

Research Operations Continuity - Startup Checklist for Laboratories

The following guide is provided to assist researchers in their lab-specific preparations for bringing their research laboratories back online from temporary shutdown. As you restart research, please keep safety in mind and contact **Laboratory Operations** at **616-890-0434** or **Laboratory Safety** at **616) 450-0875** with questions or for assistance with risk assessment, safeguards, or hazardous materials management. For facility issues, contact **Laboratory Operations** at **616-890-0434**.

Infection Control Planning

- Follow the Research Reengagement Procedures provided by Center for Scholarly and Creative Excellence at: <https://www.gvsu.edu/csce/research-re-engagement-gvsu-our-plan-88.htm>
- All faculty and staff will be assigned 2 reusable face masks.

First Day Back

- Please contact Aaron Perry 616-890-0434 for access to your research space or equipment.
- Prior to restarting any research, perform a complete and thorough walkthrough of all spaces. Address anything that is out of place, missing, damaged, leaking, etc.
- Ensure you have adequate personal protective equipment (PPE) available for near-term planned research.
- Ensure you have adequate hand-soap and towels for handwashing, and disinfectant appropriate for cleaning lab surfaces and equipment.
- Verify all emergency equipment is functional and accessible.
 - Flush all eyewashes. Ensure safety showers are accessible and operational.
 - Check fire extinguisher pressure gauges to ensure it is within operating range.
 - Verify emergency equipment, such as eyewashes, safety showers, sprinkler heads, fire extinguishers, and pull stations are visible and not obstructed.
 - Run all water sinks and DI water faucets for 15 min. The university will purge the water system, but make sure any dead legs are flushed as well.
- Check chemical containers for damage, leaks, pressure build up, etc. Dispose of excess waste, especially chemicals that may have become unstable.
- Power up electrical equipment slowly and one at a time to avoid overloading circuits.
- Verify that the chemical fume hood is currently certified by checking the sticker issued by EHS. Test the hood to ensure that the sash can be raised up with one hand to the mechanical stop or 18 inch vertical opening and that it does not go into alarm. Check to ensure face velocity remains +/- 100 CFM.
- As you begin starting active research again, keep plans flexible to accommodate changes. Documenting lab-specific actions taken can help future decisions.

General

- Avoid engaging in startup procedures alone in case any issue arises. Have a general planned schedule of when certain processes should be back up and running.
- Take things cautiously slow as your research ramps back up. Accidents are more likely to occur if a lab rushes back into research. Cross-train lab staff on startup processes.

- Reconsider beginning with certain experiments or research activity that rely on other facilities, are especially hazardous or long-term in nature.
- Note that shared facilities, such as stockrooms or core labs, may not be accessible.
- Be aware that many lab items may be in short supply or have longer lead times, including gases, chemicals, and PPE.
- Schedule deliveries of research materials in smaller quantities and expect delays.
- Avoid sharing PPE if possible.
 - Conduct a risk assessment to determine the appropriate level of PPE.
 - Provide individual PPE whenever possible.
 - If PPE can be disinfected, do so. Additionally, wash hands before and after use.
- Consider if items worn for public health considerations (e.g. cloth face coverings) may hinder safe use of PPE used to mitigate exposure to hazardous materials.
- Do not wear your lab gloves outside the labs, unless done for infection control purposes.
- Check that all utilities such as house vacuum and natural gas are operational for your needs.
- Turn water back on slowly. Check connections for leaks. Do not leave the site right away as some connections may burst or leak after a few minutes. Call Facilities Services to report leaks.
- Communicate with your lab supervisor or area manager that you are returning to research.

Biologicals

- Verify that biosafety cabinets have not gone out of certification over the shutdown period.
- Ensure you have sharps containers available before beginning work.
- Ensure appropriate disinfectants for your biological work are available and not expired.
- Confirm inventory of controlled substances and proper documentation

Chemicals

- Ensure you have hazardous waste containers available before beginning work.
- Maintain separation of non-compatibles as you get set up in the lab again (e.g. oxidizers and flammable gases, acids and bases or flammables).
- Ensure all compressed gas cylinders are chained/secured.
- Consider leak testing compressed gas piping systems before using.

Radioactive Materials

- Verify all survey equipment are operating normally.
- Perform a survey of the lab before beginning work.
- Perform an inventory check, contact Radiation Safety if any material is not accounted for.

Equipment

- Review manuals for any equipment's start up procedures.
- Do not daisy chain or use extension cords in attempts to reach emergency power.
- Verify "Laser In Use" lights, door interlocks, or other safety related controls still operate.
- Verify heat sources do not have damaged cords before reconnecting to power (includes, but not limited: hot plates, ovens, heat blocks, sterilizers, water baths).