

APPENDIX 4

SAFETY RULES AND SPECIAL INSTRUCTIONS

Most research is attended by some degree of hazard to the workers. Individuals are expected to know the hazards of each experiment and to exercise every precaution that will prevent accidents and injury to persons and destruction of property. A few general rules should always be observed.

1. Personal Protective Equipment, especially goggles should always be worn when working with sealed tubes or any form of apparatus in which there is any possibility of pressure or the emission of substances. Know where fire extinguishers, hoses, gas shutoff valves, and alarm boxes are located. A blast shield should be used if there is any possibility of an explosive reaction.
2. Fire Prevention:
 - A. Never heat a flammable liquid, such as alcohol, ether, benzene or carbon disulfide above or near an open flame.
 - B. Hot plates are also hazardous; if used for heating small quantities of flammable liquids, always have an asbestos mat or a wire screen between glass apparatus and plate surface.
 - C. When in doubt, use a steam or hot-water bath.
 - D. If flammable substances are placed in a sink, see that they are completely washed down the drain.
 - E. Post a conspicuous sign – **DANGER – FLAMMABLE** – near beakers, evaporating dishes, etc., that contain flammable liquids.
 - F. Warn fellow workers of any hazards.
3. Fire on Clothing: Smother by use of a towel, laboratory coat, or fire blanket. Do not run - it fans the flames. Have fellow workers use CO₂ extinguisher. Failing other means of extinguishing flames on burning clothes, remember: “Stop, Drop, and Roll.”
4. Small Laboratory Fire (size of a trash can) :
 - A. Keep between fire and exit.
 - B. Allow person familiar with burning material to assume charge if possible.
 - C. Use folded towel to extinguish small fire.
5. Large Laboratory Fire:
 - A. Shut down any critical operations and evacuate the area.
 - B. Turn off gas valve near exit door.
 - C. Close the door.
 - D. Activate the fire alarm from a safe location.

Report every fire and every circumstance where fire extinguisher is used to the PU Fire Department so that the extinguisher may be checked and recharged. **THIS IS AN ORDER. FAILURE TO COMPLY IS CAUSE FOR DISMISSAL!**

6. Use due caution in handling poisons, animals, etc.; prevent the inhalation of toxic or irritant gases; set up proper shields against explosive mixtures.
7. General Order – Keep laboratory door unlocked at all times during experimentation so that help can reach you quickly. Be doubly cautious when working in the laboratory or building alone.
8. Heed the admonition of Socrates to his students, “In the name of the gods I beg you to think.”
9. Suggestions that will reduce hazards and improve working conditions are always welcome.