WHEATON COLLEGE

BLOODBORNE PATHOGEN EXPOSURE CONTROL PLAN
Wheaton College
Bloodborne Pathogen Exposure Control Plan

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This Exposure Control Plan complies with the OSHA Bloodborne Pathogens Standard (29 CFR 1910.1030). A copy of the regulation is found in Appendix A. The Plan is written for employees of the Wheaton College community.

The policies and procedures outlined in this plan are supported by the Administration of Wheaton College. The Plan and all other applicable records are available to employees and OSHA authorities upon request.

1. **Purpose and Scope**

The purpose of this Plan is to minimize and/or eliminate employee occupational exposure to bloodborne pathogens. An occupational exposure, for the purpose of this standard, means reasonably anticipated skin, eye, mucous membranes or parenteral contact with blood or other potentially infectious materials (OPIM) that may result from the performance of an employee’s duties.

OPIM is defined as bodily fluids, such as cerebrospinal fluid, pleural fluid, amniotic fluid, semen, or any body fluid, which is visibly contaminated with blood, and all body fluids where it is difficult or impossible to differentiate.

The scope of this Plan involves all employees who have the potential to come into contact with contaminated blood or OPIM as a result of their duties on the Wheaton College campus or field sites.

The Standard excludes employees who perform unanticipated “Good Samaritan” acts from coverage since such an action does not constitute “occupational exposure.” For instance, an employee may assist another employee who is bleeding as the result of a fall. This “Good Samaritan” act would not be considered an occupational exposure unless the employee who provides assistance is a member of a first aid team or is otherwise expected to render medical assistance as one of his/her duties.

2. **Responsibilities**

The Wheaton College management is committed to providing a safe and healthful work environment to employees. It is the policy of the College to comply with all applicable sections of the Bloodborne Pathogen Standard. Each affected member of the College community plays an important part in the compliance of the program as follows:

A. **Management**
   - The Assistant Vice President of Business Services and Physical Plant, in concert with departmental coordinators and supervisors, is responsible for establishing, maintaining and auditing this program.
   - Each supervisor is responsible for ensuring that all affected employees are trained in accordance with this program.
   - Each area supervisor is responsible for providing PPE where applicable and reasonable.
   - Update and/or review this Plan on an annual basis.
   - Investigate and document all exposure incidents.

B. **Human Resources**
   - The Department of Human Resources is responsible to maintain applicable OSHA and insurance recordkeeping in the event of an employee exposure including all notification requirements.

C. **Employees**
   - Comply with policies and procedures as outlined in this Plan.
   - Attend training and follow the guidelines specified.
   - Comply with universal precautions when working with blood or OPIM.
   - Report all exposure to their supervisor and/or the departmental coordinator, who in turn will report incidents to Human Resources.
• Understand the tasks of their job responsibilities and where there is a potential for exposure to blood or OPIM.
• Maintain PPE following supervisor and/or manufacturer recommendations.
• Notify supervisor if PPE is broken or dysfunctional and needs replacement.
• If conditions or work practices change and/or if new hazards are present in their work environment, the employee shall notify their supervisor and/or departmental coordinator.

As required under the Standard, the College shall solicit input from non-managerial employees responsible for direct patient care, and who are potentially exposed to injuries from contaminated sharps in the identification, evaluation and selection of effective engineering and work practice controls. This input shall be documented in the Exposure Control Plan.

3. Exposure Determination

This section determines which jobs and/or tasks involve occupational exposure. All known potential circumstances are considered. Employees who have contact with blood or OPIM during the course of their job duties are covered by this regulation and all the sections of this Plan. This includes all employees with occupational exposure regardless of how often the exposure may occur, as well as part-time and temporary employees. Employees who do not have occupational exposure are not covered by the scope of the Standard.

The identification and classification of risk of bloodborne pathogen exposure associated with different jobs and/or tasks is essential for development of safety procedures and appropriate training. In this, Wheaton College has classified affected employees into two main categories based on the potential for exposure to bloodborne pathogens.

Category I: Employees who, throughout the course of their required job activities, are reasonably expected to come into contact with blood or bodily fluids on a regular basis.

Category I Job Classifications
• Biology Faculty: May be involved in lab research/training involving bodily fluids.
• Campus Police Officers: First responders to emergency calls on campus.
• Employee/Student Athletic Trainers: Respond to injuries during recreational or athletic events.
• Teacher & Assistant Director, Nursery School: Respond to children’s injuries at the school or be subject to bites or other related injuries.

Comprehensive training as described in this Plan will be provided to the above mentioned staff. All Category I employees will be offered the Hepatitis B vaccination.

Category II: Employees who may periodically or infrequently come into contact with blood or bodily fluids during the performance of their job tasks.

Category II Job Classifications
• Equipment (uniform) Managers: May handle uniforms or other athletic equipment that might be contaminated with blood or OPIM.
• Coaches: May respond to injuries during recreational or athletic events.
• Resident Director & Assistants: Could respond to students injured in residential housing on campus.
• Building Service Supervisor & Workers: Responsible for cleaning areas contaminated with blood or other potentially infectious material.
• Custodial Helpers: Assist custodians who are responsible for cleaning areas contaminated with blood or other potentially infectious material.
Comprehensive training as described in this Plan will be provided to the above mentioned staff. Category II employees may be offered the Hepatitis B vaccination.

4. Methods of Compliance

This section puts forth safe work practices and standard operating procedures for affected employees. It includes universal precautions, engineering and work practice controls, use of personal protective equipment, housekeeping, and handling of soiled laundry and disposal of regulated material.

Universal precautions are identified as an approach to infectious control. According to the concepts of universal precautions, all human blood and certain human body fluids are treated as OPIM if known to be infectious for HIV, HBV and other bloodborne pathogens. In order to achieve the purpose of this standard, employees shall observe “universal precautions” when handling all blood and bodily fluids, with no differentiation in fluid type.

Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees. Engineering controls shall be examined and maintained or replaced on a regular basis to ensure their effectiveness. Where occupational exposure remains after implementation of these controls, personal protective equipment shall also be utilized.

All departments will monitor for compliance and ensure employees are aware and trained in using the methods of compliance outlined in this Plan, including universal precautions when handling blood or OPIM.

Engineering and Work Practice Controls

- Hand washing should occur frequently during employee work hours. Thorough hand washing must occur after the removal of gloves or other personal protective equipment.

- Hand washing and/or flushing off mucous membranes with soap and water shall take place immediately or as soon as possible following contact with blood or potentially infectious materials.

- When hand washing facilities are not feasible, employees shall have in their possession antiseptic hand cleanser and a clean cloth or paper towels or antiseptic towelettes. Hands shall be washed with soap and running water as soon as possible thereafter.

- In work areas where occupational exposure might take place, no eating, drinking, smoking or applying cosmetics or lip balm, or handling contact lenses is permitted.

- No food or drinks shall be kept in refrigerators, shelves and counter/bench tops where potential infectious materials are present.

- All procedures involving blood or potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying or the generation of droplets.

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

- Contaminated needles/sharps shall not be bent, recapped or cut. Contaminated needles/sharps that by specific medical procedure must be recapped are done so through the use of mechanical devices or a one handed technique.

- Immediately, or as soon as possible after use, contaminated needles/sharps shall be placed in appropriate containers. The appropriate container is defined as puncture resistant, leak proof, color coded and/or biohazard label. Filled containers are locked and sent to a licensed vendor for disposal as biohazardous waste.
- Blood/bodily fluid specimens shall be placed in a leak proof container, then a biohazard specimen bag for transporting/storage within and/or from the facility. If the outside of the bag is soiled, the specimen needs to be placed into a second bag.

- All contaminated products, equipment, clothing, etc. shall be put in appropriate containers or red bags, sealed and stored in a secure designated area for disposal.

- Equipment that may become contaminated with blood/bodily fluids shall be examined before servicing/shipping and shall be decontaminated, unless decontamination is not feasible. If decontamination is not performed, a label with a biohazard symbol must be attached listing the area that remains contaminated. This information must be conveyed to the service representative.

- Mouthpieces or ambubag will be used for CPR and disposed of as biowaste upon completion.

- First aid responders should carry the necessary PPE to prevent exposure.

- Vehicles used to transport victims will be properly equipped with PPE, disinfectant, biohazard containers and bags.

**Personal Protective Equipment**

The College shall provide and replace for the employee, all appropriate personal protective devices. This includes gloves, gowns, mask/face shield, laboratory coats, eye protection, pocket masks and resuscitation devices. “Appropriate” personal protective equipment means it does not permit blood/bodily fluids to pass through or to reach the employees’ clothes, eyes and/or mucous membranes, under normal conditions of use.

The College shall ensure that employees use appropriate PPE unless it can be demonstrated that the employee temporarily and briefly declined to use PPE, when under rare and extraordinary circumstances, the employee’s professional judgment would have prevented the delivery of health care, or would have posed an increased hazard to the safety of the worker. If this occurs, it shall be investigated and documented to determine if changes could be instituted to prevent a reoccurrence.

- PPE must be readily accessible for employees use at the work site. PPE can be obtained from department supervisor or department coordinator. Concerns or problems in obtaining proper PPE should be conveyed to the department supervisor or department coordinator. Matters that cannot be resolved should be directed to Business Services for resolution.

- Laundering, repair and replacement, or disposal of personal protective devices is the responsibility of the College.

- All personal protective devices must be removed prior to leaving their work area and shall be placed in the proper container for reprocessing or disposal.

- Gloves are to be worn when it can be reasonably anticipated that the employee may have hand contact with blood or OPIM. Disposable, *single use*, gloves are to be used. Replace them as soon as practical when compromised (i.e. puncture, tear). Always remove and replace gloves between patients and/or work being performed where there is a possibility of exposure. Always wash hands after removal of gloves. Utility gloves may be decontaminated for reuse if no cracks or peeling appears.

- Masks, eye protection and face shields shall be worn whenever splashes or droplets of blood or OPIM are reasonably anticipated.
• Gowns, aprons and other protective clothing (reusable or disposable) shall be worn whenever contamination of clothing by splash is anticipated.

**Housekeeping**

The employee shall ensure the work site is maintained in a clean, sanitary manner. The College will reply on employees trained in the Bloodborne Pathogens Standard to perform necessary decontamination and cleaning of all College facilities potentially exposed to blood or OPIM. Routine decontamination will occur at the end of each shift for the following identified areas of the College:

- Lab benches and equipment
- Training room equipment and furnishings
- Rest rooms and shower stalls
- Locker rooms

Decontamination of work surfaces using universal precautions, appropriate PPE and a disinfectant shall occur:

- After completion of procedures.
- Immediately or as soon as feasible after overt contamination or after any spill of blood or OPIM.
- At the end of the work shift if the surface may have become contaminated since the last cleaning.

Disinfectants used will be EPA/FDA approved.

Practices can include:

- All waste receptacles intended for reuse shall be inspected and decontaminated on a regular, scheduled basis and immediately upon visible contamination.
- Broken glassware shall **never** be picked up directly with hands. It shall be picked up using mechanical means.
- Reusable sharps that are contaminated with blood or bodily fluids shall not be stored or processed in a manner that requires employees to reach into containers by hand.

**Regulated Waste**

**Sharps:** Contaminated sharps shall be discarded immediately or as soon as feasible into safe needle boxes that are closable, puncture resistant, leak proof and properly labeled. Containers for contaminated sharps shall be easily accessible to personnel, maintained and remain upright. The employee shall routinely monitor and replace boxes so as not to allow over filling. If leakage should occur, place into a red hazardous waste bag for transporting.

**Waste Material:** Any material that has had contact with blood or OPIM that cannot or should not be decontaminated shall be placed into an orange-lined or red-lined bag that does not leak. If leakage occurs, use a second bag. A licensed vendor for disposal transports this waste.

**Locations:** Sharp containers that are sent out for disposal include stations in Public Safety and Athletics.

**Laundry Guidelines**

Contaminated laundry shall be handled as little as possible with minimum agitation. Any individual contact with contaminated laundry shall wear gloves and other appropriate PPE. It shall be put in appropriate containment, to prevent soak-through or leakage, at the location used, and not sorted or rinsed. Containers/bags shall be labeled or color-coded.
5. **HIV and Hepatitis B Virus Research Laboratories**

Wheaton College does not have any HIV or HBV research laboratories or production facilities on campus. Therefore, this section of the Standard does not apply.

6. **Vaccination, Post Exposure Evaluation and Follow-up**

**Hepatitis B Vaccine:** The hepatitis B vaccine and vaccination series will be made available to all employees who have occupational exposure, and for employees who have had an exposure incident at no cost, at a reasonable time and place and by or under the supervision of a licensed health care professional.

The vaccine shall be made available after the employee has received training and within 10 working days of initial assignment. The vaccine shall not be necessary if 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.

If the employee initially declines a hepatitis B vaccination but at a later date decides to accept the vaccination, the vaccination shall then be made available. All employees who decline the hepatitis B vaccination offered shall sign the required waiver (Appendix B) indicating their refusal.

If a routine booster dose of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster doses shall be made available at no cost to the employee.

The immunization program for hepatitis B includes a series of three injections in the arm as follows:

- Initial injection
- 2\textsuperscript{nd} injection one month later
- 3\textsuperscript{rd} injection within six months.

**Exposure Incidents:** All exposure incidents shall be reported, investigated and documented. When the employee incurs an exposure, it shall be reported immediately to their supervisor. The supervisor will notify Human Resources. The supervisor will conduct an investigation into the incident. The employee and/or the supervisor will complete an incident report.

Following a report of an exposure incident, the exposed employee shall go to the college’s designated occupational health care facility (Norton Medical Center, Sturdy Memorial Hospital Occupational Health) for a confidential medical evaluation and follow-up including:

- Documentation of the route(s) of exposure.
- A description of the circumstances under which the exposure occurred (i.e. where, when, what potentially infectious material were involved, type of work being performed, how exposure occurred, any unusual circumstances, PPE in use, and actions taken as a result of the incident).
- The identification and documentation of the source individual/material, if possible.
- The collection and testing of the source individual’s blood for HBV and HIV serological status, if consent is obtained, and as legally applicable.
- Exposed employee’s blood shall also be collected and tested after consent is obtained. Testing may include HBV, HIV, hepatitis B or hepatitis C status. NOTE: If the employee consents to baseline blood collection, but does not give consent at that time for HIV serological testing, the sample shall be preserved for 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, it shall be done as soon as possible.
- Post-exposure treatment and testing for the employee, when medically indicated, will be in accordance with the U.S. Public Health Service.
- Counseling.
- Evaluation of any reported illness affiliated with the incident.

All medical tests and examinations will be done at no cost to the employee, by licensed practitioners and accredited laboratories.

The health care professional evaluating the employee will be provided with the following:

- A copy of this Plan to include the OSHA standard.
- Exposed employee's duties as they relate to the incident.
- Documentation of the route(s) of exposure.
- A description of the circumstances under which the exposure occurred.
- Results of the source individual's blood testing, if available.
- All medical records applicable to treatment of the employee, including vaccination status.

The employee will receive a copy of the health care professional's written opinion within 15 days of the completion of the evaluation.

The health care professional’s written opinion for a hepatitis B vaccination is limited to whether the employee needs hepatitis B vaccination and whether the employee has received such a vaccination. The health care professional’s written opinion for post-exposure evaluation and follow-up is limited to the following information:

- That the employee was informed of the results of the evaluation.
- That the employee was informed about any medical conditions resulting from exposure to blood or other infectious materials that require further evaluation or treatment.

7.  Signs and Labels

Signs

Signs shall be posted at the entrance to HIV or HBV research laboratories or production facilities. Of note, Wheaton College does not have any of these research facilities on its campus.

Labels

Warning labels shall be affixed to:

- Containers of regulated waste.
- Refrigerators and freezers containing blood or OPIM.
- Other containers to store, transport or ship blood or OPIM.
- Contaminated equipment.

Labels shall have the biohazard symbol as well as the words "biohazard." They shall be fluorescent orange or orange-red with letters and symbols in contrasting color.

Red bags or red containers may be substituted for labels.

Department supervisors are responsible for ensuring that all containers are properly labeled.

Exempted from the labeling requirement:

- Containers of blood, components or products with contents labeled and released for transfusion or other clinical use.
Individual containers of blood or OPIM placed in labeled container during storage, transport, shipment or disposal.

8. **Information and Training**

All Category I and II employees shall participate in a training program. Training will occur at the time of initial assignment where occupational exposure may take place and at least annually thereafter. Additional training will be provided when changes, such as modification of tasks or procedure, affect the employee’s occupational exposure.

The training program will include at least the following elements:

- A general explanation of the epidemiology and symptoms of bloodborne diseases.
- An explanation of the modes of transmission of bloodborne pathogens.
- An explanation of Wheaton College’s Exposure Control Plan and how employees 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 or 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.
- Appropriate actions (i.e. spill control) to take and persons to contact in an emergency involving blood or OPIM.
- Explanation of the procedure if an incident occurs, including the method of reporting and available medical follow-up.
- Post-exposure evaluation and follow-up following an exposure incident.
- Explanation of signs, labels and color-coding requirements.
- An opportunity for interactive questions and answers with the person providing the training will be afforded to all employees who are trained.

A copy of the training program is found in Appendix C.

Affected employees may contact their supervisor, Human Resources or the Business Services office for questions or concerns on training or information provided during the training. Other interested members of the Wheaton College community can request information on bloodborne pathogens and universal precautions through Business Services.

Supplemental training methods may be used to include classroom, web-based programs and hands-on training by supervisors.

9. **Recordkeeping**

**Medical Records:** Employee health records shall be kept in a confidential manner at Norton Medical Center or Sturdy Memorial Hospital Occupational Health Care Center for the duration of employment plus 30 years. The record will include name, social security number, hepatitis B vaccination status, dates, results of any examinations, medical testing and follow-up procedures, a copy of the health care professional’s evaluation and information provided to the health care professionals.

The employee’s written consent is required to release medical records except as required by law.
Norton Medical Center and Sturdy Memorial Hospital Occupational Health Care Center has agreed to abide by the requirements of the OSHA regulation for record transfers and to notify OSHA if they cease to do business.

**Hepatitis B Vaccination Declination Form:** This form will be kept on file in the Business Services office.

**Training Records:** Training records for employees who attended bloodborne pathogen training will be kept for three years in the Business Services office. Records will include the date of training session, contents or a summary of the session, name and qualification of person(s) conducting the training, names and job titles of all persons attending.

**Sharps Injury Log:** This section of the standard does not apply to Wheaton College. However, a description is provided below in the event the OSHA recordkeeping standard becomes applicable.

The Sharps Injury Log records all percutaneous injuries on campus from contaminated sharps. The information in this log shall be kept confidential and contain at least the following:

- Type and brand of device involved in the incident
- Department or work area where the incident occurred
- Explanation of how the incident occurred

This log is ONLY required for employees who maintain a log of occupational injuries and illnesses under 29 CFR 1904 and maintained for the period required under 1904.6.

**10. Plan Review and Update**

The 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. It will also include:

- Changes in technology that eliminate or reduce exposure to bloodborne pathogens.
- Consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.
- Employee input into the identification, evaluation and selection of PPE and work practice controls.
APPENDIX A

29 CFR Section 1910.1030 – Bloodborne Pathogens

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

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

- **Assistant Secretary** means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.
- **Blood** means human blood, human blood components, and products made from human blood.
- **Bloodborne Pathogens** means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
- **Clinical Laboratory** means a workplace where diagnostic or other screening procedures are performed on blood or other potential 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) 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 result from the performance of an employee’s duties.
- **Hand washing Facilities** means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.
- **Licensed Healthcare Professional** is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up.
- **HBV** means hepatitis B virus.
- **HIV** means human immunodeficiency virus.
- **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 needle sticks, 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 is 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.
- **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 treatment as if known to be infectious for HIV, HBV and other bloodborne pathogens.
- **Work Practice Controls** means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

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

(ii) The Exposure Control Plan shall contain at least the following elements:
- (A) The exposure determination required by paragraph (c)(2);
- (B) The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard; and
- (C) The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

(iii) Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.20(e).
(iv) The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

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

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

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

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

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

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

d) Methods of Compliance

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

(2) Engineering and Work Practice Controls

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

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

(iii) Employers shall provide hand washing facilities which are readily accessible to employees.

(iv) When provision of hand washing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

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

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

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

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

[1910.1030(d)(2)(vii)(A) corrected by 57 FR 29206, July 1, 1992]

(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)(vii)(B) corrected by 57 FR 29206, July 1, 1992]

(viii) Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:
(A) Puncture resistant;
(B) Labeled or color-coded in accordance with this standard;
(C) Leak proof on the sides and bottom; and
(D) In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.

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

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

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

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

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

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

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

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

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

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

(B) The employer shall ensure that this information is conveyed to all affected employees, the servicing representative and/or the manufacturer, as appropriate, prior to handling, servicing or shipping so that appropriate precautions will be taken.

(3) Personal Protective Equipment

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Periodically re-evaluate this policy;

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

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

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

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

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

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

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

(xi) Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing, such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.
(xii) Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopaedic surgery).

(4) Housekeeping

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

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

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

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

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

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

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

(iii.) Regulated Waste

(A) Contaminated Sharps Discarding and Containment

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

   (i) Closable;
   (ii) Puncture resistant;
   (iii) Leak proof on sides and bottom; and
   (iv) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

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

   (i) Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundry);
   (ii) Maintained upright throughout use; and
   (iii) Replaced routinely and not be allowed to overfill.

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

   (i) Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport or shipping;
   (ii) Placed in a secondary container if leakage is possible. The second container shall be:

       (A) Closable;
       (B) Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and
       (C) Labeled or color-coded according to paragraph (g)(1)(i) of this standard.
(4) Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

(B) Other Regulated Waste Containment
   (1) Regulated waste shall be placed in containers which are:
      (i) Closable;
      (ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;
      (iii) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and
      (iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

   (2) If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:
      (i) Closable;
      (ii) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;
      (iii) Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and
      (iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

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

(iv) Laundry
   (A) Contaminated laundry shall be handled as little as possible with a minimum of agitation.
      (1) Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.
      (2) Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes universal precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with universal precautions.
      (3) Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through 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.

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

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

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

   (2) Research laboratories and production facilities shall meet the following criteria:
      (i) Standard microbiological practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
      (ii) Special practices.
Laboratory doors shall be kept closed when work involving HIV or HBV is in progress. Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leak proof, labeled or color-coded container that is closed before being removed from the work area. 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.

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.

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.

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.

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.

Before disposal of 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.

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.

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 or 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.

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.

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

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

(iii) Containment equipment

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.

Biological safety cabinets shall be certified when installed, whenever they are moved, and at least annually.
(3) HIV and HBV research laboratories shall meet the following criteria:
   (i) Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.
   (ii) An autoclave for decontamination of regulated waste shall be available.

(4) HIV and HBV production facilities shall meet the following criteria:
   (i) The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets or doors before entering the work area.
   (ii) The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.
   (iii) Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.
   (iv) Access doors to the work area or containment module shall be self-closing.
   (v) An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.
   (vi) A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

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

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

   (1) General
      (i) The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.
      (ii) The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:
         (A) Made available at no cost to the employee;
         (B) Made available to the employee at a reasonable time and place;
         (C) Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and
         (D) Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).
      (iii) The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

   (2) Hepatitis B Vaccination
      (i) Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(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.
      (ii) The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.
(iii) If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

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

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

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

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

(ii) Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law.
   (A) The source individual’s blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual’s consent is not required by law, the source individual’s blood, if available, shall be tested and the results documented.
   (B) When the source individual is already known to be infected with HBV or HIV, testing for the source individual’s known HBV or HIV status need not be repeated.
   (C) Results of the source individual’s testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

(iii) Collection and testing of blood for HBV and HIV serological status.
   (A) The exposed employee’s blood shall be collected as soon as feasible and tested after consent is obtained.
   (B) If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

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

(v) Counseling

(vi) Evaluation of reported illnesses.

(4) Information Provided to the Healthcare Professional

(i) The employer shall ensure that the healthcare professional responsible for the employee’s hepatitis B vaccination is provided a copy of this regulation.

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

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

(i) The healthcare professional’s written opinion for hepatitis B vaccination shall be limited to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.
(ii) The healthcare professional’s written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

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

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

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

g) Communication of Hazards to Employees

(1) Labels and signs.

(i) Labels

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

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

BIOHAZARD

[1910.1030(g)(1)(i)(B) corrected by 57 FR 29206, July 1, 1992]

(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)(C) corrected by 57 FR 29206, July 1, 1992]

(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)(D) corrected by 57 FR 29206, July 1, 1992]

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

(F) Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

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

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

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

(ii) Signs

(A) The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:
BIOHAZARD
(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)(A) corrected by 57 FR 29206, July 1, 1992]
(B) These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in contrasting color.
[1910.1030(g)(1)(ii)(B) corrected by 57 FR 29206, July 1, 1992]

(2) Information and Training
   (i) Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.
   (ii) Training shall be provided as follows:
         (A) At the time of initial assignment to tasks where occupational exposure may take place;
         (B) Within 90 days after the effective date of the standard; and
         (C) At least annually thereafter.
   (iii) For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.
   (iv) Annual training for all employees shall be provided within one year of their previous training.
   (v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee’s occupational exposure. The additional training may be limited to addressing the new exposures created.
   (vi) Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.
   (vii) The training program shall contain at a minimum the following elements:
         (A) An accessible copy of the regulatory text of this standard and an explanation of its contents;
         (B) A general explanation of the epidemiology and symptoms of bloodborne diseases;
         (C) An explanation of the modes of transmission of bloodborne pathogens;
         (D) An explanation of the employer’s exposure control plan and the means by which the employee can obtain a copy of the written plan;
         (E) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
         (F) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices and personal protective equipment;
         (G) Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
         (H) An explanation of the basis for selection of personal protective equipment;
         (I) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
(J) Information on the appropriate actions to be take and persons to contact in an emergency involving blood or other potentially infectious materials;

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

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

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

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

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

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

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

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

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

h) Recordkeeping

(1) Medical Records

(i) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.20.

(ii) This record shall include:

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

(B) A copy of the employee’s hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee’s ability to receive vaccination as required by paragraph (f)(2);

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

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

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

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

(A) Kept confidential; and

(B) 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)(iii)(B) corrected by 57 FR 29206, July 1, 1992]

(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 1910.20.

(2) Training Records

(i) Training records shall include the following information:
(A) The dates of the training sessions;
(B) The contents or a summary of the training sessions;
(C) The names and qualifications of persons conducting the training; and
(D) The names and job titles of all persons attending the training sessions.

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

(3) Availability
   (i) The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.
   (ii) Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.
   [1910.1030(h)(3)(ii) corrected by 57 FR 29206, July 1, 1992]
   (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 1910.20.

(4) Transfer of Records
   (i) The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.20(h).
   (ii) If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

[i] Dates
   (1) Effective Date. The standard shall become effective on March 6, 1992.
   (2) The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.
   [1910.1030(i)(2) corrected by 57 FR 29206, July 1, 1992]
   (3) Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

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

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

(Approved by the Office of Management and Budget under control number 1218-0180)
[OMB number added by 57 FR 12717, April 13, 1992]

§§1910.1031-1910.1042 [Reserved]
APPENDIX B

Hepatitis B Vaccine Waiver

OSHA Standard Number: 1910.1030 Appendix A

OSHA Standard Title: Hepatitis B Vaccine Declination (Mandatory)

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

Print Name: _______________________________ Date: ______________

Job Title: _______________________________

Signature: _______________________________
APPENDIX C

Wheaton College
Training Program and Handouts

DATE: 
TIME: 
INSTRUCTOR: 


In accordance with the Bloodborne Pathogens Standard, CFR 1910.1030, I hereby acknowledge that at the date and time noted above, I have received the training on the above standard. The content of this training included:

- An accessible copy of the standard;
- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the Wheaton College Exposure Control Plan and access to a copy of the exposure control plan;
- An explanation of the occupational exposure;
- An explanation of universal precautions to reduce exposure including appropriate engineering controls, work practices and personal protective equipment;
- Information on hepatitis B vaccine, including 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 the person 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;
- An explanation of the signs and labels and/or coding used to identify hazards; and
- An opportunity for interactive questions and answers with the trainer.
APPENDIX D

Additional Resources – Bloodborne Pathogens
Post-exposure Evaluation, Counseling and Follow-up

All workplace exposures will inevitably fall into a matrix as follows:

- The source of the exposure either known or unknown;
- Hepatitis antigen status – positive or negative; and
- HIV status – positive or negative.

Management of a given employee with an occupational exposure to a bloodborne pathogen will depend where on this matrix they fall.

I. Known Source
   A. The source is hepatitis B virus positive.
      1. Prior to any treatment, the employee should have his/her blood tested for hepatitis B antigen, anti-hepatitis B and serum liver profile.
      2. If the employee has not received hepatitis B vaccine in the past, or is not known to be anti-hepatitis B positive, he/she should receive the hepatitis B vaccine immediately and complete the entire series of vaccinations.
      3. If the exposed worker has previously had hepatitis B vaccination, he/she should be tested for antibodies to hepatitis surface antigen and given one dose of vaccine and one dose of hepatitis immunoglobulin if his/her antibody level is inadequate as defined by less than 10 SRU by radioimmunoassay or negative by EIA.
      4. If the employee’s hepatitis B surface antibody is negative, he/she should receive a single dose of hepatitis B immunoglobulin as soon as possible.
      5. The recommended dose is generally 5.0 ml for adults (0.06 ml per kilogram).
      6. If an employee refuses either hepatitis B immunoglobulin or hepatitis B vaccine, a declination form must be signed.
      7. Employees who elect to have hepatitis B vaccine will have:
         - The first dose of hepatitis B vaccine administered intramuscularly in the deltoid muscle at a site separate from hepatitis immunoglobulin.
         - A second and third dose of hepatitis B vaccine should be administered one month and six months after the first dose.
      8. If the employee declines the hepatitis B vaccine, he/she should be instructed to return to a clinic in 30 days for a second identical dose of hepatitis immunoglobulin if he/she is anti-hepatitis B negative.

II. Known Source
    A. Hepatitis B Status Unknown
       1. At the time of the incident, the source individual should have his/her blood tested for hepatitis B surface antigen and anti-hepatitis B core antigen as soon as is practical. These blood tests are unnecessary if the exposed employee is known to be anti-hepatitis B positive or has received the hepatitis B vaccination and immune status has been confirmed.
       2. If the known source is in one of the following high risk groups, immunoglobulin should be made immediately available to the employee:
          - The source has acute viral hepatitis of unknown type;
          - An individual on hemodialysis;
          - A recent immigrant;
          - A male homosexual; and/or
          - A known IV drug abuser.
       4. If the source individual refuses to have his blood drawn, the exposed employee should be treated as if he were exposed to a hepatitis B positive individual. If the source individual is
negative for hepatitis B, this is an opportunity to encourage the employee to complete the full hepatitis B vaccination if he/she had not already done so.

III. Known Source HIV Positive or an Individual that Refuses HIV

A. Testing

1. The employee is tested for antibodies at the time of the incident, at six weeks, at three months, at six months and 12 month following the exposure to determine whether transmission has occurred. During this period of follow-up, especially the first six to 12 weeks, when most infected persons are expected to sero convert, exposed workers should themselves follow careful public health service recommendations for preventing the transmission of HIV. These include specifically:
   - Refraining from blood donation; and
   - Using appropriate protection during sexual intercourse.
   - During all phases of this follow-up period, the worker’s confidentiality must be protected.

IV. Known Source HIV Status Unknown

The source individual will be asked to consent to an HIV test. Informed consent for HIV testing and strict confidentiality must be applied. If the source individual is found to be sero-negative for HIV, baseline testing of the exposed worker is mandatory with follow-up testing 12 weeks later optional.