BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

The State University of New York at Fredonia
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TABLE OF CONTENTS

APPENDICES

1. INTRODUCTION

This Bloodborne Pathogens (BBP) Exposure Control Plan has been developed to document measures used to protect Fredonia employees from the health hazards associated with occupational exposure to pathogenic organisms present in blood and other bodily fluids. This plan is intended to meet the regulatory requirements of the Occupational Safety and Health Administration (OSHA) standard on "Bloodborne Pathogens" [29 C.F.R. § 1910.1030], as adopted by the New York State Public Employee Safety and Health Bureau (PESH). The major intent of this regulation is to minimize or prevent the transmission of bloodborne diseases including, but not limited to, Human Immunodeficiency Virus (HIV), Hepatitis B virus (HBV), and Hepatitis C virus (HCV).

1.1 APPLICABILITY

The OSHA Bloodborne Pathogens standard applies to employees with occupational exposure to human blood, blood products and other potentially infectious materials (OPIM). Under the standard, occupational exposure is defined as reasonably anticipated skin, eye, mucous membrane, or parenteral[1] contact with blood or OPIM that results from the performance of an employee's duties.

According to the OSHA standard [29 C.F.R. § 1910.1030(b)], blood and OPIMs include:

- Human blood, human blood components, and products made from human blood;
- 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
  - all body fluids in situations where it is difficult or impossible to differentiate between body fluids
- Any unfixed tissue or organ (other than intact skin) from a human, living or dead; and
- Human Immunodeficiency Virus (HIV)-containing cell or tissue cultures, organ cultures, and HIV- or hepatitis B Virus (HBV)-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

[1] Parenteral exposure refers to piercing of the mucous membranes or skin, such as intravenous, subcutaneous or intramuscular injection.

1.2 WRITTEN PROGRAM REQUIREMENTS

The Bloodborne Pathogens standard requires employers who have employees with occupational exposures (defined in Appendix A) to develop and implement a written Exposure Control Plan (ECP) designed to eliminate or minimize employee exposure [29 C.F.R. § 1910.1030(c)]. The plan must contain an exposure determination, procedures for the evaluation of circumstances surrounding exposure incidents and a schedule and method of implementation for each element of the standard, including the following:

- Universal precautions;
- Engineering and work practice controls;
- Personal protective equipment;
- Methods of decontamination;
- Communication of hazards;
- Employee information and training; and
- Recordkeeping.

1.3 PLAN AVAILABILITY

The Exposure Control Plan is maintained and available for review at the office of the Fredonia Environmental Health and Safety Department as well as the EHS website.

1.4 ROLES AND RESPONSIBILITIES

1.4.1 Program Coordinator

1. Coordinate annual review of this Exposure Control Plan and update it as necessary.
2. Coordinate initial and annual refresher training employees.
3. Conduct periodic inspections to ensure compliance with this plan.
4. Ensure labels and signs are used as outlined in Section 3.2.8.
5. Ensure the Hepatitis B vaccination is offered to new employees covered under this plan, as outlined in Section 5.
6. Ensure medical evaluation and follow-up are available for potential exposure incidents, and that the required information is provided to the healthcare professional providing medical evaluation and follow-up to an exposed employee.
7. Evaluate and document circumstances surrounding exposure incidents.
8. Maintain the sharps injury log.
9. Maintain records as outlined in Section 8.

1.4.2 Covered Employees

1. Participate in initial and annual refresher training.
2. Follow safe work practices including the use of protective equipment, as outlined in this plan and in training, to minimize the potential for exposure.
3. Report potential exposure incidents.

1.4.3 Human Resources

1. Identify new employees who need to be part of the program and inform the Program Coordinator.

1.5 PROGRAM AND ECP REVIEW

The Exposure Control Plan will be reviewed at least annually and whenever necessary to reflect new or modified tasks or procedures that affect occupational exposure, and/or new or revised employee positions with occupational exposure. Fredonia's Exposure Control Plan will be reviewed by the Program Coordinator in accordance with the OSHA Bloodborne Pathogens standard [29 C.F.R. § 1910.1030(c)(1)]. The review will address the following required elements:

- Changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
- Consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

For those non-managerial employees (e.g., Health Services) responsible for direct patient care who are potentially exposed to injuries from contaminated sharps, Environmental Health and Safety shall solicit their input in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation using the form provided in Appendix E.

The review will be documented, and any updates to this plan will be recorded on the plan revision log provided in Appendix F.

2. EXPOSURE DETERMINATION

2.1 EXPOSURE DETERMINATION

Each department at Fredonia must determine if there are certain work tasks or job classifications that can result in occupational exposure to human blood or other potentially infectious materials (OPIM). The determination of exposure to bloodborne pathogens must be made without regard to frequency of exposure or the use of personal protective equipment.

The OSHA standard [29 C.F.R. § 1910.1030(c)(2)] requires that the exposure determination include:

1. A list of all job classifications in which all employees in those job classifications have occupational exposure to BBP;
2. A list of job classifications in which some employees have occupational exposure to BBP; and
3. A list of all tasks and procedures (or groups of closely related tasks and procedures) in which occupational exposure occurs and that are performed by employees in job classifications listed in #2 above.

[Note: A "Good Samaritan Act" is not considered an occupational exposure.]

2.2 EXPOSURE CLASSIFICATION

Fredonia has conducted an initial exposure determination to determine those departments, job classifications or other work tasks that are covered under this ECP.

Employees within these job classifications are considered “high risk”:

- College Nurses
- Athletic Trainers
- Lifeguards

Employees within these job classifications are considered “moderate risk”:

- University Police

Employees within these job classifications are considered “low risk”:

- Custodial Workers
- Biology Instructors
- Employees at the Youngerman Center
- Coaches

The results of the exposure determination are reviewed at least annually as part of the annual program review, or more often if necessary.

3. METHODS OF COMPLIANCE

This section outlines the methods that will be used to control employee exposure to BBP and to comply with the requirements in the OSHA regulation. Compliance methods include:

- Universal precautions,
- Engineering and work practice controls, and
- Personal protective equipment.

3.1 UNIVERSAL PRECAUTIONS

Universal Precautions is an approach to infection control in which all human blood and OPIM are treated as if known to be infectious for HIV, HBV, and other BBP. Universal precautions must be observed at Fredonia to prevent contact with blood or OPIM. For any circumstances where it is difficult or impossible to differentiate between body fluid types, all body fluids shall be considered potentially infectious materials.

3.2 ENGINEERING AND WORK PRACTICE CONTROLS

Engineering and work practice controls are measures that reduce the likelihood of exposure by altering the manner in which a task is performed. If the potential for occupational exposure remains even when engineering and work practice controls are in place, personal protective clothing shall also be used. Engineering controls are examined before use and maintained or replaced as necessary to ensure their effectiveness. Engineering and work practice controls that could be implemented at Fredonia are described in the following subsections. Sharps containers are also checked during regular inspections to ensure they still meet the requirements outlined in Section 3.2.1 below.

3.2.1 Sharps Containers

Immediately after use, contaminated sharps must be placed in sharps containers that are:

- Puncture resistant;
- Color-coded (red) or labeled with a universal biohazard warning sign;
- Leak-proof on the sides and bottoms;
- Closable.

Sharps containers must remain upright during use and should not be allowed to overfill in order to minimize the risk of injury to personnel handling the containers.

3.2.2 Needles and Sharps Handling Practices

Contaminated needles and other contaminated sharps (i.e., broken glass) shall not be bent, recapped, or removed from the syringe unless no alternative is possible. Any recapping or removal must be accomplished through the use of a mechanical device or a one-handed technique. The recapping or removal of contaminated sharps is actively discouraged under any circumstances because of the high potential risk of injection. Shearing or breaking of used needles is prohibited at Fredonia. Any broken

glass involved in an accident and visibly contaminated with blood should be handled as a contaminated sharp.

3.2.3 Handwashing

Readily accessible handwashing facilities are provided throughout the Fredonia campus. For any circumstances where handwashing facilities are not immediately accessible, an appropriate antiseptic hand cleanser and clean cloth or paper towels must be made available. In all exposure cases, employees must wash hands with soap and running water as soon as possible after removal of gloves or other personal protective equipment.

In the event of a possible exposure, the supervisor in the area of the incident must ensure that employees:

1. Wash hands immediately or as soon as possible after removing gloves or other personal protective equipment, and

2. Wash hands and any other skin with soap and water, or flush mucous membranes with water, immediately following contact of such body areas with potentially infectious materials.

3.2.4 Hygiene Practices

In addition to hand washing, employees must also comply with other good personal hygiene practices to minimize the risk of transferring any contamination of blood or OPIM.

Eating, drinking, smoking, applying cosmetics or similar activities are prohibited in areas where there is a reasonable likelihood of occupational exposure. This includes areas where potential bloodborne pathogens contamination may be present (e.g., immediate site impacted by a bleeding injury), or with body parts that may be potentially contaminated (e.g., avoid touching gloves to eyes or face).

Food and drink must not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or bench tops where blood or OPIM are present.

Mouth pipetting or suctioning of blood or OPIM is prohibited.

3.2.5 Aerosol and Splash Control

All medical, first aid or clean-up procedures involving blood or OPIM should be performed so as to minimize splashing, spraying, splattering, and generation of droplets. Where splashing, spraying, or splattering is unavoidable, appropriate personal protective equipment must be used (e.g., gloves, face shields, aprons, etc).

3.2.6 Specimen Containers

Specimens of blood or OPIM must be placed in a container that prevents leakage during collection, handling, processing, storage, transport, or shipping. Secondary containers must be used when the outside of the primary container may be contaminated and when puncture of the primary container is possible. Storage, transport, or shipping containers must be closed and labeled; and the label must include the biohazard symbol. (See Environmental Health and Safety's Waste Management Program for additional information on the proper management of regulated medical waste.)

3.2.7 Potentially Contaminated Equipment

Any equipment to be serviced or shipped that may be contaminated must be examined prior to servicing or shipping and should be decontaminated as necessary. If decontamination is not possible, then the equipment should be clearly labeled, in accordance with OSHA 29 C.F.R. § 1910.1030 (g)(1)(i)(H), as to which portions remain contaminated. When equipment is sent out for service or maintenance, the sender of the equipment is obligated to clearly communicate information about potential contamination to affected employees, service personnel, and manufacturers as appropriate prior to handling, servicing, or shipping so that appropriate precautions will be taken.

3.2.8 Communication of Hazards

Hazards related to BBP are communicated through warning labels, as well as through training for employees with occupational exposure (see Section 7 for training).

Warning labels are required on containers of regulated medical waste, refrigerators and freezers containing blood or other potentially infectious material, and other containers used to store, transport, or ship blood or OPIM. The labels must be fluorescent orange or orange-red and shall include the biohazard symbol and the word "biohazard" as shown below:

Warning labels should be affixed as close as possible to the container by string, wire, adhesive or other method that prevents accidental loss or removal.

Red bags or red containers may be substituted for labels.

3.3 PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) must be used if occupational exposure remains after instituting engineering and work practice controls, or if engineering and work place controls are not feasible. Employee training on the selection, use and maintenance of personal protective equipment that is specific to each employee's job classifications and the tasks/procedures he or she may perform will be provided to each affected employee (see Section 7 for additional information about training requirements).

Appropriate PPE for potential exposure to bloodborne pathogens does not permit blood or OPIM to reach the skin, eyes, mouth, mucus membranes or clothes of the employee under normal use and for the duration of time the PPE will be used.

PPE items include but are not limited to:

- gloves
- gowns/aprons
- face shields
- masks
- eye protection (splash-proof goggles, safety glasses with side shields)
- resuscitation bags and mouthpieces

Individuals in need of PPE should request it from their supervisor or other designee.

3.3.1 Hand Protection

Impervious gloves must be worn when it can be reasonably anticipated that contact with blood or OPIM is possible and when handling or touching contaminated items or surfaces. Gloves must be replaced if torn, punctured, contaminated, or if their ability to function as a barrier is compromised.

The following are additional guidelines for the proper use of protective gloves:

- Wash hands immediately or as soon as feasible after the removal of gloves or other PPE.
- Avoid handing personal items and touching unprotected areas of the body while wearing gloves.
- Never wash or decontaminate disposable gloves for reuse or before disposal.
- Use caution when removing gloves, especially if contact with a potentially infectious material has occurred. The following is a recommended procedure for glove removal:
    - Turn the first glove inside out, beginning at the wrist and peeling it off.
    - Hook the inside of the second glove at the wrist with a finger and peel the glove off, not touching the external soiled surface with bare hands.
    - Alternatively, grasp the second glove using the internal surface of the first glove as a barrier and remove the second glove.

3.3.2 Face, Eye and Body Protection

Appropriate face, eye and body protection must be used when there is a potential for splashes, sprays, splatters or droplets of blood or OPIM to the eye, nose, mouth or other body part. This may include a mask with glasses with solid side shields, a chin-length face shield, or other covering.

Protective equipment must be removed before leaving the work area and if a garment becomes contaminated. If a garment is penetrated by blood or OPIM, the garment(s) must be removed immediately or as soon as feasible. Used protective equipment should be placed in appropriately designated areas or labeled containers when being stored or discarded. Any contaminated laundry must be handled as outlined in Section 4.3.

4. HOUSEKEEPING AND WASTE DISPOSAL

To ensure the campus is maintained in a clean and sanitary condition, proper housekeeping and waste disposal procedures must be followed. In the event of an injury involving blood, or other release of human blood or OPIM, the impacted area and items will be cleaned and decontaminated, or properly disposed of if appropriate. This will be completed immediately following an incident, or as soon as feasible following any life saving or other medical aid required for any injured party(ies).

4.1 GENERAL GUIDELINES

The following are general guidelines for cleaning and decontamination of surfaces contaminated with blood or OPIM (e.g., due to injuries, spills):

- Read the Safety Data Sheet (SDS) and product label for the disinfectant before use. Follow all applicable directions for the specific disinfectant selected (e.g., contact time, safety precautions).
- Don the appropriate PPE – disposable gloves and safety glasses with side shields at minimum – prior to performing cleaning or decontamination procedures for equipment or areas contaminated with blood or OPIM.
- Remove PPE when decontamination is complete. Remember to remove gloves last to prevent contamination of skin, and wash hands as soon as feasible after removal of gloves.
- Place potentially contaminated PPE in an appropriately designated area or container for storage, washing, decontamination or disposal. Waste, such as used absorbent clean-up materials and contaminated disposable PPE, are to be placed in a red bag (or other regulated medical waste container) for proper disposal.

4.2 CLEANING AND DECONTAMINATION

All equipment and environmental and working surfaces must be cleaned and decontaminated after contact with blood or other potentially infectious materials. The cleaning and method of decontamination will be based upon the location on the campus, type of surface to be cleaned, type of contamination present and tasks or procedures being performed in the area.

Contaminated work surfaces must be decontaminated after completion of procedures involving human blood or OPIM, immediately (or as soon as possible) after any contamination of surfaces or after any spill of blood or OPIM, and at the end of the work shift if the surface may have become contaminated since the last cleaning.

All waste bins, pails, cans, and similar receptacles intended for reuse that have a reasonable likelihood of becoming contaminated with blood or OPIM are inspected each time the red bag is removed. These receptacles should be cleaned or decontaminated immediately if there is visible contamination.

4.2.1 Disinfectants

The disinfectant selected must be proven to be effective against bloodborne pathogens and must be used and applied in accordance with the instructions on the label. A variety of disinfectants are acceptable, including commercially available products and fresh 10% bleach solutions. Prior to using a product, ensure it is effective against bloodborne pathogens (e.g., "OSHA approved for Bloodborne Pathogens" or

"EPA-approved for HIV, HBV") and determine the contact time that is required. The labels of the disinfecting products currently used by Fredonia indicate that they are effective against HIV-1 and provide instructions for use on blood and bodily fluids.

4.2.2 Decontamination Procedure

In the event that surfaces or equipment are contaminated with blood or OPIM as a result of a personal injury:

1. Put on appropriate protective equipment. At minimum, disposable impervious gloves and safety glasses with sideshields will typically be required. Additional PPE (e.g., disposable coat/coveralls, faceshield) may also be needed depending on the incident.
2. Control access to the affected area. Prevent people from walking through affected area and tracking blood or OPIM to other areas.
3. Take care to avoid generation of aerosols.
4. Use plastic scoops, dustpans, forceps or other mechanical means to remove any broken glass or other contaminated sharp objects from the area. Place any contaminated sharps into a sharps container.
5. For very small volumes or semi-viscous materials:
    a. Clean up and remove all visible material with absorbents or disposable towels or other means that prevent direct skin contact with the blood.
    b. Place soiled toweling immediately in a red bag or regulated waste bin to prevent contamination of other surfaces.
    c. Pour or spray disinfectant onto the surfaces, following the directions below.
6. For larger volumes of blood, apply a thin layer of paper towels or wipes over the surface to contain any splattering when the disinfectant is applied. To minimize creation of aerosols, avoid spraying disinfectant directly onto spilled blood or OPIM.
7. Pour or spray disinfectant over the towels and allow it to remain wet for at least 10 minutes, or other contact time specified for the particular disinfectant, before wiping up with clean absorbent pads or towels.
8. After the specified contact time, bag the used clean-up material and place it in a red bag or regulated medical waste bin for disposal.
9. Wipe all potentially affected surfaces with disinfectant.
10. Remove and properly dispose of protective equipment, then wash hands.
    a. Remove PPE in the following order (to the extent that such PPE was required and worn for the specific clean-up scenario): disposable coat/coverall, outer pair of gloves if double gloves were worn, mask and safety glasses with side shields, then inner gloves.
    b. Do not remove PPE from the face with potentially contaminated gloves. If only one pair of gloves was worn, they should be removed before touching the face and taking off safety glasses (or before touching other clean and uncontaminated items).

4.3 LAUNDRY

Any disposable PPE required by this plan will be disposed of by Fredonia. Contaminated laundry should be handled as little as possible with minimum agitation, and according to the following:

1. Place contaminated laundry it in a separate biohazard bag.
2. Wash hands and any contaminated skin with soap and water immediately after exposure and notify your manager.
3. Do not sort or rinse contaminated laundry in the location the PPE was used.
4. Use one of the following methods to decontaminate bloodborne pathogens that may be present on garments:
    a. Soak the garment or towel in a 10% bleach solution.
    b. Launder with hot water (at least 140 degrees F) and detergent.

    [NOTE: Laundering of contaminated items must meet the requirements outlined in the OSHA standard, 29 CFR 1910.1030(d)(4)(iv).]

Any Fredonia employees who handle contaminated laundry must wear protective gloves and other appropriate PPE. Contaminated laundry must not be washed with an individual's personal belongings or sent to a laundry service that is unaware of the potential hazards.

4.4 WASTE DISPOSAL

In addition to following appropriate decontamination procedures, proper handling of regulated waste is essential in effective exposure control. OSHA defines regulated waste to include the following:

- Liquid or semi-liquid blood or OPIM;
- Contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed;
- Items caked with dried blood or OPIM that are capable of releasing these materials during handling;
- Contaminated sharps; and
- Pathological and biological waste containing blood or OPIM.

Disposal of regulated waste shall be in accordance with all applicable federal, state and local regulations. Refer to Fredonia's Waste Management Program for a full description of proper regulated waste management procedures.

4.4.1 Contaminated Sharps

Contaminated sharps must be discarded immediately or as soon as possible after use in containers that are closable, puncture-resistant, leakproof, red in color or marked with the universal biohazard symbol. Sharps containers must be easily accessible to employees and located close to the immediate area where sharps will be used. Sharps containers shall be kept upright throughout use, be replaced routinely, and not be allowed to be overfilled. Before sharps containers are removed from the work area, they must be closed securely and placed in a secondary container if leakage is possible.

4.4.2 Broken Glassware

Broken glassware that may be contaminated with blood or OPIM should not be picked up by hand. Potentially contaminated broken glassware should be cleaned up using mechanical means, such as a brush or dustpan, tongs, or forceps.

4.4.3 Other Contaminated Wastes

Other waste containers that contain blood or other potentially infectious material must be:

- Closed prior to removal;
- Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping; and
- Color-coded or labeled with the universal biohazard symbol, that is readily visible from all approaches.

If a primary regulated waste container has become damaged, or its exterior contaminated beyond decontamination, then its contents must be placed into a secondary container which meets the requirements outlined above. In this case, the original container should be placed entirely in the secondary one, instead of transferring the contents by hand.

All regulated waste containers (primary and secondary) must be closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

5. HEPATITIS B VACCINATION

The hepatitis B vaccination series is available to all employees who are considered at high or moderate risk for exposure. New employees are evaluated for potential bloodborne pathogen exposure and offered the hepatitis B vaccination series if the potential for exposure exists. The hepatitis B vaccination is:

- Made available at no cost to the employee;
- Made available at a reasonable time and place;
- Performed by or under the supervision of a licensed physician or other licensed healthcare professional; and
- Provided according to the current recommendations of the U.S. Public Health Service.

The vaccination will be provided after the employee has received the training required by the Bloodborne Pathogens Standard, and within 10 working days of initial assignment for any employee who has occupational exposure unless:

- The employee has previously received the complete hepatitis B vaccination series;
- Antibody testing has revealed that the employee is immune;
- The vaccine is contraindicated for medical reasons; or
- The employee declines to receive the vaccine.

Employees may decline vaccination initially and decide to accept it at a later date.

6. POST-EXPOSURE EVALUATION AND FOLLOW-UP

An exposure incident is defined as a specific eye, mouth, mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties. All occupational exposures or potential exposures to human blood or OPIM should be reported immediately to allow for proper evaluation and follow-up, according to the procedures outlined in the following sections. All Fredonia employees covered under this program will be provided with post-exposure evaluation and follow-up treatment at Brooks Memorial Hospital in the event of occupational exposure to blood or other potentially infectious materials.

6.1 EVALUATION OF CIRCUMSTANCES SURROUNDING EXPOSURE INCIDENTS

Immediately following an exposure incident, employees are required to report the incident to their supervisor and to Human Resources to arrange for confidential post-exposure medical evaluation and follow-up.

Immediate intervention can minimize the development of some bloodborne diseases (e.g., by allowing for implementation of appropriate prophylaxis), and enable the affected employee to track potential infection. Reporting will also help in preventing the spread of any bloodborne infection to others, and will allow Fredonia to conduct an effective incident investigation.

Following a report of an exposure incident, Fredonia will evaluate and document the circumstances surrounding the incident to identify and correct workplace hazards and to prevent recurrence. Documentation must include:

- A detailed description of the exposure incident, including routes of exposure;
- A description of engineering and work practice controls in use at the time of exposure;
- A description of the device in use (e.g. needles) at the time of exposure, if applicable; and
- A description of the training the employee received relative to exposure control.

6.2 MEDICAL EVALUATION

Following a report of an exposure incident at Fredonia, a confidential medical evaluation and follow-up are made available to the exposed employee. The medical evaluation will be provided to the affected employee at no cost and at a reasonable time and place. All testing and evaluation will be conducted under the supervision of a licensed physician and in accordance with the current recommendations of the U.S. Public Health Service. All laboratory tests must be conducted by an accredited laboratory.

The medical evaluation and follow-up may involve:

- Evaluation of the incident, including documentation of the route of exposure, the HBV and HIV status of the source individual, if known, and the circumstances under which the exposure occurred;
- Collection and testing of exposed employee's blood for determination of HIV and HBV status;
- Collection and testing of source individual's blood if consent is given and HIV and HBV status is not already known;
- Employee notification of results of all testing;

- Counseling;
- Post-exposure prophylaxis when medically indicated;
- Evaluation of any reported illness related to exposure incident; and
- Additional HIV testing offered to the affected employee six weeks post-exposure and periodically thereafter.

Fredonia is not required under the OSHA standard to provide post-exposure evaluation and follow-up treatment to an employee who responds to a first aid incident as a "Good Samaritan." However, it is university policy to provide those services to any employee who is involved in an exposure incident.

6.3 INFORMATION PROVIDED TO THE HEALTHCARE PROFESSIONAL

The healthcare professional must have a copy of the OSHA Bloodborne Pathogens Standard and the Fredonia Exposure Control Plan, and sufficient information so that a determination can be made of the type of prophylaxis and medical treatment that is needed. The following information must be supplied to the evaluating healthcare professional:

- A description of the employee's duties as they relate to the exposure incident;
- Documentation of the route of exposure and circumstances of the incident, including PPE worn at the time of exposure;
- Results of blood testing for the source individual (if available);
- All medical records relevant to the proper treatment of the individual, including vaccination status.

A copy of the OSHA Bloodborne Pathogens standard (included in Appendix I) and the Fredonia Exposure Control Plan must also be provided, if not already on file with the healthcare professional.

6.4 HEALTHCARE PROFESSIONAL'S WRITTEN OPINION

The employee must be provided with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The healthcare professional's written opinion should be limited to whether hepatitis B vaccination is indicated for the employee and, if the individual has received such vaccination, and a statement that the individual has been informed of the results of the evaluation and has been told about any medical conditions resulting from exposure to blood or OPIM that require further evaluation or treatment. All other findings or diagnoses shall remain confidential and shall not be included in the written report provided to Fredonia.

7. TRAINING

All employees with reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM must be provided with initial and annual refresher training during working hours and at no cost to the employee.

7.1 TRAINING CONTENT

The training program includes:

- An accessible copy of the OSHA Bloodborne Pathogen standard and an explanation of its contents;
- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of this Exposure Control Plan and how to obtain a copy of the written plan;
- An explanation of how to recognize tasks and activities that may involve exposure to blood and OPIM;
- An explanation of the use and limitations of engineering controls, work practices and PPE that may prevent or reduce exposure.
- Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment;
- An explanation of the basis for the selection of PPE;
- Information about the hepatitis B vaccine;
- Information on appropriate actions to perform and persons to contact in an emergency;
- An explanation of the steps to follow if an exposure incident occurs;
- Information on post-exposure evaluation and follow-up;
- An explanation of the signs and labels and/or color coding appropriate for blood and OPIM; and
- An opportunity for interactive questions and answers.

Common bloodborne diseases other than HIV and HBV, such as hepatitis C, hepatitis A and syphilis, must be described. Uncommon diseases do not need to be described in detail unless employees work with particular bloodborne pathogens.

7.2 TRAINING RECORDS

Training records will be maintained by Environmental Health and Safety for at least three years from the date on which the training occurred. Training records must include:

1. Dates of training sessions;
2. Contents or summary of the training sessions;
3. Names and qualifications of persons conducting the training; and
4. Names and job titles of all persons attending the training sessions.

8. RECORDKEEPING

Fredonia is required to maintain the following records related to this BBP Exposure Control Plan:

- Hepatitis B vaccination status;
- Medical records for each employee with occupational exposure;
- Sharps Injury Log;
- Training; and
- Program Review.

8.1 HEPATITIS B VACCINATION RECORDS

For each employee with occupational exposure to BBP, records are required to demonstrate that the hepatitis B vaccination series was provided. Employees who decline the vaccination must sign a copy of the Waiver Form in Appendix B. This documentation is maintained as part of the employee's medical records.

8.2 MEDICAL RECORDS

Fredonia, or its medical provider, must maintain an accurate medical record for each employee with occupational exposure. The record must include:

- Name and Social Security number (or Fredonia ID number) of the employee;
- 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;
- A copy of all results of examinations, medical testing and follow-up procedures;
- A copy of the healthcare professional's written opinion; and
- A copy of the information provided to the healthcare professional.

Employee medical records will be kept confidential and will not be disclosed or reported without the employee's express written consent to any person except as required by the OSHA standard and by law.

When an exposure incident occurs, the results of the source individual's testing become a part of the confidential medical record and must be made available to the employee. Employees must be afforded unrestricted access to their medical records. Employee medical records will be maintained for at least the duration of employment plus 30 years, and as otherwise outlined in 29 C.F.R. § 1910.1020.

8.3 SHARPS INJURY LOG

As required by PESH, a sharps injury log will be used for recording any percutaneous injuries from contaminated sharps. The information in the sharps injury log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee.

The sharps injury log is maintained by Human Resources for at least 5 years from the end of the year that the log covers, or as otherwise specified in 29 CFR 1904. Any real or potential BBP exposure resulting

from the injury of a contaminated sharp must be recorded on the sharps injury log with the following information:

- The type and brand of sharp involved in the incident;
- The department or work area where the incident occurred; and
- An explanation of how the incident occurred.

8.4 TRAINING RECORDS

Refer to Section 7.2 "Training Records" for information about training records maintained at Fredonia

8.5 PROGRAM REVIEW

The review and update of the Exposure Control Plan will be documented using the forms provided in Appendices E and F. As a best management practice, those records will be maintained for at least 3-5 years.

9. BBP INCIDENT RESPONSE AND REPORTING

If an employee witnesses an accident or injury, he/she should immediately report it to University Police at extension 3333, providing details on the location, number of people involved, extent of the injuries, and any potential for fire or exposure to hazardous materials. University Police will respond to the scene and summon outside emergency assistance, as needed.

All staff involved in the response to an accident or injury should follow the procedures as outlined in this plan to prevent exposure to themselves or others and to contain the contamination.

APPENDIX A: DEFINITIONS

Definitions adapted from OSHA 29 CFR 1910.1030, Bloodborne Pathogens.

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).

Contaminated: The presence or the reasonably anticipated presence of blood or other potentially infectious materials on any item or surface.

Contaminated Laundry: Laundry which has been soiled with blood or other potentially infectious materials.

Contaminated Sharps: Any contaminated object that can penetrate the skin, including but not limited to, needles, scalpels, broken glass and broken capillary tubes.

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: Controls that isolate or remove the bloodborne pathogens hazard from the workplace. Examples include: sharps disposal containers, self-sheathing needles, etc.

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

HBV: Hepatitis B virus

HIV: Human immunodeficiency virus

Occupational Exposure: Reasonably anticipated skin, eye, mucus 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:
    a. Semen;
    b. Vaginal secretions;
    c. Cerbrospinal fluid;
    d. Synovial fluid;
    e. Pleural fluid;
    f. Pericardial fluid;
    g. Amniotic fluid;

h. Saliva

i. Any body fluid visibly contaminated with blood; and

j. 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 living or dead human;
3. HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and
4. Blood, organs or other tissues from experimental animals infected with HIV or HBV.

Parenteral: Piercing mucus membranes or the skin barrier through needlesticks, 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 not intended to function as protection against a hazard are not considered to be PPE.

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 microbial wastes containing blood or other potentially infectious materials.

Source Individual: Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

Universal Precautions: An approach to infection control where 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.

APPENDIX B: FREDONIA HEPATITIS B VACCINATION WAIVER FORM

FREDONIA Hepatitis B Vaccination
Employee Waiver Form

Name (Please Print) : _____

Date of Birth: ____/____/____ Social Security Number:_____-____-_____

Refusal to Receive Hepatitis B Vaccine

Notice to Employee: By signing below, you attest that you have read and understand the following:

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.

_____ _____

Employee Signature / Department Date

APPENDIX C: INFORMATION PROVIDED TO THE HEALTHCARE PROFESSIONAL

Exposure Control Plan
Information Provided to the Healthcare Professional

The healthcare professional evaluating an employee after an exposure incident will be provided with a copy of the OSHA Occupational Exposure to Bloodborne Pathogens standard as well as the information on this form.

Date_____

Name of Exposed Employee_____

Department_____

1. Describe the exposed individual's duties as they relate to the exposure incident.

2. Describe the route(s) of exposure and circumstances under which exposure occurred.

3. Provide the results of the source individual's blood testing, if available.

4. Provide all medical records relevant to the appropriate treatment of the employee, including vaccination status (attach copies).

APPENDIX D: HEALTHCARE PROFESSIONAL'S POSTEXPOSURE EVALUATION FORM

Exposure Control Plan
Healthcare Professional's Post-exposure Evaluation

The post-exposure evaluation of an exposure incident involving an employee includes a written opinion from a healthcare professional. The Program Manager will obtain and provide the employee with a copy of this opinion within 15 days of the completion of the evaluation.

This opinion shall be limited to the following:

Employee Name _____

Department _____

Statement:

The above-named individual has been informed of the results of the post-exposure evaluation.

The above-named individual has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment.

All other findings or diagnoses shall remain confidential.

_____

Signature of Healthcare Provider

_____

Date

APPENDIX E: ANNUAL PROGRAM REVIEW LOG

Annual BBP Program Review Log

Rev. #	Date	Brief Description of Changes	Comments*

*For annual reviews, note any new technology available for bloodborne pathogens exposure control that was considered as part of the program review and update. Specify any new technology that is to be adopted/implemented and the target date for completion. Also note input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps about the identification, evaluation, and selection of effective engineering and work practice controls.

APPENDIX F: PLAN REVISION LOG

List of Revisions

Fredonia - Bloodborne Pathogens Program			
Revision Number	**Revision Date**	**Section Revised**	**Comment**
	9/6/13	2.2	

APPENDIX G: TRAINING LOG

Bloodborne Pathogens Training Log Form

Date:	Time: to	Duration:
Location:		

Topics Covered:

- Review of the OSHA standard and FREDONIA program, including how to access a copy;
- A general explanation of the epidemiology, symptoms and transmission of bloodborne diseases;
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure;
- 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;
- Information on the types, basis for selection, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
- Information on the hepatitis B vaccine, including efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
- Information on the appropriate actions to take and contacts in an emergency involving blood or OPIM;
- 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;
- Information on post-exposure evaluation & follow-up the employer is required to provide for an exposure;
- An explanation of the signs and labels and/or color coding; and
- An opportunity for interactive questions and answers.

	Printed Name	Signature	Job Title	Empl.#
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

The above listed employees have demonstrated satisfactory performance and comprehension of Bloodborne Pathogens.

Instructor – Print Name

Instructor - Signature

Instructor Qualifications:

APPENDIX H: FREQUENTLY ASKED QUESTIONS

Frequently Asked Questions

Q1: Do bloodborne pathogens only present a risk when wet, or is dried blood also potentially harmful?

A1: There is no evidence of HIV being transmitted from dried blood since the virus dies rapidly after being exposed to the air. However, there is evidence that the Hepatitis B virus might be transmitted for a few days from dried blood if there is direct contact with flakes of the blood with an open wound or the moist membranes of the eyes, nose or mouth.

Q2: If a person gets blood on their clothes or a towel, what should be done?

A2: Put it in a separate biohazard bag. Wash your hands and any contaminated skin with soap and water immediately after exposure and notify your manager. Soaking the garment or towel in a fresh 10% bleach solution will decontaminate any bloodborne pathogens present. Laundering with hot water (at least 140 degrees F) and detergent will also decontaminate bloodborne pathogens on garments. [NOTE: Laundering of contaminated items must meet the requirements outlined in the OSHA standard, 29 CFR 1910.1030(d)(4)(iv).]

Q3: If employees clean up fresh human blood with a mop and bleach water, can they pour the blood and disinfectant solution down the drain?

A3: Yes, as long as it is not prohibited by local sewer ordinances or conditions. Typically, if mopping up blood that has been disinfected with an approved disinfectant, the blood and disinfectant solution can be poured down a drain that is connected to a sanitary sewer, followed by flushing with water. Use fresh disinfectant to decontaminate the mop and bucket.

Q4: If human wet or dried blood is to be treated as possibly infectious, how can used sanitary products not be treated as possibly infectious? I'm sure sanitary products are not treated or made of material that would kill a germ. What's the difference?

A4: The major difference is in the likelihood of an actual contact of blood material with an employee's skin or the moist membranes of the eyes, nose or mouth (that is, with mucous membranes). Under normal circumstances, sanitary products are only handled directly by the persons using them and then are put into a lined waste container. The OSHA interpretation is that sanitary products are designed to absorb and hold fluids, and for blood absorbed into a pad (or bandage) to be considered a hazard, the pad would have to release flowable blood when compressed, or, if dried, be caked on thick enough to fall off when handled.

Dried blood being cleaned up from surfaces, on the other hand, is cleaned up using a liquid and therefore the blood becomes subject to splashing and hand contact again, as it was before it dried.

Q5: How do you get hepatitis B?

A5: You get hepatitis B by direct contact with the blood or body fluids of an infected person. Hepatitis B is not spread through food or water or by casual contact.

Q6: What does the term "hepatitis B carrier" mean?

A6: Hepatitis B carriers are people who are have chronic (long-term) infection with HBV and never recover fully from the infection; they carry the virus and can infect others for the rest of their lives. In the United States, about one million people carry HBV.

Q7: What is hepatitis C?

A7: Hepatitis C is a liver disease caused by the hepatitis C virus (HCV), which is found in the blood of persons who have this disease. HCV is spread by contact with the blood of an infected person.

Q8: What is the risk of HCV infection from a needle-stick exposure to HCV infected blood?

A8: After needle stick or sharps exposure to HCV positive blood, about 2 (1.8%) healthcare workers out of 100 will get infected with HCV (range 0%-10%).

Q9: What is HIV?

A9: HIV (human immunodeficiency virus) is the virus that causes AIDS. Most of these people will develop AIDS as a result of their HIV infection.

Q10: How is HIV transmitted?

A10: This virus is passed from one person to another through blood-to-blood and sexual contact. No one has been identified as infected with HIV due to contact with an environmental surface. Additionally, HIV is unable to reproduce outside its living host (unlike many bacteria or fungi, which may do so under suitable conditions), except under laboratory conditions, therefore, it does not spread or maintain infectiousness outside its host.

Q11: Can HIV be transmitted through other means?

A11: Some people fear that HIV might be transmitted in other ways; however, no scientific evidence to support any of these fears has been found. If HIV were being transmitted through other routes (such as through air, water, or insects), the pattern of reported AIDS cases would be much different from what has been observed. According to the CDC, n*o additional routes of transmission have been recorded,* despite a national sentinel system designed to detect just such an occurrence.

APPENDIX I: OSHA 29 CFR 1910.1030 BLOODBORNE PATHOGENS STANDARD

Regulations (Standards - 29 CFR)

Bloodborne pathogens. - 1910.1030

- **Part Number:** 1910
- **Part Title:** Occupational Safety and Health Standards
- **Subpart:** Z
- **Subpart Title:** Toxic and Hazardous Substances
- **Standard Number:** 1910.1030
- **Title:** Bloodborne pathogens.
- **Appendix:** A

1910.1030(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.

1910.1030(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 parenteral contact with blood or other potentially infectious materials that results 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 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 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).

1910.1030(c)

Exposure Control --

1910.1030(c)(1)

Exposure Control Plan.

1910.1030(c)(1)(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.

1910.1030(c)(1)(ii)

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

1910.1030(c)(1)(ii)(A)

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

1910.1030(c)(1)(ii)(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

1910.1030(c)(1)(ii)(C)

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

1910.1030(c)(1)(iii)

Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.1020(e).

1910.1030(c)(1)(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:

1910.1030(c)(1)(iv)(A)

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

1910.1030(c)(1)(iv)(B)

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

1910.1030(c)(1)(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.

1910.1030(c)(1)(vi)

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

1910.1030(c)(2)

Exposure Determination.

1910.1030(c)(2)(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:

1910.1030(c)(2)(i)(A)

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

1910.1030(c)(2)(i)(B)

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

1910.1030(c)(2)(i)(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.

1910.1030(c)(2)(ii)

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

1910.1030(d)

Methods of Compliance --

1910.1030(d)(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.

1910.1030(d)(2)

Engineering and Work Practice Controls.

1910.1030(d)(2)(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.

1910.1030(d)(2)(ii)

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

1910.1030(d)(2)(iii)

Employers shall provide handwashing facilities which are readily accessible to employees.

1910.1030(d)(2)(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.

1910.1030(d)(2)(v)

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

1910.1030(d)(2)(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.

1910.1030(d)(2)(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.

1910.1030(d)(2)(vii)(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.

1910.1030(d)(2)(vii)(B)

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

1910.1030(d)(2)(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:

1910.1030(d)(2)(viii)(A)

Puncture resistant;

1910.1030(d)(2)(viii)(B)

Labeled or color-coded in accordance with this standard;

1910.1030(d)(2)(viii)(C)

Leakproof on the sides and bottom; and

1910.1030(d)(2)(viii)(D)

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

1910.1030(d)(2)(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.

1910.1030(d)(2)(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.

1910.1030(d)(2)(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.

1910.1030(d)(2)(xii)

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

1910.1030(d)(2)(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.

1910.1030(d)(2)(xiii)(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.

1910.1030(d)(2)(xiii)(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.

1910.1030(d)(2)(xiii)(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.

1910.1030(d)(2)(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.

1910.1030(d)(2)(xiv)(A)

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

1910.1030(d)(2)(xiv)(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.

1910.1030(d)(3)

Personal Protective Equipment --

1910.1030(d)(3)(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.

1910.1030(d)(3)(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.

1910.1030(d)(3)(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.

1910.1030(d)(3)(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.

1910.1030(d)(3)(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.

1910.1030(d)(3)(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.

1910.1030(d)(3)(vii)

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

1910.1030(d)(3)(viii)

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

1910.1030(d)(3)(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.

1910.1030(d)(3)(ix)(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.

1910.1030(d)(3)(ix)(B)

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

1910.1030(d)(3)(ix)(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.

1910.1030(d)(3)(ix)(D)

If an employer in a volunteer blood donation center judges that routine gloving for all

phlebotomies is not necessary then the employer shall:

1910.1030(d)(3)(ix)(D)(1)

Periodically reevaluate this policy;

1910.1030(d)(3)(ix)(D)(2)

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

1910.1030(d)(3)(ix)(D)(3)

Not discourage the use of gloves for phlebotomy; and

1910.1030(d)(3)(ix)(D)(4)

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

1910.1030(d)(3)(ix)(D)(4)(i)

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

1910.1030(d)(3)(ix)(D)(4)(ii)

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

1910.1030(d)(3)(ix)(D)(4)(iii)

When the employee is receiving training in phlebotomy.

1910.1030(d)(3)(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.

1910.1030(d)(3)(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.

1910.1030(d)(3)(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, orthopaedic surgery).

1910.1030(d)(4)

Housekeeping --

1910.1030(d)(4)(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.

1910.1030(d)(4)(ii)

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

1910.1030(d)(4)(ii)(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.

1910.1030(d)(4)(ii)(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.

1910.1030(d)(4)(ii)(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.

1910.1030(d)(4)(ii)(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.

1910.1030(d)(4)(ii)(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.

1910.1030(d)(4)(iii)

Regulated Waste --

1910.1030(d)(4)(iii)(A)

Contaminated Sharps Discarding and Containment.

1910.1030(d)(4)(iii)(A)(1)

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

1910.1030(d)(4)(iii)(A)(1)(i)

Closable;

1910.1030(d)(4)(iii)(A)(1)(ii)

Puncture resistant;

1910.1030(d)(4)(iii)(A)(1)(iii)

Leakproof on sides and bottom; and

1910.1030(d)(4)(iii)(A)(1)(iv)

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

1910.1030(d)(4)(iii)(A)(2)

During use, containers for contaminated sharps shall be:

1910.1030(d)(4)(iii)(A)(2)(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);

1910.1030(d)(4)(iii)(A)(2)(ii)

Maintained upright throughout use; and

1910.1030(d)(4)(iii)(A)(2)(iii)

Replaced routinely and not be allowed to overfill.

1910.1030(d)(4)(iii)(A)(3)

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

1910.1030(d)(4)(iii)(A)(3)(i)

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

1910.1030(d)(4)(iii)(A)(3)(ii)

Placed in a secondary container if leakage is possible. The second container shall be:

1910.1030(d)(4)(iii)(A)(3)(ii)(A)

Closable;

1910.1030(d)(4)(iii)(A)(3)(ii)(B)

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

1910.1030(d)(4)(iii)(A)(3)(ii)(C)

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

1910.1030(d)(4)(iii)(A)(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.

1910.1030(d)(4)(iii)(B)

Other Regulated Waste Containment --

1910.1030(d)(4)(iii)(B)(1)

Regulated waste shall be placed in containers which are:

1910.1030(d)(4)(iii)(B)(1)(i)

Closable;

1910.1030(d)(4)(iii)(B)(1)(ii)

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

1910.1030(d)(4)(iii)(B)(1)(iii)

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

1910.1030(d)(4)(iii)(B)(1)(iv)

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

1910.1030(d)(4)(iii)(B)(2)

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

1910.1030(d)(4)(iii)(B)(2)(i)

Closable;

1910.1030(d)(4)(iii)(B)(2)(ii)

Constructed to contain all contents and prevent leakage of fluids during handling, storage,

transport or shipping;

1910.1030(d)(4)(iii)(B)(2)(iii)

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

1910.1030(d)(4)(iii)(B)(2)(iv)

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

1910.1030(d)(4)(iii)(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.

1910.1030(d)(4)(iv)

Laundry.

1910.1030(d)(4)(iv)(A)

Contaminated laundry shall be handled as little as possible with a minimum of agitation.

1910.1030(d)(4)(iv)(A)(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.

1910.1030(d)(4)(iv)(A)(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.

1910.1030(d)(4)(iv)(A)(3)

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of 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.

1910.1030(d)(4)(iv)(B)

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

1910.1030(d)(4)(iv)(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).

1910.1030(e)

HIV and HBV Research Laboratories and Production Facilities.

1910.1030(e)(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.

1910.1030(e)(2)

Research laboratories and production facilities shall meet the following criteria:

1910.1030(e)(2)(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.

1910.1030(e)(2)(ii)

Special Practices.

1910.1030(e)(2)(ii)(A)

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

1910.1030(e)(2)(ii)(B)

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

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(ii)(L)

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

1910.1030(e)(2)(ii)(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.

1910.1030(e)(2)(iii)

Containment Equipment.

1910.1030(e)(2)(iii)(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.

1910.1030(e)(2)(iii)(B)

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

1910.1030(e)(3)

HIV and HBV research laboratories shall meet the following criteria:

1910.1030(e)(3)(i)

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

1910.1030(e)(3)(ii)

An autoclave for decontamination of regulated waste shall be available.

1910.1030(e)(4)

HIV and HBV production facilities shall meet the following criteria:

1910.1030(e)(4)(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.

1910.1030(e)(4)(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.

1910.1030(e)(4)(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.

1910.1030(e)(4)(iv)

Access doors to the work area or containment module shall be self-closing.

1910.1030(e)(4)(v)

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

1910.1030(e)(4)(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).

1910.1030(e)(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).

1910.1030(f)

Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up --

1910.1030(f)(1)

General.

1910.1030(f)(1)(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.

1910.1030(f)(1)(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:

1910.1030(f)(1)(ii)(A)

Made available at no cost to the employee;

1910.1030(f)(1)(ii)(B)

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

1910.1030(f)(1)(ii)(C)

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

1910.1030(f)(1)(ii)(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).

1910.1030(f)(1)(iii)

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

1910.1030(f)(2)

Hepatitis B Vaccination.

1910.1030(f)(2)(i)

Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) 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.

1910.1030(f)(2)(ii)

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

1910.1030(f)(2)(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.

1910.1030(f)(2)(iv)

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

1910.1030(f)(2)(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).

1910.1030(f)(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:

1910.1030(f)(3)(i)

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

1910.1030(f)(3)(ii)

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

1910.1030(f)(3)(ii)(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.

1910.1030(f)(3)(ii)(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.

1910.1030(f)(3)(ii)(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.

1910.1030(f)(3)(iii)

Collection and testing of blood for HBV and HIV serological status;

1910.1030(f)(3)(iii)(A)

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

1910.1030(f)(3)(iii)(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.

1910.1030(f)(3)(iv)

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

1910.1030(f)(3)(v)

Counseling; and

1910.1030(f)(3)(vi)

Evaluation of reported illnesses.

1910.1030(f)(4)

Information Provided to the Healthcare Professional.

1910.1030(f)(4)(i)

The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

1910.1030(f)(4)(ii)

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

1910.1030(f)(4)(ii)(A)

A copy of this regulation;

1910.1030(f)(4)(ii)(B)

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

1910.1030(f)(4)(ii)(C)

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

1910.1030(f)(4)(ii)(D)

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

1910.1030(f)(4)(ii)(E)

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

1910.1030(f)(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.

1910.1030(f)(5)(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.

1910.1030(f)(5)(ii)

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

1910.1030(f)(5)(ii)(A)

That the employee has been informed of the results of the evaluation; and

1910.1030(f)(5)(ii)(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.

1910.1030(f)(5)(iii)

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

1910.1030(f)(6)

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

1910.1030(g)

Communication of Hazards to Employees --

1910.1030(g)(1)

Labels and Signs --

1910.1030(g)(1)(i)

Labels.

1910.1030(g)(1)(i)(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).

1910.1030(g)(1)(i)(B)

Labels required by this section shall include the following legend:

1910.1030(g)(1)(i)(C)

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

1910.1030(g)(1)(i)(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.

1910.1030(g)(1)(i)(E)

Red bags or red containers may be substituted for labels.

1910.1030(g)(1)(i)(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).

1910.1030(g)(1)(i)(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.

1910.1030(g)(1)(i)(H)

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

1910.1030(g)(1)(i)(I)

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

1910.1030(g)(1)(ii)

Signs.

1910.1030(g)(1)(ii)(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:

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

1910.1030(g)(1)(ii)(B)

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

1910.1030(g)(2)

Information and Training.

1910.1030(g)(2)(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.

1910.1030(g)(2)(ii)

Training shall be provided as follows:

1910.1030(g)(2)(ii)(A)

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

1910.1030(g)(2)(ii)(B)

At least annually thereafter.

1910.1030(g)(2)(iii)

[Reserved]

1910.1030(g)(2)(iv)

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

1910.1030(g)(2)(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.

1910.1030(g)(2)(vi)

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

1910.1030(g)(2)(vii)

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

1910.1030(g)(2)(vii)(A)

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

1910.1030(g)(2)(vii)(B)

A general explanation of the epidemiology and symptoms of bloodborne diseases;

1910.1030(g)(2)(vii)(C)

An explanation of the modes of transmission of bloodborne pathogens;

1910.1030(g)(2)(vii)(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;

1910.1030(g)(2)(vii)(E)

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

1910.1030(g)(2)(vii)(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;

1910.1030(g)(2)(vii)(G)

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

1910.1030(g)(2)(vii)(H)

An explanation of the basis for selection of personal protective equipment;

1910.1030(g)(2)(vii)(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;

1910.1030(g)(2)(vii)(J)

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

1910.1030(g)(2)(vii)(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;

1910.1030(g)(2)(vii)(L)

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

1910.1030(g)(2)(vii)(M)

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

1910.1030(g)(2)(vii)(N)

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

1910.1030(g)(2)(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.

1910.1030(g)(2)(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.

1910.1030(g)(2)(ix)(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.

1910.1030(g)(2)(ix)(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.

1910.1030(g)(2)(ix)(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.

1910.1030(h)

Recordkeeping --

1910.1030(h)(1)

Medical Records.

1910.1030(h)(1)(i)

The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

1910.1030(h)(1)(ii)

This record shall include:

1910.1030(h)(1)(ii)(A)

The name and social security number of the employee;

1910.1030(h)(1)(ii)(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);

1910.1030(h)(1)(ii)(C)

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

1910.1030(h)(1)(ii)(D)

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

1910.1030(h)(1)(ii)(E)

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

1910.1030(h)(1)(iii)

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

1910.1030(h)(1)(iii)(A)

Kept confidential; and

1910.1030(h)(1)(iii)(B)

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.

1910.1030(h)(1)(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.

1910.1030(h)(2)

Training Records.

1910.1030(h)(2)(i)

Training records shall include the following information:

1910.1030(h)(2)(i)(A)

The dates of the training sessions;

1910.1030(h)(2)(i)(B)

The contents or a summary of the training sessions;

1910.1030(h)(2)(i)(C)

The names and qualifications of persons conducting the training; and

1910.1030(h)(2)(i)(D)

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

1910.1030(h)(2)(ii)

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

1910.1030(h)(3)

Availability.

1910.1030(h)(3)(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.

1910.1030(h)(3)(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.

1910.1030(h)(3)(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.

1910.1030(h)(4)

Transfer of Records.

1910.1030(h)(4)(i)

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

1910.1030(h)(4)(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.

1910.1030(h)(5)

Sharps injury log.

1910.1030(h)(5)(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:

1910.1030(h)(5)(i)(A)

The type and brand of device involved in the incident,

1910.1030(h)(5)(i)(B)

The department or work area where the exposure incident occurred, and

1910.1030(h)(5)(i)(C)

An explanation of how the incident occurred.

1910.1030(h)(5)(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.

1910.1030(h)(5)(iii)

The sharps injury log shall be maintained for the period required by 29 CFR 1904.6.

1910.1030(i)

Dates --

1910.1030(i)(1)

Effective Date. The standard shall become effective on March 6, 1992.

1910.1030(i)(2)

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

1910.1030(i)(3)

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

1910.1030(i)(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.

[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; 71 FR 16672 and 16673, April 3, 2006]