

# Simmons

## UNIVERSITY

### EXPOSURE CONTROL PLAN

Original Date: May 2016

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## EXPOSURE CONTROL PLAN REVIEW SUMMARY

Revision(s)	By	Affiliation	Date	Changes
1	MDion	EH&E	17 Aug 22	Redo; Simmons Concurrence
2	MDion	EH&E	20 Sep 22	Address Jyl Richards' Comments
3	MDion	EH&E	4 Jan 23	Reviewed for 2023

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## 1. INTRODUCTION

Simmons University (Simmons) is committed to providing a safe and healthful work environment for our staff, faculty, and adjuncts. In pursuit of this goal, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard (BPS), 29 Code of Federal Regulations (CFR) 1910.1030. The BPS is available online at: <https://www.osha.gov/lawsregs/regulations/standardnumber/1910/1910.1030>.

This ECP applies to the following Simmons' campuses:

Academic Campus	Residence Campus
300 The Fenway	54 Pilgrim Road
Boston, Massachusetts 02115	Boston, Massachusetts 02115

The ECP is a key document to assist Simmons in implementing and ensuring compliance with this BBP Standard thereby protecting our employees. This ECP includes:

- Determination of employee exposure and risk assessment
- 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 the BPS
- Implementation of various methods of exposure control including:
  - Universal Precautions
  - Engineering and work practice controls
  - Personal protective equipment (PPE)
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards to employees and training
- Recordkeeping
- Procedures for evaluating circumstance surrounding exposure incidents

Implementation methods for these elements of the standard are discussed in the sections of this ECP.

The ECP will be reviewed annually by the Director of Environmental Health and Safety (EH&S) and approved by at least one representative from the departments listed above. The revisions will be documented on the revision table located at the beginning of this ECP. It will be revised as necessary. An official copy of the ECP is located in the Building and Grounds Offices, Suite E-008, 300 The Fenway, Boston, MA 02115.

## 2 Definitions

**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).

**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.

**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.

**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.

**Sharps with engineered sharps injury protections** means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a builtin 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).

### 3 RESPONSIBILITIES

#### 3.1 Director of EHS

The Director of EHS will be responsible for:

- Providing recommendations on administrative controls, engineering controls, biohazard and sharp waste, and PPE to affected employees and departments for implementation.
- Training, documentation of training, and making the written ECP available to employees, OSHA, and other regulatory agencies, when requested to do so.

### **3.2 Human Resources Strategy**

The Talent and Human Capital Strategy Department, which serves as the Human Resource Department, will be responsible for ensuring that all medical actions required by the standard are performed and that the appropriate health and OSHA records are maintained for employees.

### **3.3 Department Chairs, Directors, or Managers**

Department Chairs, Directors, or Managers will provide and maintain the necessary PPE, labels, engineering controls (e.g., sharps containers), and biohazard waste containers as required by the BBP Standard. In addition, they will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes. Lastly, they are responsible for ensuring the effectiveness and compliance of this ECP.

### **3.4 Public Safety**

Public Safety responds to emergencies and assists with exposures to blood and other potentially infectious materials (OPIMs).

## **4 EMPLOYEE EXPOSURE DETERMINATION 1910.1030(c)(2)**

By law, the exposure determination section of the ECP must contain the following:

- A. A list of all job classifications in which all employees in those job classifications have occupational exposure
- B. A list of job classifications in which some employees have occupational exposure
- 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 section B above

An exposure determination must be made for anyone who has a reasonable chance of encountering human blood, body fluids, and OPIMs while performing their duties. This exposure determination is made without regard to the use of PPE and is required to list jobs in which one may be expected to incur an occupational exposure.

OPIM is defined by OSHA as

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

OSHA has provided a Standard Interpretation for human cell lines governed by the BPS as follows:

“Established human cell lines which are characterized\*\* to be free of contamination from human hepatitis viruses, human immunodeficiency viruses, and other recognized bloodborne pathogens, are not considered to be OPIM and are not covered by BPS. Established human or other animal cell lines which are known to be or likely infected/contaminated with human microbes or agents classed as bloodborne pathogens, especially hepatitis viruses and human immunodeficiency viruses are covered by the BPS” (OSHA, 1994)

“The final judgement for making the determination that human or other animal cell lines in culture are free of bloodborne pathogens must be made by a Bio-safety Professional or other qualified scientist with the background and experience to review such potential contamination and risk, in accordance with the requirements of the BPS. Documentation that such cell lines are not OPIM should be a matter of written record and on file with the employer for OSHA review.” (OSHA, 1994)

\*\* “Characterization of human cells, for inclusion or exclusion from compliance with the BPS, would include screening of the cells lines or "strains" for viruses characterized as bloodborne pathogens by the Standard, including human immunodeficiency viruses, hepatitis viruses or EBV, if the cells are capable of propagating such viruses. Most cell lines are screened for human mycoplasmas and are free of bacterial and mycotic contaminants. Testing may include antigenic screening for viral or agent markers, co-cultivation with various indicator cells that allow contaminants to grow, or using molecular technology (polymerase chain reaction or nucleic acid hybridization) to identify latent viruses capable of infecting humans such as Herpesviruses(e.g., EBV), or papilloma members of the Papovavirus group, etc. Cell lines that are procured from commercial vendors or other sources with documented testing to be free of human bloodborne pathogens and which have been protected by the employer from environmental contamination may be excluded from the BPS.” (OSHA, 1994)

For human cell lines to be exempted from the BPS, they must have been certified as free of bloodborne pathogen contamination. This certification must be provided by the manufacturer of the cell lines or confirmed by sending the cell lines for testing.

Without this certification, all human cell lines must be considered contaminated with bloodborne pathogens and handled according to the bloodborne pathogen standard.

Employees, adjuncts, part-time employees, contract employees, and per diem employees (employees) from the following departments at Simmons are required to adhere to this ECP:

- Athletics o Trainers and Team Physicians (OSHA, 1993)
- Biology o Non-administrative personnel with potential exposure to BBP

- Chemistry and Physics o Non-administrative personnel with potential exposure to BBP
- Health Services o Non-administrative personnel with potential exposure to BBP
- Nursing o Non-administrative personnel with potential exposure to BBP
- Public Safety o Non-administrative personnel with potential exposure to BBP
- Facilities o Plumbers (OSHA, 1992)  
o Non-administrative personnel with potential exposure to BBP

In addition, employees trained in First Aid and Cardiopulmonary Resuscitation (CPR) must follow the policies and procedures outlined in this ECP.

## 5 METHODS OF COMPLIANCE

### 5.1 Universal Precautions 29 CFR 1910.1030(d)(1)

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.

Universal precautions are an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human bodily fluids are treated as if known to be infectious with:

- HBV
- Hepatitis C (HCV)
- HIV
- Other BBPs

Universal precautions techniques developed by the Centers for Disease Control and Prevention (CDC) will be observed at Simmons to prevent contact with blood and OPIMs. These techniques are available at the following webpage: <http://www.cdc.gov/niosh/topics/bbp/universal.html>

**All human blood or other human sources materials will be considered potentially infectious for HIV, HBV, HCV, or OPIMs, regardless of the perceived “low risk” status of the source.**

### 5.2 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.

Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness. Simmons shall provide handwashing facilities which are readily accessible to employees.

When provision of handwashing facilities is not feasible, Simmons 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.

All personnel covered under this ECP must wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

In the event of BBP contact to the hands, skin, or mucous membranes, personnel must wash their hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact.

Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted below. Shearing or breaking of contaminated needles is prohibited at all times. Please refer to the Simmons University Regulated Medical Waste Policy for additional information.

Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless Simmons can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure. Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique. All needles and other contaminated sharps must be disposed of in the Regulated Medical Waste (sharps) containers for pickup and disposal.

Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be puncture resistant; labeled or color-coded in accordance with this standard; leakproof on the sides and bottom; and in accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

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. 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.

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

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.

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.

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.

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.

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 Simmons can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

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

The director of EHS, principle investigators, faculty, staff, and students shall ensure that this information is conveyed to all affected personnel, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

### **5.3            Personal Protective Equipment 1910.1030(d)(3)**

**Provision:** When there is the potential for occupational exposure, Simmons 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 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.

**Use:** Simmons shall ensure that the covered personnel uses appropriate personal protective equipment unless the covered personnel temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the covered personnel'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 covered personnel makes this judgement, the circumstances shall be investigated by the director of EHS and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

**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.

**Cleaning, Laundering, and Disposal.** Simmons shall clean, launder, and dispose of personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee or provide disposable and autoclavable PPE, to include lab coats.

**Repair and Replacement.** Simmons shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the covered personnel. 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. All personal protective equipment shall be removed prior to leaving the work area. When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

**Gloves:** Gloves shall be worn when it can be reasonably anticipated that the covered personnel may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; and when handling or touching contaminated items or surfaces.

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

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.

**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. Please note that N95s must be FIT tested and the user trained on the proper wearing of the respirator.

**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.

Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated.

#### **5.4 Housekeeping**

**General.** Simmons shall ensure that the worksite is maintained in a clean and sanitary condition. In conjunction with the director of EHS, the covered employee's supervisor 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.

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

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.

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 work shift if they may have become contaminated during the shift.

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

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.

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

## **5.5 Regulated Waste**

**Contaminated Sharps Discarding and Containment:** Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are: Closable; puncture resistant; leakproof on sides and bottom; and labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.



During use, containers for contaminated sharps shall be: 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); maintained upright throughout use; and replaced routinely and not be allowed to overfill.

When moving containers of contaminated sharps from the area of use, the containers shall be: Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping; placed in a secondary container if leakage is possible.

The second container shall be: Closable; constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and labeled or color-coded according to paragraph (g)(1)(i) of this standard.

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.

**Other Regulated Waste Containment:** Regulated waste shall be placed in containers which are: Closable; constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping; labeled or color-coded in accordance with paragraph (g)(1)(i) this standard; and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. Always use contractor / vendor supplied containment systems as these containers will meet the standard.

If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be: Closable; constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping; labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping. Always use contractor / vendor supplied containment systems as these containers will meet the standard.

Disposal of all regulated waste shall be in accordance with applicable Federal, State, and local laws and regulations. Contracted service shall ensure a compliant waste program.

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

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.

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

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

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). Lab garment laundering is a contracted service for Simmons University.

## **6 HEPATITIS B VACCINATION**

*General.* Simmons shall make available the hepatitis B vaccine and vaccination series to all covered personnel who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident. Consult with the Simmons Medical Surveillance Program with Mount Auburn Hospital for additional information. Mount Auburn Hospital is responsible for record keeping and administering the Hepatitis B vaccination for those who choose to receive it. The Simmons University Health Center can also provide the Hepatitis B Vaccines for students and employees.

Simmons 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: Made available at no cost to the employee; made available to the employee at a reasonable time and place; performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place.

Simmons shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee. Contact Mount Auburn Hospital with additional questions.

### **6.1 Hepatitis B Vaccination**

Hepatitis B vaccination shall be made available after the covered personnel have received BBP training and within 10 working days of initial assignment to all covered personnel 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.

Simmons shall not make participation in a prescreening program a prerequisite for receiving hepatitis B

If the covered personnel initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, Simmons shall make available hepatitis B vaccination at that time.

Simmons shall assure that covered personnel who decline to accept hepatitis B vaccination offered by the employer sign the statement in appendix A. This signed form must be kept on file at Simmons for a minimum of seven years in accordance with the record keeping regulation for auditability.

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 to the covered personnel.

## **7 Post-exposure Evaluation and Follow-up**

Following a report of an exposure incident, Simmons shall make immediately available to the exposed covered employee a confidential medical evaluation and follow-up, including at least the following elements:

Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred; Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law; 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.

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.

Results of the source individual's testing shall be made available to the source individual, who will be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual. Consult with Mount Auburn Hospital for additional information.

### **7.1 Collection and testing of blood for HBV and HIV serological status:**

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

If the covered personnel 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.

### **7.2 Information Provided to the Healthcare Professional**

Simmons shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of the Bloodborne Pathogen Standard.

Simmons shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information: A copy of the BPS; A description of the exposed employee's duties as they relate to the exposure incident; Documentation of the route(s) of exposure and circumstances under which exposure occurred; Results of the source individual's blood testing, if available; and All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.

### **7.3 Healthcare Professional's Written Opinion**

Simmons shall obtain and provide the covered personnel with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

The healthcare professional's written opinion 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.

The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information: That the employee has been informed of the results of the evaluation; and 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. All other findings or diagnoses shall remain confidential and shall not be included in the written report.

### **7.4 Medical Recordkeeping**

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

### **7.5 Procedures for Evaluating the Circumstances**

Human Resources Department ensures that health care professional(s) responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's bloodborne pathogens standard. In addition, this department ensures that the health care professional evaluating an employee after an exposure incident receives the following:

- A description of the employee's job duties relevant to the exposure incident
- Route(s) of exposure
- Circumstances of exposure
- If possible, results of the source individual's blood test
- Relevant employee medical records, including vaccination status

Talent and Human Capital Strategy Department provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

The Director of EH&S or designee will review the circumstances of all exposure incidents to determine:

- Engineering controls in use at the time
- Work practices followed
- A description of the device being used (including type and brand)
- PPE that was used at the time of the exposure incident (gloves, eye shields, etc.)
- Location of the incident
- Procedure being performed when the incident occurred
- Employee's training

Talent and Human Capital Strategy Department will record all percutaneous injuries from contaminated sharps in a Sharps Injury Log. This department or the Director of EH&S will be responsible for notifying OSHA about the incident if required to do so.

## **7.6 OSHA Reporting**

As of January 1, 2015, all employers must report:

1. All work-related fatalities within 8 hours.
2. All work-related inpatient hospitalizations, all amputations and all losses of an eye within 24 hours.

Reporting to OSHA is done by:

- Calling OSHA's free and confidential number at 1-800-321-OSHA (6742).
- Calling your closest Area Office during normal business hours.
- Using the online form that will soon be available.

Only fatalities occurring within 30 days of the work-related incident must be reported to OSHA. Further, for an in-patient hospitalization, amputation or loss of an eye, these incidents must be reported to OSHA only if they occur within 24 hours of the work-related incident.

## **8 Communication of Hazards to Employees**

### **8.1 Labels and Signs**

*Labels.*

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.

Labels required by this section shall include the following legend:



BSL-2

## **BIOHAZARD**

These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color. 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. Labels must include "BSL-2" on the label (either purchased like that or hand-written with permanent marker) according to the standard.

Red bags or red containers may be substituted for labels for biological waste streams or regulated medical wastes.

Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated. Regulated waste that has been decontaminated need not be labeled or color-coded.

### *Signs.*

Simmons shall post signs at the entrance to work areas which shall bear the following legend:



BSL-2

## **BIOHAZARD**

(Name of the Infectious Agent)

(Special requirements for entering the area [PPE])

(Name, telephone number of the laboratory director or other responsible person.)

These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color. Signs must include “BSL-2” on the label (either purchased like that or hand-written with permanent marker) according to the standard

### **8.2 Information and Training.**

The Director of EHS shall train each covered personnel with occupational exposure in accordance with the requirements of this section. Such training must be provided at no cost to the covered personnel and during working hours. Simmons shall institute a training program and ensure covered personnel participation in the program.

Training shall be provided as follows: At the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter. Annual training for all employees shall be provided within one year of their previous training.

The Director of EHS shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the covered personnel's occupational exposure. The additional training may be limited to addressing the new exposures created.

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

- An accessible copy of the regulatory text of this 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 the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment; Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
- An explanation of the basis for selection of personal protective equipment;
- 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;
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
- Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- An explanation of the signs and labels and/or color coding; and
- An opportunity for interactive questions and answers with the person conducting the training session.

Supervisors of covered personnel with potential occupation exposure 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 blood, OPIM, or bloodborne pathogens.

The PI or lab manager shall assure that covered personnel are trained in the handling of human pathogens or tissue cultures before beginning work with these materials.

The covered personnel's supervisor 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 supervisor shall assure that covered personnel participate in work activities involving infectious agents only after proficiency has been demonstrated.

## **9 Record Keeping**

### **9.1 Medical Records.**

Simmons HR shall establish and maintain an accurate record for each covered personnel with occupational exposure. By law, this record shall include:

- The name and social security number of the employee;



- A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);
- A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);
- The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

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

## **9.2 Confidentiality**

HR shall ensure that employee medical records are kept confidential; and 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.

HR 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.

## **9.3 Training Records.**

Training records must be kept with the University and shall include the following information:

- The dates of the training sessions;
- The contents or a summary of the training sessions;
- The names and qualifications of persons conducting the training; and
- The names and job titles of all persons attending the training sessions.

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

## **9.4 Availability**

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 of OSHA for examination and copying.

Employee training records required by this paragraph shall be provided upon request for examination and copying to covered personnel and their representatives.

Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject covered personnel and to anyone having written consent of the subject covered personnel.

## **9.5 Transfer of Records**

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

## **9.6 Sharps injury log**

Simmons 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 covered personnel. The sharps injury log shall contain, at a minimum:

- The type and brand of device involved in the incident
- The department or work area where the exposure incident occurred, and

An explanation of how the incident occurred.

The sharps injury log shall be maintained for the period of no less than five years

## **10 REFERENCES AND STANDARDS**

The following references and standards were used to develop this ECP:

- OSHA's *Model Plans and Programs for the OSHA Bloodborne Pathogens and Hazard Communication Standards*, OSHA 3186-06R, dated 2003.
- OSHA's BBP Standard 29 CFR 1910.1030
- Harvard Institutes of Medicine/New Research Building *Exposure Control Plan*, dated October 2011

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## APPENDIX A HEPATITIS B VACCINATION FORM

### HEPATITIS B VACCINE RECOGNITION

Blood and bodily fluids may contain a virus known as Hepatitis B. This virus can cause serious illness. The Occupational Safety and Health Organization (OSHA) requires that institutions offer the Hepatitis B vaccine to those who may be exposed to this virus as a part of their job or educational requirements. At this time, you are being asked to decide if you wish to be vaccinated for Hepatitis B. Please read the following 3 choices and select the one with which you feel most comfortable.

#### Hepatitis B Vaccine Acceptance

(Printed)	_____	Date of shot #1	
	Name	Date of shot #2	
	_____	Date of shot #3	
	Signature	Date	

Because of my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring the Hepatitis B virus. I have been given the opportunity and have accepted to receive the hepatitis B vaccine at no cost to myself. These vaccinations must be scheduled with the provider. This includes a

series of 3 shots that must be documented below.

#### Hepatitis B Vaccine Declination (I am already vaccinated)

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have already been vaccinated against the Hepatitis B virus. Documentation of this vaccination is included on my "Immunization Record", included in my application.

_____	
Name (Printed)	
_____	
Signature	Date

#### Hepatitis B Vaccine Declination (I do not wish to be vaccinated)

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no cost to myself. However, I decline

—  
hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials, and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

\_\_\_\_\_  
Name (Printed)

\_\_\_\_\_  
Signature Date

**APPENDIX B SHARPS INJURY LOG**

**Simmons University Sharps Injury Log**

Date	Type of Device	Brand Name of Device	Work Area where Injury Occurred	Brief Description of Incident
3/1/2020	Safety Syringe	BD SafetyGlide™ shielding hypodermic needle	Park Science Center room 201	Student removed shielding of syringe and was subsequently stuck. The needle was clean, having been just removed from the packaging.

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## **APPENDIX C 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).

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

**1910.1030(d)(3)(xi)**

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

**1910.1030(d)(3)(xii)**

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

**1910.1030(d)(4)**

Housekeeping -

**1910.1030(d)(4)(i)**

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

**1910.1030(d)(4)(ii)**

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

**1910.1030(d)(4)(ii)(**

**A)**

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

**1910.1030(d)(4)(ii)(B)**

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

**1910.1030(d)(4)(ii)(C)**

All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and



decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

**1910.1030(d)(4)(ii)(D)**

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

**1910.1030(d)(4)(ii)(**

**E)**

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

**1910.1030(d)(4)(iii)**

Regulated Waste -

**1910.1030(d)(4)(iii)(**

**A)**

Contaminated Sharps Discarding and Containment.

**1910.1030(d)(4)(iii)(**

**A)(1)**

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

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

Closable;

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

Puncture resistant;

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

Leakproof on sides and bottom; and

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

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

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

During use, containers for contaminated sharps shall be:

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

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

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

Maintained upright throughout use; and

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

Replaced routinely and not be allowed to overfill.

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

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

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

Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping; **1910.1030(d)(4)(iii)(A)(3)(ii)**

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

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

**A) Closable;**

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

Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and **1910.1030(d)(4)(iii)(A)(3)(ii)(C)**

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

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

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

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

Other Regulated Waste Containment -

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

Regulated waste shall be placed in containers which are:

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

Closable;

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

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

transport or shipping; **1910.1030(d)(4)(iii)(B)(1)(iii)**

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

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

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

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

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

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

Closable;

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

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

transport or shipping; **1910.1030(d)(4)(iii)(B)(2)(iii)**

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

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

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

**1910.1030(d)(4)(iii)(  
C)**

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

**1910.1030(d)(4)(iv)**

Laundry.

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

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

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

Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

**1910.1030(d)(4)(iv)(A)(2)**

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

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

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

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

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

**1910.1030(d)(4)(iv)(  
C)**

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

**1910.1030(e)**

HIV and HBV Research Laboratories and Production Facilities.

**1910.1030(e)(1)**

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

**1910.1030(e)(2)**

Research laboratories and production facilities shall meet the following criteria:

**1910.1030(e)(2)(i)**

Standard Microbiological Practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

**1910.1030(e)(2)(ii)**

) Special Practices.

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

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

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

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

**1910.1030(e)(2)(ii)(C)**

Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

**1910.1030(e)(2)(ii)(D)**

When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be

posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

**1910.1030(e)(2)(ii)(E)**

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

**1910.1030(e)(2)(ii)(F)**

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

**1910.1030(e)(2)(ii)(G)**

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

**1910.1030(e)(2)(ii)(H)**

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

**1910.1030(e)(2)(ii)(I)**

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

**1910.1030(e)(2)(ii)(J)**

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

**1910.1030(e)(2)(ii)(K)**

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

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

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

**1910.1030(e)(2)(ii)(M)**

A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them. **1910.1030(e)(2)(iii)**

Containment Equipment.

**1910.1030(e)(2)(iii)(A)**

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

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

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

**1910.1030(e)(3)**

HIV and HBV research laboratories shall meet the following criteria:

**1910.1030(e)(3)(i)**

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

**1910.1030(e)(3)(ii)**

An autoclave for decontamination of regulated waste shall be available.

**1910.1030(e)(4)**

HIV and HBV production facilities shall meet the following criteria:

**1910.1030(e)(4)(i)**

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

**1910.1030(e)(4)(ii)**

The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

**1910.1030(e)(4)(iii)**

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

**1910.1030(e)(4)(iv)**

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

**1910.1030(e)(4)(v)**

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

**1910.1030(e)(4)(vi)**

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

**1910.1030(e)(5)**

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

**1910.1030(f)**



## Hepatitis B Vaccination and Post-exposure

### Evaluation and Follow-up - **1910.1030(f)(1)**

General.

#### **1910.1030(f)(1)(i)**

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

#### **1910.1030(f)(1)(ii)**

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

##### **1910.1030(f)(1)(ii)(A)**

Made available at no cost to the employee;

##### **1910.1030(f)(1)(ii)(B)**

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

##### **1910.1030(f)(1)(ii)(C)**

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

##### **1910.1030(f)(1)(ii)(D)**

Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f). **1910.1030(f)(1)(iii)**

The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee. **1910.1030(f)(2)**

Hepatitis B Vaccination.

#### **1910.1030(f)(2)(i)**

Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have

occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

**1910.1030(f)(2)(ii)**

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

**1910.1030(f)(2)(iii)**

If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time. **1910.1030(f)(2)(iv)**

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

**1910.1030(f)(2)(v)**

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

**1910.1030(f)(3)**

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

**1910.1030(f)(3)(i)**

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

**1910.1030(f)(3)(ii)**

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

**1910.1030(f)(3)(ii)(**

**A)**

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

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

**1910.1030(f)(3)(ii)(B)**

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

**1910.1030(f)(3)(ii)(C)**

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

**1910.1030(f)(3)(iii)**

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

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

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

**1910.1030(f)(3)(iii)(B)**

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

**1910.1030(f)(3)(iv)**

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

**1910.1030(f)(3)(v)**

Counseling; and

**1910.1030(f)(3)(vi)**

Evaluation of reported illnesses.

**1910.1030(f)(4)**

Information Provided to the Healthcare Professional.

**1910.1030(f)(4)(i)**

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

**1910.1030(f)(4)(ii)**

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

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

A copy of this regulation;

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

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

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

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

exposure occurred; **1910.1030(f)(4)(ii)(D)**

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

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

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

**1910.1030(f)(5)**

Healthcare Professional's Written Opinion. The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

**1910.1030(f)(5)(i)**

The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination. **1910.1030(f)(5)(ii)**

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

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

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

**1910.1030(f)(5)(ii)(B)**

That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment. **1910.1030(f)(5)(iii)**

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

**1910.1030(f)(6)**

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

**1910.1030(g)**

Communication of Hazards to Employees -

**1910.1030(g)(1)**

Labels and Signs -

**1910.1030(g)(1)(i)**

] Labels.

**1910.1030(g)(1)(i)(A)**

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

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

Labels required by this section shall include the following legend:



## **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)**

**l**

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)**

he 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.

[56 FR 64004, Dec. 06, 1991, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5507, Feb. 13, 1996; 66 FR 5325 Jan., 18, 2001; 71 FR 16672 and 16673, April 3, 2006; 73 FR 75586, Dec. 12, 2008; 76 FR 33608, June 8, 2011; 76 FR 80740, Dec. 27, 2011; 77 FR 19934, April 3, 2012]