emergency involving critical equipment or operations. |  |  |  |
| Avoid working alone, whenever possible, particularly when handling hazardous materials. Make every effort to have an FDNY C-14 holder when a laboratory is in operation. Work out a schedule so the Principle Investigator/responsible researcher knows who is working in the laboratory. |  |  |  |

Communications and IT:

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| ITEM/TASK | Complete | N/A | Notes |
| Create contact list including all lab personnel, Principal Investigator/responsible researcher, lab administrative director, research operations manager, and building manager. |  |  |  |
| Ensure the contact list is saved where it can be remotely accessed by everyone in the lab. Include home and cell phone numbers.  |  |  |  |
| Test your phone tree or email group to facilitate emergency communication among researchers and staff. |  |  |  |
| Verify and update, as necessary, [Emergency Contact information posted outside of your laboratory entrance](https://research.columbia.edu/content/laboratory-door-signs) and on any critical equipment. While there is no guarantee, in the event of critical equipment failure, emergency contact information may enable the University to contact a researcher.  |  |  |  |
| Identify computing resources required to continue working remotely.  Reach out to your local IT support team and determine any special steps required to make these resources securely available to your remote location.  |  |  |  |
| Back up and secure critical data.  |  |  |  |

Shipping/Receiving:

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| ITEM/TASK | 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. |  |  |  |
| Contact loading dock/mail services personnel to notify them of any expected incoming shipments.  |  |  |  |

Research and Materials:

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| ITEM/TASK | Complete | N/A | Notes |
| Terminate unattended research operations, especially those involving hazardous materials. Be aware that emergency response capabilities may be concurrently impacted. |  |  |  |
| Freeze down any biological stock material for long term storage, or establish a plan for maintenance. |  |  |  |
| Consolidate storage of valuable perishable items within storage units that have backup systems. |  |  |  |
| Securely store all temperature-sensitive items into appropriate refrigerators/freezers. |  |  |  |
| Test remote monitoring devices (where installed), and ensure personnel are identified to respond to notification events.   |  |  |  |
| Fill dewars and cryogen containers for sample storage and critical equipment. |  |  |  |
| Establish a plan to support critical equipment such as freezers, CO2 incubators and liquid nitrogen cell storage dewars. |  |  |  |
| Consult with the ICM about current directives for animal care. |  |  |  |
| Securely store all chemicals and radioactive materials in cabinets or safe areas; provide secondary containment for chemicals as necessary prior to leaving the laboratory; do not leave chemicals on benchtops. |  |  |  |
| Ensure that all items are labeled appropriately. All containers of materials must be labeled with the full name(s) of their contents and hazards. |  |  |  |
| Remove all chemicals and glassware from benchtops and fume hoods and store in cabinets or appropriate shelving. |  |  |  |
| Evaluate the stability of peroxide-forming chemicals, and [submit waste pick-up requests, as needed, for items that may become unstable and/or exceed their allowable/recommended shelf-life.](http://vesta.cumc.columbia.edu/ehs/wastepickup/) **Other waste containers must be safely staged in a visible area for pick up, as needed.** |  |  |  |
| Collect contents of any acid/base baths and request waste pickup. |  |  |  |
| Decontaminate the inside surfaces of biosafety cabinets, close the sash and power down. Do not leave the UV light on. |  |  |  |
| Close and lock and all controlled substance storage cabinets; reconcile inventory and other relevant logs. |  |  |  |
| Consider additional measures to restrict access to controlled substances.  |  |  |  |
| Dispose of all sharps and regulated medical into appropriate containers and stage waste/containers for proper disposal; empty and disinfect aspirator collection flasks. |  |  |  |
| Ensure all radioactive materials are locked/secured inside a refrigerator, freezer, or lockbox. If you need to transfer RAM to another location, please consult with Radiation Safety first: rsoresearch@columbia.edu |  |  |  |

Physical Hazards:

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| ITEM/TASK | Complete | N/A | Notes |
| Ensure all gas valves are closed. If available, shut off gas to area. |  |  |  |
| Turn off appliances, computers, hot plates, ovens, and other equipment. Unplug equipment if possible. |  |  |  |
| Check that all compressed gas cylinders are secured and stored in an upright position with straps, chains or base stands. Remove regulators and use caps. |  |  |  |
| Elevate equipment, materials and supplies, including electrical wires and chemicals, off of the floor to protect against flooding from broken pipes. |  |  |  |
| Inspect all equipment requiring uninterrupted power for electricity supplied through an Uninterrupted Power Supply (UPS) and by emergency power (emergency generator). |  |  |  |

Equipment:

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| ITEM/TASK | Complete | N/A | Notes |
| Check that refrigerator, freezer, and incubator doors are tightly closed. |  |  |  |
| Fume hoods: Clear the hood of all hazards and shut the sash |  |  |  |
| Review proper shut down procedures and measures to prevent surging. |  |  |  |
| Shut down and unplug sensitive electric equipment. |  |  |  |
| Confirm that critical equipment is connected to emergency power or UPS.  |  |  |  |

Decontamination

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| ITEM/TASK | 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:

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| ITEM/TASK | Complete | N/A | Notes |
| Collect and properly label all hazardous chemical waste in satellite accumulation areas (SAAs). Segregate incompatible chemicals by means of a physical barrier (e.g., plastic secondary bins or trays). |  |  |  |
| Place a request for **unstable, sensitive, or excess chemical hazardous waste** to be collected, as needed. It is not necessary to remove all waste from laboratories at this time. Rather, ensure that all waste is [stored in compliance with the 5 L’s](https://research.columbia.edu/sites/default/files/content/EHS/Waste_Hazmat/5Ls.pdf). |  |  |  |
| Collect all solid biological waste in appropriate containers. |  |  |  |
| Do not allow regulated medical waste (red bags, sharps containers) to accumulate in your lab. Move any regulated medical waste - especially red bags - to hallway following usual procedures.  |  |  |  |
| Collect radioactive material into the appropriate waste containers and stage in a safe area. [Submit a RAM waste pick-up](https://labcliq.com/latch/latch.cfm) for urgent service only. |  |  |  |

Security

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| ITEM/TASK | Complete | N/A | Notes |
| Lock all entrances to the lab. Ensure key personnel who will support critical functions have appropriate access. |  |  |  |
| Ensure windows are closed. |  |  |  |
| Secure lab notebooks and other data. |  |  |  |
| Take laptops home. |  |  |  |

**Please contact** **labsafety@columbia.edu** **with questions about how to secure hazards or safely suspend research operations in your laboratory.**