Laboratory Research Ramp-Down Checklist

Preparing:

- Identify all non-critical activities that can be ramped down, curtailed, suspended, or delayed.
- Identify essential personnel able to safely perform essential research activities only.

Communications:

- Create contact list including all lab personnel, principal investigator, lab administrative director, research operations manager, EHS Coordinator 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 amongst lab researchers and staff.
- Ensure that emergency contacts are up to date and posted on outside of lab doors.

Shipping/Receiving:

- Do not order any new research materials except those items needed to support minimal critical function.
- Cancel orders for non-essential research materials if they have not yet shipped.
- Contact mail services personnel to notify them of any expected incoming shipments.
- Do not place any packages potentially containing dry ice in a walk-in cold room or freezer.

Research Materials:

- Freeze down any biological stock material for long term storage.
- Consolidate storage of valuable perishable items within storage units that have backup systems.
- Fill dewars and cryogen containers for sample storage and critical equipment.
- Consult with EHS about current animal care recommendations.
- Properly secure all hazardous materials in long-term storage. Refer to EHS Guidance.
- Ensure all flammables 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 its contents and include hazards.
- Remove all chemicals and glassware from benchtops and fume hoods and store in cabinets or appropriate shelving.
- Request waste pickup 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.
- Confirm inventory of controlled substances and document in logbook.
- Consider additional measures to restrict access to controlled substances.
- Secure physical hazards such as sharps.
- Ensure all radioactive materials are locked/secured inside a refrigerator, freezer, or lockbox. If you need to transfer radioactive material to another location, please consult with EHS first.

Physical Hazards:

- 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 gas cylinders are secured and stored in an upright position. 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:

- Check that refrigerator, freezer, 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.
- Review proper shut down procedures and measures to prevent surging.
- Shut down and unplug sensitive electric equipment.
- Cover and secure or seal vulnerable equipment with plastic.

Decontamination:

- 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:

- 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 chemical hazardous waste to be collected.
- Biological waste: Disinfect and empty aspirator collection flasks.
- Collect all solid biological waste in appropriate containers. If your lab does not have a routine biowaste pick up, request removal & see the Biohazard Waste Management section of the Biohazards part of the EHS website.
- Collect radioactive material into the appropriate waste containers and request a radioactive waste pickup from EHS.
- Discard all unwanted, non-hazardous chemicals down the drain. If there is any question about whether a chemical is non-hazardous, contact EHS.

Security:

- 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.

General Area:

- Remove all perishable and open food items for the lab break areas, lockers, personal spaces.

Please contact your EHS Coordinator or EHS, wfuehs@wfu.edu, with questions about how to secure hazards or safely suspend research operations in your laboratory.

Appendix A: Examples of Critical Equipment, Operations & Supplies

Equipment and Supplies

- Equipment
- NMR/MRI/other magnets requiring cryogens
- GC/MS, EM, Confocal microscopes, irradiators, cleanrooms
- Glove boxes
- Solvent Purification Systems
- Incubators
- Refrigerators/freezers, -80 Freezers, cryogenic storage
- Information resources (IT and paper)
- Samples and specimens (live, fresh, frozen, and fixed)
- Novel compounds and biochemicals
- Type specimens
- Cell lines
- Seeds
- Animals
- Specialized reagents and chemical inventories
- Supplies
- Personal Protective Equipment (e.g. gloves, masks, respirators)
- Disinfectants and spill cleanup materials
- Biological safety cabinets

Vital laboratory support functions

- Basic utility inputs of electricity, heating and cooling, potable water, sewage, and telecommunications
- Specialized utilities such as de-ionized water, process chilled water, and local exhaust
- Procurement, transportation, receiving, and delivery networks
- Uninterrupted vendor operations
- Service and maintenance on sophisticated equipment
- Waste management services
- Emergency response services