Biological Safety Laboratory Practices and Techniques

The most important element of containment is strict adherence to standard microbiological practices and techniques. Persons working with infectious agents or other potentially infected materials must be aware of potential hazards, and must be trained and be proficient in the practices and techniques required for handling such material safely. The Principal Investigator (PI), director, or other person in charge of the laboratory is responsible for providing or arranging for the appropriate training of personnel.

Each laboratory should develop or adopt a biological safety or operations manual that identifies the hazards that will or may be encountered and that specifies practices and procedures designed to minimize or eliminate exposures to these hazards. Personnel should be advised of special hazards and should be required to read and follow the required practices and procedures. A researcher trained and knowledgeable in appropriate laboratory techniques, safety procedures, and hazards associated with handling infectious agents must be responsible for the conduct of work with any infectious agents or material. This individual should consult with Biological Safety or other EH&S professionals with regard to risk assessment.

When standard laboratory practices are not sufficient to control the hazards associated with a particular agent or laboratory procedure, additional measures may be needed. The PI is responsible for selecting additional safety practices, which must be in keeping with the hazards associated with the agent or procedure.

Appropriate facility design and engineering features, safety equipment, and management practices must supplement laboratory personnel, safety practices, and techniques.