

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

Fulton-Montgomery Community College

This Exposure Control plan was implemented by May, 1992.
Latest revision: 4/2017

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Policy:

The purpose of this document is to comply with OSHA's Occupational Exposures to Bloodborne Pathogens in Title 29 Code of Federal Regulations 1910.1030 and as revised in 2001 by the Needlestick Safety and Prevention Act P.L. 106-430. The intent of this exposure control plan is to prevent bloodborne infections by eliminating or minimizing employee exposures to blood, blood products, and other potentially infectious materials (OPIM).

Responsibilities:

Employees are expected to follow policies and procedures of their particular place of work.

When new procedures or duties will be performed by an employee previously determined not to be at risk for potential exposure, it is the supervisor's responsibility to notify the Exposure Control Officer listed below. The employee will be subject to the requirements of the standard.

Each department must designate an individual who has overall responsibility for this program and who must ensure the required employee training is completed. Other duties include performing an annual program review and update, as required by the regulations.

The Exposure Control Officer is Josh Fleming, Director of Facilities (x8411) who has overall responsibility for the program.

A copy of the plan may be obtained from the Buildings & Grounds or Human Resources Offices.

This plan is also summarized in the college's Emergency Management Plan, kept in the Public Safety Office.

In accordance with the OSHA Bloodborne Pathogens standard, 29 CFR 1910.1030, the exposure control plan and the methods of compliance are as follows:

1. Exposure Determination

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials (OPIM). The exposure determination is made without regard to the use of personal protective equipment (i.e. employees are considered to be exposed even if they wear personal protective equipment.) This exposure determination is required to list each job classification in which **all** employees may be expected to incur such occupational exposure, regardless of frequency. In this department, the job classifications where **all** employees are considered potentially at risk are found on the list entitled "List of Job Classification Risk Categorization by Department- All at Risk."

Instructional Nursing

Custodial/Maintenance Staff

Athletic Coaches

Instructional Radiology Staff

Public Safety

In addition, a listing of job classifications in which **some** employees may have occupational exposure is required. For employees in these classifications, a list of the tasks or procedures that place them at risk must be listed here. By listing the job classifications and the duties where there is potential risk, it should be clearly understood which employees in these categories must be considered at risk to have occupational exposure.

None Listed

2. Implementation Schedule and Methodology

OSHA requires that this plan also include a schedule and method of implementation for the various requirements of the standard. The following plan complies with this requirement.

Employees covered by the blood-borne pathogens standard will receive an explanation of this plan during their initial orientation. It will also be reviewed in their annual retraining.

3. Compliance Methods

Universal precautions

The increasing prevalence of HIV, HBV and HCV increases the risk of infection to individuals who have occupational exposure. ALL patient's blood and certain body fluids should be considered infected with HIV, HBV, HCV and/or other blood-borne pathogens, and infection-control precautions adhered to that minimize the risk of exposure to these materials. This is "universal precautions" and should be used when handling blood, bodily fluids containing visible blood, semen, vaginal secretions, cerebrospinal fluid (CSF), synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid. Universal precautions do not apply to saliva, feces, nasal secretions, sputum, sweat, tears, urine and vomit unless they contain visible blood. If it is difficult or impossible to differentiate between body fluid types in a particular circumstance, all body fluids must be considered potentially infectious material. (This paragraph is not the same as would follow in our clinical facilities. Hospital/agency policies combine the features of universal precautions and body substance isolation and title it Standard Precautions. The latter applies to all body fluids, secretions, and excretions, except sweat, whether or not they contain visible blood)

Universal precautions will be observed in this college in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material is considered infectious regardless of the perceived status of the source individual.

Engineering and work practice controls are utilized to eliminate or minimize exposure to employees. Where occupational exposure remains after institution of these controls, personal protective equipment must also be used. The following engineering controls are used at this location:

Puncture-resistant disposal containers used in the Instructional Nursing Lab and Radiology Lab

Ampule-breaking devices used in Instructional Nursing Lab

Readily accessible hand washing facilities in Instructional Nursing Lab

Eye wash station located in Instructional Nursing Lab

Prohibiting the recapping or bending of needles

The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of the controls is as follows:

Department Heads in departments determined to be "at-risk" will inspect and maintain equipment and procedures related to Engineering and Work Practice Controls (including those listed above) on a regular basis and will be responsible for repair and maintenance. A written log of inspections and maintenance will be kept by those Department Heads.

[Appendix B](#) provides information on ordering sharps disposal containers and outlines biohazard waste procedures.

Hand washing facilities are also available for employees who incur exposure to blood or other potentially infectious materials. OSHA requires that these facilities be readily accessible after experiencing an exposure. Hand washing facilities are located throughout the campus.

If hand-washing facilities are not feasible, the employer is required to provide either an antiseptic cleanser in conjunction with a clean cloth/paper towels or antiseptic towelettes. If these alternatives are used, hands must be washed with soap and running water as soon as feasible.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water. If employees incur exposure to their skin or mucous membranes than those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

Needles

Contaminated needles and other contaminated sharps must not be recapped, bent, removed, sheared or purposely broken. Do not remove needle from the syringe. Place directly into a red sharps container immediately or as soon as possible.

Each department must evaluate its use of needles. Where possible, alternatives must be utilized and if unable to eliminate the use of needles entirely, needle systems with safety features or needleless systems should be utilized whenever feasible.

If your department's employees are responsible for direct patient care at a clinical site and are potentially exposed to injuries from contaminated sharps, you are required to verify the employee has completed BBP training administered from that site. HR will keep copies of training records in the employee's personnel file.

Waste Containers for Sharps

All sharps must be placed into appropriate sharps containers. The sharps containers are puncture resistant, labeled with a biohazard label (see [Appendix D](#) for the biohazard label), and are leak proof.

Each department is responsible for providing sharps containers for their employees and responsible for checking and replacing containers when they are full. New sharps containers can be ordered from the Buildings and Grounds department.

Work Area Restrictions

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials are present. *During Radiology Lab instruction, all food and beverages are prohibited from being brought into the lab.*

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

Specimens and Labeling

Specimens of blood or other potentially infectious materials will be placed in a container to prevent leakage during the collection, handling, processing, storage, and transport of the specimens. The container used for this purpose will be labeled or color-coded in accordance with the requirements of the OSHA standard (see [Appendix D](#) for the Biohazard Label).

Any specimen that could puncture a primary container must be placed in a puncture resistant secondary container. If the primary container becomes contaminated on the outside, it must be placed within a secondary container that prevents leakage during the handling, processing, storage, transport, or shipping of the specimen.

Contaminated Equipment

Equipment that has become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless decontamination of the equipment is not feasible.

4. Personal Protective Equipment

At FMCC, each department is responsible for purchasing and maintaining Personal Protective Equipment (PPE). Additionally, each department is responsible for PPE training of their staff. Refer to the FMCC PPE Hazard Assessment for more details on this subject.

The purpose of personal protective clothing and equipment is to prevent or minimize the entry of material into or onto the worker's body. This includes entry via apparent or in-apparent skin lesions, or through the membranes of the eye, nose, or mouth. All personal protective equipment will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or other potentially infectious materials to reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

PPE will be provided to employees in the following manner:

Task	Personal Protective Equipment
<i>Cleaning blood/body fluid spill</i>	<i>Gloves, masks, face shields, eye protection, gowns/laboratory coats/aprons.</i>

All personal protective equipment will be cleaned, repaired, replaced and/or disposed of by the employer at no cost to employees. Immediately (or as soon as feasible) remove garments penetrated by blood. All personal protective equipment will be removed prior to leaving the work area. The following protocol has been developed to facilitate leaving the equipment at the work area:

Contaminated clothing and PPE should be removed and dealt with as follows:

*Disposing of Contaminated Clothing and PPE: follow procedures for medical waste disposal.
Laundering of Contaminated Clothing: follow procedures for laundering of contaminated items.*

Gloves shall be worn where it is reasonable to anticipate employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes.

Gloves are available in each department determined to be "at-risk". Gloves are also available in the Buildings and Grounds Department.

Disposable gloves are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated. If they are torn, punctured, or when their ability to function as a barrier is compromised, they need to be replaced as soon as feasible. Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves are to be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Masks in combination with eye protection devices, such as goggles or glasses with solid side shield, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonable be anticipated.

5. Work-site Cleaning/Schedule:

The work-site must be maintained in a clean and sanitary condition. Where body fluids are present, the areas are cleaned and decontaminated immediately.

Areas to be sanitized on a routine basis are as follows:

Facility area, surface or equipment	Frequency	Disinfectant used	Procedure for decontaminating equipment/surfaces
N/A			

All contaminated work surfaces will be decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or OPIM, as well as the end of the work shift if the surface may have become contaminated since the last cleaning.

All bins, pails, cans, and similar receptacles shall be inspected and decontaminated as necessary by Buildings & Grounds staff.

Do not use hands to pick up broken glassware that may be contaminated. Use a mechanical means, such as a brush and dustpan, and place in a sharps container for disposal.

6. Infectious/Biohazard Waste Handling Procedures

Infectious waste has been defined as blood, blood products, pathological wastes, microbiological wastes, and contaminated sharps. Additionally, FMCC considers animal body parts, carcasses and bedding, etc., to be infectious waste, as listed in [Appendix B](#).

1. All such wastes (excluding liquids, blood, and blood products) are destined for incineration and must be placed in close-able, labeled or color-coded, leak-proof containers or bags, as set forth in the waste disposal procedures outlined in [Appendix B](#). Be sure to label boxes with investigator's name and room or lab number. If the bag or container is contaminated on the outside or leaks, a second leak proof bag or container that is also labeled and close-able must be placed over the first and sealed to prevent leakage during handling, storage, and transporting.
2. Place all needles and sharps in properly labeled sharps disposal containers. These must be easily accessible to personnel, replaced before getting too full, is puncture resistant, leak-proof, and closeable to assure containment.
 - Sharps containers are located in:
 - Instructional Nursing Department Office and Classrooms
 - Radiology Lab
 - Buildings & Grounds Department Office
 - Infectious waste other than sharps shall be placed in biohazard boxes. These are located in:
 - Instructional Nursing Department Office and Classrooms.
 - Buildings & Grounds Department Office

- **Secure the lids on the sharps containers with tape** and label with investigator's name and room number.
 - **DO NOT** throw sharps in wastebaskets, leave in patient's rooms, bed linens, or pockets of lab coats. Laundry, housekeeping, custodial, and waste hauling personnel are at risk of acquiring a needle-stick due to carelessness on the part of others. The chances of becoming infected after a single needle-stick from a hepatitis B source patient ranges from 7-30%.
3. Liquid wastes (e.g., blood, blood products) can be disinfected with a solution of 5.25% sodium hypochlorite (household bleach) diluted between 1:10 and 1:100, or autoclaved. Once disinfected, these can be disposed of in the sanitary sewer system. If liquid wastes are collected in bulk containers, the material must be solidified with a product such as Isolyzer and the container placed in a biohazard box.

Properly packaged waste must be delivered by each department to the Buildings & Grounds Department office. Once per year medical waste is disposed of from that office through a license medical waste hauler.

Medical waste related to field work off-site (nurses/radiology) is disposed of at the site where the work is performed (hospital, clinic, etc.)

Biohazardous Spill Procedures

Biohazard Spill

1. Keep others out of the area to prevent spreading spilled material. Post warning signs if needed.
2. Contaminated clothing should be removed and placed in a biohazard bag for disposal or sent off-site with source individual (see laundering procedures).
3. Wash hands and any exposed skin. Inform Department Head (if possible) of the spill and immediately contact the office of the Director of Facilities (x8411/8412) for follow-up.
4. Put on protective clothing (lab coat, gloves, face protection and shoe covers, depending on the amount of spilled material).
5. Pick up any broken glass with forceps and dispose in a Sharps container.
6. Cover the spill with paper towels and add 10% bleach or approved sanitizer from custodial chemical supply.
7. Place towels in biohazard bag for disposal.
8. Allow 20 minutes contact time, discarding used paper towels in biohazard bag. Rewipe the spill area with disinfectant.
9. Place all contaminated materials into a biohazard waste container, including gloves.
10. Wash hands with soap and water.

7. Laundry Procedures

Laundry contaminated with blood or other potentially infectious materials must be handled as little as possible. Such laundry must not be sorted or rinsed in the area of use, but placed directly into laundry bags.

All employees who handle contaminated laundry will utilize personal protective equipment to prevent contact with blood or other potentially infectious materials. If laundry is wet with contaminated fluids, make sure the laundry bag will contain the fluid. If the bag leaks, place it inside another plastic bag.

FMCC will not launder contaminated articles. These articles will either be:

Placed in medical waste containers for disposal, or;

Placed in a leak-proof bag or container and sent off-site with the source individual for disposal or proper laundering.

8. Hepatitis B Vaccine

All employees who have potential exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials.

All injections are given intramuscularly, 1.0 ml in the deltoid muscle. The first dose is given, followed at 1 and 6 months, respectively, with a second and third dose. After a series of three injections, over 95% of healthy adults develop protective antibody.

Vaccination program

FMCC is responsible for the cost of the vaccine and any related costs. The vaccine will be available to the employee after training is received, and should be offered/given **within 10 working days of initial assignment**.

Upon hiring new employees, the Office of the Director of Human Resources will determine if employees fall into an "at-risk" role/department. That office will coordinate training and information, and have the new employee indicate in writing whether they accept or reject the Hepatitis B vaccination at that time.

If the employee does not want the vaccination, a copy of the declination will be kept on file at the Office of the Director of Human Resources.

If the employee consents to the vaccination, the Director of Human Resources will refer the employee to Nathan Littauer's Occupational Health department for the vaccination series, will make arrangements for covering the cost of the vaccinations, and keep a record of vaccination on file.

An individual does not need the vaccine if he has immunity or previously received the vaccine. Should booster doses be recommended at a future date, they will be provided. If an employee initially declines the vaccine, a waiver must be signed and kept on file with Human Resources. If "at-risk" employees initially decline the vaccine, they may decide later to receive it.

9. Post-Exposure Evaluation and Follow-up

Exposure Definition

Incidents that constitute an exposure involve contamination by blood, OPIM or high titers of cell-associated or free virus via

- 1) Percutaneous injury, e.g., needlestick;
- 2) Permucosal exposure, e.g., splash in eye or mouth;
- 3) Cutaneous exposure, e.g., nonintact skin, or contact with unprotected hands.

Medical Evaluation

When an exposure incident occurs, employees will be referred to Nathan Littauer Hospital, St Mary's Hospital or other preferred care provider to conduct a confidential medical evaluation and follow-up.

In the event of an exposure, take the following steps:

1. Cleanse the area thoroughly.
2. Report the incident immediately to your supervisor.
3. Always call the Public Safety Office at (518) 736-3622 x8405.
4. If there is no response at the Public Safety Office, leave a VM and proceed for consultation and/or treatment to Nathan Littauer Hospital or St Mary's Hospital.
5. The supervisor must document route of exposure and circumstances of incident (See Appendix F for form). This must be completed in addition to a college Public Safety Incident Report because this form contains additional questions/information not included on the college's incident form. This form is available in the public folders or by contacting Human Resources, the Public Safety Office or the Buildings & Grounds Office.
6. Human Resources will make the necessary calls to identify the source of exposure and, if possible, determine HBV, HCV and/or HIV status.
7. Human Resources maintains a sharps injury record for the recording of percutaneous injuries from contaminated sharps. The sharps injury record contains the type and brand of device involved, the department or work area where the exposure incident happened and an explanation of how the incident occurred. The confidentiality of the injured employee is maintained.

Control Method Evaluation

In addition, the department must evaluate the circumstances of the exposure incident. The goal of this evaluation is to identify and correct problems in order to prevent recurrence of similar incidents. To assist in this evaluation, a form is located in Appendix F. Information that needs to be included in the documentation is:

- The documentation of the route(s) of exposure and circumstances under which an exposure incident occurred.
- An evaluation of the policies and "failures to control" at the time of the exposure incident.
- The engineering controls in place at the time of the exposure incident.
- The work practices and protective equipment or clothing used at the time of the exposure incident.

10. Training

Training for all employees must be conducted before undertaking tasks where occupational exposure may occur, with training each year if employees remain at risk for exposure. Training in this department is conducted in the following manner:

Training will be conducted annually with instructors from the college or the local BOCES Health-Safety Risk Management Service.

Note: Bloodborne Pathogens (BBP) training is required annually.

Training must include an explanation of the following:

1. The OSHA standard for Bloodborne Pathogens
2. Epidemiology and symptomatology of bloodborne diseases

3. Modes of transmission of bloodborne pathogens
4. This Exposure Control Plan, i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc.
5. Procedures which might cause exposure to blood or other potentially infectious materials
6. Control methods used in the work area to control exposure to blood or other potentially infectious materials.
7. Personal protective equipment available and who should be contacted
8. Post Exposure evaluation and follow-up
9. Signs and labels used
10. Hepatitis B vaccine program

11. Recordkeeping

All records required by the OSHA standard, and all training records will be maintained by:

Josh Fleming, Director of Facilities and Jason Rauch, Director of Human Resources

Confidential Employee Records and Medical Records will be kept in the office of:

Director of Human Resources

12. Dates

All provisions required by the standard were **implemented** by the following dates:

1. The Exposure Control Plan - May 5, 1992
2. Information and Training - June 4, 1992
3. Engineering and Work Practice Control, PPE, Housekeeping, Hepatitis B vaccination, post exposure evaluation and follow-up, and labels and signs - July 6, 1992
4. Needlestick and other Sharps Injuries- April 18, 2001
5. Program revision – August 27th, 2012
6. Plan review – April 1st 2014
7. Plan review – March 19th 2015
8. Plan review – March 20th 2016
9. Plan review – April 4th 2017

APPENDICES

- A. OSHA's Occupational Exposures to Bloodborne Pathogens (29CFR Part 1910.1030)
- B. Infectious Waste Disposal Procedures
- C. (RESERVED)
- D. Biohazard Symbol
- E. Definitions
- F. Exposure Incident Form
- G. Supervisor Checklist for Use of Human Blood or Other Potentially Infectious Material

APPENDIX A--BLOODBORNE PATHOGENS STANDARD 1910.1030

Federal Register / Vol. 56. / Friday, December 6, 1991 / Rules and Regulations, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5507, Feb. 13, 1996; 66 FR 5325 Jan.18, 2001

XI. The Standard

General Industry Part 1910 of title 29 of the Code of Federal Regulations is amended as follows:

PART 1910-[AMENDED]

Subpart Z-[Amended]

1. The general authority citation for subpart Z of 29 CFR part 1910 continues to read as follows and a new citation for 1910.1030 is added:

Authority: Secs. 6 and 8, Occupational Safety and Health Act. 29 U.S.C. 655, 657, Secretary of Labor's Orders Nos. 12-71 (36 FR 8754), 8-76 (41 FR 25059), or 9-83 (48 FR 35736), as applicable; and 29 CFR part 1911.

Section 1910.1030 also issued under 29 U.S.C. 653.

2. Section 1910.1030 is added to read as follows:

§ 1910.1030 Bloodborne Pathogens.

(a) *Scope and Application.* This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

(b) *Definitions.* For purposes of this section, the following shall apply:

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood means human blood, human blood components, and products made from human blood.

Bloodborne Pathogens means pathogenic microorganisms that are 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).

Clinical Laboratory means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination means the use of physical or chemical means to remove, inactivate or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Engineering Controls means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parental contact with blood or other potentially infectious materials that result from the performance of an employee's duties.

Handwashing Facilities means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional is a person whose legally permitted scope of

practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

HBV means hepatitis B virus.

HIV means human immunodeficiency virus.

Needleless systems means a device that does not use needles for: (1) The collection of bodily fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials means

(1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;

(2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and

(3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral means piercing mucous membranes or the skin barrier through

such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility means a facility engaged in industrial-scale, large volume or high concentration production of HIV or HBV.

Regulated Waste means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research Laboratory means a laboratory producing or using research laboratory-scale amounts of HIV or HBV. Research laboratories may produce high-concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections means a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

(c) *Exposure control--(1) Exposure Control Plan.* (i) Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(ii) The Exposure Control Plan shall contain at least the following elements:

(A) The exposure determination required by paragraph(c)(2),

(B) The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

(C) The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

(iii) Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.20(e).

(iv) The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

(A) Reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and

(B) Document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

(v) An employer, who is required to establish an Exposure Control Plan shall solicit input from non-managerial

employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.

(vi) The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

(2) *Exposure determination.* (i) Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(A) A list of all job classifications in which all employees in those job classifications have occupational exposure;

(B) A list of job classifications in which some employees have occupational exposure, and

(C) A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

(ii) This exposure determination shall be made without regard to the use of personal protective equipment.

(d) *Methods of compliance--(1) General-Universal precautions* shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

(2) *Engineering and work practice controls.* (i) Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

(ii) Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

(iii) Employers shall provide handwashing facilities, which are readily accessible to employees.

(iv) When provision of handwashing facilities is not feasible, the employer shall

provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

(v) Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(vi) Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

(vii) Contaminated needles and other, contaminated sharps shall not be bent, recapped or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

(A) Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

(B) Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

(viii) Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

(A) Puncture resistant;

(B) Labeled or color-coded in accordance with this standard;

(C) Leakproof on the sides and bottom; and

(D) In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

(ix) Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

(x) Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

(xi) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(xii) Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

(xiii) Specimens of blood or other potentially infectious materials shall be placed in a container, which prevents leakage during collection, handling, processing storage, transport, or shipping.

(A) The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/ color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

(B) If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

(C) If the specimen could puncture the primary container, the primary container shall be placed within a secondary container, which is puncture-resistant in addition to the above characteristics.

(xiv) Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

(A) A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

(B) The employer shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate,

prior to handling, servicing, or shipping so that appropriate precautions will be taken.

(3) *Personal protective equipment*—(i) Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

(ii) Use. The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(iii) Accessibility. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(iv) Cleaning, Laundering, and Disposal. The employer shall clean, launder, and dispose of personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee.

(v) Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

(vi) If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible.

(vii) All personal protective equipment shall be removed prior to leaving the work area.

(viii) When personal protective equipment is removed it shall be placed in an appropriately designated area or container for, storage, washing, decontamination or disposal.

(ix) Gloves. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures except as specified in paragraph (d)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

(A) Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

(B) Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(C) Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

(D) If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

(1) Periodically reevaluate this policy;

(2) Make gloves available to all employees who wish to use them for phlebotomy;

(3) Not discourage the use of gloves for phlebotomy; and

(4) Require that gloves be used for phlebotomy in the following circumstances:

(i) When the employee has cuts, scratches, or other breaks in his or her skin;

(ii) When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and

(iii) When the employee is receiving training in phlebotomy.

(x) Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(xi) Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

(xii) Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopedic surgery).

(4) *Housekeeping.* (i) General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

(ii) All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

(A) Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

(B) Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift

if they may have become contaminated during the shift.

(C) All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

(D) Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

(E) Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(iii) Regulated Waste.

(A) Contaminated Sharps Discarding and Containment. (1) Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

(i) Closable;

(ii) Puncture resistant;

(iii) Leakproof on sides and bottom; and

(iv) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

(2) During use, containers for contaminated sharps shall be:

(i) Easily accessible to personnel-and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);

(ii) Maintained upright throughout use; and

(iii) Replaced routinely and not be allowed to overflow.

(3) When moving containers of contaminated sharps from the area of use, the containers shall be:

(i) Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

(ii) Placed in a secondary container if, leakage is possible. The second container shall be:

(A) Closable;

(B) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

(C) Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

(4) Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury,

(B) Other Regulated Waste Containment. (1) Regulated waste shall be placed in containers, which are:

(i) Closable;

(ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

(iii) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

(iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(2) If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

(i) Closable;

(ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

(iii) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

(iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(C) Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.

(iv) Laundry.

(A) Contaminated laundry shall be handled as little as possible with a minimum of agitation. (1) Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

(2) Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as

requiring compliance with Universal Precautions.

(3) Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, the laundry shall be placed and

transported in bags or containers, which prevent soak-through and/or leakage of fluids to the exterior.

(B) The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

(C) When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i)

(e) *HIV and HBV Research Laboratories and Production Facilities.*

(1) This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs.

These requirements apply in addition to the other requirements of the standard.

(2) Research laboratories and production facilities shall meet the following criteria:

(i) Standard microbiological practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(ii) Special practices.

(A) Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

(B) Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leak-proof, labeled or color-coded container that is closed before being removed from the work area.

(C) Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry

requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

(D) When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

(E) All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

(F) Laboratory coats, gowns, smocks, uniforms or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

(G) Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

(H) Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(I) Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

(J) Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

(K) All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

(L) A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

(M) A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

(iii) Containment equipment. (A) Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.

(B) Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

(3) HIV and HBV research laboratories shall meet the following criteria:

(i) Each laboratory shall contain a facility for hand washing and an eye wash facility, which is readily available within the work area.

(ii) An autoclave for decontamination of regulated waste shall be available.

(4) HIV and HBV production facilities shall meet the following criteria:

(i) The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

(ii) The surfaces of doors, walls, floors and ceilings in the work area shall be

water-resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

(iii) Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

(iv) Access doors to the work area or containment module shall be selfclosing.

(v) An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

(vi) A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

(5) *Training Requirements.* Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

(f) *Hepatitis B vaccination and post-exposure evaluation and follow-up-(1)*

General. (i) The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

(ii) The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

(A) Made available at no cost to the employee;

(B) Made available to the employee at a reasonable time and place;

(C) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

(D) Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).

(iii) The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

(2) *Hepatitis B Vaccination.* (i) Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(1) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

(ii) The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

(iii) If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

(iv) The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in appendix A.

(v) If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available in accordance with section (f)(1)(ii).

(3) *Post-exposure Evaluation and Follow-up.* Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

(i) Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;

(ii) Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

(A) The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's

consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

(B) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

(C) Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

(iii) Collection and testing of blood for HBV and HIV serological status;

(A) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

(B) If the employee, consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(iv) Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

(v) Counseling; and

(vi) Evaluation of reported illnesses.

(4) *Information Provided to the Healthcare Professional.* (i) The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

(ii) The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

(A) A copy of this regulation;

(B) A description of the exposed employee's duties as they relate to the exposure incident;

(C) Documentation of the route(s) of exposure and circumstances under which exposure occurred;

(D) Results of the source individual's blood testing, if available; and

(E) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

(5) *Healthcare Professional's Written Opinion.* The employer shall obtain and provide the employee with a copy of the

evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

(i) The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

(ii) The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

(A) That the employee has been informed of the results of the evaluation; and

(B) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

(iii) All other findings or diagnoses shall remain confidential and shall not be included in the written report.

(6) *Medical recordkeeping.* Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

(g) *Communication of hazards to employees- (1) Labels and signs. (i) Labels.* (A) Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

(B) Labels required by this section shall include the following legend:



BIOHAZARD

(C) These labels shall be fluorescent orange or orange-red or predominantly so, with lettering or symbols in a contrasting color.

(D) Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

(E) Red bags or red containers may be substituted for labels.

(F) Containers of blood, blood components, or blood products that are

labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

(G) Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

(H) Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.

(I) Regulated waste that has been decontaminated need not be labeled or color-coded.

(ii) Signs. (A) The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:



BIOHAZARD

BIOHAZARD

(Name of the Infectious Agent) (Special requirements for entering the area) (Name, telephone number of the laboratory director or other responsible person.)

(B) These signs shall be fluorescent orange-red or predominantly so, with lettering or symbols in a contrasting color.

(2) *Information and Training.* (i) Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.

(ii) Training shall be provided as follows:

(A) At the time of initial assignment to tasks where occupational exposure may take place;

(B) Within 90 days after the effective date of the standard; and

(C) At least annually thereafter.

(iii) For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

(iv) Annual training for all employees shall be provided within one year of their previous training.

(v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

(vi) Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

(vii) The training program shall contain at a minimum the following elements:

(A) An accessible copy of the regulatory text of this standard and an explanation of its contents;

(B) A general explanation of the epidemiology and symptoms of bloodborne diseases;

(C) An explanation of the modes of transmission of bloodborne pathogens;

(D) An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(E) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

(F) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

(G) Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

(H) An explanation of the basis for selection of personal protective equipment;

(I) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

(J) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(K) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

(L) Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

(M) An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

(N) An opportunity for interactive questions and answers with the person conducting the training session.

(viii) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

(ix) Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities. Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

(A) The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

(B) The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

(C) The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

(h) *Recordkeeping - (1) Medical Records.* (i) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

(ii) This record shall include:

(A) The name and social security number of the employee;

(B) A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's

ability to receive vaccination as required by paragraph (f)(2);

(C) A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

(D) The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

(E) A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

(iii) Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

(A) Kept confidential; and

(B) Are not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(iv) The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

(2) *Training Records.* (i) *Training records shall include the following information:*

(A) The dates of the training sessions;

(B) The contents or a summary of the training sessions;

(C) The names and qualifications of persons conducting the training; and

(D) The names and job titles of all persons attending the training sessions.

(ii) Training records shall be maintained for 3 years from the date on which the training occurred.

(3) *Availability.* (i) The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(ii) Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.

(iii) Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.1020.

(4) *Transfer of Records.* (i) The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

(ii) If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

(5) *Sharps injury log.* (i) The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The sharps injury log shall contain, at a minimum:

- (A) The type and brand of device involved in the incident,
- (B) The department or work area where the exposure occurred, and
- (C) An explanation of how the incident occurred.

(ii) The requirement to establish and maintain a sharps injury log shall apply to any employer who is required to maintain a log of occupational injuries and illnesses under 29 CFR 1904.

(iii) The sharps injury log shall be maintained for the period required by 29 CFR 1904.6

(i) *Dates - (1) Effective Date.* The standard shall become effective on March 6, 1992.

(2) The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

(3) Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

(4) Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) Housekeeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g) (1) Labels and Signs, shall take effect July 6, 1992.

Appendix A to Section 1910.1030-Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

[56 FR 64004, Dec. 06, 1991, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5507, Feb. 13, 1996; 66 FR 5325 Jan. 18, 2001]

APPENDIX B -- INFECTIOUS WASTE DISPOSAL PROCEDURES

INTRODUCTION

The Fulton-Montgomery Community College Waste Management Plan has been prepared in accordance with EPA, OSHA and State of NY Regulations. At FMCC, all biohazardous waste is transported off site for incineration.

This information is intended to clarify segregation, packing and pickup of wastes, both biohazardous and uncontaminated.

DEFINING BIOHAZARDOUS WASTE

Biohazardous waste typically includes waste containing pathogens with sufficient virulence and quantity so that exposure to the waste by a susceptible host could result in an infectious disease. The U of I also includes all sharps from medical areas, patient care, research, and other waste types described below.

BIOHAZARDOUS WASTE TYPES

1. Cultures, stocks of infectious agents and associated biologicals including but not limited to:
 - Specimens from medical, pathology and research laboratories;
 - Disposable culture/petri dishes;
 - Devices used to transfer, inoculate, and mix cultures;
 - Wastes from the production of biologicals; and
 - Discarded live and attenuated vaccines.
2. Human blood, blood products, and body fluids.
3. All sharps (contaminated and uncontaminated) such as:
 - Needles and syringes;
 - Scalpels, razors, microtome blades;
 - Pasteur pipettes;
 - Slides and cover plates; and
 - Broken glass.
4. Animal carcasses, body parts and bedding from animals exposed to pathogens in research.
5. Other laboratory wastes including but not limited to:
 - Specimen containers;
 - Disposable gloves, lab coats, masks and aprons;
 - Disposable pipettes;
 - All cell culture materials;
 - All microorganisms constructed using rDNA.
 - Pipette tips; and
 - Solidified blood and body fluids.
6. All wastes that have been steam sterilized.

HANDLING BIOHAZARDOUS WASTE

Waste must be segregated at the point of origin by the generator. Culture plates and vials containing pathogenic organisms must be autoclaved prior to disposal, using autoclavable bags (orange or red). Place in a redbag-lined biohazard container after autoclaving. *Do not use the biohazard box's red liner for autoclaving.*

Waste must be placed either directly into the redbag-lined Rubbermaid transport containers, *or* a redbag-lined white biohazard box.

- **All sharps** must be placed in a red sharps container or a Winfield Sharps-tainer.
- **Human blood, blood products and body fluids** greater than 500 ml must be *solidified* with a product such as Isolyzer and placed in a biohazard box (white with a red plastic liner). Amounts less than 500 ml can be disinfected with a bleach solution (1:10 final dilution) and sewered.
- **All other laboratory waste**, such as disposable petri dishes, specimens, cell culture materials, pipette tips, disposable gloves, solidified blood and body fluids, autoclaved culture plates, vials, etc. - place in either the *redbag-lined biohazard* containers or directly into the *redbag-lined Rubbermaid* containers that are used to transport biohazard waste for incineration.

UNCONTAMINATED WASTE

- **Uncontaminated sharps** must also be placed in a red sharps container.
- **Plastic bottles and jars**, e.g. media, bleach - place in *regular trash* containers.
- **Glass bottles or jars - empty, rinsed and unbroken** - place in a **sturdy** cardboard box. If one is not available, place in a biohazard box.
- **Broken laboratory glass** - place in sharps containers.

Appendix C – Declination Form

Hepatitis B Vaccination Declination

INSTRUCTIONS: If this is your first Fulton-Montgomery Community College payroll assignment, please read the information about Hepatitis B and your vaccination opportunities in this manual. Complete this form and return it to your Human Resources.

I, (print name) _____, certify by my signature below that I have received and read the training information on blood borne pathogens, including the information about Hepatitis B vaccinations. I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the Hepatitis B vaccine, at no charge to me. However, I decline Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future, during the course of my employment with the Company, I continue to have occupational exposure to blood, or other potentially infectious materials, and I want to be vaccinated with the Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

EMPLOYEE SIGNATURE

DATE

PRINT NAME

APPENDIX D -- BIOHAZARD SYMBOL



APPENDIX E -- DEFINITIONS

Blood--human blood, human blood components and products made from human blood

Bloodborne pathogens--pathogenic microorganisms that are 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).

Clinical Laboratory--a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated--the presence or reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry- laundry that has been soiled with blood or other potentially infectious materials or may contain sharps.

Contaminated Sharps--any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

Decontamination--the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Engineering Controls--means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident--a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Handwashing Facilities--facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

HBV--hepatitis B virus.

HIV--human immunodeficiency virus.

Licensed Healthcare Professional--a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

Needleless Systems--means a device that does not use needles for: (1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (2) The administration of medication or fluids; or (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure--reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials (OPIM)--(1) the following human 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, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV or HBV.

Parenteral--piercing mucous membranes or the skin barrier through such events as needle-sticks, human bites, cuts, and abrasions.

Personal Protective Equipment (PPE)--specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility-- a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HB.

Regulated Waste--liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials

during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research Laboratory--a laboratory producing or using research laboratory scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV, but not in the volume found in production facilities.

Sharps with engineered sharps injury protections-- means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual--any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize--the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Universal Precautions (UP)--an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls--controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping needles by a two-handed technique).

APPENDIX F -- EXPOSURE INCIDENT FORM

In the event of an exposure incident, two forms must be completed: (1) *FMCC Public Safety Incident Report* form for the college, and (2) the information on this form, as required by OSHA. The information provided below is intended to assist in evaluating the control methods used and to prevent future employee exposures.

Name of Person _____ Department _____

Incident Date _____ Time _____

Incident: Mark in each column, as appropriate

Incident:

- Cut:
- Exposure:
 - body fluids
 - infectious material
 - Other _____

Injury type:

- Abrasion
- Laceration
- Puncture
- Mucous membrane
- Other _____

Body Part Injured:

- Finger
- Hand
- Arm
- Eye
- Other _____

Description of Incident

Protective equipment used:

- Gloves
- Goggles
- Face Mask/shield
- Protective sleeves
- Lab Coat
- Gown
- Other

Seen by:

- No medical treatment sought
- Emergency Treatment Center

What changes need to be made to prevent reoccurrence?

Report prepared by: _____

Position _____

APPENDIX G – Supervisor Checklist

SUPERVISOR CHECKLIST FOR USE OF HUMAN BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIALS

Using this checklist ensures that proper procedures have been followed before beginning any work with human blood or other potentially infectious materials. (*Section number in parentheses refers to the section of the Exposure Control Plan*).

Exposure Determination

- Employer has performed an exposure determination concerning which employees may incur occupational exposure to blood or OPIM.

Medical Surveillance

- All affected personnel have either received Hepatitis B vaccinations or been offered the vaccination and there is a Hepatitis B Vaccination Consent or Decline Form on record at the Buildings & Grounds Office.
- Procedures for responding to an exposure incident are in place.
Post exposure evaluation is done through the Buildings & Grounds Office, a Bloodborne Pathogens Exposure Incident Report (Appendix F) and a State of NYS Employers Work Injury Report is completed and, all incidents evaluated to prevent repeat occurrences.

Training and Information

- All affected personnel have taken the Bloodborne Pathogens Exposure Control Training annually.
- All new affected personnel receive Bloodborne Pathogens Exposure Control Training prior to their first assignment involving potential exposure.
- All affected personnel have received training on work site specific practices.
- Records are kept documenting all training.
- Biohazard warning labels and door signs are affixed to doors, refrigerators and freezers.

Safe Work Practices)

- All affected employees are required to practice Universal Precautions.
- Appropriate personal protective equipment is provided at no cost to personnel.
- Hand washing and eyewash facilities are provided.
- Alternative safer sharps devices are used wherever it will reduce personnel exposure, either by removing, eliminating or isolating the hazard, regardless of cost.
- Evaluations of alternative safer sharps devices are documented annually in writing.