

Chapter 11 Personal Protective Equipment

Face Protection

Laboratory Clothing

Gloves

Footwear

Respirators

Personal Protective Equipment (PPE) is used to protect personnel from contact with biohazardous materials. Appropriate clothing may also protect the experiment from contamination. PPE must be provided without cost to personnel. The following PPE is recommended for regular use.

Face Protection

Goggles or safety glasses with solid side shields in combination with masks or chin length face shields, or other splatter guards, are required for anticipated splashes, sprays or splatters of biohazardous materials. Application or removal of contact lenses is not permitted in the laboratory setting.

Laboratory Clothing

Laboratory clothing includes: laboratory coats, smocks, scrub suits and gowns. Long sleeved garments should be used to minimize the contamination of skin or street clothes. In circumstances where it is anticipated that splashes may occur, the garment must be resistant to liquid penetration to protect skin from contamination. If the garment is not disposable, it must be capable of withstanding sterilization in the event it becomes contaminated. Additional criteria for selecting clothing are: comfort, appearance, closure types and location, antistatic properties and durability. Protective clothing must be removed and left in the laboratory before leaving for non-laboratory areas. Disposables should be available for visitors and maintenance and service workers in the event they are required. All protective clothing should be either discarded in the laboratory or laundered by the facility. Personnel must not launder laboratory clothing at home.

Gloves

Gloves must be selected based on the hazards involved and the activity to be conducted. Gloves must be worn when working with biohazards, toxics and other physically hazardous agents. Temperature resistant gloves must be worn when handling hot material or dry ice. Delicate work requiring a high degree of precision dictates the use of thin walled gloves. Protection from contact with toxic or corrosive chemicals may also be required. In the case of latex allergies or allergies to glove powder, non-latex gloves or powder free gloves may be necessary.

When working with hazardous materials, the lower sleeve and the cuff of the laboratory garment should be overlapped by the glove. A long sleeved glove or disposable arm shield may be worn for further protection of the garment.

In some instances double gloving may be appropriate. If a spill occurs, hands will be protected after the contaminated outer gloves are removed. Gloves must be disposed of when contaminated, removed when work with biohazardous materials is completed and not worn outside the laboratory. Disposable gloves must not be washed or reused. Always wash hands after removing gloves.

Footwear

Open-toed shoes are not permitted in BL 2 and 3 laboratories. In some cases protective footwear such as shoe covers may be necessary to minimize contamination of the laboratory and prevent the accidental release of infectious or recombinant material from a laboratory. If disposable shoe covers are used in the laboratory, waste containers must be available to dispose of used shoe covers. Shoe covers must not be reused.

Respirators

In certain instances, additional respiratory protection may be required. Respirator selection is based on the hazard and the protection factor required. Respirators must be carefully fitted to the individual and fit tested before confidence can be had in the respirator providing protection. Personnel who require respiratory protection must contact RM&S for assistance in selection of equipment, training in proper usage and enrollment in the Risk Management Respiratory Protection Program.

Contact RM&S for assistance in selection of other personal protective equipment.