The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK

Environmental Health and Safety

BLOODBORNE PATHOGENS

EXPOSURE CONTROL PLAN

Revised: September, 2019

TABLE OF CONTENTS

SECTION PAGE NO.

APPENDICES

1. Introduction

This Bloodborne Pathogens (BBP) Exposure Control Plan has been developed by The College at Brockport, State University of New York ("the College" or "Brockport"), document the measures that it will take to protect employees of the College from the health hazards associated with occupational exposure to pathogenic organisms present in blood and other bodily fluids. This plan is also intends 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 main 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 all employees with occupational exposure to human blood, blood products, and other potentially infection materials (OPIM). Under the standard, occupational exposure is defined as *reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that results from the performance of an employee's duties*. According to the BBP standard [29 C.F.R. § 1910.1030(b)], blood and OPIM's include:

- Human blood, human blood components, and products made from human blood
- The following human bodily fluids:
    - Semen
    - Vaginal secretions
    - Cerebrospinal fluid
    - Synovial 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
    - 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.

1.2 WRITTEN PROGRAM REQUIREMENTS

The OSHA Bloodborne Pathogens standard requires employers who have employees with occupational exposures to develop, maintain, and implement a written Exposure Control Plan (ECP) that will 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 College's Exposure Control Plan is maintained by the Department of Environmental Health and Safety. Printed copies will be available for review at the Department of Environmental Health and Safety and the Department of Human Resources, and an electronic copy will be available for review on the College's website.

1.4 ROLES AND RESPONSIBILITIES

Minimizing exposure to bloodborne pathogens requires participation by many parties at the College. The specific duties of maintaining and following this ECP are designated to the following roles:

1.4.1 ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT

1. Coordinate annual review of the ECP, updating it as necessary.
2. Determine whether employees fall under the program at the time of hire or job change.
3. Arrange for initial and annual refresher training for employees with occupational exposure.
4. Ensure that periodic inspections are carried out by the designated parties as specified by the ECP.
5. Ensure that labels and signs are used to warn employees of potentially BBP-containing equipment and areas.
6. Maintain HBV vaccination program records for employees covered under this plan
7. In the event of a potential exposure incident:
    a. Ensure that medical evaluation and follow-up are available and that the required information for evaluation, treatment, and follow-up care is provided in a timely fashion to relevant healthcare professionals and to the potentially exposed employee.
    b. Evaluate and document circumstances surrounding the incident.
8. Review the current ECP control measures to determine whether they should be modified to prevent the incident from reoccurring.
9. Maintain the sharps injury log.
10. Maintain other records as outlined in Section 8 of this program.

1.4.2 HUMAN RESOURCES DEPARTMENT

1. Identify new employees to the Environmental Health and Safety Department so that EHS can determine whether they need to be a part of the program.
2. Notify the Environmental Health and Safety Department when a current employee has had a job position change, such that they may need to join the program.

1.4.3 DEPARTMENT HEAD/SUPERVISOR

1. Assist the EHS department in determining whether the job duties of a class of employees or an individual employee fall under the BBP standard.

2. Ensure that time is made for employees to receive initial training, annual refresher training, and for the employees to take part in the HBV vaccination program if they elect to do so.
3. Ensure that employees are following the protective guidelines as laid out in the ECP.
4. Make recommendations to the EHS department in methods to improve the safe work practices specified in the ECP.
5. Report potential exposure incidents to EHS department.

1.4.4 COVERED EMPLOYEES

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

1.5 PROGRAM AND ECP REVIEW

The ECP will be reviewed at least annually and whenever necessary to reflect new or modified tasks or procedures that may affect occupational exposure, and/or new or revised employee positions with occupational exposure. The ECP will be reviewed by the College's EHS department in accordance with the OSHA Bloodborne Pathogens standard. The review will address, at minimum, the following required elements:

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

As a part of the annual review process, the EHS department will solicit the input from non-managerial employees who are responsible for direct patient care (the healthcare workers at Hazen Student Health Center) and are potentially exposed to injuries from contaminated sharps regarding the identification, evaluation, and selection of effective engineering and work practice controls. This solicitation will be documented, and the results of the consideration of such recommendations will be incorporated into the annual ECP review records.

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2. Exposure Determination

2.1 EXPOSURE DETERMINATION

The Department of Environmental Health and Safety, in consultation with the Department of Human Resources and Department Heads/Supervisors, must determine if there are certain work tasks or job classifications that can result in occupational exposure to human blood or other potentially infections materials. The determination of exposure will be made without regard to frequency of exposure or the use of personal protective equipment.

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

- A list of all job classifications in which all employees in those classifications have occupational exposure to BBP; and
- A list of job classifications in which some employees have occupational exposure to BBP, along with 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 those classifications.

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

2.2 EXPOSURE CLASSIFICATION

The College has conducted an initial exposure determination to determine those departments, job classifications or other work tasks that are covered under this ECP. There are two main categories of employees with potential for occupational exposure to BBP:

- Category 1 employee: All employees in these job classifications are considered to have potential occupational exposure:
    - College nurses
    - Athletics trainers
    - Lifeguards
    - University Police Officers
    - Instructors in the nursing department who oversee clinical experiences
    - Custodial workers
    - Plumbers and Steamfitters
    - Director of Environmental Health and Safety
    - Assistant Director of Environmental Health and Safety
- Category 2 employee: Employees in these job classifications may have potential occupational exposure if they are expected to perform the following tasks:
    - Faculty and staff whose research/teaching involves human blood, bodily fluids, or human derived tissues and materials.
    - Faculty and staff members who are supervising either research or coursework at off-site locations and thus may need to render first aid in the field.
    - Facilities staff outside of housekeeping who may need to clean, or assist with cleaning, blood/body fluid spills and disposing of found sharps. This includes grounds workers, horticultural technicians, and laborers.

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

2.2.1 STUDENT EMPLOYEES AND NON-EMPLOYEE STUDENTS WITH POTENTIAL FOR EXPOSURE

In the absence of a generally education-related and compelling reason, student employee and non-student employee responsibilities should be structured to avoid potential BBP exposure whenever practical. When potential exposure is justified, the department must notify EHS and the student will be fully covered under this plan.

In these situations, and in all incidents of exposure for student employees, emergency care immediately following the exposure will be provided at an Emergency Department, post-exposure management will be handled for these students through Hazen Center for Integrated Care located on the campus.

2.2.2 NON-EMPLOYEE STUDENTS WHO ARE INCIDENTALLY EXPOSED

Non-employee students who are incidentally exposed to BBP due to accidents are not covered under OSHA or PESH regulations, and will not be covered under Brockport's BBP ECP. They should instead seek medical assistance from the nearest emergency room, post-exposure management either through the Hazen Center for Integrated Care on campus or through a physician of their choosing.

2.3 TASKS WITH OCCUPATIONAL EXPOSURE

The staff at the College have limited occupational exposure to BBP. No routine tasks conducted at the College *outside of the student health center* have the potential for exposure. The only reasonably anticipated occupational exposure is through employee response to an injury or accident, in rendering first aid to a victim, or the cleanup of BBP after such an incident. The potential also exists for an employee to discover an abandoned sharp or other matter contaminated with BBP. Currently the only academic departments that have staff whose research or teaching involve potential exposure are Biology and Nursing.

3. Methods of Compliance

This section outlines the methods that will be used at The College at Brockport to control employee exposure to BBP and to comply with the requirements in the OSHA BBP standard. 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 they are known to be infectious for HIV, HBV, and other BBP. Universal Precautions must be observed at The College at Brockport 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 to BBP 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 equipment shall also be used. Engineering and work practice controls that could be implemented at The College are described in the following subsections.

Engineering controls are examined before use and maintained or replaced as necessary to ensure their effectiveness. 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) and/or labeled with a universal biohazard warning sign;
- Leak-proof on the sides and bottom;
- 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. If possible, they should also be restrained in such a way that that they cannot be inadvertently tipped over.

3.2.2 HANDLING PRACTICES FOR NEEDLES AND SHARPS

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, because of the high potential risk of injection. Any such process must be accomplished through the use of a mechanical device or a one-handed technique.

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

When syringes are used for purposes other than injection for medical purposes, the use of blunt-tipped needles is highly encouraged. When needles are required that are capable of piercing intact skin, the use of self-sheathing syringes is highly encouraged.

3.2.3 HANDWASHING

Readily accessible handwashing facilities, with soap, water and clean cloth or paper towels, are available throughout the Brockport campus. For any circumstances where handwashing facilities are not immediately accessible, an appropriate antiseptic hand cleanser and clean cloth or paper towels or antiseptic towelettes will be made available.

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

- Wash hands immediately, or as soon as possible after removing gloves or other personal protective equipment (but before removal of protective eye wear); and
- 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. This includes:

- When wearing PPE, care should be taken not to touch exposed parts of the employee's body, other persons, or non-contaminated areas. Before leaving a potentially contaminated area, PPE should be removed and hands and other areas of the body that were potentially exposed to blood or OPIM should be washed with soap and water or antiseptic cleanser.
- 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 BBP 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 shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or OPIM materials are present. Note that storage cabinets, refrigerators and freezers that are intended to store blood or OPIM materials should have labels identifying this hazard.
- Mouth pipetting or suctioning of blood or OPIM is strictly prohibited. Pipet or suction aids will be used instead.

3.2.5 AEROSOL AND SPLASH CONTROL

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

Furthermore, if an employee believes they may have been exposed via splashing, spraying or splattering, the employee should remove PPE starting with everything but gloves and eye protection, then gloves, then eye protection. Employee should then immediately wash their hands and face with soap and water, and as soon as possible take a full shower to ensure they have been fully decontaminated. Any clothing the employee was wearing should be considered to be contaminated and either disposed of or laundered in accordance with this ECP.

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 and shipping. Secondary containers must be used when the outside of the primary container may be contaminated and/or 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. Please see the College'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, transported or shipped that may be contaminated must be examined prior to servicing, transport or shipping, and should be decontaminated as necessary. If decontamination is not possible, the equipment should be clearly labeled, in accordance with the BBP standard [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.

Warning labels are required on:

- Containers used to store, transport or ship blood or OPIM (including regulated medical waste)
    - Exception: bags and containers that are red may be used without labels
- Cabinets, refrigerators and freezers that contain blood or OPIM

The labels must be florescent orange or orange-red, and shall include the universal biohazard symbol and the word "BIOHAZARD" as shown below:

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

3.3 PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) is specialized clothing or equipment worn on a person for protection against a hazard. PPE must be used if engineering and/or workplace controls are either not feasible or not sufficient to eliminate the risk of occupational exposure to blood or OPIM.

Appropriate PPE for potential exposure to BBP does not permit blood or OPIM to reach the skin, eyes, mouth, mucus membranes or clothing of the employee under normal use and for the duration of the 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 will be will be trained on the selection, use and maintenance of PPE that is specific to their job classifications and the tasks/procedures they may perform. PPE, along with reasonable replacement for worn or damaged items, will be selected, purchased and provided by the College. Biohazard Spill Cleanup kits which include the PPE that may be needed to perform a cleanup safely are located in the main janitor's closet of each building and the Facilities Central Stores room.

3.3.1 HAND PROTECTION

Gloves that are impervious to blood or OPIM must be worn when it can be reasonably anticipated that contact with blood or OPIM is possible, and when handling or touching contaminated or potentially contaminated items or surfaces. If gloves are found to be torn, punctured, contaminated, or if their ability to function as a barrier is compromised, they should immediately be replaced, being sure to wash hands with soap/water or an antiseptic cleanser before donning the new pair.

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

- Gloves must be removed and hands washed prior to leaving the suspected or known contamination area.
- Hands must be washed immediately, or as soon as feasible, after the removal of gloves or other PPE, using soap and water or an antiseptic cleanser.
- Inspect gloves for signs of wear and tear (cracks, peeling, tears, punctures, etc.) prior to each use, discarding them if there is any evidence of damage.
- Avoid handling any uncontaminated items, personal items, food/drink/tobacco/cosmetic products, and touching unprotected areas of the body while wearing gloves.
- Disposable gloves will not be re-used.
- While reusable ("utility") gloves are available that will protect against BBP, it is highly recommended that a pair of disposable gloves be worn underneath these, to provide a second line of protection. It is often very difficult to see small signs of wear and tear on reusable gloves.
- Never wash or decontaminate disposable gloves for reuse or before disposal.
- Use caution when removing gloves, especially if contact with a potentially infection material has occurred, to avoid spreading the contamination to yourself, another person, or an uncontaminated surface/item. The recommended procedure for glove removal is:

  Grasp the outside surface of one of the glove wrists with two fingers, and pull it off of the hand such that it comes off the hand "inside-out". Hold this glove in the palm of the gloved hand. Being careful to not touch the outside, potentially soiled surface of the second glove, hook the inside surface of the second glove at the wrist with a finger and peel the glove off such that it comes off the hand "inside-out" and captures the first glove inside of it.
- Reusable gloves will be decontaminated as soon as possible after use, and inspected for signs of that they are deteriorating (cracks, peeling, tears, punctures, etc) prior to each use.

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, droplets or aerosols of blood or OPIM to the eye, nose, mouth or other body part. This may include a mas with glasses and solid side shields, a chin-length face shield, aprons, lab coats, shoe covers, or other covering.

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.

PPE must be removed before leaving the work area and if a garment becomes or is suspected of being contaminated. If a garment is penetrated by blood or OPIM, the garment must be removed immediately or as soon as feasible. Used PPE 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.

3.3.3 FAILURE TO USE PPE

It is the responsibility of the employee's department head/supervisor to ensure that employees use appropriate PPE unless the employee temporarily and briefly declines to use equipment when, under rare and extraordinary circumstances, the employee's professional judgement is that its use in the specific instance 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, co-worker, or victim. If an employee makes this judgement, the situation should be discussed, prior to if possible or as soon as feasible after, with their supervisor. After this discussion, the circumstances will reported to and investigated by the Department of Environmental Health and Safety in order to determine whether changes to the ECP can be instituted to prevent such occurrences in the future.

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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 lifesaving or 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:

- 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 prior to performing cleaning or decontamination procedures. At minimum, this will normally include disposable gloves and safety glasses with side shields. Ensure that the PPE is appropriate and adequate to protect against exposure to both the blood or OPIM and the disinfectant.
- Remove PPE when decontamination is complete. Remember to remove gloves and wash hands prior to removing eye protection.
- Place potentially contaminated PPE in an appropriately designated area or container for storage, washing, decontamination or disposal.
- All materials deemed to be potentially contaminated waste (e.g., adsorbent clean-up materials, 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, environmental, and working surfaces must be cleaned and contaminated after contact with blood or OPIM. The cleaning and method of decontamination will be based upon the location on the campus, type of surface to be cleaned, type and magnitude 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 will be lined with a red disposal bag. When this bag is removed, the receptacle will be inspected for visible contamination, and will be cleaned or decontaminated immediately if it is suspected that contamination exists.

4.2.1 DISINFECTANTS

The disinfectant selected must be proven to be effective against bloodborne pathogens, and must be used in accordance with the instructions on the label. A variety of disinfectants are acceptable, including commercially available products or freshly prepared 10% bleach solutions. Prior to using a product:

- Ensure that it is effective against bloodborne pathogens. Such disinfectants typically will state something similar to “OSHA approved for Bloodborne Pathogens” or “EPA-approved for HIV, HBV”.
- Ensure that you have reviewed the hazard information about the disinfectant and have suitable PPE.

- Determine how much of the disinfectant is required and how long the disinfectant needs to remain on the spill for BBP decontamination.

4.2.2 DECONTAMINATION PROCEDURE

In the event that surfaces or equipment are contaminated with blood or OPIM:

- Put on appropriate personal 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.
- Control access to the affected area. Prevent people from walking through affected area and tracking blood or OPIM to other areas.
- Take care to avoid generation of aerosols.
- 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.
- Clean up and remove all visible material with absorbents or disposable towels, or other means that prevent direct skin contact with the blood.
- Place soiled toweling immediately in a red bag or regulated waste bin to prevent contamination of other surfaces.
- Pour or spray disinfectant onto the surfaces, following the directions specified by the manufacturer. Ensure that you have thoroughly covered every contaminated or potentially contaminated surface.
- In the case of a large volume of blood or OPIM, 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.
- After the contact time specified by the disinfectant directions, dispose of the used clean-up material in a red bag or regulated medical waste bin for disposal.
- After initial disinfecting is complete and cleanup materials have been put into a red bag or regulated waste bin, wipe all surfaces down one more time with more disinfectant and fresh, clean towels/cloths, disposing of these in the red bag/regulated waste bin.
- Remove and properly dispose of protective equipment in the following order (to the extent that such PPE was required and worn for the specific scenario). Dispose of each item as you take it off, do not place it on another surface to avoid spreading the contamination.
    - Disposable shoe covers
    - Coveralls/lab coats/aprons
    - Gloves. Do not remove PPE from the face with potentially contaminated gloves.
    - Wash hands with soap and water or antiseptic cleanser.
    - Faceshield/head cover, removing it by grasping the strap behind the head
    - Goggles/safety glasses, removing them by grasping the strap behind the head or the temples at the ears.
    - Breathing mask/respirator, removing it by grasping the strap behind the head.
    - Wash hands with soap and water or antiseptic cleanser.

4.3 LAUNDRY

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

- Place contaminated laundry in a separate biohazard bag.
- Wash hands and any contaminated skin with soap and water immediately after exposure and notify your supervisor.
- Do not sort or rinse contaminated laundry in the location the PPE was used.
- Contact the EHS department, who will have the garments appropriately laundered or disposed of.

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

Any Brockport 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 Brockport'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 and/or marked with the universal biohazard symbol. Sharps containers must be easily accessible to employees and located close to the immediate area where sharps are planned to 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 or other sharp items that may be contaminated with blood or OPIM should not be picked up by hand. Potentially contaminated items of this nature should be cleaned up using mechanical means, such as a brush or dustpan, tongs, or forceps, while being careful to avoid generation of aerosols. These items should be placed into containers that are closable, puncture-resistant, leakproof, red in color and/or marked with the universal biohazard symbol. Before these containers are removed from the work area, they must be closed securely and placed in a secondary container if leakage is possible.

4.4.3 OTHER CONTAMINATED WASTES

Other waste containers that contain blood or OPIM 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 (red) and/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 it will no longer be considered the primary container, and should be placed in its entirety into a new primary container that meets all of the requirements outlined above. Note that the original container will now be considered to be a waste item. Do not transfer the contents of the original container into a new one.

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 (HBV) series is available to all employees who have the potential for occupational exposure. New employees are evaluated for potential BBP exposure and offered the HBV series if the potential for exposure exists. The HBV vaccination is:

- Voluntary;
- 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.

If an employee declines vaccination, they must sign the statement found on the Hepatitis B Vaccination Choice Form. An employee may decline vaccination initially and decide to accept it at a later date.

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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 the employee's supervisor, University Police and/or EHS department to allow for proper evaluation and follow-up, according to the procedures outlined in the following sections. All Brockport employees covered under this program will be provided with post-exposure evaluation and follow-up treatment at WorkFit Medical, LLC.

6.1 EVALUATION OF CIRCUMSTANCES SURROUNDING EXPOSURE INCIDENTS

Immediately following an exposure incident, employees are required to report the incident to their supervisor and the Environmental Health and Safety department 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 Brockport to conduct an effective incident investigation.

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

- A detailed description of the exposure incident, including routes of exposure;
- A description of engineering controls, work practice controls, and PPE in use at the time of the 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 the College, a confidential medical evaluation and follow-up are made available to the exposed 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 after consent is given if 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.

The College at Brockport 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 college policy to provide those services to any employee who is involved in an exposure incident.

The College at Brockport is not required under the OSHA standard to provide post-exposure evaluation and follow-up treatment to a non-employee student who is incidentally exposed or who responds to a first-aid incident as a “Good Samaritan”. In such instances, the student should immediately seek assistance from the closest available emergency room, with all medical care to be billed to their health insurance.

6.3 INFORMATION PROVIDED TO THE HEALTHCARE PROFESSIONAL

The healthcare professional(s) involved in post-exposure treatment and follow-up must have a copy of the OSHA Bloodborne Pathogens Standard and the College ECP, 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); and
- All medical records relevant to the proper treatment of the individual, including HBV vaccination status.

A copy of the OSHA Bloodborne Pathogens standard (included in Appendix I) and the College ECP 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 completion of the evaluation. The healthcare professional’s written opinion should be limited to:

- Whether HBV vaccination is indicated for the employee;
- Whether the employee 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 the College.

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 will include:

- 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 PPE;
- 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, labels, and color coding appropriate for blood and OPIM contaminated items, equipment and areas;
- An opportunity for interactive questions and answers.

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

7.2 TRAINING RECORDS

Training records will be maintained by the Program Coordinator for at least three years from the date on which the training occurred. Training records will include:

- Dates of training sessions;
- Contents or summary of the training sessions;
- Names and qualifications of the person conducting the training; and
- Names and job titles of all persons attending the training sessions.

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8. Recordkeeping

The College at Brockport 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 STATUS RECORDS

For each employee with occupational exposure to BBP, records are required to demonstrate that the hepatitis B vaccination series was offered, and either provided to or declined by the employee. If an employee proceeds with HBV vaccination, the records should include the dates of all of the HBV vaccinations, and the titer test results. 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 OTHER MEDICAL RECORDS

The College at Brockport, 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 of the employee;
- A copy of the employee's HBV vaccination status (see previous section), 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 related to exposure incidents;
- A copy of the healthcare professional's written opinion post-exposure; and
- A copy of the information provided to the healthcare professional when an exposure occurs.

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 records, and must be made available to the employee. Employees must be provided 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 CFR § 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 the staff at the Hazen Health Center 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”, of this plan for information about training records maintained at The College at Brockport.

8.5 PROGRAM REVIEW RECORDS

The review and update of the ECP will be documented by summarizing changes in section 10 during every review period. If during every annual review period, there are no changes to be made, this will be noted. This section will retain the revision history for three 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 (585) 395-2222, 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, provide initial first aid if necessary, 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.

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10. ECP Major Revision Notes

2019: This plan was completely rewritten in September, 2019 following a staffing turnover in the EHS department.

2018: The plan had been reviewed, however it was felt that no changes were required.

2017: The plan had wording added throughout to address the treatment for student employees and non-employee students with potential for BBP exposure.

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Appendix A: Definitions

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These definitions are 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 material on any item or surface.

Contaminated Laundry: Laundry which has been soiled with blood or other potentially infection 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 and self-sheathing needles.

Exposure Incident: A specific eye, mouth, other mucous membrane, non-intact skin, or parental 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: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, amniotic fluid, saliva, any body fluid 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 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: Training Record Forms

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Bloodborne Pathogens Training Session Record

Page 1: Instructor and Instruction Information

Date of training session: ___ / ___ / ___

Instructor's name: _____

Instructor's signature: _____

Instructor's Qualifications:

Topics covered:

- OSHA Bloodborne Pathogen Standard and Brockport Exposure Control Plan. Paper copies given to employee, along with instructions on how to access them online.
- General explanation of the epidemiology, symptoms and transmission of bloodborne diseases;
- Explanation of appropriate methods for recognizing tasks and other activities that may involve exposure;
- Explanation of use and limitations of methods in use at Brockport that can prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment;
- Information on the hepatitis B vaccine, including efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccination will be offered free of charge;
- Information on the appropriate actions to take and contacts in an emergency involving blood or OPIM;
- 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 of post-exposure evaluation & follow-up the employer is required to provide for an exposure;
- Explanation of signage, labels and/or color coding used; and
- An opportunity for interactive questions and answers.
- Handouts:
    - The College at Brockport ECP, including appendices (which contain a copy of OSHA's BBP standard)
    - CDC's Hepatitis B Vaccine Information Sheet
    - Hepatitis B Vaccine choice/waiver form;

_____	_____	_____
NEATLY printed name	**Job Title**	**Signature**

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Bloodborne Pathogens Training Session Record

Page 1: Instructor and Instruction Information

Date of training session: ___ / ___ / ___

Instructor's name: _____

Instructor's signature: _____

Instructor's Qualifications:

Topics covered:

- OSHA Bloodborne Pathogen Standard and Brockport Exposure Control Plan. Paper copies given to employee, along with instructions on how to access them online.
- General explanation of the epidemiology, symptoms and transmission of bloodborne diseases;
- Explanation of appropriate methods for recognizing tasks and other activities that may involve exposure;
- Explanation of use and limitations of methods in use at Brockport that can prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment;
- Information on the hepatitis B vaccine, including efficacy, safety, method of administration, benefits of being vaccinated, and that the vaccination will be offered free of charge;
- Information on the appropriate actions to take and contacts in an emergency involving blood or OPIM;
- 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 of post-exposure evaluation & follow-up the employer is required to provide for an exposure;
- Explanation of signage, labels and/or color coding used; and
- An opportunity for interactive questions and answers.
- Handouts:
    - The College at Brockport ECP, including appendices (which contain a copy of OSHA's BBP standard)
    - CDC's Hepatitis B Vaccine Information Sheet
    - Hepatitis B Vaccine choice/waiver form

Bloodborne Pathogens Training Session Record

Page 2: Employee Attendance Log

	Printed name	Job title	Signature
1			
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Appendix C: Hepatitis B Immunization Consent/Refusal Form

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Hepatitis B Immunization Consent/Refusal Form

By signing below, I am affirming that 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 received training relative to this, and have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself.

Please initial next to your choice:

_____ **I have received this vaccine in the past.**
OSHA requires that we maintain records on each employee's HBV vaccination status, and that we attempt to contact your previous employer to obtain the records of your vaccinations. If you have been immunized prior to employment with The College at Brockport, please fill out the information on the reverse side of this page. Please also note that if we cannot obtain evidence that you are fully immunized, you will be eligible for HBV vaccine should you wish to obtain it.

_____ **Yes, I want to receive the Hepatitis B vaccine**.
We will contact you within 5 days to make arrangements for this.

_____ **No, I do not wish to receive the Hepatitis B vaccine.**
I decline the Hepatitis B vaccination at this time. I understand that by declining the 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 want to be vaccinated with the Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

_____ _____
Employee name (print) Job title

_____ _____
Employee signature Date

_____
Supervisor name (print)

Privacy statement:
The College at Brockport understands that information is sensitive in nature. This, like all personal or medical information, will be treated with privacy and discretion. Copies of your medical records will solely exist in the EHS department, inside a secured filing cabinet. These records will be maintained for 30 years post-separation, as required by federal law.

Previous HBV Vaccination Information

Your full name: _____

Date of Birth: ____ /____ /_____ Last 4 digits of SSN: _____

The approximate dates when you received your immunization (month and year is best!):

_____	_____	_____	_____
Shot #1	Shot #2	Shot #3	Titer test

Medical provider information:

_____
Name

_____ _____
City State

If you cannot remember which medical provider gave you your immunizations, and this was done through a previous employer, please list:

_____
Employer name

_____ _____
City State

_____ _____
Job title Department

_____
Approximate dates of employment

Appendix D: Information Provided to the Healthcare Professional

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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.

Name of exposed employee _____

Date of incident: _____ / _____/ _____ Approximate time of incident: _____ am pm

Job title _____ Department _____

1. Describe the exposed individual 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 HBV vaccination status, attaching copies to this form.

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Appendix E: Healthcare Professional's Post-Exposure Evaluation

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Healthcare Professional's Post-exposure Evaluation

As specified in 29 CFR § 1910.1020, 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.

Please fill out the following information, and mail this form to the Environmental Health and Safety Department, The College at Brockport, 350 New Campus Dr, Brockport, NY 14420.

Name of exposed employee _____

Job title _____ Department _____

- Is the hepatitis B vaccination indicated for this employee as a result of the exposure incident? ☐ Yes ☐ No

  If yes, has this employee received such vaccination? ☐ Yes ☐ No

- Have you informed the individual of the results of the post-exposure evaluation? ☐ Yes ☐ No

- Have you told the individual about any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation or treatment? ☐ Yes ☐ No

All other findings, details or diagnoses must remain confidential, and should not be included in the written report to the employer.

_____ _____

Signature of Health Care Provider Date

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Appendix F: OSHA Bloodborne Pathogen Standard

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OSHA Bloodborne Pathogen Standard

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 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).F

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 1910.20(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)

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)(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:

BIOHAZARD

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:

BIOHAZARD

(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)
The employer shall train each employee with occupational exposure in accordance with the requirements of this section. Such training must be provided at no cost to the employee and during working hours. The employer shall institute a training program and ensure employee participation in the program.

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

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 part 1904.

1910.1030(h)(5)(iii)
The sharps injury log shall be maintained for the period required by 29 CFR 1904.33.

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)
Paragraphs (g)(2) Information and Training and (h) Recordkeeping of this section 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 of this section, shall take effect July 6, 1992.

(Source: Occupational Safety and Health Administration Bloodborne Pathogen Regulations 1910.1030)