

# Laboratory Shutdown Guidelines

Each laboratory should develop a plan to protect laboratory equipment, materials, and research from loss, and to prevent hazardous conditions from developing during emergencies or shutdowns.

All laboratory personnel must be trained in their role in shutting down equipment and securing experiments. The following guidance outlines critical factors to consider when developing a plan for shutting down laboratories. In the case of an imminent threat such as a fire, the safety of personnel is the priority in determining actions that can be taken prior to evacuation.

## Pre-planning Activities

- Develop procedures for safely shutting down research. This should include securing chemical, biological, and radioactive materials. The procedures must be reviewed with the laboratory staff and readily available to them.
- Identify freezers, refrigerators, and critical research equipment and ensure the equipment is plugged into emergency electrical outlets. Emergency electrical outlets are usually red and provide power during an outage.
- Identify equipment that requires special procedures to restart after a power outage.
- Ensure critical research data is backed up periodically.
- Develop a plan for contacting laboratory staff during an emergency or a planned closure.

## Shutting Down the Laboratory

- Close the sash on chemical fume hoods.
- Safely store and secure all hazardous materials. Close gas valves and secure gas cylinders.
- Check pressure-, temperature-, air-, or moisture-sensitive materials and equipment. Experiments in progress may need to be terminated depending on the type of emergency/shutdown and the duration expected. Water-reactive materials should be placed in sealed containers and stored in areas that are unlikely to become wet.
- Turn off and unplug heat-generating equipment (e.g., hot plates, stir plates, ovens) and nonessential electrical devices.
- Check that refrigerator, freezer, and incubator doors are tightly closed.
- Exit the laboratory, lock the door, and follow the instructions for an evacuation or a planned closure.

## Resuming Laboratory Operations After a Shutdown

- If you discover a condition that poses a threat to you or to others, such as a fire or a hazardous material release, isolate the hazard (e.g., close the door to the lab), notify occupants in the area, exit the building, and call Protective Services at 966-5555.
- Do not use laboratory equipment, such as a chemical fume hood or biological safety cabinet, that is emitting alarm signals or not working properly. Call Facilities for service at 306-966-4496.
- Check equipment that may have been affected by a power disruption. Keep refrigerator and freezer doors closed until temperature levels return to normal.

Reference: University of Maryland



### SAFETY RESOURCES

 306-966-4675

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