

Safety Manual Chapter 17

Prevention of Infectious Blood-Borne Diseases - Issue Date 8/93

Revised in May 2013

Eastern Illinois University B. B. P. Exposure Control Plan

17.0 Reference: Fed/OSHA 29 CFR 1910. 1030

17-1.1 Policy

It is the policy of EASTERN ILLINOIS UNIVERSITY, to safeguard our employees when working around the potential hazards associated with occupational exposure to Blood – Borne Pathogens (BBP), body fluids, and Other Potentially Infectious Materials (OPIM). EASTERN ILLINOIS UNIVERSITY will evaluate the effectiveness of each component of the Exposure Control Program to assure workers are provided with a safe and healthful workplace.

17-1.2 Purpose

The purpose of this Exposure Control Plan is to provide protection for the employees with occupational exposures to blood-borne pathogens, body fluids, and OPIM. This program describes in writing EASTERN ILLINOIS UNIVERSITY's Exposure Control Plan, to our employees, emergency responders, and government officials.

17-1.3 Scope

The scope of this Exposure Control Plan covers only those potentially affected employees of EASTERN ILLINOIS UNIVERSITY who was determined to have occupational exposure to blood-borne pathogens, body fluids, and OPIM in the course of their employment.

17-1.4 Application

This Exposure Control Plan applies to all employees who have been defined during the Exposure Determination process, (are exposed or potentially exposed to blood-borne pathogens, body fluids, and OPIM). These employees must be able to recognize their potential occupational exposure and the various hazards associated with their work. Our employees must be able to protect themselves from those BBP hazards. Each affected employee should be able to evaluate each different work situation and to select and use the proper types of engineering controls, work practices, and protective equipment needed to minimize or eliminate their occupational exposure to blood-borne and body fluid pathogens.

17-2 Objectives

- **17-2.1** To reduce the potential of employees having occupational exposures by coming into direct contact with BBP, body fluid pathogens, and OPIM. This reduction will be accomplished by providing a comprehensive Plan which will include providing the appropriate level of information and training to our employees concerning their potential of coming into contact with BBP hazards at our facilities.
- **17-2.2** To reduce occupational exposures to blood-borne and body fluid pathogens and OPIM by establishing the various components of this Exposure Control Plan and a set of written standard operating procedures specific to the types of operations at our facility.
- **17-2.3** To provide of a Exposure Control Plan and Plan that is in compliance with the Occupational Safety and Health Administration's 29 CFR 1910.1030 Occupational Exposure to BBP Standard.

17-3 Exposure Control Plan Component Identification

This institution's written Exposure Control Plan and Plan will communicate in detail the specific Plan components required to protect our employees from occupational exposures to blood-borne Pathogens. EASTERN ILLINOIS UNIVERSITY's Exposure Control Plan will consist of the following Plan components.

- **17-3.1** An Exposure Determination will be performed by the Ad Hoc committee on BBP to create a list of the different job classifications in which some or all employees in certain job functions that have the potential occupational exposures to blood-borne Pathogens.
- **17-3.2** A Plan to assure that the proper techniques are used by employees when they handle, store, or transport containers of blood, OPIM, and regulated waste.
- **17-3.3** A Plan to assure that containers, refrigerators, and freezers containing blood and OPIM are properly labeled so as to inform everyone as to the hazards associated with the use and storage of blood, OPIM, and regulated waste.
- **17-3.4** A Plan to assure that all employees use Universal Precautions as an accepted method of control to protect employees from exposure to all human blood and OPIM and if required it will also use Universal Precautions when potentially exposed around "BODY SUBSTANCE ISOLATION".
- **17-3.5** A system to assure that all engineering controls and work practices are used by the employees to eliminate or minimize employee exposure to blood-borne Pathogens. This use of engineering controls and work practices are extremely important when workers are handling needles and sharp and broken glassware.
- **17-3.6** A series of information and training Plans to educate employees to recognize, evaluate, and control the hazards associated with the contact with BBP and the methods they can use to protect themselves at work.
- **17-3.7** This written Exposure Control Plan will be made available upon request to all employees, their designated representative(s), and emergency responders.
- **17-3.8** Our facility will establish a written schedule and a set of written standard operating procedures (SOP's) for the cleaning and decontamination (HOUSEKEEPING) of each work area as determined by the Exposure Determination process. The written schedule and the set of written standard operating procedures will be specific to the work area, the equipment, the different surfaces to be cleaned, the types of soil (contamination) present, and the tasks and procedures that are performed in the area.
- **17-3.9** It is essential that employees handle "REGULATED WASTE" properly to prevent potential exposures to blood and OPIM. Containers used for "REGULATED WASTE" will meet the design requirements and labeling or color-coded requirements that are specific to the containers intended use. This Plan will also establish specific instructions for the proper disposal of "REGULATED WASTE" in compliance with local, state, and federal regulations.
- **17-3.10** Our institution has established a specific set of procedures to provide hepatitis B vaccinations to employees who have a potential for an occupational exposure to BBP and post-exposure evaluation and follow-up for all employees who have had an occupational exposure incident to blood-borne Pathogens.

17-4 Exposure Control Plan Components

The following information describes in specific detail the nine components of the Exposure Control Plan program:

Exposure Determination, Universal Precautions, Engineering Controls and Work Practices, Labeling and Signs, Employee Information and Training Plans, Housekeeping, Hepatitis B Vaccinations and Post-Exposure Follow-up, Documentation and Record keeping.

- **17-4.1 Exposure Determination**

The success of our Exposure Control Plan depends upon having a complete Exposure Determination inventory of all potentially affected employees at our facilities. The Exposure Determination will be performed by our staff to create a specific list of employees in certain job classifications which have potential occupational exposures to blood-borne Pathogens.

- **17-4.1A** The Exposure Determination will be taken by the Safety Officer to create a:
 - **OSHA CATEGORY I** list of job classifications in which ALL employees in those job classifications have occupational exposures to blood-borne Pathogens;
 - **OSHA CATEGORY II** list of job classifications in which ONLY SOME employees have occupational exposures to blood-borne Pathogens.

- **OSHA CATEGORY III** list of job tasks, procedures, and groups of employees with closely related tasks in which occupational exposures to BBP without regard for the use of Personal Protective Equipment.

The following list conforms to the above criteria:

OSHA CATEGORY I

Administration MD
 Staff Physician
 Physician Assistants
 Advance Practice Nurses
 Radiology Technologist
 Administrative nurse
 Staff nurse
 Medical Technologist
 Medical student lab assistant
 Building Service Workers and Supervisors - Housing
 Student BSW Workers - Housing
 Building Mechanics - Housing
 Student Janitors - Housing
 Plumbers
 Safety Officer
 Police Officers
 All Supervisors of employees in Category I
 Category I employees will receive the HEP B vaccine series or sign a release statement.

OSHA CATEGORY II

Student night help - Clinical Services
 Residence Hall Counselors
 Associate Residence Hall Counselors (Graduate Students)
 Resident Assistants (Students)
 Conference Assistants (Students) -- washing linen
 Intercollegiate Staff Athletic Trainers
 Intercollegiate Athletic Coaches
 Intercollegiate Equipment Managers
 Graduate Assistant Intercollegiate Athletic Trainers
 Graduate Assistant Intercollegiate Athletic Coaches
 Intercollegiate Student Athletes
 Student Athletic Trainers
 Intercollegiate Student Managers
 Equipment room workers
 Athletic Student Managers
 First aid/CPR teachers/instructors
 Laboratory teachers
 Building Service Workers and Supervisors (FPM, Union)
 Construction Laborers
 Grounds Personnel
 Electricians
 Laborer-Electrician
 Carpenters
 Painters
 Category II employee will be offered the HEP B vaccine at the host department's cost.

OSHA CATEGORY III

Clean up blood after an accident
 Food Service Workers
 Trash removal
 Laundry
 First Aid
 Care of open wounds (cleansing, suturing, etc.)
 Vaginal and rectal exams

Venipuncture, urine, and blood testing--testing of other body fluids and tissues
 Contact and cleaning up of vomitus and epistaxis Infections
 CPR if necessary
 CPR Mouth to mouth resuscitation
 Management of open wounds
 Management of compound fractures/dislocations
 Blister care
 Soiled laundry/linen
 Cleaning surfaces
 Disposing of biohazardous bags/Sharp's boxes
 Area clean up (indoor and outdoor)
 Unplugging drains or vents
 Preparing facilities for public use
 Broken sewer pipes (outside and inside)
 Overflowing toilets
 Emptying of Waste receptacles
 Replacement of glass
 Changing light bulbs
 Replacing break glass stations and broken exit signs
 Category III employees may choose to receive the HEP B vaccine series at the employee cost.

- **17-4.2 Universal Precautions**

In order to protect the safety and health of our employees, visitors, patients, and emergency responders, this facility will mandate the use of Universal Precautions when performing specifically defined task, jobs, operations, or procedures. This Plan will assure that all employees use Universal Precautions as an accepted method of control to protect employees from exposure to all human blood and OPIM, and if required it will also use Universal Precautions when potentially exposed around "BODY SUBSTANCE ISOLATION". An annual review of the various tasks that are performed at this facility. The Infection Control Officer will perform the annual review with the cooperation of the affected departments.

- **17-4.3 Engineering Controls and Work Practices**

A system to assure that all engineering controls and work practices are used by the employees to eliminate or minimize employee exposure to blood-borne Pathogens. Engineering Controls are used to isolate or remove the BBP hazards from the workplace. Work Practice Controls are used to reduce the likelihood of exposure by altering the manner in which a task is performed. Engineering Controls and Work Practice Controls are extremely important when workers are handling waste materials, needles, and sharp and broken glassware. Another engineering control that can be used to protect workers is a biological safety cabinet that is mechanically ventilated.

- **17-4.4 Labeling and Signs**

A key element of the EASTERN ILLINOIS UNIVERSITY's Exposure Control Plan program is to provide immediate information about the hazards of human blood, OPIM, and regulated waste by using labels, signs, red bags, specially marked containers, storage areas, infected equipment, refrigerators, and freezers. The Departments are responsible for the proper use of labels which could include the following:

- **17-4.4A** A system to assure that the proper techniques are used when employees handle, store, or transport containers of blood, OPIM, and regulated waste.
- **17-4.4B** Containers, refrigerators, and freezers containing blood and OPIM are properly labeled to inform everyone of the hazards associated with the use, transport, shipping, and storage of blood, OPIM, and regulated waste.
- **17-4.4C** All containers of potentially infectious blood, blood components, or blood products at this facility must be properly labeled. A proper label must include at least the use of the BIOHAZARD symbols, fluorescent orange, or orange-red background with contrasting.
- **17-4.4D** If anyone finds a container of blood, OPIM, and regulated waste that is not properly labeled, they should contact the Department Head.

- **17-4.4E** Employees should never remove, deface, or change a label on a container without first getting specific directions from their supervisors.
- **17-4.4F** Signs will be posted at the entrance to HIV and HBV Research Laboratory and Production Facilities.
- **17-4.5 Employee Training**

Employees are expected to perform at the level in which they have been trained. Employees training programs give the employee the needed tools (information, equipment, materials, and skills) to make the necessary informed decisions to protect themselves. This Plan's effectiveness will depend on the quality of our employee information and training Plan. The Department Head will be responsible for providing the different types of information and training to their department employees, and will consist of, but is not limited to, the following:

- **17-4.51** An annual Exposure Control Plan - Training will be presented to all new and existing employees. This training Plan will consist of written materials, lectures, discussion groups, videos, and questions and answers to present all the material covered in BBP Standard and the written Exposure Control Plan and Program. This training Plan will be provided at no cost to the employee and during the employees working hours.
- **17-4.52** Employees will receive specific training when they are called upon to perform certain duties which are considered by the Department Head to require additional training when an employee is assigned to a new department or job function. Employees will also receive training when there is a modification of tasks or procedures.
- **17-4.53** All employees should know about the existence, availability and location of the written Exposure Control Plan Program, emergency response and first aid equipment and procedures, and accessible copy of the OSHA regulations and any specific explanations of how the OSHA Standard affects our workplace. It also provides information to assist the worker in his or her efforts to protect themselves from these hazards.
- **17-4.54** Employees will receive specific training on the epidemiology, symptoms, and modes of transmission of blood-borne Pathogens.
- **17-4.55** Employees will receive specific training about this Exposure Control Plan and the steps the employee must take to obtain a copy of the Plan.
- **17-4.56** Employees will receive specific training about the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM.
- **17-4.57** Employees will receive specific training about the use and limitations of the various methods that employees can use to prevent or reduce exposure including engineering controls, work practices, and personal protective equipment. They should understand the proper process for selecting, using, storing, handling, decontamination, and disposal of the personal protective equipment.
- **17-4.58** Employees will receive specific training about this facility program to provide Hepatitis B vaccination series, post-exposure evaluation, and follow-up if any employee involved with a BBP exposure incident. Employees should understand the basics of the Hepatitis B vaccine, it's efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccination will be offered free of charge to the employee.
- **17-4.59** Employees will receive specific training about the program to assure that areas with BBP are posted with signs and that all containers of potentially infectious blood, blood components, or blood products at this facility must be properly labeled.
- **17-4.510** Employees will receive specific training about their potential for occupational exposures to BBP and OPIM and be provided an opportunity for an interactive time of questions and answers with the instructor during the training program.
- **17-4.6 Housekeeping**

Effort to reduce workers' occupational exposures to blood, OPIM, and regulated waste is by using specific housekeeping techniques for the cleaning, disinfection, sanitizing, and decontamination of the work environment. A written set of guidelines and a schedule for the cleaning of the work areas, work surfaces, and equipment will be established. The guidelines will be based upon the location of the facility, the type of surface to be cleaned, the type of soil present, and the task and procedures being performed in the area.

- **17-4.7 Hepatitis B Vaccination and Post-Exposure Follow-Up**

This institution will make available (to those employees with occupational exposures to BBP) the Hepatitis B vaccination series. This institution will also make available a post-exposure evaluation and follow-up if any employee is involved with a BBP exposure incident. The cost of the BBP exposure evaluation, follow-up, Hepatitis B vaccination, procedures, and prophylaxis will be paid for by this employer and will be provided at a reasonable time and place. All procedures will be reviewed and approved by a licensed physician and in accordance with the U.S. Public Health Service's current procedures.

- **17-4.8 Documentation and recordkeeping**

EASTERN ILLINOIS UNIVERSITY's complete Exposure Control Plan and Program will be conveyed and documented in writing and all written records will be retained in the Department Head's office. A copy of this Written Exposure Control Plan and Program, including Medical records, hepatitis B vaccination series status, the Hazard Determination References, letters, training program content and attendance records, and any other program materials and information will be kept in the Personnel Office. Records will be made available upon request to OSHA officers, employees, and employee representatives. Every effort will be made to protect the confidentiality of our employees' medical records.

17-5 Eastern Illinois University Department of Environmental Health & Safety

Needle Stick Injury Procedures

During the course of your work, you may be exposed to injury from needles or glass that may have been exposed to blood-borne pathogens, such as HIV or HBV. In the event that you suffer from such an injury the following procedures are recommended:

- **17-5.1 Clean-Up -- Employee.**
Immediately clean the injured area of the body in the manner in which you have previously been trained by your supervisor. This includes at a minimum thoroughly washing the affected body part (s) with strong soap.
- **17-5.2 Clean-Up -- Needle, Glass, or Sharp Object.**
The employee should not attempt to secure the sharp object, but should call the supervisor after cleanup. The supervisor will carefully secure the needle, glass, or sharp object in a separate and marked sharps container for testing purposes.
- **17-5.3 Reporting.**
 - **17-6.3A** Employees will report the needle stick injury to your supervisor immediately.
 - **17-6.3B** Supervisors will report the needle stick injury to Health Service Director at the Health Service 581-3013 and to the Campus Safety Officer 581-7068.

17-5.4 Supervisors Investigation.

In addition to securing the needle, glass or object, the supervisor will conduct an investigation to determine how the injury happened, who the patient/student involved was, their name, address, phone number, and any health details that the patient/student may wish to provide. Supervisors must not ask whether the person has tested positive for HIV or HBV. Other personnel will ask the appropriate questions about HIV or HBV.

17-5.5 HBV/HIV Screening.

An employee who has been involved in a needle stick injury may, at his or her option, submit to a screening program for exposure to HBV/HIV. This screening program may be administered by the Coles County Health Department, or by the Eastern Illinois University Health Services Director. All counseling sessions, both pre-screening and post-screening, will be conducted by the Coles County Health Department.

17-6 Internal Procedures For Follow-Up of Needle Stick Injury Cases

- **17-6.1 Follow up (Safety Officer).**
The Safety Officer will conduct a separate investigation to determine how the injury happened, whether the accident was preventable, and any health details that the patient/student may wish to provide. In addition, the Safety Officer and/or the Health Services Director may inquire as to whether the patient/student is willing to submit to voluntary HIV/HBV testing. The Safety Officer and the Director will work out each such situation on a case-by-case basis before either proceeds to question the student/patient.
- **17-6.2 Follow up (Health Services Director).**
The Director will submit any samples, instruments, etc. for testing. If the patient/student and/or the employee is willing to voluntarily submit to HIV, HBV testing, the Health Service Director will counsel with the person,

and then refer them to a laboratory for the collection of a sample. The laboratory will report results of the testing to the Director who shall take appropriate steps to maintain the confidentiality of all persons involved. In the event that initial testing or follow-up screening of the employee or student indicates that there is cause for concern of the health of the employee, then the Director shall confer with the administration in regard to the next steps to be undertaken.

17-7 Definitions

- **17-7.1 blood-borne Pathogens**
Pathogenic microorganisms that are present in human blood. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
- **17-7.2 Clinical Laboratory**
Diagnostic or other screening procedures are performed on blood.
- **17-7.3 Director**
Director of the National Institute for Occupational Safety and Health.
- **17-7.4 Disinfect**
To inactivate virtually all recognized pathogenic microorganisms.
- **17-7.5 Engineering controls**
Isolate or remove the hazard from the workplace.
- **17-7.6 Exposure Incident**
Eye, mouth, other mucous membrane that results from the performance of an employee's duties.
- **17-7.7 Infectious Waste**
Blood and blood products, contaminated sharps, pathological wastes, and microbiological wastes.
- **17-7.8 Occupational Exposure**
Reasonably anticipated skin, eye, or mucous membrane contact with blood or OPIM that may result from the performance of an employee's duties.
- **17-7.9 Other Potentially Infectious Materials**
Body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, and any body fluid that is visibly contaminated with blood. Any unfixed tissue or organ from a human (living or dead) HIV or HBV containing cell or tissue cultures, organ cultures and blood, organs or other tissues from experimental animals infected with HIV or HBV.
- **17-7.10 Parenteral**
Exposure occurring as a result of piercing the skin barrier.
- **17-7.11 Patient**
Any individual, living or dead, whose blood, body fluids, tissues, or organs may be a source of exposure to the employee.
- **17-7.12 Personal Protective Equipment**
Specialized clothing or equipment worn by an employee to protect him/her from a hazard.
- **17-7.13 Production Facility**
A facility engaged in industrial-scale, large-volume production of HIV or HBV.
- **17-7.14 Sharps**
Any object that can penetrate the skin including needles, scalpels, and broken capillary tubes.
- **17-7.15 Sterilize**
The use of a physical or chemical procedure to destroy all microbial life.
- **17-8.16 Universal precautions**
Method of infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other blood-borne pathogens.
- **17-7.17 Work Practice Controls**
Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

17-8 Standard Operation Procedure Body Fluids Clean Up

Precautions must be observed when dealing with body fluids of any types and amounts. The only safe assumption during cleaning up of body fluids is that the fluid contains the infectious HIV, HBV, or various and other blood-borne pathogens. Where differentiation of types of body fluids is difficult or impossible, all body fluids are to be considered as potentially infectious.

- **17-8.1 Method of reducing the exposure.**
 - **17-8.11 Engineering Controls:**
Engineering controls are used to separate the employee from the source of hazard, thus reducing the employee exposure. This control will need to develop by the operation department that may encounter the body fluid. Some of the common engineering controls are dust pans, brushes, brooms, and others.
 - **17-8.12 Work place controls:**
During clean activity of body fluids, standard work practices of restricting body contact, eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses.
 - **17-9.12a** "Washing hands when gloves are removed and as soon as possible after skin contact with blood or OPIM occurs."
 - **17-9.12b** Change street clothing when it becomes soiled and wash affected areas of the body.
 - **17-8.13 Personal Protective Equipment:**
The uses of personal protective equipment (PPE) help prevent occupational exposure to infectious materials. The following PPE may in most cases prevent contamination passing through the equipment to the employee body. Gloves, Eye Protection, Rubber Apperan, Safe handling of personal protective equipment must a here to the following precautions.
 - **17-8.13a** Remove protective equipment before leaving the work area and after a garment becomes contaminated.
 - **17-8.13b** Place used protective equipment in appropriately designated areas or containers when being stored, washed, decontaminated, or discarded.
 - **17-8.13c** Wear gloves when an employee may have contact with blood, OPIM, and handling or touching contaminated items or surfaces. If gloves become damaged, punctured, or contaminated, it will hamper their ability to function as a protective barrier.
 - **17-8.13c** Never wash or decontaminate disposable gloves for reuse.
 - **17-8.13d** "Wear appropriate face and eye protection such as a mask with glasses with solid side shields or a chin-length face shield when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth."
 - **17-8.13e** Wear appropriate protective body coverings such as gowns, aprons, caps, and boots when occupational exposure is anticipated. The type and characteristics will depend upon the task and degree of exposure anticipated.
 - **17-8.14 Housekeeping:**
Follow departmental procedures on decontamination of facilities that includes the following:
 - **17-8.14a** Clean and decontaminate all equipment and environmental and work surfaces that have been contaminated with body fluids and other potentially infectious materials.
 - **17-8.14b** Always use mechanical means such as tongs, forceps, or a brush and a dust pan to pick up contaminated broken glassware; never pick up with hands even if gloves are worn.
 - **17-8.14c** Place other regulated waste (liquid or semi-liquid fluids) in closeable and labeled red bag or container.
 - **17-8.14d** Handle contaminated laundry and bags of waste as little as possible and with minimum of agitation.
 - **17-8.14e** Use appropriate personal protective equipment when handling contaminated laundry.
 - **17-8.14f** Place contaminated laundry in leak-proof, labeled red bag.
 - **17-8.15 Labeling:**
Contaminated material must be placed in a red BIOHAZARD bag marked with a label and a biohazard symbol.
 - **17-8.16 Reporting:**
When you become involved in what you suspect to be a contaminated environment, notify your immediate supervisor. If your body becomes exposed to body fluids after washing the affected area, notify you immediate supervisor.

This procedure followed excerpts from the Occupational Exposure to BBP, brochure by U.S. Department of Labor, OSHA 3127.

Reference: Fed/OSHA 29 CFR 1910. 1030