## Information

Biological Safety Cabinet Use

## Effective

April 7 2004

## Applicability

This policy applies to any principal investigator researcher instructor laboratory or clinical manager that uses a BSC This policy also applies to Department chairs that take ownership of BSCs from a departing or deceased principal investigator researcher instructor laboratory or clinical manager Proper certification and decontamination of a BSC is important to protect both personnel and the environment as persons who manipulate infectious microorganisms are at increased risk of acquiring an occupational illness when their BSCs are functioning improperly Annual certification of BSCs is required by the Occupational Safety and Health Administration OSHA Bloodborne Pathogen Standard 29 CFR 1910 1030 when using pathogens requiring Biosafety Level 2 BSL 2 containment or higher Investigators are advised that the use of a BSC is safe only if maintained according to this policy

## Administrative Authority

Senior Associate Vice President for Operations

## Responsible Unit

Department of Environmental Health and Safety
Biological Safety Program
1600 Arthur Street, Louisville, KY
502-852-6670
biosafe@louisville.edu

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## History

Revision Date(s): Original April 7, 2004
Reviewed Date(s):

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## Categories

# Statement:

Biological Safety Cabinets (BSCs) that are used for biohazardous/infectious agents shall be certified:

1. After initial installation;
2. After being moved; or
3. At least annually.

BSCs shall be decontaminated before the cabinet is:

1. Relocated;
2. Repaired; or
3. Taken out of service.

Decontamination is recommended as a prudent practice (1) after a gross spill of infectious material or (2) before the cabinet activity is changed from work with moderate-risk or high-risk infectious materials to work with noninfectious materials.

# Related Information:

**Biological Safety Cabinet Certifier List**
**http://louisville.edu/dehs/biosafety/documents/forms-documents/biological-safety-cabinet-certifier-list-pdf**
The University has entered into a contract with the following NSF-certified biosafety cabinet service providers.
All university investigators must contact one of these providers to schedule services:
Precision Air Technology Lewis Testing Services, Inc.
P.O. Box 46449 P.O. Box 39109
Raleigh, NC 27620 Indianapolis, IN 46239
Phone: 919-812-0340 Phone: 317-862-9387
Fax: 801-740-3346 Fax: 317-862-2397
Email: sanderson@precisionairtechnology.com Email: laura@lewistestingservices.com

# Reasoning:

BSCs are among the most common and effective primary containment devices used in laboratories to protect individuals from splashes and aerosols when working with

infectious agents. Properly maintained Class I and II BSCs, when used in conjunction with good microbiological technique, provide a very effective containment system for the safe manipulation of low to moderate/high risk (Risk Groups 1-3) microorganisms. BSCs require regular maintenance by professional technicians to assure they function properly and provide the necessary protection to personnel, product and the environment.

The purpose of this directive is to assign responsibilities for the proper use of Biological Safety Cabinets in order to achieve compliance with the above policy.

# Definitions:

*Biological Safety Cabinet (BSCs):* BSCs are primary containment workstations that provide personnel, product and environmental protection during the manipulation of infectious microorganisms.

*Certification*: On-site testing performed by experienced, qualified technicians that meets the criteria for field-testing of the most recent edition of NSF International's Standard 49, *Class II (Laminar Flow) Biohazard Cabinetry* (NSF Standard 49), to ensure the functional operation and integrity of the BSC.

*Decontamination*: Decontamination of a BSC which renders the cabinet non-infectious is best achieved by exposing the work surfaces, exhaust filters, surfaces of the air plenums, and the fan unit to formaldehyde gas, and should only be done by trained personnel, because of the potential for exposure to biohazardous agents as well as the chemicals (formaldehyde) used.

# Responsibilities:

Department of Environmental Health and Safety (DEHS)

- Assist in the selection of a BSC appropriate for the containment application.
- Provide a list of companies qualified to perform BSC certification and decontamination according to NSF Standard 49 criteria.
- Provide answers to questions (the Biological Safety Officer is available at 852-6670).

Deans, Directors and Department Chairs

- Ensure that the principal investigator, researcher, instructor, laboratory or clinical manager are aware of and follow the procedures outlined in this policy.

Principal Investigator, Researcher, Instructor or Clinical Manager

- Ensure that the necessary certification/decontamination is performed, and the BSC is not used unless properly maintained according to this policy.
- Ensure that BSCs used for biohazardous/infectious agents are certified after initial installation, after being moved, or at least annually.
- Ensure that a cabinet is decontaminated before it is relocated, repaired or taken out-of-service.
- Ensure that a BSC be decontaminated after a gross spill of infectious material, and before the cabinet activity is changed from work with moderate or high-risk infectious materials to work with noninfectious materials.
- Maintain a record of annual certifications and necessary decontaminations for the BSCs in the laboratory.
- Notify the Biological Safety Officer at 852-6670 prior to modifying the BSC in any way.

Directors and Department Chairs

- Take responsibility for any BSC that is left abandoned by a principal investigator, researcher, instructor, laboratory or clinical manager.
- Implement this policy if the BSC is abandoned and maintain the necessary documentation.