

<p>Carnegie Mellon University Environmental Health & Safety FIRE LAB WORK </p>	<p>Environmental Health and Safety Return to Approved Research Operations - Guideline</p>
<p>Date of Issuance: May 2020</p>	<p>Revision Date:</p>
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1. Purpose

Carnegie Mellon University has developed this guideline to provide information to assist researchers in safely resuming approved operations following an extended shutdown by the COVID-19 impact.

2. Scope

This document applies to all CMU faculty, staff and students who will resume approved research operations in areas that have been subject to an extended shutdown.

3. Minimum Requirements

CMU has issued [minimum requirements](#) that must be followed upon returning to campus.

4. Preparation for Resuming Approved Research Operations

Prior to resuming approved research operations, Principal Investigator's (PIs) or their designees should perform a thorough walkthrough of their space(s) and review the following:

- a. Ensure that lab personnel review this guideline and they will follow this process when starting work in the lab or work space.
- b. Confirm with the PI or Lab Manager which utilities need turned back on prior to beginning work such as DI/RO water systems, gas manifold systems, and other lab equipment which may have been taken off line prior to lab closure.
- c. Check for any evidence of damage to spaces such as leaks, non-functioning utilities and any other damage. If damage is found, contact Facilities Management and Campus Services (FMCS) at (412) 268-2910 for mitigation.

- d. Confirm equipment, chemical, biological and controlled substance inventories in BioRAFT.
 - e. Verify the space has an adequate supply of personal protective equipment (PPE) in place for near-term research.
 - f. Verify the space has an adequate supply of soap, towels and disinfectant materials appropriate for lab surfaces and equipment. Soap, towels, and disinfectant can be requested by contacting the FMS Storeroom at (412) 268-2910.
 - g. Test and document the operation and accessibility of emergency eyewashes by flushing for 1-2 minutes while checking for adequate flow and tepid temperatures.
 - h. Verify emergency safety showers have been tested by FMCS in the past 12 months by inspecting the shower tag.
 - i. Inspect fire extinguishers as outlined in: <https://www.cmu.edu/ehs/Fire-Safety/Monthly%20Fire%20Extinguisher%20Inspection.pdf>.
 - j. Verify that chemical fume hoods, biosafety cabinets and other lab ventilation systems are operational and have been certified within the past 12 months. Contact Environmental Health and Safety (EHS) at safety@andrew.cmu.edu to report non-functioning ventilation equipment or equipment that is past due for certification.
 - k. Check chemical containers for damage, leaks, pressure build up, expiration, etc. Request waste pickup from EHS, if needed, particularly for peroxide forming compounds or other chemicals that may have become unstable by visiting: <https://www.cmu.edu/ehs/Hazardous-Waste-Management/chemical-waste.html>.
 - l. Flush sinks, check sink traps and floor drains and flush with water as needed. Please note: FMCS has been flushing plumbing in restrooms, non-restricted sinks, and water fountains weekly.
 - m. Check refrigerators, freezers and constant temperature rooms for proper operation.
 - n. Check all electrical cords are in good working order and are properly plugged in.
 - o. Review operation manuals for laboratory equipment.
 - p. Verify that adequate compressed gases and/or cryogenics are present.
 - q. Verify the space has an adequate supply of waste collection containers/boxes, labels, tags and secondary containers.
 - r. Check your group's BioRAFT page by visiting: <https://www.cmu.edu/ehs/BioRAFT/index.html> to verify group training compliance and update group membership and job activities.
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- s. Review and update Animal and Biological research registrations as required.

5. Resuming Approved Research Operations

After confirmation that space(s) are prepared to resume approved research operations, PIs and their designees should consider the following:

- a. Avoid engaging in start-up procedures alone particularly with energized equipment. Physical distancing must still be practiced.
- b. Understand that laboratory supplies have the potential to be in short supply and order the minimum number of supplies needed. In addition, delays in supply delivery are possible. Please contact Procurement Services at by visiting: <https://www.cmu.edu/finance/procurementservices/> for potential solutions to supply issues.
- c. Develop a scheduling system for shared spaces and equipment such as conference rooms, eating areas, procedure rooms, analytical equipment, fume hoods, biosafety cabinets to minimize the number of people in the space(s) at the same time
- d. Notify the lab manager or facility coordinator that your research will be resuming.
- e. Avoid wearing research PPE outside of the laboratory, however, face coverings must continue to be worn.
- f. Label or place a sign near lab equipment with a reminder that the equipment must be disinfected before and after each use (See Section 6, Cleaning and Disinfecting).
- g. Place a spray bottle with disinfectant and wipes near the equipment (Don't forget to properly label the bottle.)

6. Cleaning and Disinfecting

The following cleaning and disinfection procedures must be followed:

- a. Contact Dawn Roernick at droernick@andrew.cmu.edu or (412) 670-2913 if you would like to have an initial cleaning of your laboratory.
- b. Wash hands when entering the laboratory and at least every hour thereafter.
- c. Wear gloves when cleaning surfaces.
- d. Heavily soiled areas must be cleaned with a detergent prior to disinfecting.
- e. Using an [EPA-registered](#) disinfectant, wipe surfaces and objects frequently touched including, but not limited to: keyboards, touch screens, benchtops,

compressed gas tank valves, light switches, door handles, faucet handles, chair handles, equipment controls, etc.

- f. Keep areas clutter free so they can be properly disinfected at the end of each shift.
- g. Remove gloves and wash hands after cleaning and disinfecting.