**Section C.11**  
**University of South Carolina Safety Program Guide**  
**SUPPORT STAFF ACTIVITIES IN LABORATORIES**

**Introduction**

For many employees not directly engaged in research or teaching, laboratories are an unfamiliar environment. Support staff employees whose job responsibilities require them to work in these areas must communicate with laboratory occupants before beginning work to avoid creating a situation that may be hazardous to one or both parties. Advance planning of projects and effective communication will help to ensure that everyone involved understands all the potential implications of the work.

The classic example is chemical fume hood system maintenance. If the user attempts to work in the hood while maintenance is being performed, the individual working on the system may be exposed to contaminants being exhausted through the hood or to mechanical or electrical hazards. Similarly, laboratory personnel may be exposed if an exhaust fan is shut down without warning during an experiment. Following the procedures given below will help to assure that all necessary precautions are taken and that jobs are completed without undue risk.

**Scope and Application**

This procedure applies to any maintenance, repair or renovation activities that may impact laboratory operations or create a potentially hazardous work environment for support staff.

Examples of specific circumstances are listed below:

- maintenance on fume hood exhaust systems requiring fan shut down or work involving fan, ductwork, or fume hood interior surfaces
- changing of filters which have been used to trap radioactive materials
- servicing plumbing and traps which may be contaminated with chemical residues such as azides or mercury or radioactive materials
- maintenance of exhaust systems which have been used for perchlorates, radioactive materials, etc.
- working in chemical storage areas
- installation or servicing of cables, telephones, computers, etc.
- cleaning floors, workbench surfaces or shelves in laboratories in which open sources of radioactive materials have been used

More extensive planning may be required for larger projects or complete system shutdowns.

**Procedure**
Consult the Lab Occupants

Consult the people responsible for the area where the work will be done before beginning.

These are the people who can supply the most information about the hazards likely to be found in the work area. They also are the people who most need to be informed about the work and how it might impact their work area. Often, the Department Manager or Building Superintendent can help contact the right people.

Consult EHS

If consultation with the user concludes that exposure to hazardous materials may occur, contact Environmental Health and Safety as far in advance of the planned work as possible. EHS will survey the work area and/or provide specific recommendations or precautions relating to the work. When in doubt, consult EHS.

Notify the Occupants

Notify the occupants of all affected areas immediately before beginning work. Post warning signs on equipment, such as sinks or hoods, which may be affected. Be sure to remove the signs when the work is finished, so there is never any doubt that an "Out of Service" sign truly means that the equipment cannot be used.

If health or safety problems arise in the course of the work, suspend work and contact your supervisor or EHS.

General Precautions for Maintenance and Custodial Personnel When Working in a Laboratory

- Before starting any type of work, make sure the immediate area is clear of any chemical containers which may get knocked over.
- Do not touch or move any chemical containers in the laboratory. If chemicals must be moved, ask laboratory personnel to do so.
- If chemicals accidentally spill in the laboratory, notify lab personnel at once. Leave the area. Do not attempt to or participate in any cleanup of spilled chemicals. If there is no one immediately available, call USC Police at 777-9111.
- Do not eat, drink, smoke or apply cosmetics in laboratories.
- Areas where radiation exposure is possible are clearly marked with signs signifying that a radioactive source is present. The door leading into the room will have a "Radioactive Material" sign posted on it. When in a laboratory marked as such, remember:

  a) Do not touch or clean any articles, furniture, glassware, or equipment with "CAUTION RADIOACTIVE MATERIALS" sign attached.
b) In case of accidental spill of radioactive materials - do not leave area, do not attempt to clean up spill! Notify the Radiation Safety Office immediately (777-5269).

**For More Information**

- Contact EHS at 777-5269