Lab Checklist

By the Joint Research Safety Initiative
irsi.uchicago.edu

Basic Start-Up Maintenance

☐ Run all sinks for at least 30 seconds.
☐ Run DI water for at least 30 seconds.
☐ Check house gas flows (nitrogen, compressed air, etc.).
☐ Check and replace filters if relevant.
☐ Ensure that COVID-19, Chemical Safety, Fire, and specialty trainings of group members are unexpired.
☐ Remind lab members to disinfect all work areas and surfaces before and after use.
☐ Remind lab members that working alone in lab is dangerous and should be avoided, even while social distancing.
☐ Remind lab members of UCAIR reporting and encourage increased utilization of this reporting service during all phases of research resumption.

Reports can be made for concerns, incidents, or near misses regarding COVID-19 or research work. Reports can be anonymous for incidents not requiring medical attention by responding “No” to “Is medical attention needed?” Reporting is non-punitive.

Safety Equipment & Procedures

☐ Confirm that appropriate PPE is available (for COVID-19 and for research activities).
☐ Check for suitable, unexpired disinfectant.
☐ Run all eyewash stations for at least 3 minutes.
☐ Check if safety showers are due for inspection and request it if needed.
☐ Check that first aid kits are stocked, unexpired, and accessible.
☐ Check expiration dates on fire extinguishers.
☐ Review Standard Operating Protocols (SOPs) for startup procedures.
☐ Update SOPs to account for reduced personnel and staggered time commitments, if applicable.
Safety Hoods, Boxes, & Cabinets

☐ Check fume hoods for:
  ☐ Appropriate flow
  ☐ Functioning alarm and warning systems

☐ Check glove boxes for:
  ☐ Leaks — Monitor oxygen and moisture levels
  ☐ Spent catalyst — regenerate if needed
  ☐ Old vacuum pump oil — replace if needed

☐ Check bio hoods (Biological Safety Cabinets – BSCs) for appropriate and up-to-date certification.

Chemicals & Solvents

☐ Check solvent storage cabinets and common-use 20 L solvent drums, if applicable. Ensure that solvents are still sealed properly and do not need replacing.

☐ Ensure timely and proper disposal of all expired chemicals and reagents.

☐ Specifically ensure that peroxide forming chemicals are unexpired, properly stored, and in a secondary container.

☐ Check all chemical storage areas for leaks, cracks, and other structural failures.

Machinery & Equipment

☐ Check oil and tip seals in vacuum pumps. Replace as needed.

☐ Check water levels and cleanliness in cooling systems.

☐ Check temperatures of freezers and refrigerators.

☐ Lubricate joints and connections if applicable.

Waste & Cleanliness

☐ Check dates of chemical waste containers. Order pickup if necessary.

☐ Check sharps containers. Order pickup if necessary.

☐ Check broken glass containers. Order pickup if necessary.

☐ Check trashcans.
Gases

☐ Use caution when entering enclosed rooms with compressed gasses that may have leaked.
☐ Check connections and regulators for damage.
☐ Flush or pump down systems before using flammables (protect against unexpected leaks).
☐ Leak check systems used for toxic or flammable gasses before use.

Lasers

☐ Confirm that guards, interlocks, and other engineering controls are in place and functional before use.
☐ Check for dust or debris on or near optics which may cause dangerous scattering.
☐ Confirm that there hasn’t been any severe misalignment which could cause dangerous beam steering.

Signage

☐ Ensure that contact information posted outside of lab spaces is still up to date.
☐ Ensure that appropriate hazard signage is still visible and appropriately posted. Replace lightbulbs if needed.
☐ Ensure that all lab members have contact information for all other lab members.

Misc.

☐ Ensure that all alarm and warning systems on specialty equipment are functional.
☐ Check desiccants and replace as needed.

- The training course titled “COVID 19: Controlled Resumption of Research Activities” will be required for all members of the research community returning to work.
- The UCAIR reporting system will be a vital aspect of effective and safe research resumption. Reporting is non-punitive and can be done anonymously. Concerns can also be submitted.
- Up to date resources on UChicago’s guidelines, protocols, and plans for research resumption can be found at https://goforward.uchicago.edu/
- Check out this course from the CDC on how to safely work with infectious microorganisms in Class II biological safety cabinets!