DOES Safety Services Office	SAFETY SERVICES STANDARD OPERATING PROCEDURE EXPOSURE CONTROL PLAN	**CASE/SSO-**005S **Rev:** Orig **Rev Date:** 4/14/04

PURPOSE
To determine the scope, elements, and framework of the Exposure Control Plan.

REFERENCES
29 CFR 1910.1030 (OSHA Bloodborne Pathogens Standard)

SCOPE
The Exposure Control Plan (ECP) applies to any employee who is exposed to or encounters a bloodborne pathogen in the course of their work. A bloodborne pathogen is defined as a pathogenic microorganism that is present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Consult Safety Services (x2907), for any consultation regarding your work area.

PROCEDURE
1. All employees, including PI's and supervisors, must attend the DOES Bloodborne Pathogen training. Call Safety Services (x2907) to register.

2. Complete the ECP for a specific work area and send a copy to DOES.

3. The PI or Supervisor must thoroughly train employees on the contents of the ECP. This training must be completed annually.

3. The PI or Supervisor must document (in the ECP) the specific training of all relevant safety materials.

4. Update the ECP annually or whenever there is a change. Submit the cover page, the review date page, and any changes to DOES. As part of the annual ECP review, the PI or Supervisor must research new methods to recap needles. The methods researched and the method chosen must be documented in the Safety Protocols section of the ECP.

5. All lab employees, including PI's and Supervisors, must complete an annual, on-line retrain for the Bloodborne Pathogen training. The on-line programs are available at http://does.cwru.edu.

NOTE: A copy of the ECP, including up-to-date information and training log sheets, shall be kept in a location known to all employees. Safety Services will review the ECP during yearly inspections and may ask for corrections.

ATTACHMENTS
Blank Exposure Control Plan

Exposure Control Plan
for
Bloodborne Pathogens

The Exposure Control Plan (ECP) is a laboratory specific document that details the bloodborne safety procedures in use in a specific laboratory. The goal of the ECP is to provide the necessary guidance to the laboratory staff required to maintain a safe work environment while dealing with bloodborne pathogens.

The Primary Investigator (PI) of a laboratory is responsible for maintaining a safe work environment for the laboratory staff. As such, an Exposure Control Officer (ECO) is assigned. The ECO does not have to be the PI, but the PI is ultimately responsible for the Exposure Control Plan. The PI is required by federal law to provide an ECP to the laboratory staff that is specific to the laboratory for which it was written. Further, the PI is responsible for providing sufficient training of the ECP to allow the laboratory staff to understand and implement the ECP. This training is required initially upon employment, and when there is a change in the plan or annually, whichever is the shorter time interval.

Upon employment at CASE, all employees dealing with or possibly having exposure to bloodborne pathogens are given an overview OSHA Bloodborne Pathogens Standard class at the DOES office. This training is NOT substitute training for the laboratory specific training to be given by the PI.

Date: _____

Primary Investigator's Name: _____
Please Print

Primary Investigator's Email: _____

Primary Investigator's Phone: _____ Fax: _____

Primary Investigator's Signature: _____

Exposure Control Officer's Name: _____
Please Print

Laboratory Location: Building: _____ Room: _____

Laboratory Location: Building: _____ Room: _____

Laboratory Location: Building: _____ Room: _____

Complete and send a copy to:

DOES
Service Building, First Floor
Location Code: 7227
Attention: Safety Services

Review Date

Review the ECP annually and/or whenever there are any changes in procedure. Submit a copy of the title page, this sheet, and any changes to the DOES office.

Review Date: _____ Changes: _____

_____

Review Date: _____ Changes: _____

_____

Review Date: _____ Changes: _____

_____

Review Date: _____ Changes: _____

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Review Date: _____ Changes: _____

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Review Date: _____ Changes: _____

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Review Date: _____ Changes: _____

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Review Date: _____ Changes: _____

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Review Date: _____ Changes: _____

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Review Date: _____ Changes: _____

_____

Annual ECP Training Log

DATE:_____ LOCATION: Building:_____ Room:_____

Primary Investigator:_____

PLEASE CLEARLY PRINT ALL INFORMATION REQUESTED BELOW EXCEPT FOR YOUR SIGNATURE

PRINT NAME	SIGNATURE	PHONE	EMAIL

Bloodborne Pathogen Inventory

List all bloodborne pathogens and their locations.

BBP:	**Building:**	**Room:**

Lab Personnel

List the work positions and names of people in the lab. Example:

4 Research Assistants (names)
1 Primary Investigator (name)
1 Dishwasher (name)

Position:	**Names:**

Exposure Determination

Complete the list below of all personnel in your laboratory group, assigning each to the appropriate category (I, II, or III). Fill in the box (■) in the corresponding *Category* column.

Category I All personnel in this job title work with bloodborne pathogens.
Category II Some personnel in this job title work with bloodborne pathogens.
Category III Nobody in this job title works with bloodborne pathogens.


Personnel in Categories I and II must attend Bloodborne Pathogens Training and must be offered the Hepatitis B vaccination. Each person-within 10 days of beginning work with blood, blood by-products, or a bloodborne pathogen-must begin, decline, or provide proof of vaccination.

Job Title	**Category I**	**Category II**	**Category III**
Professor	☐	☐	☐
Visiting Professor	☐	☐	☐
Assistant Professor	☐	☐	☐
Associate Professor	☐	☐	☐
Post Doctoral Student	☐	☐	☐
Graduate Student	☐	☐	☐
Undergraduate Student	☐	☐	☐
Research Assistant	☐	☐	☐
Research Associate	☐	☐	☐
Specialist	☐	☐	☐
Technician IV	☐	☐	☐
Technician III	☐	☐	☐
Technician II	☐	☐	☐
Technician I	☐	☐	☐
Intern	☐	☐	☐
Volunteer	☐	☐	☐
Laboratory Assistant	☐	☐	☐
Department Assistant	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐
_____	☐	☐	☐

Tasks & Procedures

Make a list of all tasks and procedures performed in which occupational exposure may occur. Some of the more common tasks performed have been included.

- ☐ Tissue Preparation
- ☐ Inoculation
- ☐ Phlebotomy
- ☐ Dissection of infected animals
- ☐ Aerosol-creating procedures (i.e. pipetting, centrifugation, syringe use, aspiration, etc.)

Use this list to confirm that all personnel with potential for exposure to bloodborne pathogens have been identified.

Additional Procedures *(please print)*

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Safety Protocols

The following engineering controls, work practices, and personal protective equipment will be used when work with any bloodborne pathogens is performed in the laboratory.

Engineering Controls

☐ Biological Safety Cabinet	☐ Self-Sheathing Needles	☐ Needle Recapping Stand
☐ Clamps and Tongs	☐ Sharps Container	☐ Dustpan
☐ Primary Containers	☐ Secondary Containers	☐ Broom
☐ Glove Box	☐ Cardboard Boxes (for broken glass)	

Additional Engineering Controls *(please print)*

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

☐ _____

⚠ If engineering controls vary with different tasks, fill out this sheet and include a brief description of unique engineering controls.

⚠ Biological Safety Cabinets must be certified annually. Call 368-2907 or consult the DOES website, http://does.cwru.edu, for further details.

Work Practices

- ■ No food, drink, smoking, cosmetics, or medications in the laboratory.
- ■ Disinfect all affected work areas after any procedure is performed.
- ☐ Procedures using needles:
  - ☐ Needles will be disposed of and not recapped.
  - ☐ Recapping of needles will employ a recapping stand.
  - ☐ An approved one-handed recapping technique will be used to recap needles.
  - ☐ Other: _____
- ■ Sharps containers will be properly assembled with the lids on. They will not be overfilled.
- ■ Biohazardous waste containers will not be filled above the top of the container.
- ■ All biowaste, except for whole animals or organs, will be autoclaved prior to disposal.
- ■ Autoclave tape (or equivalent indicators) will be used to show whether sterilization is yet required or has already been performed.
- ■ Bags of autoclaved biowaste will be placed in fresh bags before being disposed.
- ■ Empty containers will have the caps removed and be decontaminated before being discarded. Labels will be defaced or removed and the container will be marked "*Empty*".
- ☐ Procedures to prevent aerosol exposure:
  - ■ Work which will create aerosols will be done in a Level 2 (*or higher*) biological safety cabinet.
  - ☐ Inoculation, maintenance, and transferring of cultures will be done in a Level 2 (*or higher*) biological safety cabinet.
  - ☐ Container caps will be wrapped in gauze when removing, to prevent aerosols.
  - ☐ Live dissection or surgeries on an infected animal will be done in a Level 2 (*or higher*) biological safety cabinet.

Additional Work Practices *(please print)*

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

⚠ Some of the procedures listed above may be task-specific. If they are not generally applicable, check those which apply and attach a brief description of the protocol employed. Or, you may list them on the Task Specific Worksheet (page).

Personal Protective Equipment (PPE)

Eye Protection

■ Safety Glasses ☐ Goggles ☐ Face Shield

Gloves

☐ Rubber Latex (4-8 mil) Gloves ☐ Nitrile (4-6 mil) Gloves ☐ Vinyl Gloves

☐ Butyl Rubber Gloves ☐ Polyethylene Gloves ☐ Rubber Later (18 mil) Gloves

Body Protection

■ Lab Coat ☐ Tyvek Suit ☐ Apron

☐ Surgical Cap ☐ Foot Covers

Respiratory Protection

☐ Half-face Respirator* ☐ Full-face Respirator* ☐ Disposable HEPA Respirator*

Additional Personal Protective Equipment

☐ _____ ☐ _____

☐ _____ ☐ _____

☐ _____ ☐ _____

☐ _____ ☐ _____

☐ _____ ☐ _____

☐ _____ ☐ _____

☐ _____ ☐ _____

☐ _____ ☐ _____

*⚠ Respirator wearers must comply with the requirements of the CASE Respiratory Protection Program and the OSHA Respiratory Standard (29 CFR, Part 1910.134 and 139). Call 368-2907 or consult the CASE Laboratory Safety Manual for details.

⚠ Identify engineering controls, work practices, and PPE to be used or followed. If PPE is task-specific in your laboratory, attach a sheet with the appropriate PPE listed along with a brief description of the protocol employed.

⚠ Safety glass, appropriate chemically-resistant gloves, and a buttoned lab coat are the *minimum* required PPE for work in a laboratory.

Appendix A
Exposure Control Plan Summary

- ☐ Appoint an Exposure Control Officer

- ☐ New personnel must be trained within 10 days of beginning work with bloodborne pathogens.

- ☐ Post appropriate signs on laboratory entrances, contaminated work areas and equipment.

- ☐ Perform exposure determination:
  - ☐ Use list and identify job titles in Category I.
  - ☐ Use list and identify job titles in Category II.
  - ☐ Use list and identify job titles in Category III.
  - ☐ List all tasks or procedures involving exposure to bloodborne pathogens in Category III.

- ☐ Identify engineering controls available in laboratory.

- ☐ List work practice controls to be used when working within the laboratory.

- ☐ List personal protective equipment (PPE) in the laboratory.

- ☐ Indicate minimum PPE to be worn when in the laboratory.

- ☐ Describe universal precautions to be used when working in the laboratory.

- ☐ Adopt University generic protocols for:
  - ☐ Signage and labels
  - ☐ Waste disposal
  - ☐ Exposure incident counseling
  - ☐ Hepatitis B vaccination

- ☐ Submit copies of all training records and Exposure Control Plan to DOES.

- ☐ Develop a schedule for review and modification of the Exposure Control Plan at least once a year to update laboratory operations.

Task-Specific Safety Protocols

- ☐ List individual tasks from the exposure determination which require special handling.

- ☐ Indicate task-specific engineering controls to be used.

- ☐ Indicate task-specific work practices requiring unique techniques.

- ☐ Indicate task-specific PPE to be worn if different from general PPE used for routine procedures.

Appendix B

Task-Specific Safety Worksheet

1. Identify any task or procedure from the Exposure Determination List (on page) which requires techniques, PPE, or engineering controls not identified as routine procedures in the general laboratory protocols:

2. List engineering controls which will be used when performing this task or procedure:

3. List appropriate work practices which will be followed when performing this task in addition to those employed for general laboratory work practices:

4. List appropriate PPE to be worn-in addition to or in place of-laboratory minimum PPE used for general bloodborne pathogen handling procedures:

⚠ Identify appropriate engineering controls, work practices, and PPE for each task or procedure. Make as many copies of the master worksheet as needed. Include these worksheets with the experimental protocol.