University of Nebraska Lincoln

Safe Operating Procedure

(8/09)

SAFETY AUDIT GUIDELINES FOR BIOSAFETY LEVEL 2 LABORATORIES

(For assistance, please contact EHS at (402) 472-4925, or visit our web site at http://ehs.unl.edu/)

Safety audits represent one of the most important elements in the implementation of an effective occupational health and safety program. The importance of auditing is underscored in UNL's Injury and Illness Prevention Plan, which requires supervisors to conduct regular work area safety inspections. The benefits and purposes of conducting work area surveys are listed below:

- Identify uncontrolled hazardous conditions, processes, and work practices that may lead to injury, illness, or prohibited releases to the environment.
- Serve as a communication tool by which responsible individuals are made aware of the potentially hazardous processes, conditions, or work practices and appropriate control measures.
- Identify regulatory risk by assessing compliance with various regulatory standards.

The checklist and information provided below is not meant to cover every possible hazard that may exist in a biological laboratory, but rather as abridged guidelines to assess hazardous conditions and operations common to bio-containment level 2 laboratories. Add additional inspection items as appropriate, based on past inspections, accident or near miss analysis, unique facility/equipment attributes, etc. The audit checklist for chemical laboratories is also likely appropriate for a bio-containment level 2 laboratory.

Problems? (Yes/No)	Inspection Item
Protocol & Training Considerations	
	A protocol has been submitted to and approved by UNL's Institutional Biosafety Committee.
	Lab personnel have been trained and are proficient in aseptic techniques and standard microbiological & special practices. Refresher training is conducted annually and as practices/procedures change.
	A biosafety manual is readily accessible to laboratory workers and is complete.
	Records are available to substantiate current medical qualification/testing of all persons listed in the protocol (as applicable).
Facility Design and Equipment Inspection	
	Lab doors are operable and kept closed while work is in progress.
	Laboratory access is restricted/controlled.
	A hand-washing sink and eye wash are immediately available, accessible, and operable.
	Exterior windows are kept closed.
	Surfaces and furnishings are constructed of materials that can be easily decontaminated and are capable of supporting anticipated loads and uses.
	An autoclave is available and in good working order.
	Plants and animals unrelated to the work are not present.
	The biosafety cabinet has been certified in the past year and it is used in a manner that

	does not compromise its capture efficiency.
	Equipment likely to produce aerosols are equipped with primary containment barriers or used in a biosafety cabinet.
	Vacuum lines are equipped with HEPA or liquid disinfection traps (both are required for HIV/HBV labs).
	A bio-spill kit is available and appropriately stocked.
Standard Microbiological/Special Practices	
	Lab coats, eye protection, and gloves are used by laboratory workers.
	Mechanical pipetting devices are available and used.
	Food and drink for human consumption are not stored or consumed in the lab.
	Sharps policies are in place.
	Procedures are conducted in a manner that minimizes creation of aerosols.
	Work surfaces are clean and disinfected at the appropriate intervals.
	Cultures and stocks are decontaminated prior to disposal.
	There is no evidence of a pest control problem.