

**SOUTHERN ILLINOIS UNIVERSITY
CARBONDALE**

**OCCUPATIONAL EXPOSURE CONTROL PLAN
FOR BLOODBORNE PATHOGENS**

Reviewed and Approved by the
Biohazard Oversight Advisory Committee
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INTRODUCTION

OCCUPATIONAL EXPOSURE CONTROL PLAN (OECF)

Southern Illinois University Carbondale (SIUC) has designed and established this Occupational Exposure Control Plan (OECF) in compliance with applicable Federal and State laws and regulations. (29 U.S.C 653, 655 and 29 C.R.F. 1910.1030 et seq.; IDOL 56 Ill. Admin. Code 350)

This OECF has been developed to minimize or eliminate employee "occupational exposure." Occupational exposure means any "reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials that may result from the performance of any employee's duties" without regard to the use of personal protective equipment. Sources of potentially infected material for the purposes of this OECF include humans and closely related primates. While it is recognized that other animals may be sources of human pathogens, this OECF and applicable laws are designed to prevent infection and spread of infection due to human bloodborne pathogens, especially the Hepatitis B Virus (HBV), a causative agent of infectious hepatitis, and the Human Immunodeficiency Virus (HIV), the causative agent of Acquired Immune Deficiency Syndrome (AIDS).

This Plan consists of four sections:

- Section 1 -- Occupational Exposure Determination;
- Section 2 -- Schedule and Method of Implementation;
- Section 3 -- Annual and Periodic Review; and
- Section 4 -- Policies and Procedures.

Seven (7) Attachments are included which will expedite and document compliance with this OECF and Federal and State laws.

Two (2) appendices are provided:

1. Disinfectant List
2. OSHA Bloodborne Pathogens Standards

SECTION 1. OCCUPATIONAL EXPOSURE DETERMINATION

SIUC has examined the potential for occupational exposure of all employees. SIUC reviewed the potential for occupational exposure without regard to the use of personal protective equipment. The University's determination is that some employees are routinely faced with occupational exposure, while others are periodically or rarely faced with possible exposure.

All employees in job classifications listed in Table 1 are considered to routinely have occupational exposure. *Some* employees in job classifications listed in Table 2 have routine occupational exposure. *Some* employees in job classifications listed in Table 3 have rare occupational exposure. It is the duty of University, Department and Unit management to identify specific positions that fall within these categories. A list of general job duties that may lead to occupational exposure are listed in Table 4.

Table 1

Job Classifications in Which All Employees Have Routine Occupational Exposure*

Athletic Trainer/Staff
Dental Hygiene Faculty/Staff
Histology Staff
Laundry Worker Series
M.D. Staff/Faculty
Medical Assistant
Medical Laboratory Assistant Series
Medical Laboratory Technician Series
Medical Technologist Series
Mortuary Science Faculty/Staff
Nurse Series
Physical Therapy Assistant/Staff
Radiographer Series
Student Emergency Dental Personnel

*Graduate Assistants and Student Employees whose specific duties in relation to these positions require occupational exposure also fall under these guidelines.

Table 2

Job Classifications in Which Some Employees may have Occupational Exposure*

Center for Environmental Health and Safety Staff
Child Care Assistant/Driver
Child Development Staff
Coaching Staff
Disabled Students Services Staff
Electron Microscope Technologist Series
Forest Custodian
Law Enforcement Faculty
Outdoor Program Staff
Plumbers
Police Officer Series
Police Telecommunicators
Radiologic Technology Faculty
Respiratory Therapy Faculty
Scientific Photographer Series
Swimming Pool Tender
Teacher Aide
Touch of Nature Environmental Center Staff

*Graduate Assistants and Student Employees whose specific duties in relation to these positions require occupational exposure also fall under these guidelines.

Table 3

Job Classifications in Which Some Employees May Have Rare
Occupational Exposure*

Assistant Teaching Consultant
Building Service Worker Series
Counseling Psychologist
Dental Technology Faculty/Staff
Gymnasium and Facilities Supervisor
Intramural Sports Coordinator
Medical Records Staff
Non-M.D. Faculty/Staff
Pharmacy Staff
Security Director
Student Recreation Center Staff
Touch of Nature Director
University Housing and Food Service Director and Staff
Wellness Program Staff

*Graduate Assistants and Student Employees whose duties in relation to these positions require occupational exposure also fall under these guidelines.

Table 4

Job Duties That May Lead to Exposure to Bloodborne Pathogens

Patient Care Activities

- Direct patient care contact, including emergency first aid.
- Assisting or performing diagnostic or therapeutic patient care procedures.
- Assisting in surgical procedures.
- Assisting in routine personal care activities.

Handling of Human Blood, Body Fluids or Tissue

- Collecting body fluid or tissue specimens.
- Transporting body fluid or tissue specimens.
- Operating laboratory equipment used in blood, blood derivative or other body fluid testing.
- Performing qualitative and quantitative tests and examinations of body fluid or tissue specimens.
- Disposal or storage of body fluid or tissue specimens.

Cleaning Patient Care or Laboratory Areas and Equipment

- Washing/cleaning laboratory glassware, apparatus, floors, workbenches, or counters.
- Cleaning and sterilizing equipment and instruments.
- Collecting soiled linen.
- Cleaning patient care areas.

Handling infectious, or potentially infectious agents, animals, or research material.

Handling blood or other tissues from primates.

Handling potentially infectious medical wastes (PIMW), including sharps.

SECTION 2. SCHEDULE AND METHOD OF IMPLEMENTATION

SIUC, after review of existing policies and State and Federal requirements, has established this Occupational Exposure Control Plan (OECF). This OECF shall be distributed to all appropriate Departments and Administrative Units within the University under the supervision of the Biohazard Oversight Advisory Committee (BOAC). All Departments and Administrative Units shall be responsible for implementing this OECF in accordance with Policies and Procedures set forth in Section 4. All Departments and Administrative Units shall also develop additional site-specific policies and procedures to supplement this general OECF as needed and forward such policies and procedures to the Center for Environmental Health and Safety (CEHS) for documentation and approval.

Each appropriate Department and Administrative Unit must certify compliance with this OECF to the Office of the Associate Vice Chancellor for Research and Dean of the Graduate School through the CEHS. The CEHS will assist Departments and Administrative Units in implementing the OECF.

SECTION 3. ANNUAL AND PERIODIC REVIEW

This Occupational Exposure Control Plan shall be reviewed and updated at least annually by the Biohazard Oversight Advisory Committee and whenever necessary to reflect new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

A copy of this Plan will be made accessible to personnel who may be at risk, as defined in Section 1, Tables 1, 2 and 3 .

SECTION 4. POLICIES AND PROCEDURES

OECP - 100.00 RATIONALE FOR UNIVERSAL PRECAUTIONS

Universal Precautions are designed to prevent the spread of microorganisms among persons. Using Universal Precautions interrupts the chain of infection. Spread of infection requires three elements: a source of infecting organisms, a susceptible host, and a means of transmission for the organism.

Source

The source of the infecting agent may be employees, students, research animals or materials, or visitors, and may include persons with acute disease, persons in the incubation period of the disease, or persons who are colonized by the infectious agent but have no apparent disease. Another source of infection can be the person's own endogenous flora (autogenous infection). Other potential sources are inanimate objects in the environment that have become contaminated, including equipment, medications, and laboratory cultures.

Host

Resistance to pathogenic microorganisms varies greatly. Some persons may be immune to or able to resist colonization by an infectious agent; others exposed to the same agent may establish a commensal relationship with the infecting organism and become asymptomatic carriers; still others may develop clinical disease. Persons with diabetes mellitus, lymphoma, leukemia, neoplasia, granulocytopenia, or uremia and those treated with certain antimicrobials, corticosteroids, irradiation, or immunosuppressive agents may be particularly prone to infection. Age, chronic debilitating disease, shock, coma, traumatic injury, or surgical procedures also make a person more susceptible to infection.

Transmission

Microorganisms are transmitted by various routes and the same microorganisms may be transmitted by more than one route. For example, varicella-zoster virus can spread either by the airborne route (droplet nuclei) or by direct contact.

There are four main routes of transmission - contact, airborne, vehicle, and vectorborne.

- A. Contact transmission, the most important and frequent means of transmission of infections, can be divided into three subgroups: direct contact, indirect contact, and droplet contact.

1. *Direct Contact* - This involves direct physical transfer between a susceptible host and an infected or colonized person, such as occurs when patient-care personnel turn patients, give baths, change dressings or perform other procedures requiring direct personal contact. Direct contact can also occur between two individuals, one serving as the source of infection and the other as a susceptible host.
 2. *Indirect Contact* - This involves personal contact of the susceptible host with contaminated intermediate objects, usually inanimate, such as bed linens, clothing, instruments, and dressings.
 3. *Droplet Contact* - Infectious agents may come in contact with the conjunctivae, nose, or mouth of a susceptible person as a result of coughing, sneezing, or talking by an infected person who has clinical disease or is a carrier of the organism. This is considered "contact" transmission rather than airborne because droplets usually travel no more than about three feet.
- B. Airborne transmission occurs by dissemination of either droplet nuclei (residue of evaporated droplets that may remain suspended in the air for long periods of time) or dust particles in the air containing the infectious agent. Organisms carried in this manner can be widely dispersed by air currents before being inhaled by or deposited on the susceptible host.
- C. The vehicle transmission route applies in diseases transmitted through these contaminated items:
1. Food, such as in salmonellosis;
 2. Water, such as in legionellosis;
 3. Drugs, such as in bacteremia resulting from infusion of a contaminated infusion product;
 4. Blood, such as in hepatitis B virus (HBV) or HIV infection.
- D. Vectorborne transmission is the transfer of pathogenic microorganisms from a living agent (e.g., arthropods such as ticks, fleas, or lice, or vertebrates such as dogs or rats) to the human host, usually by means of parenteral inoculation (biting). Examples of these diseases are Lyme disease, bubonic plague, and Rocky Mountain spotted fever.

OECP - 101.00
UNIVERSAL PRECAUTIONS AND ENGINEERING AND WORK PRACTICE
CONTROLS

Universal precautions are prudent practices that apply to the prevention of infectious disease transmission. These precautions, based on recommendations from the Centers for Disease Control and Prevention, must be used routinely on all persons and contaminated items. Under normal circumstances, however, contact with sweat and tears does not require gloves or other personal protective equipment. These precautions must be used whenever differentiation of body fluids is difficult.

- A. *Handwashing.* Handwashing is the single most effective means of preventing the spread of infections. Hands and other skin must be washed thoroughly and immediately with soap and water if they accidentally become contaminated with blood, body fluids, excretions, or secretions. Hands must be thoroughly and immediately washed with soap and water after removal of gloves. Further, mucous membranes must be flushed with water immediately after contamination (see OECP - 101.10 Handwashing and Handwashing Facilities).

- B. *Sharps disposal.*
 - 1. Used sharp items (needles, scalpel blades, glass pipettes, and other sharp instruments) should be considered as potentially infectious and be handled with extraordinary care to prevent accidental injuries.
 - 2. Disposable syringes and needles, scalpel blades, glass pipettes, and other sharp items should be placed in puncture-resistant containers designated specifically for this purpose. These containers must be located as close as practical to the area where the sharps are used. Under normal circumstances, **needles SHALL NOT be recapped, purposefully bent, or removed from disposable syringes, or otherwise manipulated by hand. Shearing or breaking of contaminated needles is prohibited.** If recapping or removal of used needles must be done and no alternative is feasible or such action is required by a specific medical procedure, a single-handed method must be used, i.e., a resheathing device or the "scoop technique." The need to use this technique must be clearly documented (see OECP -101.20 Disposal of Sharps).

- B. *Anticipated potential exposure.* All treatments and procedures must be performed in such a manner as to reduce the possibility of direct exposure to a patient's mucous membranes, broken skin (including

rashes), blood or other body fluids, secretions or excretions, or potentially infectious laboratory cultures. Anticipated exposure may require gloves, as when having potential contact with blood or other body fluids, secretions or excretions, or when handling soiled items or contaminated equipment. Gloves are required and are always available to healthcare workers who perform venipunctures.

Gloves are mandatory for:

1. Direct contact with skin or mucous membranes at all times and especially when the employee has cuts, scratches, or other breaks in the skin.
2. Venipunctures.
3. Situations where the healthcare worker judges that hand contamination with blood may occur, for example, when changing dressings on a patient.
4. Finger and/or heel sticks on infants and children.
5. Persons who are receiving training in venipuncture procedures.
6. Persons handling body fluids or potentially infectious laboratory cultures.

- D. *Anticipated direct exposure.* Masks, eye coverings, and gowns are required, in addition to gloves, if aerosolization or splashes are likely to occur (see OECF - 103.00 Personal Protective Equipment) when performing procedures involving more extensive and predictable contact with blood or other body fluids, secretions or excretions, as in some dental or endoscopic procedures, postmortem examinations, or in handling infectious cultures.
- E. *Ventilation devices.* To minimize the need for emergency mouth-to-mouth resuscitation, mouth pieces, resuscitation bags or other ventilation devices should be strategically located and available for use in areas where the need for resuscitation is predictable.
- F. *Blood spills.* If a spill of blood occurs, spray the spill with full-strength chlorine bleach (5.25% sodium hypochlorite) or any disinfectant certified to be effective for use against bloodborne pathogens (Appendix 1). Wearing gloves, wipe up the spill with paper towels. Spray the area again with disinfectant and then wipe again. Discard paper towels and gloves in plastic bag and tie securely prior to disposal.
- G. *Work restrictions.* Routine work restrictions for personnel who are pregnant or who have chronic illness are not necessary for purposes of infection control.

- H. *Open wounds.* No healthcare worker who has **exudative lesions** or **weeping dermatitis** should perform or assist in invasive procedures or other direct patient-care activities or handle equipment used in patient care.
- I. *Pipetting.* Mouth pipetting or suctioning of blood or other potentially infectious materials is prohibited.
- J. *Specimen handling.* Specimens of blood, laboratory cultures, or other potentially infectious materials, shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.
1. The container for storage or transport shall be labeled or color-coded according to OECP-108.00 "Communication of Hazards to Employees" and closed prior to being stored or transported. When Universal Precautions are utilized 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 OECP - 108.00 "Communication of Hazards to Employees" is required when such specimens/containers leave the facility. Shipping of biohazardous specimens must be in accordance with 42-CFR, part 72, "Interstate Shipment of Etiologic Agents", a copy of which can be obtained from CEHS.
 2. 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 OECP - 108.00 "Communication of Hazards to Employees."
 3. 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.
- K. *Equipment decontamination.* 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 Department or Administrative Unit can demonstrate to the CEHS that decontamination of such equipment or portions of such equipment is not feasible.

1. A readily observable label in accordance with OECP - 108.00 "Communication of Hazards to Employees" shall be attached to the equipment stating which portions remain contaminated.
2. The Department or Administrative Unit releasing such equipment 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.

OECP - 101.10 HANDWASHING AND HANDWASHING FACILITIES

Because many types of infections may be caused by organisms transmitted on the hands of personnel, handwashing is generally considered the single most important procedure in preventing the spread of infection. For this reason guidelines for the use of appropriate handwashing are provided.

Handwashing Guidelines - Routine Patient Care

For routine contacts and procedures, a vigorous rubbing together of all surfaces of lathered hands for at least 60 seconds, followed by rinsing under a stream of water is recommended, using a product which is generally acceptable to personnel. In the absence of a true emergency, personnel must always wash their hands:

- A. Before performing non-surgical invasive procedures (e.g., insertion of intravenous or urinary catheters).
- B. Before taking care of particularly susceptible individuals, such as those who are severely immunocompromised and newborns.
- C. Before and after touching wounds, whether surgical, traumatic, or associated with an invasive device.
- D. After situations during which microbial contamination of hands is likely to occur, especially those involving contact with mucous membranes, blood or body fluids, secretions, excretions, broken skin, infectious cultures, or animals.
- E. After touching inanimate sources that are likely to be contaminated with virulent or epidemiologically important microorganisms. These sources include urine-measuring devices or secretion-collection apparatuses.
- F. After removing gloves.
- G. Between contacts with different individuals.
- H. Before preparing medication.
- I. Before and after all procedures or treatments.
- J. After using restroom facilities.

K. Before leaving research areas.

Handwashing Facilities

A. Routine Patient Care Areas

Handwashing facilities will be readily accessible to employees. When provision of handwashing facilities is not feasible, an appropriate antiseptic hand cleaner and clean cloth/paper towels or antiseptic towelettes will be provided.

1. Each handwashing station will be provided with a liquid soap dispenser, soap and single-use disposable paper towels.
2. When antiseptic towelettes or cleaner are used, hands will be washed with soap and running water as soon as feasible.

B. Non-Patient Contact Areas (e.g., public restrooms and other areas in which there is no direct patient contact).

Handwashing facilities, including sinks with running water, should be conveniently located for frequent use. However, when provision of handwashing facilities is not feasible, an antiseptic handwashing product that is generally acceptable to personnel is to be provided. It is not necessary for this product to be medicated or antimicrobial. *Gloves do not serve as a substitute for handwashing* (see OECF - 101.00 Universal Precautions and Engineering and Work Practice Controls).

OECP - 101.20 DISPOSAL OF SHARPS

Engineering and Work Practice Controls shall be used to eliminate or minimize employee exposure. All needles and sharps should be considered potentially infectious and handled with care.

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

Disposal of Sharps

- A. Sharps shall be placed in containers that are designed for such purpose (i.e., puncture-resistant, labeled or color coded, leakproof on sides and bottom, closable) immediately or as soon as possible after use. Sharps containers are available from CEHS free of charge.
- B. To prevent needlestick injuries, needles should not be recapped, purposely bent, broken, removed from disposable syringes, or manipulated by hand. Shearing or breaking of needles is prohibited.
- C. If recapping of used needles must be done and no alternative is feasible or such action is required by a specific medical procedure, a single-handed method must be used, i.e., a resheathing device or the "scoop technique." The need to use this technique must be clearly documented (see OECP - 101.20 Disposal of Sharps).

Availability/Disposal of Sharps Disposal Containers

All disposable needles and syringes should be placed into puncture-resistant containers designed and labeled specifically for this purpose in accordance with OECP - 108.00 "Communication of Hazards to Employees." These containers must be located as close as possible to the area where the sharps are used.

- A. Containers for sharps shall be:
 - 1. 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., exam rooms, nursing stations, treatment rooms, or laboratories).
 - 2. These containers must be maintained upright throughout use.
 - 3. Containers must be routinely replaced and not be allowed to overfill. Containers must be replaced when they are 3/4 full.
- B. Disposal of sharps containers shall be carried out by:

1. Closure immediately prior to removal or replacement to prevent spillage or protrusion of contents.
2. Placed in a secondary container if leakage is possible or if the outside of the container is contaminated by blood or body fluids.

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 with a biohazard label.
- C. If reusable containers are used, they shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.
- D. Contaminated reusable sharps shall be stored and processed in such a manner that does not require employees to reach by hand into the container.
- H. Sharps containers should be attached to a wall or other structure, where feasible, rather than sitting on a counter.
- F. All sharps disposal containers shall be labeled with biohazard symbol or color coded (orange or orange-red).
- G. Sharps disposal will be done by the Center for Environmental Health and Safety (CEHS). Contact CEHS at 453-7180 or go to the following website for additional information:
<http://www.cehs.siu.edu/biological>.

OECP - 101.30
EATING, DRINKING, AND PERSONAL ACTIVITIES

Engineering and Work Practice Controls concerning eating, drinking, and other personal activities shall be used to eliminate or minimize employee exposure. The following practices are **prohibited** in all research and clinical work areas. This includes examination and treatment rooms, laboratories, utility rooms, or other areas where medications or laboratory specimens are prepared or stored.

- Eating
- Drinking
- Smoking
- Self-application of lip balm or cosmetics
- Handling of one's own contact lenses

OECP - 101.40
STORAGE OF FOOD AND DRINK

Engineering and Work Practice Controls concerning the storage of food and drink shall be used to eliminate or minimize employee exposure. In general, human food and drink storage are **prohibited** in clinical and laboratory work areas, and in animal facilities.

- A. Food and drink shall not be stored in any room where blood or other potentially infectious materials are present.
- B. Food and drink shall not be kept in refrigerators or freezers where blood or other potentially infectious materials are present.
- C. Food and drink shall not be kept in refrigerators or freezers where vaccines or medications are stored.
- D. Food and drink shall not be kept on shelves, cabinets, or counter tops where blood or other potentially infectious materials are present.

**OECP - 102.00
HEPATITIS B VACCINATION PROGRAM**

A. General

1. SIUC shall make available the hepatitis B virus (HBV) vaccine and vaccination series to all employees who have occupational exposure. Post-exposure evaluation and follow-up shall be made available to all employees who have had an exposure to bloodborne pathogens.
2. SIUC 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 in the "OSHA/IDOL Occupational Exposure Regulations" (See Appendix 2, page 48).

B. Hepatitis B Vaccination

1. Vaccination is offered to all employees in job classifications listed in Table 1 and to employees in job classifications in Tables 2 and 3 who perform tasks listed in Table 4.
2. Hepatitis B vaccination shall be made available after the employee has received required training 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. All current employees referred to in paragraph B1 of this section shall be offered vaccination within 90 days of adoption of this Occupational Exposure Control Plan.
3. SIUC shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.
4. If the employee initially declines hepatitis B vaccination but, at a later date, while still covered under the standard, decides to accept the vaccination, SIUC shall make available hepatitis B vaccination at that time.
5. SIUC shall ensure that employees who decline to accept hepatitis B vaccination offered by SIUC sign the Hepatitis B Vaccine Declination Statement (Attachment 1).

6. 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 the "OSHA Occupational Exposure Regulations" (Appendix 2).
7. If an employee terminates employment, it is his/her responsibility to complete the vaccination series at his/her own expense.

C. *Post-exposure Evaluation and Follow-Up*

See OECP - 107.00 "Management of Employee Exposure to Blood and Body Fluids – Post exposure Evaluation and Follow-Up" for details of required procedures.

OECP - 103.00
PERSONAL PROTECTIVE EQUIPMENT

A. *Personal Protective Equipment (PPE)*

When there is a potential for occupational exposure, SIUC provides, 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 is "appropriate" to the situation when it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work 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.

B. *Use of PPE*

SIUC requires that employees use appropriate personal protective equipment. An employee may temporarily and briefly decline to use personal protective equipment when, under rare and extraordinary circumstances, it is 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 reported to the CEHS to be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

C. *Accessibility of PPE*

Appropriate personal protective equipment in 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.

D. *Cleaning, Laundering, Replacement and Disposal of PPE*

1. SIUC shall clean, launder, and dispose of personal protective equipment at no cost to employees.
2. SIUC shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to employees.
3. SIUC employees must report defective personal protective equipment to their supervisor or Department head as appropriate.
4. 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 and handled appropriately.

5. All personal protective equipment shall be removed prior to leaving the work area.
6. When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination, or disposal.
7. EVERY SITE SHALL ESTABLISH A METHOD FOR COLLECTING AND LAUNDERING PERSONAL CLOTHING THAT IS PENETRATED BY BLOOD OR OTHER POTENTIALLY INFECTIOUS MATERIALS (see OECF 104.10 Contaminated Employee-owned Clothing Procedure).

E. *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 venipuncture procedures and when handling or touching contaminated items or surfaces.

1. 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.
2. Disposable (single use) gloves shall not be washed or decontaminated for reuse.
3. 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 exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

F. *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.

G. *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.

H. *Surgical caps or hoods and/or shoe covers or boots*

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

OECP - 104.00 HOUSEKEEPING

A. *General*

SIUC ensures that all worksites are maintained in a clean and sanitary condition. SIUC has implemented an appropriate written schedule for cleaning and methods 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.

B. *All equipment and environmental and working surfaces are required to be cleaned and decontaminated after contact with the blood or other potentially infectious materials.*

1. Contaminated work surfaces shall be decontaminated with full-strength chlorine bleach (5.25% sodium hypochlorite) or any disinfectant certified to be effective for use against bloodborne pathogens (see Appendix 1) after completion of procedures; as soon as possible when surfaces are overtly contaminated with 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.
2. 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.
3. 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 as soon as possible upon visible contamination.
4. Broken glassware which may be contaminated shall not be picked up directly with the hands. **Broken glass shall be cleaned up using mechanical means such as a brush and dust pan, tongs, or forceps, after thoroughly wetting the area with a decontaminating solution. Under no circumstances shall such material be swept "dry". Precautions shall also be taken to decontaminate mechanical devices such as buckets, mops, brooms, tongs, forceps and dustpans used in cleanup procedures.**
5. 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.

C. *Regulated Waste*

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

1. General Regulated Waste Containment and Disposal
 - a. Regulated waste shall be placed in containers which are:
 - 1) Closable;
 - 2) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping;
 - 3) Properly labeled or color-coded; and
 - 4) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping
 - b. If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:
 - 1) Closable;
 - 2) Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping;
 - 3) Properly labeled or color-coded; and
 - 4) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
 - c. Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.
 - d. Regulated waste shall be disposed of by the Center for Environmental Health and Safety (CEHS). For pick-up of regulated waste, contact CEHS at 453-7180 or complete an on-line pickup request form at: <http://www.cehs.siu.edu/biological>
2. Contaminated Sharps Containment and Disposal
 - a. Contaminated sharps shall be discarded immediately or as soon as possible in containers that are:
 - 1) Closable;
 - 2) Puncture-resistant;
 - 3) Leak-proof on sides and bottom; and
 - 4) Properly labeled or color-coded.
 - b. During use, containers for contaminated sharps shall be:

- 1) Easily accessible to personnel and located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries):
 - 2) Maintained upright throughout use; and
 - 3) Replaced when three-quarters full.
- c. When moving containers of contaminated sharps from the area of use, the containers shall be:
- 1) Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;
 - 2) 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) Properly labeled or color-coded.
- d. Reusable disposal containers shall not be opened, emptied, or cleaned manually or in any other manner which exposes employees to the risk of percutaneous injury.
- e. 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.
- f. Sharps containers are provided free of charge by CEHS. Contact CEHS for additional information or to receive a container.
- g. Sharps waste shall be disposed of by the Center for Environmental Health and Safety (CEHS). For pick-up of sharps waste, contact CEHS at 453-7180 or complete an on-line pickup request form at: <http://www.cehs.siu.edu/biological>

D. *Laundry*

1. Contaminated laundry shall be handled as little as possible with a minimum of agitation.
 - a. 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.
 - b. Contaminated laundry shall be placed and transported in bags or containers and properly labeled. When Universal Precautions are utilized in the handling of all soiled laundry, alternative labeling is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

- c. Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or of 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.
2. All employees who have contact with contaminated laundry shall wear protective gloves and other appropriate personal protective equipment.
3. If contaminated laundry is shipped off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the contaminated laundry must be placed in laundry bags or containers that are properly labeled and color-coded.

OECP - 104.10
CONTAMINATED EMPLOYEE-OWNED CLOTHING PROCEDURE

Location: All SIUC facilities

Purpose: To provide a mechanism for laundering of employee-owned clothing which has become penetrated by blood or body fluids during the course of an employee's duties, with the aim of decreasing pathogenic microbial contamination.

Instructions:

1. Remove contaminated clothing;
2. Place clothing in biohazard bag (contact CEHS if a bag is needed);
3. Contact CEHS to pickup the contaminated clothing. CEHS will deliver the clothing to Travel Service which handles the laundry service;
4. Travel Service will be responsible for cleaning the clothes and delivering the clothing to the owner.

OECF - 105.00
HIV AND HBV RESEARCH LABORATORIES AND PRODUCTION
FACILITIES

- A. It is the policy of SIUC that no research shall be conducted on the Carbondale campus utilizing HIV or HBV (or any other hazardous or infectious agent) without the express written approval of the Institutional Biosafety Committee (IBC). Application forms and instructions for applying to the IBC for such approval can be obtained from the SIUC Biosafety Officer. At the present time, no laboratories at SIUC are involved in active research utilizing infectious HIV or HBV.
- B. This policy 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.
- C. The policies and procedures of the IBC for research laboratories and production facilities using HIV or HBV shall meet or exceed the following criteria:
1. *Standard Microbiological Practices*
All regulated waste shall either be incinerated or decontaminated by a method known to effectively destroy bloodborne pathogens, such as autoclaving .
 2. *Special Practices*
 - a. Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.
 - b. Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leak-proof, labeled, or color-coded container that is closed before being removed from the work area.
 - c. Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.
 - d. When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be

- posted on all access doors. The hazard warning sign shall comply with OECF-108.00 "Communication of Hazards to Employees."
- e. All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.
 - f. Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.
 - g. Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when hand contact with other potentially infectious materials is unavoidable.
 - h. Before disposal, all waste from work areas and animal rooms shall either be incinerated or decontaminated by a method known to effectively destroy bloodborne pathogens, such as autoclaving.
 - i. Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.
 - j. Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.
 - k. All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.
 - l. A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.
 - m. A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions concerning safe practices and

procedures, and shall be required to follow these practices and procedures.

3. Containment Equipment

- a. Certified biological safety cabinets (Class II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.
- b. Biological safety cabinets shall be certified when installed, whenever they are moved, and at least annually.

D. *HIV and HBV research laboratories shall meet the following criteria:*

1. Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.
2. An autoclave for decontamination of regulated waste shall be available.

E. *HIV and HBV production facilities shall meet the following criteria:*

1. 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.
2. 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.
3. 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.
4. Access doors to the work area or containment module shall be self-closing.
5. An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.
6. 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).

F. *Training Requirements*

Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in OECF - 109.00 "Information and Training."

OECP - 106.00
HBV AND HIV EXPOSURE INFORMATION

When an employee has eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood, other potentially infectious body fluids, or other potentially infectious materials, the employee must complete a Bloodborne Pathogens Exposure Report (Attachment 2) and a University Injury Report which are available from the supervisor. These reports must be presented to the SIU Health Service physician or other healthcare professional for post-exposure evaluation. The SIU Health Service will retain a copy of both forms for the employee's medical record and send the originals to CEHS.

A. *Exposure is defined by the Centers for Disease Control and Prevention as:*

1. Overt parenteral transmission
Direct percutaneous inoculation by contaminated needle or instrument (e.g. needle stick, scalpel laceration).
2. Inappropriate parenteral transmission
 - a) Cutaneous exposure with blood or body fluid without overt needle puncture (e.g., scratches, dermatitis, chapped/cracked skin)
 - b) Contamination of mucosal surfaces with blood or body fluids (e.g., eye or mouth splashes or other direct mucosal contact of eyes, nose, mouth)

B. The following body fluids are designated as potentially infectious for HIV, HBV, and other bloodborne pathogens:

1. Blood
2. Any body fluid containing visible blood
3. Semen
4. Vaginal secretions
5. Cerebrospinal fluid
6. Synovial fluid
7. Pleural fluid
8. Peritoneal fluid
9. Pericardial fluid
10. Amniotic fluid

C. The following body products should also be handled using personal protective equipment.

1. Feces
2. Urine
3. Saliva
4. Vomit

5. Nasal secretions

D. The Centers for Disease Control and Prevention have recommended that the following body fluids NOT BE CONSIDERED as potentially infectious for HBV and HIV unless they contain visible blood:

1. Sweat
2. Tears

Thus, if an employee has an exposure which involves any of the group of body fluids listed in "B" above, that employee must report the incident which shall be evaluated in accordance with OECP - 107.00 "Management of Employee Exposure to Blood and Body Fluids - Post-exposure Evaluation and Follow-up."

NOTE: *Illinois law provides for confidential HIV testing without consent of the patient when a physician has determined that a healthcare worker has received a significant exposure to a patient's blood and/or body fluids.*

OECP - 107.00
MANAGEMENT OF EMPLOYEE EXPOSURE TO BLOOD AND BODY
FLUIDS
POST-EXPOSURE EVALUATION AND FOLLOW-UP

A. Employee Responsibilities

The following steps are to be followed by the employee when s/he has experienced an exposure to blood or body fluids via a needlestick, cut or puncture wound, a mucous membrane splash or a cutaneous exposure (as described in OECP-106.00 "HBV and HIV Exposure Information"), especially if the skin is broken.

1. Wash the exposed site immediately.
 - a. If needlestick, cut, puncture wound or cutaneous exposure, wash with soap and water.
 - b. If mucous membrane (eyes, nose, mouth) splash, flush with water at the nearest faucet for at least 3 minutes.
2. Employees should immediately inform their immediate supervisor who will inform CEHS.
3. Employees must fill out a "Bloodborne Pathogens Exposure Report" form (Attachment 2, obtained from a supervisor), describing the incident in detail, including route of exposure and a description of the employee's duties as they relate to the exposure incident. Include information about the source patient, if known (name, address, phone number).
4. Employees must also fill out a University Injury Report obtained from Personnel or a supervisor. Describe the incident as an "exposure to blood and body fluids".
5. Employees must take the completed Bloodborne Pathogens Exposure Report and the University Injury Report to the SIU Health Service or other healthcare professional for post-exposure evaluation.
6. Seek medical attention at the Health Service (453-3311) if open. Contact the Dial-A-Nurse (536-5585) at other times. If neither the Health Service nor Dial-A-Nurse is available, seek attention from Memorial Hospital of Carbondale Emergency Room (549-0721) or any other appropriate health-care provider.

B. Employer (SIUC) Responsibilities

1. CEHS will determine whether the exposure is of a nature that may transmit HBV or HIV.
2. CEHS shall contact the source individual and request that s/he have blood drawn at the Health Service for HBV and HIV tests. If blood is already available at the Health Service, no consent is necessary for HBV or HIV tests to be done.

3. Test results will be sent to the Health Service Medical Director. Neither the exposed employee nor the source individual will be charged for testing.
4. CEHS shall ensure that the following are provided to the Health Service or other healthcare professionals for post-exposure evaluation:
 - a) A copy of this OECR and "Occupational Exposure Regulations" (Appendix 2);
 - 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) The employee's vaccination status, the identity of the source individual, and the results of the source individual's blood tests, if already available.
5. CEHS shall notify Personnel of every exposure/incident using the University Injury Report Form.
6. Counseling regarding possible HBV or HIV exposure and follow-up testing shall be offered to all employees receiving an exposure to blood/body fluid if determined to be of a nature that may transmit HBV or HIV. Counseling will be done by the Health Service. If the employee received care from a healthcare provider other than the Health Service, CEHS will ensure that counseling and follow-up testing will be provided.
 - a) Hepatitis B vaccine shall be offered to any employee who has not been previously vaccinated. Vaccination is strongly urged for employees in occupationally high-risk groups.
 - b) HIV counseling and testing are offered as soon as possible after exposure.
7. 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 patient.
8. The exposed employee's blood shall be collected as soon as feasible and tested for HBV and HIV serological status after consent is obtained (Attachment 3 Employee Consent for HIV Antibody Testing). Counseling shall be provided as outlined in Attachment 4 "Counseling Checklist for Blood and/or Body Fluid Exposure."
 - a. If the employee refuses testing, this fact shall be so documented in the record by CEHS and countersigned by the employee (see Attachment 3).
 - b. If the employee consents to baseline blood collection but does not consent at that time for HIV serological 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.
9. If the source individual is known to be seropositive for hepatitis B or HIV, CEHS shall ensure that the employee obtains immediate and follow-up medical treatment through SIUC or from his/her personal physician. Retesting of the source individual is not required.
 10. If the source individual is seropositive for hepatitis B, the employee will also be given a Hepatitis B Exposure Information form (Attachment 5). Retesting of the source individual is not required.
 11. The evaluating healthcare professional shall provide his/her opinion in the employee's confidential health record (Attachment 7), and a copy will be provided to the employee and to CEHS, all within 15 days after the evaluation. This written opinion shall be limited to the following information:
 - a. The healthcare professional's recommendation as to whether hepatitis B vaccination is indicated and whether the employee has received such vaccination.
 - b. A statement that the employee has been informed of the results of his/her evaluation and has been told of any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.
 - c. All other findings and diagnoses shall remain confidential and shall not be included in the written report.
 12. On a quarterly basis CEHS will submit a report to the Biohazard Oversight Advisory Committee on the number and types of exposures, location, number of source individuals tested, and results, prophylaxis provided and number of positive results for HIV and hepatitis B testing.
 13. CEHS will report seropositive results to the State Health Department as required by law.

OECP - 108.00
COMMUNICATION OF HAZARDS TO EMPLOYEES

A. Labels and Signs

1. 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 specifically provided in this Policy.
- b. Labels required by this section shall include the following legend:



BIOHAZARD

- c. These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.
- d. Labels are required to be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.
- e. Red bags or red containers may be substituted for labels.
- f. Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from these labeling requirements.
- 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 these labeling requirements.
- h. Labels required for contaminated equipment shall be in accordance with this Policy 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.

2. Signs

- a. SIUC shall post signs at the entrance to work areas as specified in OECF -105.00, "HIV and HBV Research Laboratories and Production Facilities," which shall bear the following legend:



(Name of the infectious agent)
(Special requirement for entering the area)
(Name, telephone number of the laboratory director or other responsible person)

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

OECP - 109.00 INFORMATION AND TRAINING

SIUC provides occupational exposure training to all employees with occupational exposures at no cost to the employee and during working hours. Training will be coordinated and provided as requested through CEHS. All University groups which require training should contact CEHS at 453-7180 or go to the following website: <http://www.cehs.siu.edu/biological>

A. *Time Frame*

1. Training is provided as follows:
 - a. Promptly following adoption of this Occupational Exposure Control Plan;
 - b. At the time of initial assignment to tasks where occupational exposure may take place;
 - c. Annual training for all employees shall be provided within one year of their previous training.
2. SIUC will 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.

B. *Training Contact*

1. Material appropriate in content and vocabulary to educational level, literacy, and language of employees is used. The training program shall contain at a minimum the following elements:
 - a. An accessible copy of the regulatory text of the OSHA/IDOL standard (See Appendix 2 page 48-- "OSHA IDOL Occupational Exposure Regulations") 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 SIUC Occupational Exposure Control Plan and the means by which the employee can obtain a copy of the written plan;
 - e. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

- f. An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
- g. Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment;
- h. An explanation of the basis for selection of personal protective equipment;
- i. Information on the hepatitis B vaccine including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
- j. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- k. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
- l. Information on the post-exposure evaluation and follow-up that SIUC is required to provide for the employee following an exposure incident;
- m. An explanation of required signs and labels and/or color coding;
- n. An opportunity for interactive questions and answers with the person conducting the training session.

C. Training Personnel

- 1. All persons 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.

D. Documentation of Attendance

- 1. Each person attending the training shall be required to sign in, giving full name and job classification on Training Record (See Attachment 6 "Training Record" to be maintained at the CEHS).

E. Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities

- 1. Employees in HIV or HBV research laboratories and HIV and HBV production facilities shall receive the following initial training in addition to the above training requirements.
 - a. SIUC shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

- b. SIUC shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.
- c. SIUC 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. SIUC shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

NOTE: *NO RESEARCH involving infectious organisms, human blood, human tissue samples, or non-human primates can be performed at SIUC without prior written approval of the Institutional Biosafety Committee (IBC).*

OECP - 110.00 RECORDKEEPING

A. *Medical Records*

1. SIUC, through the Center for Environmental Health and Safety, shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with OSHA's Occupational Exposure Regulations (See Appendix 2 page 48).
2. For employees with occupational exposure, this record shall include:
 - a. The name and social security number of the employee; and
 - 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;
3. For employees who have had an exposure incident, a record will be kept in the employee's file at the Student Health Service and will include:
 - a. A copy of the evaluating Healthcare Professional's Written Opinion (Attachment 7);
 - b. A copy of the Bloodborne Pathogens Exposure Report (Attachment 2);
 - c. A University Injury Report;
 - d. Results of examination, medical testing and follow-up (see OECP - 107.00, "Management of Employee Exposure to Blood and Body Fluids--Post- exposure Evaluations and Follow-up").
4. SIUC shall ensure that employee medical records are:
 - a. Kept confidential; and
 - b. Are not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.
5. SIUC shall maintain these records for at least the duration of employment plus 30 years by CEHS.

B. *Training Records*

1. 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.
2. Training records shall be maintained for 3 years from the date on which the training occurred.

3. Training records will be completed at the time of training in individual departments. Copies of these records will be sent to CEHS which has the responsibility to maintain them for the appropriate time.

C. Availability

1. SIUC shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary of Labor for Occupational Safety and Health ("Assistant Secretary") and the Director of the National Institute for Occupational Safety and Health ("Director") for examination and copying.
2. 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 as required.
3. 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 as required.

D. Transfer of Records

1. SIUC shall comply with all requirements involving transfer of records.
2. If SIUC ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, SIUC 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.

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.

_____	_____
Date	Signature
_____	_____
Social Security Number	Printed Name
_____	_____
Department	Witness

(For office use only)

Does this employee have:

1. Natural antibodies?
2. Previous successful HBV immunization?
3. Medical contraindication to immunization?

If the answer to any question is yes, please provide documentation.

Send this form to the Center for Environmental Health and Safety
Attachment 1, OECP, SIUC

BLOODBORNE PATHOGENS EXPOSURE REPORT

Southern Illinois University at Carbondale

In case of exposure to bloodborne pathogen(s), complete this form and return to the Center for Environmental Health and Safety within 24 hours. A copy must be taken to the SIUC Health Service or other healthcare provider for post-exposure evaluation. If other persons were involved, attach additional copies of this form for each person involved.

Date of Report: _____ Time of Report: _____

Name (Last, First, M.I.): _____

Sex: M F Social Security Number: _____

Address (Local): _____

Date of Birth: _____

Work Phone: _____

Home Phone: _____

Status at time of exposure: Employee Student Faculty Other
(Explain):

Job title: _____

Duties related to exposure: _____

Has the exposed individual been immunized against hepatitis B virus?

Yes No

Dates of immunization (1)_____ (2)_____ (3)_____

Place where exposure incident occurred: _____ Date: _____ Time: _____

Did incident arise out of and in the course of University employment?

Yes No

Name of individual in charge of area where exposure occurred: _____

List any witnesses present: _____

Name:

Address:

Telephone:

Personal protective equipment in use at time of exposure:

Exposure to:

- | | |
|--|--|
| <input type="checkbox"/> Blood | <input type="checkbox"/> Internal body fluids (circle one) |
| <input type="checkbox"/> Body fluid with visible blood | cerebrospinal, synovial, pleural, |
| <input type="checkbox"/> Vaginal secretions | amniotic, pericardial, peritoneal |
| <input type="checkbox"/> Seminal fluid | |

Type of Exposure:

- Needlestick/sharps accident
- Contact with mucous membranes (eyes, mouth, nose)
- Contact with skin (circle all that apply)
broken, chapped, abraded, dermatitis, prolonged contact, extensive contact
-

Severity of Exposure:

How much fluid? _____

How long was exposure? _____

How severe was the injury? _____

Estimated time interval from exposure until medical evaluation:

Source of Exposure:

Source individual's name, if known:

Address: _____

Phone: _____

Is a blood sample from the source available?

Is the source individual's HBV antigen/ antibody status known?

Yes [] No []

Is the source individual's HIV antibody status known? Yes [] No []

Describe Activity Leading to Exposure:

[] Giving injection

[] Cleaning blood spills

[] Recapping needles

[] Handling waste products

[] Discarding needles

[] Handling lab specimens

[] Handling IV lines

[] Controlling bleeding

[] Handling disposal box

[] Performing invasive procedure

[] Other: _____

Describe Situation Precisely:

Describe Immediate Interventions:

Was the area washed flushed?
Did injury bleed freely? yes no
Was antiseptic applied? yes no
Other:

Describe nature and scope of personal injury, if any: Was medical treatment obtained?
 yes no

Name and address of hospital, physician or clinic where injured person was taken, if applicable:

Name of person completing form: Job title/occupation:

Signature: Work Phone Number: Date:
Home Phone Number:

Attachment 2, OECP, SIUC

EMPLOYEE CONSENT FOR HIV ANTIBODY TEST

Because I have been exposed to another individual's blood and/or body fluid, it has been recommended that I have a blood test to detect whether I have antibodies to the Human Immunodeficiency Virus (HIV or the AIDS virus) or to Hepatitis B. I understand that this test is performed by withdrawing a sample of my blood and then testing that blood.

I further understand that a positive blood test result for HIV does not mean that I have AIDS, but that my blood has been exposed to the AIDS virus and antibodies to that virus are present in my blood. I understand that in the event of a positive test result there are other recommended confirmatory tests that are available if I do so desire.

I have also been informed and understand that the test results, in a percentage of cases, may indicate that a person has antibodies to the virus when the person does not (a false positive result) or that the test may fail to detect that a person has antibodies to the virus when the person does in fact have these antibodies (a false negative result).

I understand that I have the right to anonymity in the test, if requested. I understand that if there is a positive test result, such result must be reported to the Department of Public Health. I further understand that no additional release of the results will be made without my written authorization and the results will be kept confidential to the extent provided by law.

I understand that I am to be tested at the time of exposure and tested again at 6 weeks, 3 months, 6 months and 12 months after exposure.

I understand that I may withdraw from the testing at any point in time prior to the completion of laboratory tests, and I hereby state that my agreement to be tested is voluntary on my part and has not been obtained through any undue inducement, threat, or coercion.

It is with the above understanding that I hereby give my consent to the testing of my blood.

Date: _____

Signature: _____

Social Security #: _____

Print Name: _____

Witness: _____

I decline testing:

Date: _____

Signature: _____

Social Security #: _____

Print Name: _____

Witness: _____

Attachment 3, OECP, SIUC

COUNSELING CHECKLIST FOR BLOOD AND/OR BODY FLUID EXPOSURE

1. Risk of transmission associated with exposure.
2. Facts about Hepatitis B Virus and Human Immunodeficiency Virus.
3. Symptoms to report.
4. Recommendation for prevention of transmission (no donating blood, organs, sperm; no sex/safe sex; avoid pregnancy and breast feeding for recommended time).
5. Resources available for further counseling/information.
6. Information and recommendations about Human Immunodeficiency Virus antibody testing and Hepatitis B prophylaxis and testing.
7. Obtaining test results.
8. Confidentiality.
9. Prevention of future exposures.
10. The right to consult a physician of choice for further follow-up counseling or for the purpose of obtaining information pertaining to current research or treatments that could be available.

Attachment 4, OECP, SIUC

HEPATITIS B EXPOSURE INFORMATION

You have been evaluated for exposure to Hepatitis B. Your treatment has been in accord with the SIUC Occupational Exposure Control Plan for exposure to hepatitis B. Your risk of acquiring hepatitis B has been minimized by this intervention.

However, if you should develop any of the following signs or symptoms within 6 months of exposure, please call the SIUC Dial-A-Nurse (536-5585) or SIU Health Service (453-3311) for further evaluation.

1. Jaundice (yellowing of the skin and/or eyes)
2. Fever (greater than 101°F or 38.2°C)
3. Anorexia (loss of appetite)
4. Fatigue, malaise or lassitude (feeling tired for an extended period)
5. Nausea or vomiting
6. Diarrhea
7. Joint pain
8. Right upper abdomen or epigastric pain
9. Myalgia (sore muscles)

Date of Exposure: _____

Signature: _____

Social Security #: _____

Printed name: _____

Witness: _____

Attachment 5, OECP, SIUC

APPENDIX 1

DISINFECTANTS FOR USE AGAINST BLOODBORNE PATHOGENS

Approved disinfectants change on a regular basis. Please go to the National Antimicrobial Information Network website at <http://nain.orst.edu/> for the most recent list of disinfectants. If you do not have web access, contact the Center for Environmental Health and Safety for assistance.

APPENDIX 2

OSHA Occupational Exposure Regulations Blood Borne Pathogen Standard (29 CFR Section 1910.1030) December 6, 1991 - 56 Fed. Reg. 64175 et seq.)

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 represented 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.

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 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 results 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 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 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.

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 any 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 CRF 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 or groups of closely related 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)(1)(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 cleaner in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers

or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

- (v) Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.
- (vi) Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.
- (vii) Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.
 - (A) Contaminated needles and other contaminated sharps shall not be recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.
 - (B) Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.
- (viii) Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:
 - (A) Puncture-resistant;
 - (B) Labeled or color-coded in accordance with this standard;
 - (C) Leakproof on the sides and bottom; and
 - (D) In accordance with the requirements set forth in paragraph (d)(4)(ii)(E) for reusable sharps.
- (ix) Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.
- (x) Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets, or on countertops or benchtops where blood or other potentially infectious materials are present.
- (xi) All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

- (xii) Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.
 - (xiii) Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.
 - (A) The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(l)(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)(l)(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)(l)(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, 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, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(iv) *Cleaning, Laundering, and Disposal*

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

(v) *Repair and Replacement*

The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

(vi) *If a garment(s) is penetrated by blood or other potentially infectious materials,*

the garment(s) shall be removed immediately or as soon as feasible.

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

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

(ix) *Gloves*

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

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

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

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

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

(1) Periodically reevaluate this policy;

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

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

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

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

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

- (iii) When the employee is receiving training in phlebotomy.
 - (x) **Masks, Eye Protection, and Face Shields**
Masks in combination with eye protection devices, such as goggles, or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.
 - (xi) **Gowns, Aprons, and Other Protective Body Clothing**
Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the tasks 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 they become

overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

- (C) All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.
- (D) Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means such as a brush and dust pan, tongs, or forceps.
- (E) Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(iii) *Regulated Waste*

(A) Contaminated Sharps Discarding and Containment

- (1) Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:
 - (i) Closable;
 - (ii) Puncture-resistant;
 - (iii) Leakproof on sides and bottom; and
 - (iv) Labeled or color-coded in accordance with paragraph (g)(l)(i) of this standard
- (2) During use, containers for contaminated sharps shall be:
 - (i) Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);
 - (ii) Maintained upright throughout use; and
 - (iii) Replaced routinely and not be allowed to overfill.
- (3) When moving containers of contaminated sharps from the areas 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)(l)(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)(l)(i) 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)(l)(i) this standard; and
 - (iv) Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
 - (C) Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.
- (iv) *Laundry*
- (A) Contaminated laundry shall be handled as little as possible with a minimum of agitation.
 - (1) Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

- (2) Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(l)(k) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.
 - (3) Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.
 - (B) The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.
 - (C) When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(l)(i).
- (e) *HIV and HBV Research Laboratories and Production Facilities*
 - (1) This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.
 - (2) Research laboratories and production facilities shall meet the following criteria:
 - (i) Standard Microbiological Practices
 - All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
 - (ii) Special Practices
 - (A) Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.
 - (B) Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled, or

- color-coded container that is closed before removed from the work area.
- (C) Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.
 - (D) When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(I)(ii) of this standard.
 - (E) All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.
 - (F) Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.
 - (G) Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.
 - (H) Before disposal all waste from work areas and animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.
 - (I) Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.
 - (J) Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only

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

- (K) All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.
 - (L) A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.
 - (M) A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.
- (iii) Containment Equipment
- (A) Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.
 - (B) Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.
- (3) HIV and HBV research laboratories shall meet the following criteria:
- (i) Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.
 - (ii) An autoclave for decontamination of regulated waste shall be available.

- (4) HIV and HBV production facilities shall meet the following criteria:
- (i) The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.
 - (ii) The surfaces of doors, walls, floors, and ceilings in the work area shall be water-resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.
 - (iii) Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.
 - (iv) Access doors to the work area or containment module shall be 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 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 (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, the 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)(2)(ii).
- (3) *Post-exposure Evaluation and Follow-up.* Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

- (i) Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred;
 - (ii) Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;
 - (A) The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.
 - (B) When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.
 - (C) Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
 - (iii) Collection and testing of blood for HBV and HIV serological status:
 - (A) The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.
 - (B) If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.
 - (iv) Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;
 - (v) Counseling; and
 - (vi) Evaluation of reported illnesses.
- (4) *Information Provided to the Healthcare Professional*
- (i) The employer shall ensure that the healthcare professional responsible for the employee's hepatitis B vaccination is provided a copy of this regulation.
 - (ii) The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:
 - (A) A copy of this regulation;
 - (B) A description of the exposed employee's duties as they relate to the exposure incident;

- (C) Documentation of the route(s) of exposure and circumstances under which exposure occurred;
 - (D) Results of the source individual's blood testing, if available; and
 - (E) All medical records relevant to the appropriate treatment of the employee including vaccination status which are the employer's responsibility to maintain.
- (5) *Healthcare Professional's Written Opinion.* The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.
- (i) The healthcare professional's written opinion for hepatitis B vaccination shall be limited to whether hepatitis B vaccination is indicated for an employee and if the employee has received such vaccination.
 - (ii) The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:
 - (A) That the employee has been informed of the results of the evaluation; and
 - (B) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.
 - (iii) All other findings or diagnoses shall remain confidential and shall not be included in the written report.
- (6) *Medical Recordkeeping.* Medical records required by this standard shall be maintained in accordance with paragraph (h)(l) 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)(l)(i)(E), (F) and (G).
 - (B) Labels required by this section shall include the following legend:



BIOHAZARD

- (C) These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.
 - (D) Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.
 - (E) Red bags or red containers may be substituted for labels
 - (F) Containers of blood, blood components, or blood products that are labeled as to their contents and have been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).
 - (G) Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment, or disposal are exempted from the labeling requirement.
 - (H) Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.
 - (I) Regulated waste that has been decontaminated need not be labeled or color-coded.
- (ii) Signs
- (A) The employer shall post signs at the entrance to work areas as specified in paragraph (e), HIV and HBV Research Laboratories and Production Facilities, which shall bear the following legend:



BIOHAZARD

(Name of the infectious agent)

(Special requirement for entering the area)

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

- (B) These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.
- (2) Information and Training
 - (i) Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.
 - (ii) Training shall be provided as follows:
 - (A) At the time of initial assignment to tasks where occupational exposure may take place;
 - (B) Within 90 days after the effective date of the standard; and
 - (C) At least annually thereafter.
 - (iii) For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need to 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.
 - (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 blood borne pathogens;
 - (D) An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;
 - (E) An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
 - (F) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
 - (G) Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.
 - (H) An explanation of the basis for selection of personal protective equipment;
 - (I) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
 - (J) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
 - (K) An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
 - (L) Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
 - (M) An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

- (N) An opportunity for interactive questions and answers with the person conducting the training session.
- (viii) The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.
- (ix) Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities
 Employees in HIV or HBV research laboratories and HIV and HBV production facilities shall receive the following initial training in addition to the above training requirements.
 - (A) The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.
 - (B) The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.
 - (C) The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.
- (h) *Recordkeeping.* (1) Medical Records
 - (i) The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.20.
 - (ii) This record shall include:
 - (A) The name and social security number of the employee:
 - (B) A copy of the employee's hepatitis B vaccinations 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 paragraph (f)(4)(ii)(B), (C) and (D).
 - (iii) Confidentiality

The employer shall ensure that employee medical records required by paragraph (h)(I) 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.
 - (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 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 in accordance with 29 CFR 1910.20.
 - (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 CRF 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.

**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.