Updated June 17, 2020

Guidance for Facilities Start-up During the COVID-19 Pandemic

Workforce protection and safety are critical to reopening, and measures must be taken to ensure the faculty, staff, students, and campus community have appropriate protective controls, plans, supplies, and guidance to safely return to work; understand their responsibility/role; and receive the information to have confidence in the safety of the campus. This interim guidance is intended to help schools, colleges, and divisions (S/C/D) make effective process and facilities-use changes that prevent workplace transmission of COVID-19.

Actions taken by S/C/Ds can prevent and slow the spread of COVID-19 within the workplace. S/C/Ds are encouraged to coordinate with Facilities Planning & Management (FP&M) for both health and facilities guidance.

All schools, colleges, and divisions should implement a plan that:

- Is specific to your workplace,
- identifies all areas and job tasks with potential exposures to individuals with COVID-19, and
- includes control measures to eliminate or reduce such exposures.

As research is restarted, please keep safety in mind and contact Environment, Health & Safety (EH&S) at 608-265-5000 or ehs@wisc.edu with questions or to request assistance with risk assessment, safeguards, or hazardous materials management.

For facility issues, please contact the Physical Plant via a web request https://wiscready.assetworks.cloud/ (non-emergency) or by voice at 608-263-3333.

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Considerations Before Returning to Work

Before beginning any on-campus activities, research principal investigators (PIs) will need approval from their department chair or center director. Associate deans for research and the OVCRGE will notify chairs and directors of start dates for specific buildings during a rolling resumption of campus research. A plan should be developed by individual research PIs for their own groups following guidance from their respective S/C/D for how operations will begin, what specific activities will be allowed, and a timeline for start-up.

Public health considerations during the COVID-19 pandemic

COVID-19 is a respiratory disease caused by the SARS-CoV-2 virus. It is thought to spread primarily through respiratory droplets produced when an infected person coughs or sneezes. Other possible means of transmission include aerosols (e.g., an infected person exhaling) and transfer of virus through touching the mouth, nose, or eyes after touching a contaminated surface. Symptoms may appear 2-14 days after exposure, and some infected individuals never exhibit symptoms. Infected individuals may transmit the disease even if pre-symptomatic or asymptomatic. To prevent spread of COVID-19 as faculty, staff, and researchers return, each work unit should:

- Read the campus Public Health Protocols: https://research.wisc.edu/public-health-protocols-for-reopening/.
- Have all employees that will be working on-site complete the mandatory online training course that includes basic information about COVID-19 and best practices for reducing risk of exposure: https://go.wisc.edu/jf993f
- Develop a plan for reduced occupancy and physical distancing. The density of people in any building space at one time is limited to 25% capacity or less. A distance of six feet or more (roughly two arm's lengths) between individuals should be maintained at all times.
- Working alone with hazardous materials is not advised. Laboratories and shops should evaluate the risks and if employees will be working alone, consider developing a check-in/check-out system with responsible staff off site.
- Do not use N95/N100 respirators for protection from spread of COVID-19 in the workplace; these should be reserved for laboratory and shop activities involving hazardous substances. Wear face coverings indoors unless working alone in a laboratory or office space. Do not wear disposable masks or cloth face coverings in place of personal protective equipment (PPE) used to mitigate exposure to hazardous materials, such as N95/N100 respirators. Face coverings may be removed while wearing PPE if they interfere with PPE fit or use.
- Avoid sharing PPE if possible.
    - Provide individual PPE whenever possible.
    - Disinfection may not be feasible for some commonly shared PPE (e.g., laser glasses, cryogloves). If possible, designate tasks requiring such PPE to select individuals.
- Disinfect high touch objects, equipment, and areas frequently (at a minimum, between shifts).
- Wash hands frequently. Handwashing is the preferred method of hand hygiene. If a sink is unavailable, alcohol-based hand sanitizer may be used but should be followed by washing with soap and water at first opportunity.
- Use gloves appropriately. It may be common at this time to see members of the public wearing gloves. Gloves are not recommended as a measure to protect against COVID-19. Do not wear lab gloves outside of the laboratory.

Every S/C/D should prepare to implement basic infection prevention measures. Protecting employees will depend on emphasizing basic infection prevention measures. As appropriate, all employers should implement good hygiene and infection control practices, including:

- Promote frequent and thorough handwashing. If soap and running water are not immediately available, provide alcohol-based hand sanitizers containing at least 60% ethanol or 70% isopropanol.
- People working on campus are expected to self-monitor for COVID-19 symptoms each day before reporting to work. Self-monitoring should follow the most recent Wisconsin Department of Health Services guidance: https://www.dhs.wisconsin.gov/covid-19/symptoms.htm. Instruct workers to stay home if they are sick, and encourage them to contact their healthcare provider if they have symptoms of COVID-19 for medical guidance regarding care and testing.
- Encourage respiratory etiquette, including covering coughs and sneezes. If no tissues are available, individuals should cough or sneeze into their elbow, not their hands.
- Discourage employees from using other employees' phones, computers, desks, offices, or other work tools and equipment, when possible.
- Cleaning and disinfecting are ongoing requirements. All employees must be engaged in the constant maintenance of their workspace. FP&M will focus custodial cleaning efforts on building common areas and rest rooms during Phase 1. Each unit is responsible for the cleaning and disinfection of offices, laboratories, conference rooms, workstations, and other unit-specific spaces.
- Please note that certain cleaning supplies (e.g., disinfectant wipes) remain in short supply. Free cleaning supplies from campus inventories can be requested online at https://shopuw.wisc.edu/eoc-ppe-request-form. Units are encouraged to establish internal controls as needed to ensure supplies remain adequate.

Logistical considerations for start-up planning

The COVID-19 pandemic has caused considerable disruption of campus operations, staffing, and supply chains. When developing a start-up plan for your operations, consider delaying the start-up of experiments or operations that rely on other facilities, are especially hazardous, or are long-term in nature. Things to consider include:

- Much is still unknown about COVID-19. Be prepared to reduce or cease operations again in case a resurgence leads to re-closing of laboratories.
- Shared facilities, such as stockrooms or core labs, may be on different ramp-up schedules or experience increased demand.
- Many lab items are in short supply or have longer lead times, including gases, chemicals, disinfectants, hand-sanitizer, and PPE. Schedule deliveries in smaller quantities and expect delays. Be a good steward and don't hoard, stockpile, or order more than needed.
- Ensure you have adequate PPE for planned research. Assess your existing supplies and use rate. Consider implementing measures to extend stocks, such as modifying workflows to reduce the need to doff and don fresh PPE.
- Acquisition and allocation of PPE critical to the COVID-19 response (e.g., N95 respirators, Tyvek) are being coordinated through the UW-Madison Emergency Operations Center (EOC). Requests for critical PPE can be placed through the online EOC request form: https://shopuw.wisc.edu/eoc-ppe-request-form/. Requests to order these limited availability

items are reviewed by the EOC Logistics team and filled based on many factors. These factors include the requesting unit, the intended purpose of the PPE, the on-hand quantity of the item, anticipated resupply date, the existing stock of requesting unit, and the availability of methods for conserving and reusing equipment.

- Questions about PPE donations, purchases, or allocation should be directed to the EOC Logistics Team at: EOC_PPE_Supplies@lists.wisc.edu.
- Plan a schedule of when different processes will be back up and running. Keep plans flexible to accommodate changes. Document actions taken to help inform future decisions.

Start-up Planning

General Building Considerations
- Keep an updated list of the status of work units in the restarting process, especially laboratories and shops. Request copies of start-up schedules. Keep FP&M informed so that building services can be adjusted as needed/available.
- Walk through the building, verifying that corridor fire extinguishers, pull stations and emergency egress are not obstructed. Please contact Fire & Life Safety if a consultation is needed: https://ehs.wisc.edu/fire-life-safety-service-request/
- Mail and package delivery services may be modified. Alternative arrangements may be required to support laboratories and shops that are ramping up. Develop a delivery management plan.
- Staff should coordinate with their departments for building access.

Step 1: Develop an Infectious Disease Preparedness and Response Plan.
This contingency plan will serve to outline your planned actions in the event someone begins to exhibit symptoms of illness at work or reports a positive COVID-19 test.

- If an employee shows symptoms of illness while at work, they should be separated from other employees, customers, and visitors and sent home immediately.
- When a person diagnosed with COVID-19 is known to have been on campus, the specific locations where the person spent time will be evaluated by University Health Services (UHS) in partnership with local staff to determine what cleaning and disinfection is required in accordance with CDC guidance. UHS and EHS will coordinate to close spaces as needed in advance of required cleaning.

Develop a plan for your work unit to handle reduced staffing in the event of employee absences due to illness, care for sick family members, or care for children if schools and childcare close.

[See Appendix 1: Infectious Disease Preparedness and Response Plan Sample]

Step 2: Conduct a Hazard Analysis
Not all campus operations and facilities have the same hazards and there is no one-size-fits-all set of mitigation techniques. Review your facilities, equipment, processes, and activities and focus on the relationship between the employee, the task, the tools, and the work environment. After you identify uncontrolled hazards, you will take steps to eliminate or reduce them to an acceptable risk level.

To identify and assess hazards, employers and employees: Collect and review information about the hazards present or likely to be present in the workplace.

In the process of seeking COVID-19 prevention, don't ignore hazards, such as housekeeping and tripping hazards that can and should be fixed as they are found. Fixing hazards on the spot emphasizes the importance of safety and health and takes advantage of a safety leadership opportunity. https://www.osha.gov/shpguidelines/hazard-Identification.html

Action item 1: Collect existing information about workplace processes

Action item 2: Inspect the workplace for safety hazards

Action item 3: Identify potential opportunities for health hazards. For example:

- Identify frequently touched areas (doors, cabinets, etc.)
- Identify locations of high traffic or congestion with special consideration to how faculty/staff/students will enter and exit a given space
- Identify customer service/points of service/transaction

Simply applying percentage reductions to normal occupancy (for example 25%) of a space or even basic per person area reductions will not realistically inform physical distancing capability. Every space on campus is different. Evaluating each space with consideration to the specific tasks to be performed is the ideal answer. Area calculations and modeling should be considered a reference and rough guideline as you work toward options and an application-specific mitigation strategy.

Action item 4: Characterize the nature of identified hazards and prioritize the hazards for control based on the likelihood and severity

[See Appendix 2: Hazard Identification and Mitigation Template]

Implementing Workplace Controls

Once the hazard analysis for your work unit is complete, appropriate workplace controls should be identified and put in place. "Hierarchy of controls" is a framework to select ways of controlling workplace hazards. In other words, the best way to control a hazard is to systematically remove it from the workplace, rather than relying on employees to reduce their exposure. The best way to protect employees from COVID-19 transmission is to eliminate the need for their presence in the workplace. Consideration should be given to whether changes in requirements or processes could reduce the need for on-site staffing. Employees that are able to perform their work remotely (e.g., telecommuting) should continue to do so. During a COVID-19 outbreak, when it may not be possible to eliminate the hazard inherent in being present in the workplace, the most effective protection measures are (listed from most effective to least effective): engineering controls, administrative controls, and PPE.

There are advantages and disadvantages to each type of control measure when considering the ease of implementation, effectiveness, and cost. In most cases, a combination of control measures will be necessary to protect employees from exposure to SARS-CoV-2. In addition to the types of workplace

controls discussed below, CDC guidance for businesses provides employers and employees with recommended SARS-CoV-2 infection prevention strategies to implement in workplaces: www.cdc.gov/coronavirus/2019-ncov/specific-groups/guidance-business-response.html.

Engineering Controls

Engineering controls involve isolating employees from work related hazards. In workplaces where they are appropriate, these types of controls reduce exposure to hazards without relying on employee behavior and can be the most cost-effective solution to implement. Engineering controls to protect against SARS-CoV-2 include:

- Install a drive-through window for customer service.
- Specialized negative pressure ventilation may be appropriate in some settings, such as for aerosol generating procedures on individuals (e.g., airborne infection isolation rooms in healthcare settings, specialized autopsy suites in mortuary settings). Please consult with FP&M Physical Plant if you feel specialized ventilation changes are needed to accommodate operations.
- Reconfigure common areas to limit occupancy. Remove chairs and desks (or make them unusable) to ensure proper physical distancing (e.g., in break, conference, and waiting rooms). Reduce furniture items that require cleaning or cannot be easily cleaned.
- Eliminate reusable kitchen items (e.g., flatware, dishes, and cups) and cleaning tools (e.g., sponges, brushes, towels) and replace with single use options.
- Remove shared appliances (e.g., coffee makers, ice/water dispensers).
- Remove high-touch items such as magazines, common pens, etc.
- Consider spacing out shared equipment if congestion occurs.
- Consider installing plexiglass barriers at high-interaction areas where other strategies for physical distancing may be difficult to maintain such as reception desks and check-in points. Many portable/free-standing options are available commercially. Permanent mounting should be carefully considered and must involve FP&M. Barriers should be employed carefully and used only when face-to-face contact or transaction is unavoidable.

Engineering Controls being addressed centrally by FP&M/Physical Plant:
- Installing high-efficiency air filters [under consideration].
- Increasing ventilation rates in the work environment [action already being taken where possible and within system capability].
- Installing Ultraviolet Germicidal Irradiation (UVGI) [under consideration].
- Installing automatic door openers [action already being taken where appropriate].
- Maintaining temperature and humidity to reduce the potential of the infectious aerosol transmission [action already being taken where possible].

Administrative Controls

Typically, administrative controls are changes in work policies, procedures, and practices to reduce or minimize exposure to a hazard.

Work procedures

Examples of work procedures that protect against SARS-CoV-2 include:

- Minimize contact among employees, clients, and customers by replacing face-to-face meetings with virtual communications wherever feasible.
- Establish alternating days or extra shifts that reduce the total number of employees in a facility at a given time, allowing them to maintain distance from one another while maintaining a full on-site work week. Stagger arrival times, departure times, and breaks where possible to further limit density.
- Continue to work remotely when the tasks allow even if authorized to return to campus; only visit campus to perform tasks that cannot be done remotely.
- Discontinue nonessential travel to locations with ongoing COVID-19 outbreaks. Regularly check CDC travel warning levels at: www.cdc.gov/coronavirus/2019-ncov/travelers.
- Develop emergency communications plans, including a forum for answering employee concerns using internet-based communications, if feasible.
- Provide employees with up-to-date education and training on COVID-19 risk factors and protective behaviors (e.g., cough etiquette, care of PPE).
- Train employees who need to use protective clothing and equipment how to put it on, use/wear it, and take it off correctly, including in the context of their current and potential duties. Training material should be easy to understand and available in the appropriate language and literacy level for all employees.
- Place appropriate signage at entrances indicating how to proceed, who to contact, and the preferred use of the space.
- Identify allowable occupancy in order to control workflow and establish and post maximum occupancy in common break areas.
- Institute occupancy limits for elevators via signs and floor marking [this has accessibility/code concerns and needs to be reviewed and approved by FP&M prior to implementation]
- Monitor and secure inventories of hand sanitizer, wipes, cleaning products, and hand soap.

Safe Work Practices

Safe work practices are types of administrative controls that include procedures for safe and proper work used to reduce the duration, frequency, or intensity of exposure to a hazard. Examples of safe work practices to protect against SARS-CoV-2 include:

- Provide resources and a work environment that promotes personal hygiene. For example, provide tissues, hand soap, alcohol-based hand sanitizers containing at least 60 percent ethanol or 70% isopropanol, disinfectants, and disposable towels for employees to clean their work surfaces.
- Require regular hand washing or use of alcohol-based hand sanitizers. Employees should always wash their hands when they are visibly soiled, after using the restroom, and after removing any PPE.
- Post handwashing signs in restrooms and near sinks [action already being taken in restrooms by FP&M / Physical Plant].
- Consider use of 'personal touchless tools' for elevator controls and opening of restroom doors.
- Perform routine environmental cleaning (e.g., workstations, plexiglass dividers). Routinely clean and disinfect all frequently touched surfaces, such as workstations, countertops, handrails, and doorknobs. Follow the manufacturer's instructions for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE).
- Discourage sharing of tools and equipment wherever feasible.

- Conduct meetings electronically, even when working on campus. If meetings cannot be conducted virtually, keep participation to fewer than 10 participants and enforce appropriate physical distancing or wearing of masks or face coverings.
- Use visual cues (e.g., tape between individual workspaces) as a helpful reminder of appropriate physical distancing.
- Avoid concurrent use of bench tops/desks/workspaces that face one another.
- Use collaborative software such as Microsoft Teams to maintain a schedule for staggered sign-up and use of equipment and spaces.
- Coordinate with other S/C/Ds and units to develop a schedule for staggered use of common spaces such as break rooms and lounge areas.
- Encourage single occupancy in work rooms when hazardous materials or hazardous work procedures are not in use.

Communications

Communications between the employer and employees are an important part of effective administrative controls. Examples of communications that can help protect against SARS-CoV-2 include:

- Instruct sick employees to stay home. Make it clear that they can do so without fear of reprisals.
- Promote etiquette for coughing, sneezing, and handwashing.
- Have conversations with employees about their concerns. Some employees may be at higher risk for severe illness, such as older adults and those with chronic medical conditions.
- Make sure to include all employees in hazard communication about the risk of spreading COVID-19 in the workplace. Do not make assumptions and be mindful that employees are not required to disclose medical conditions or their immune status.
- Provide important information in the appropriate language and literacy level for all employees, like fact sheets and posters.

Personal Protective Equipment (PPE) and Face Coverings

While engineering and administrative controls are considered more effective in minimizing exposure to SARS-CoV-2, PPE and face coverings also reduce risk of exposures. While correctly using PPE and face coverings can help reduce some exposures, it should not take the place of other prevention strategies.

- Use face coverings as per campus guidelines: https://research.wisc.edu/public-health-protocols-for-reopening/
- Monitor and secure inventories of PPE. Do not allow employees to take any supplies home for personal use.

Not Recommended

Some control measures are not advisable due to efficacy, cost, regulatory requirements, or unintended harmful consequences. The following are not recommended:

- Installation of no-touch soap dispensers.
- One-way corridors and stairwells. This strategy is useful in very limited situations and application due to impacts of fire code and accessibility requirements. Excessive marking with stickers is not desired. [this has fire code concerns and requires FP&M review and approval prior to implementation]

- Propping open restroom doors; these doors are designed to be closed for fire and ventilation purposes. Propping them open may negatively impact the system balance and reduce the health benefits that were intended in other areas of the facility. [requires FP&M review and approval]
- Propping open laboratory doors; these doors should remain closed to maintain inward airflow and contain hazardous materials.
- Foot-operated door openers.

First Day Back

Food and Shared Appliances

Be sure to check the expiration dates of food. Date labels on food products are not always indicative of food spoilage, so "when in doubt throw it out." Remove shared appliance such as coffee makers.

Pests

Campus buildings are subject to pest invasions, especially when buildings have been unoccupied. Look for signs of pest activity in the workplace, including rodent droppings on floors, desks, and in cabinets, gnawed foods, and shredded papers; cockroaches and ants are possible invaders, as well as are pantry moths, fruit flies and wasps. If you have pest concerns that require assistance, please contact Physical Plant Customer Service. Open food is a pest attractant. Ensure any food crumbs are cleaned up and any stored food is contained in pest-proof containers.

Drinking Fountains & Sinks

Water stagnation during extended breaks can result in changes to color, taste, odors, and turbidity. Usually these are resolved when normal water flow returns to the building. It is a good idea to let water run for a minute from drinking fountains, bottle fillers, or sink taps before using it for consumption. Water quality issues can be reported to Physical Plant Customer Service. Use personal water bottles to obtain water from refillable water bottle stations (hydration stations) rather than drinking water directly from fountain spigots.

Mold & Moisture

Water leaks from pipes or leaky windows could have occurred during the closure. Look for evidence of water intrusion, staining, mold growth or mold odors, and report it to your building manager or Physical Plant Customer Service.

Indoor Air Quality

Building ventilation during the closure was likely not interrupted. Each building's HVAC system will continue to be operated within its designed capabilities to manage ventilation, vapor pressure, temperature, and relative humidity to limit the transmission of SARS-CoV-2. Carefully managing these parameters is necessary to avoid making matters worse by creating excessive moisture, continuous temperature fluctuations, condensation, and microbial/mold growth. If you experience any significant indoor air quality issues upon return, please call Physical Plant Customer Service.

Laboratory Start-up

Initial laboratory re-entry
Please note that after a temporary shutdown, the condition of the laboratory may not be as you left it. Enter with a sense of caution.

- Stop outside the door and check for unusual odors indicative of a chemical release or spill before entering. For concerns about chemical odors please call Chemical Safety at 608-265-5700.
- Turn lights on and scan the lab for any immediate concerns prior to walking through the doorway.
- Listen for any local alarms indicating safety issues.
- Enter slowly to see if any materials or equipment may have been damaged.
    - If liquids are present on the floor or indication of leaks are identified on the walls or ceiling tiles, contact Physical Plant Customer Service.
- If a hazardous condition that poses a threat to you or to others is identified, such as a hazardous material release:
    - Isolate the hazard (e.g., close the door to the lab)
    - Notify occupants in the area
    - Activate the appropriate incident response action. Exit the laboratory and the building, if required.
    - **If there is there is an immediate danger to anyone's life, health, or property call 911.** If you are calling from a cell phone, please ask to be connected to the UWPD dispatch. If other assistance is needed, please call EH&S at 608-265-5000.

Laboratory walkthrough and re-start preparations
Once you have determined the laboratory is safe to enter, walk through all areas and rooms to identify problems and prepare for active work. Please note that any time a laboratory has been idle for a prolonged period of time, unexpected events may occur during initial operation of equipment or utilities (e.g., expulsion of air and particulates when turning on a faucet). Be careful and wear PPE (e.g., lab coat, eye protection) during start-up procedures:

- Avoid engaging in start-up procedures alone. Try to have at least two people present in case any issues arise. Maintain physical distancing during walkthrough and start-up.
- Take things slowly as research ramps back up. Accidents are more likely to occur if a lab rushes back into research.
- Review and, if necessary, update all Occupant Emergency and Evacuation Plans and Laboratory Emergency Door Cards.
- Check that nothing is obviously out of place, missing, damaged, leaking, etc.
- Ensure the laboratory has adequate soap and paper towels for handwashing, and disinfectant appropriate for cleaning lab surfaces and equipment.
    - Always check compatibility of disinfectants with equipment to avoid corrosion or damage.

- o Limited types and quantities of disinfectant wipes and hand sanitizer are available from the EOC. Requests for these can be placed through the online EOC request form: https://shopuw.wisc.edu/eoc-ppe-request-form/.
- Verify all emergency equipment is functional and accessible.
  - o Verify that eyewashes, safety showers, sprinkler heads, fire extinguishers, and pull stations are visible and not obstructed.
  - o Flush all eyewash stations for 5 minutes. Check for a tepid water temperature. Document that a flush of the eyewash station has been completed.
  - o Check fire extinguisher pressure gauges to make sure the indicator is in operating range. If needed, request a replacement from Fire & Life Safety: https://ehs.wisc.edu/fire-life-safety-service-request/
- Check that all utilities such as compressed air and natural gas are operational. Open valves slowly.
- Flush all faucets. Care should be taken to minimize splashing and aerosol generation during flushing. Discolored water may be common. If observed, this can be resolved by:
  - o Running the cold water tap until the water runs clear.
  - o Turn the tap on all the way to flush discolored water as quickly as possible.
  - o If water does not clear after 5-10 minutes, please call Physical Plant customer service.
- Pour small amounts of water down dry traps/floor drains to mitigate sewer gas smell. Remain clear of the drain to avoid backsplash or other unpleasant occurrence.
- Sewer gas can be confused for a natural gas leak. If an occupant is unsure of the identity of an odor, vacate the space immediately and touch as few items as possible to prevent static discharge. Do not turn lights off when exiting. Once outside and clear of the space call 911.
- Without regular cleaning, mold may grow in humid or damp conditions.
  - o Check walk-in cold rooms, air conditioning units, refrigerators and freezers for visible mold. Concerns and questions about mold exposure should be addressed to Environmental & Occupational Health (EOH) at eoh@uhs.wisc.edu.
  - o A small amount of mold (<10 square feet) can generally be addressed by users with proper clean up. Communicate with the building manager regarding any large areas of mold that might require professional remediation. Questions about mold remediation for large areas of growth should be addressed to EH&S at abatement@fpm.wisc.edu

Any damage or losses due to the shutdown should be reported to Risk Management for review of potential insurance coverage. Information on filing a property claim can be found online: https://businessservices.wisc.edu/managing-risk/property-and-equipment/.

Equipment
- Freezers and refrigerators may have failed during the shutdown. Open the door slowly as changes in temperature could case items to shift (e.g., due to thawing ice or reaction of unstable chemicals). Consult EH&S if a hazardous situation exists or if chemical disposal is required.
- For equipment connected to water, turn water back on slowly. Check connections for leaks. Do not walk away with water running as some connections may burst after a few minutes. Report any leaks immediately.
- Follow the manufacturer's instructions to power up electrical equipment. Power electrical equipment one at a time to avoid overloading electrical circuits. For complex start up sequences seek assistance from FP&M Physical Plant.
- Do not daisy chain or use extension cords in attempts to reach any electrical power.

- Verify that "Laser in Use" lights, door interlocks, and other safety related controls still operate.
- Verify heat sources do not have damaged cords before reconnecting to power (including, but not limited to: hot plates, ovens, heat blocks, sterilizers, and water baths).

Animals
- Communicate with your vivarium manager prior to restarting animal research.
- Confirm inventory of controlled substances and proper documentation. Report any missing materials to UWPD immediately at 608-264-2677 and inform the PI.
- Check expiration dates on drugs and other agents to be administered to animals. Follow campus guidance for disposal and use of expired drugs: https://www.rarc.wisc.edu/tools_and_guides/drugs/expired_drugs.html

Biologicals
- Verify all biosafety cabinets (BSCs) are in working order. Turn on blower and run at least 10 minutes before use. Check pressure gauge(s) to ensure operating conditions are within range of those indicated on the annual certification label. If repair is needed, please submit a service request online: https://ehs.wisc.edu/bsc-certification-maintenance-and-service-requests/. Do not use BSC until repair has been completed.
- Ensure biohazardous waste and sharps containers are available before beginning work.
- Ensure disinfectants appropriate for your biological work are available and have not expired.
- If applicable, verify the CO_2 supply before using incubators.

Chemicals
- Ensure all operations that were shut down abruptly did not leave behind a hazardous situation (e.g., reaction left in hood, solvent that went dry, etc.)
- Verify your fume hood is in working order and not in alarm. Check that all sashes open easily and are not obstructed. If the fume hood has a vertical sash, fully open to make sure that it goes into alarm mode, then shut the sash to make sure the alarm goes off. If the alarm does not sound or does not shut off contact Physical Plant Customer service and do not use fume hood until issue is resolved.
- Check all chemical containers, particularly solvent carboys and other used chemicals, for damage, leaks, pressure build-up/bulging, and missing caps/covers.
- Ensure you have appropriate chemical disposal containers available before beginning work.
- Check all compressed gas cylinders for leaks and damage and ensure that all cylinders are secured properly. Follow safe operating practices for use.
- Verify cryogen supply. Contact cryogen suppliers to make any special delivery arrangements/changes if necessary.
- Review the chemical inventory:
    - Check your chemical storage areas and ensure chemicals are stored by compatibility and that no chemicals have been placed into storage improperly.
    - If the lab has peroxide forming reagents, evaluate containers before opening. Under normal storage conditions, peroxides can accumulate in the chemical container and may explode when subjected to heat, friction, or mechanical shock. Contact Chemical Safety at 608-265-5700 if you have concerns about peroxide forming agents in your lab.
    - Report any missing materials to UWPD immediately at 608-264-2677. Contact the PI and the Departmental Administrator.

- If needed, request a chemical waste pickup: https://ehs.wisc.edu/chemical-disposalsurplus-pickup-request-form-2/

Radioactive materials and radiation producing machines
- Please reach out to your assigned Radiation Safety contact to notify them that you are restarting your lab. This will allow them to work with you to set up things like dosimetry (i.e., radiation badges) and sealed source leak testing (if applicable).
- Verify all radiation producing machines (e.g., x-ray irradiators, crystallography, x-ray units) are operating normally.
- Verify that all radiation survey meters in your possession are in working order and have been calibrated within the last year.
- Perform the same routine monthly wipe test survey of the lab before beginning work and contact the Office of Radiation Safety if contamination is found.
- Perform a radioactive material inventory check. Contact the Office of Radiation Safety if any material is not accounted for and inform the PI.
- Contact the Office of Radiation Safety at radiationsafety@wisc.edu to report any issues or to request assistance.