



BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

Honolulu Community College - University of Hawai'i



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Honolulu Community College
University of Hawai'i

Bloodborne Pathogens Exposure Control Plan

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Bloodborne Pathogens Exposure Control Plan

Introduction

It is the policy of the Honolulu Community College (HonCC) to provide a safe and healthful environment for employees and students and to comply with the occupational health and safety standards.

The HonCC's Bloodborne Pathogens Exposure Control Plan is in compliance with the Bloodborne Pathogens Standard, Hawaii Occupational Safety and Health, HRS 396, Title 12, Subtitle 8, Chapter 205.1. The Plan describes how occupational and instructional exposures to biological agents, blood, or other potentially infectious materials (OPIM) can be eliminated or minimized.

The objectives of the Exposure Control Plan are to:

- Provide information on procedures and regulations regarding bloodborne pathogens
- Protect employees and students from health hazards associated with bloodborne pathogens
- Provide information on appropriate treatment and counseling to employees exposed to bloodborne pathogens

Employees and students potentially exposed to bloodborne pathogens must follow these practices:

- Minimize all exposures to bloodborne pathogens,
- Institute engineering and work practice controls to eliminate or minimize exposure to bloodborne pathogens, and,
- Practice universal precautions when anticipating exposure to blood or potentially infectious materials.

Responsibility

Vice Chancellor of Administrative Services:

- Implements control methods to prevent or reduce the risk of employees' and students' exposure to biological agents, blood and other potentially infectious materials (OPIM). The control methods include engineering controls, work practice modifications, appropriate use of personal protective equipment, training and education, vaccination, prophylaxis, and post-exposure follow-up.
- Keeps the Chancellor informed of any occupational exposure incidents.

Deans:

- Ensure that employees and students within each of their academic units are aware of and follow the Exposure Control Plan.
- Identify occupational and instructional activities with potential exposures to blood or OPIM.
- Direct potentially exposed personnel to follow policies and procedures indicated in the Exposure Control Plan.
- Immediately notify the *Vice Chancellor of Administrative Services* of any occupational exposure incident.

Division Chairs:

- Immediately notify the Deans of any occupational exposure incident.
- Upon an exposure incident, ensure that healthcare providers receive appropriate documentation detailing the exposure.
- Make certain that exposed employees are promptly provided with a copy the healthcare provider's written opinion within 15 days after the exposure evaluation.

Employees and students:

- Comply with procedures established under the Exposure Control Plan to minimize the infectious risk.
- Promptly report any work-related blood exposure incident to the appropriate supervisor or instructor.

Definitions

Blood: Human blood, human blood components, and products made from human blood.

Bloodborne Pathogens: Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

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

Decontamination: The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Engineering Controls: Controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident: 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.

Other Potentially Infectious Materials (OPIM): 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.

Universal Precautions: 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.

Exposure Determination

Classifications of employees who may have contacts with blood or OPIM, regardless of the use of personal protective equipment, are listed in the table on the following page.

Category 1: ALL employees in these job classifications, due to the nature of their work, have reasonably anticipated risk of exposure to bloodborne pathogens.	
Academic Unit	Job Classification
Operations & Maintenance	Security officer Janitorial Staff Maintenance and Repair Staff Groundskeeping Staff Janitor Supervisor Maintenance Supervisor Vice Chancellor of Administrative Services
Health Office	Health Nurse
Children’s Center at Honolulu, Leeward, and Kapiolani Community Colleges	Site Coordinator Instructional Faculty Member including lab instructor and Assistant Instructor Administrative, Professional & Technical Staff (APT) Student Assistant
Cosmetology Program	Instructional Faculty Member Administrative, Professional & Technical Staff (APT)
Category 2: Some employees in these job classifications, who are designated to perform the duty listed below, have reasonably anticipated risk of exposure to bloodborne pathogens.	
Job Classification	Task
Faculty Member Administrative, Professional & Technical Staff (APT) Civil Service Staff Student Assistant	Administering first-aid as the designated first-aid performer

Universal Precautions

Infectious Materials

All human blood and certain human body fluids must be treated as infectious, regardless of the perceived status of the source individual. All body fluids are to be considered potentially infectious materials when it is difficult or impossible to differentiate between body fluid types.

Universal precautions shall be used by all personnel to prevent contact with biological agents, blood or OPIM, including body fluids containing visible blood; semen and vaginal secretions; human tissue; human organs; and the following fluids: cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid.

Appropriate precautions to limit exposure include the use of:

- Engineering and work practice controls
- Personal protective equipment such as eye protection, gloves, masks, and gowns.

Universal Precaution Practices

1. Use appropriate barrier to prevent skin and mucous membrane exposure when contacts with biological agents, blood or OPIM are anticipated.

Gloves should be worn when:

- touching biological agents, blood and OPIM, mucous membranes, or non-intact
- skin-handling items or surfaces soiled with biological agents, blood or OPIM

Gloves should be changed after contact with each potentially infectious material and hands must be washed.

2. Masks, safety goggles, and face shields should be worn during procedures that are likely to generate droplets, aerosols, splashes of potentially infectious materials. This is to prevent the worker's mucous membranes (mouth, nose, eyes or open wounds) from the exposure.
3. Wash hands and other skin surfaces immediately and thoroughly if contaminated with biological agents, blood or OPIM. Additionally, wash hands immediately after removing gloves.
4. All "touch and splash" surfaces must be carefully disinfected with an intermediate or a higher level EPA registered disinfectant.
5. Contaminated and potentially contaminated waste must be properly handled and disposed. Refer to Appendix A: Management and Disposal of Biohazardous Wastes Procedures.

Engineering and Work Practice Controls

Engineering Controls

Every effort must be made to control or eliminate the bloodborne pathogens hazards from the workplace. These include sharps disposal containers, self-sheathing needles, safer medical devices, sharps with engineered sharps injury protections, needleless systems and other newer engineering controls.

Other engineering control methods such as biological safety cabinet, plastic shielding, etc., are to be used for appropriate containment of biological commodities to reduce exposure to biological agents, blood, and OPIM.

1. Sharp's disposal:

- Use puncture resistant red-colored sharps disposal containers. Red sharps containers are for only biological contaminated sharps.
- Appropriately label the container.
- Keep the container as close as possible to the areas where sharps are used.
- Keep the container upright during use.
- Replace when the container is 7/8 filled (not reusable). Close the container when moving to prevent spillage. The container is not reusable.
- In the event that the container appears to be leaking, place it inside another closable, leak proof container with the appropriate color-coding or label.
- If sharps containers are mounted on walls, the height must be between 52 and 56 inches for correct ergonomically position.

2. Disposal of regulated wastes

- Regulated wastes include used biological contaminated disposable gloves, blood contaminated items, or pathologic and microbiological wastes containing biological agents, blood or other potentially infectious materials (lancet, glass slide, covers slip, pipette tips, capillary tubes etc.).
- Immediately upon generation, transfer regulated wastes into a red biohazard bag held within a closable, leak-proof secondary container with biohazard labeling or color-coding. Bags will be closable, constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping. They will be closed prior to removal to prevent spillage or protrusion of contents at any time.
- Keep specimens of biological agents, blood or potentially infectious materials in leak-proof containers during collection, handling, processing, storage, transport, or shipping. Any specimen that could puncture a primary container will be placed within a secondary container that is puncture resistant.
- Keep soiled laundry a closed laundry hamper that hold all contents without leakage during handling, storage, transport, and is color-coded or labeled.
- Decontaminate potentially contaminated equipment and instruments on a regular basis. If not possible, they must be labeled with the Universal Biohazard Symbol.

All equipment needs servicing, must be decontaminated prior to repair or maintenance. If cannot be decontaminated, notify the service department.

- For disposal procedures of regulated biological contaminated wastes, refer to Appendix A: Management and Disposal of Biohazardous Wastes Procedures.

Work Practice Controls

1. Handwashing facilities are readily accessible in all restrooms/sinks within each unit. Handwashing should be done with soap and running water as soon as feasible after contamination and after removal of gloves or other personal protective equipment.
2. In the event of contact with biological agents, blood or OPIM to the eyes, nose, mouth or open wound, flush the areas with water immediately or as soon as feasible.
3. Contaminated needles and other contaminated sharps will not be bent, sheared, or purposely broken. Recapping is permitted if a procedure does not have a feasible alternative and the action is required by the specific medical procedure. If needle removal or recapping is necessary, removal or recapping must be done either by one-handed scooping (passive recapping) or through a removal device. All straight needles systems have been converted over to newer safer needle technology systems.
4. Reusable sharps contaminated with biological agents, blood or other infectious materials must be stored and processed in a way that does not require anyone to reach, by hand, into the containers where these sharps have been placed.
5. Mouth pipetting, or mouth suctioning of biological agents, blood or OPIM, is prohibited.
6. All procedures involving biological agents, blood or OPIM must be performed in such a manner as to minimize splashing, spraying, splattering and generation of droplets of these substances.
7. Eating, drinking, smoking, applying cosmetics or lip balm, or handling contact lenses are prohibited in work areas where there is any risk of occupational exposure.
8. Food and drink shall not be kept in refrigerators, freezers, shelves, and cabinets or on counter-tops or bench tops where biological agents, blood or OPIM are present.
9. Warning labels containing the universal biohazard symbol and the word "BIOHAZARD" will be used to warn employees who may have contact with areas and containers of the potentially hazardous materials. Labels are not required when red bags are used.
10. In an event of a biological agent or blood spill, area-specific contingency spill plan must be initiated. General example of a plan:
 - Flood spill with appropriate freshly made disinfectant, let sit for 20-30 minutes.
 - Absorb the spill with towels or spill pillows.
 - Place wastes in a red biohazard bag. Follow biohazardous waste disposal procedures as listed in Appendix A
 - Re-disinfect spill area.

Personal Protective Equipment (PPE)

PPE will be chosen based upon the type of anticipated exposure to biological agents, blood or OPIM. The specific equipment for a situation will be determined by each unit's supervisor in which the potential for occupational/instructional exposure occurs and may include gowns, aprons, lab coats, disposable gloves, utility gloves, chin-length face shields, face masks, respirators, eye protection (safety goggles), shoe covers, surgical caps, and mouthpieces or pocket masks.

Note: Regular safety glasses (spectacles) will not provide protection if aerosols occurs.

PPE must prevent biological agents, blood or OPIM from passing through or reach the user's clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment is used.

All PPE must be cleaned, laundered, or properly disposed of. All garments that are penetrated by biological agents, blood or other infectious materials shall be removed as soon as feasible and laundered or properly disposed. Contaminated clothing must not be sent home with the employee/student for cleaning.

Appropriate sizes of personal protective are available for use. At a minimum, gloves will be used whenever there is a reasonable anticipation of hand contact with biological agents, blood or OPIM. Hypoallergenic gloves, powderless gloves, glove liners, or other similar alternatives shall be readily accessible to those who are allergic to the gloves normally provided.

Personnel shall discard any disposable equipment after use in the appropriate receptacle and properly decontaminated prior to disposal. Reusable PPE will be decontaminated and cleaned prior to storage in a designated area for future use. All PPE will be removed prior to leaving the work area.

PPE will be replaced as often as necessary. At a minimum this will occur after each use where the equipment becomes contaminated and cannot be decontaminated effectively, and when equipment becomes old and ineffective.

Housekeeping, Spill Cleanup, and Laundry

Work areas must be maintained in a clean and sanitary condition at all times. A written schedule for the manner in which and the time when the areas are cleaned and disinfected must be developed and implemented. This schedule shall include an explanation of the cleaning and decontamination of equipment, which has been in contact with biological agents, blood or OPIM.

SCHEDULE FOR CLEANING AND METHOD OF DECONTAMINATION		
ITEM/AREA	DECONTAMINATION METHOD	SCHEDULE
Work surfaces	Wash with 1:10 bleach solution or other disinfectants, for example, <i>ProSpray</i> , <i>Cidex</i>	<ul style="list-style-type: none"> • After the completion of procedures or end of work shift that involved contamination • When surfaces become obviously contaminated.

Spills of biological agents, blood or OPIM must be appropriately cleaned immediately or as soon as feasible. Use the following disinfectants and follow their manufacturer's instructions:

- Products registered by the United States Environmental Protection Agency (US EPA) as a "hospital disinfectant" (chemical germicides that have a label claim for tuberculocidal activity),
- Products registered by the US EPA as being effective against human immunodeficiency virus (HIV), or
- A solution of 10 percent mixture of sodium hypochlorite (household bleach) and water (approximately 1.6 cups of bleach per one gallon of water) prepared within the last 24 hours.

Reusable receptacles, such as bins, pails, and cans that have a likelihood for becoming contaminated, must be inspected and decontaminated with a hospital-grade disinfectant or autoclaved on a regular basis. When contamination is visible, receptacles should be cleaned and decontaminated as soon as feasible.

Any broken glassware or other sharps that may be contaminated shall not be picked up directly with the hands. Tools used in the cleanup of broken glass (brush, dust pan, forceps, and/or tongs) must be decontaminated after use and the contaminated broken glass should be placed in a red sharps container. Do not use vacuum cleaners to cleanup biological hazardous or contaminated broken glass.

Biologically contaminated laundry will be handled as little as possible. Sorting or rinsing of contaminated laundry will not be performed in instructional areas. Contaminated, soiled laundry will be placed and transported in biohazard labeled or color-coded red bags or containers.

Contaminated laundry, which is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, will be stored and transported in double bags that prevent soak through and leakage of fluids to the exterior.

Protective gloves, and other appropriate personal protective equipment as required, will be used by anyone who has contact with contaminated laundry.

Laundry from the Health Office should be washed with detergent and water at a temperature of not less than 160° F for at least 25 minutes.

Hepatitis B Vaccine

Hepatitis B vaccine is available at no cost to all employees who have been identified in this Plan as having occupational exposure. The vaccine series will be explained at an employee training session held within 10 days of initial assignment of duties that may result in potential occupational exposure to bloodborne pathogens. Routine booster doses of the hepatitis B vaccine will be available if booster doses are recommended by the U.S. Public Health Service.

Personnel identified in the exposure determination will be asked to complete and sign a copy of Hepatitis B Immunization Form (Appendix B) This form shall be included in the employee's confidential personnel record (and medical record if occupational exposure occurs).

The hepatitis B vaccination will continue to be available without cost to any employee who initially declines the vaccination if that individual is still covered by the HIOSH standard and requests the vaccine series at a later date.

The vaccination must be given at a reasonable time and place, be performed by or under the supervision of a licensed physician and provided according to the recommendations of the U.S. Public Health Service. All laboratory tests for antibody testing shall be conducted at no cost to the employee. Participation in pre-screening program shall not be a prerequisite for receiving Hepatitis B vaccination.

Exposure Incident Reporting, Evaluation, and Follow-up

Any exposure incident (e.g., needle stick, mucous membrane or open wound contamination) shall be promptly reported, investigated, and documented by the program liaison or instructor. The investigation report should be forwarded to the Vice Chancellor of Administrative Services.

To report an incident, use UH Form 29, Accidental Injury and Illness Report.

All percutaneous injuries from contaminated sharps must be logged on the sharp's injury log. Confidentiality of the injured employee must be ensured. The sharp's injury log must include:

- Type and brand of device involved in the incident,
- Work unit where the exposure incident occurred, and
- Explanation of how the incident occurred. All records must be maintained for 30 years.

Post-exposure medical evaluation and follow-up shall be made available immediately at no cost, to any employee who has experienced an occupational exposure incident. Post-exposure evaluations and management must be confidential.

The exposed employee shall be offered blood collection and/or testing. This individual has the right to refuse either or both. However, if the exposed person gives consent for blood collection but not for HIV testing, the blood shall be kept for 90 days, during which time the exposed person can choose to have the sample tested. In addition, laboratory tests performed in connection with an evaluation must be conducted at no charge to the exposed individual, including serological testing; i.e., HBV antibody titer and HCV antibody titer.

The exposed employee shall have the choice of obtaining their medical evaluation with appropriate lab studies at the medical advisor of their choice, their personal physician's office, or a local emergency room. A physician with HIV expertise or consultant HIV physician shall be promptly available for preliminary evaluation and counseling upon request. Then, the exposed individual can make an informed choice regarding post-exposure medical evaluation and treatment. The exposed individual, additionally, shall have counseling and evaluation of any related, reported illnesses.

The confidential medical evaluation should include at least the following:

- Documentation of the route of exposure. And the circumstances under which the exposure incident occurred.
- Identification and documentation of the exposure source, unless it can be established that identification is not feasible or prohibited by state or local law.
- Consent obtained from the exposure source and having the source individual's blood tested as soon as possible for hepatitis (HBV), HIV or other appropriate infectivity. If consent is not obtained, the head of the department must show that legally required consent could not be obtained. The source person's blood need not be tested if the source individual's HIV, HBV, etc., infection status is known.
- Results of the source individual's testing shall be made available to the exposed individual, and the exposed individual also be informed of the confidentiality laws protecting these results.

The Division Chair shall ensure that the healthcare provider receives the incident report and following information:

- a copy of the HIOSH Part 8, Chapter 205.1,
- a written description of the job duties relevant to the exposure incident,
- documentation of the route(s) of exposure and circumstances under which exposure occurred,
- the results of the source individual's blood tests, if available, and
- all relevant employee's medical records, including vaccination status.

The Division Chair shall ensure that the exposed employee be provided with a copy professional's written opinion within 15 days.

1. The healthcare professional's written opinion for vaccination shall be limited to whether vaccination is indicated for the exposed individual, and if that individual received such vaccination.
2. The healthcare professional's written follow-up shall be limited to the following:

- a. A statement that the exposed individual has been informed of the results of the evaluation; and
 - b. A statement that the exposed individual has been told about any medical conditions resulting from exposure to biological agents, blood or other potentially infectious materials which may require further evaluation or treatment,
3. All other findings or diagnosis shall remain confidential and shall not be included in the written report.

Post-exposure prophylaxis must be offered to the exposed employee. These may include Hepatitis B immune globulin (HBIG), Hepatitis B Vaccine, and/or other prophylactic anti-viral treatment for HIV. The recommendations of the current CDC guidelines on post-exposure prophylaxis treatment for HIV should be followed in the event of HIV exposure.

Labels and Signs

Each unit's supervisor shall ensure for his/her section that biohazard labels shall be affixed to entry doorway, containers, refrigerators, storage areas and freezers containing biological agents, blood materials, OPIM, and other containers used to store, transport, or ship biological agents, blood, and other potentially infectious materials.

The universal biohazard symbol shall be used. The label shall be fluorescent orange or orange-red color.

Red bags or red sharps containers may substitute for labels. However, regulated wastes must be handled in accordance with applicable rules and regulations of the State Department of Health and County's wastes regulations.

Information and Training

The Division Chair is responsible for assuring that personnel receive training at the time of initial assignment (10 days within assignment) to tasks where occupational exposure may occur, and that training shall be updated every twelve months.

When modifications of tasks or procedures occur after the training, the program liaison shall provide for additional necessary training. When necessary, the training program will be modified to accommodate the educational or language level of the employee.

Training will be done at no cost to the employee and will be conducted during working/instructional hours or the employee. Student training should be part of the curriculum.

The person(s) conducting the training shall be knowledgeable in the subject matter.

Training records shall be maintained for three years from the date of training. The rosters will include the dates of the training sessions; an outline or summary describing the materials presented; the names and qualifications of persons conducting the training; and the names, signatures, and job titles of all persons attending the training sessions.

Training will be interactive and cover the following:

- Explanation of the HIOSH standard's contents;
- Discussion of the epidemiology and modes of transmission of biological agents and bloodborne pathogens;
- Explanation of Department's Biological Agents and Bloodborne Pathogen Exposure Control Plan, location and availability of copies of this plan;
- Recognition of tasks that may involve exposure;
- Explanation of the use and limitations of methods to reduce exposure such as engineering controls, work practices, and the use of personal protective equipment;
- Information on the types, use, location, removal, handling, decontamination, and disposal of PPE's;
- An explanation of the basis of selection of PPE's;
- Information on Hepatitis B vaccination (or other appropriate vaccination), including efficacy, safety, methods of administration, benefits, and that it will be offered free of charge;
- Explanation of the procedures to follow in the event of an accidental exposure to biological agents, blood or potentially infectious materials, including reporting, evaluation, and follow-up;
- Explanation of the signs, labels and color-coding systems; and,
- New safer needle technologies.

Recordkeeping

Confidential medical records are kept for all employees with occupational/ instructional exposure for the duration of employment plus 30 years.

The information in these files related to exposure will not be disclosed or reported without the involved individual's written consent except as required by law.

Medical records or laboratory studies obtained for exposures will be maintained by the practitioner or agency conducting the evaluation and/or providing care.

All employees will be provided upon request for examination and copying to the subject employee, to anyone with written consent of the individual, and to the authorized representatives of the Director of the State Department of Labor and Industrial Relations and U.S. OSHA, Assistant Secretary of Labor.

Plan Evaluation and Review

The Vice Chancellor of Administrative Services, assisted by the Health and Safety Coordinator, is responsible for annual review and revisions of the Plan, as well as evaluation of its effectiveness; including changes in technology that eliminate or reduce exposure to bloodborne pathogens, document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

This Plan will be revised whenever necessary to reflect new or modified tasks, procedures, exposures, rules that affect occupational exposure and to reflect new or revised employee positions with occupational/instructional exposure, at the University Health Services, CDC and Public Health Services recommendation and State and Federal law changes.

Solicitations for inputs from employees must be documented.

Appendix A: Biohazardous Waste Management and Disposal

Biohazardous Waste Management and Disposal

1. Use Universal precautions when handling human blood, contaminated disposable PPE, and OPIM.
2. Place all wastes in the provided color-coded (red) biowaste bag. Close and tie the bag. The red bags are available from the Health Office.
3. As soon as possible, notify the Health Nurse of quantity and location of the waste. The Health Nurse will pick up the waste and the waste will be stored in the Health Office.
4. Schedule of outside waste pickup and name of the contracted company are available at the Health Office.

Appendix B: General Forms

Hepatitis B Immunization Form

To be completed by Supervisor:

The following individual participated in a training program on bloodborne pathogens. Honolulu Community College's employees with potential occupational exposure to bloodborne pathogens have been provided information regarding hepatitis B, hepatitis B vaccination (the efficacy, safety, method of administration), benefits of vaccination and that the vaccine and vaccination are provided free of charge. The information was provided on (date): _____

Employee's name: _____

Employee's UH number: _____

Job Classification: _____

Occupational hepatitis B vaccination:

- Recommended.
 Not offered. Leave the bottom half of this form blank.

Supervisor's Printed Name: _____

Supervisor's Title: _____

Supervisor's Signature & Date: _____

To be completed by Employee:

Have you ever been immunized for hepatitis B? Yes No

If yes, give the approximate dates of each dose below and return this form to your supervisor after signing. If you are otherwise known to be immune, via infection, please note that here.

If no, do you accept the hepatitis B antibody test and/or hepatitis B vaccination?

- Yes, test and/or vaccination starting date: _____
 No, I decline hepatitis B antibody test and/or hepatitis B vaccination. This is NOT an irrevocable waiver.

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.

Signature

Date

Note: This form must be retained in personnel records for the length of employment with Honolulu Community College

Training Record: Bloodborne Pathogens

*Instructions: Maintain this record of mandatory training for **three years** following the date on which the training occurred. These records are available upon request to all employees or their representatives as well as to HIOSH.*

Training Date: _____		Page ____ of ____
Trainer(s) & Qualifications: _____ Attach trainer's resume.		
Training Topics: 1. Regulatory requirements; 2. Bloodborne diseases, symptoms, transmission modes; 3. Exposure Control Plan; 4. Hazard recognition; 5. Universal precautions; 6. Engineering & work practice controls; 7. Personal protective equipment; 8. Hepatitis B vaccine; 9. Incident reporting; 10. Post-exposure evaluation & follow-up		
ATTENDANCE LIST		
NAME (PRINTED)	SIGNATURE	JOB TITLE
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Appendix C: Post-Exposure Forms

Exposure Incident - Individual's Checklist

Instructions: Immediate supervisor should complete this checklist to ensure that all required post-exposure actions have been completed. This check list must be confidentially kept with a copy of "Exposure Incident - Evaluation Form."

Name of exposed employee: _____	
Date of Exposure: _____	
Healthcare professional responsible for exposure follow-up: (identify name/address/phone):	

Document	Date given or received
1. The following documents have been given to healthcare provider: <ul style="list-style-type: none"> • HIOSH standard Chapter 205.1 • Exposure Incident - Report to Healthcare Professional Form • Health Care Professional's Written Opinion Form • All relevant medical records maintained for employment/work • Others (list all) _____ _____ _____ _____ 	
2. Written report received from healthcare professional	
3. Written report from healthcare professional given to exposed individual	
4. Exposed individual provided given reports of test results <ul style="list-style-type: none"> • of source (if applicable) • of self (if applicable) 	
5. Exposed individual given information on applicable disclosure laws	
6. Exposed individual begins follow-up medical-psychological counseling.	
7. Exposed individual given healthcare benefits information	
8. Exposed individual given copies of HIOSH standard and HonCC Exposure Control Plan	

Exposure Incident Evaluation Form

Instructions: Use to document & assess the route(s) of exposure and how an exposure incident has occurred. Keep in confidential personnel files only. Exposed HonCC's employee and immediate supervisor should fill this form out together.

1. Name of exposed employee: _____		
Last tetanus vaccine:	<input type="checkbox"/> < 5 years	<input type="checkbox"/> >5 years <input type="checkbox"/> unknown
HBV vaccine:	<input type="checkbox"/> no	<input type="checkbox"/> yes, dose _____ Year completed _____
	HBsAG _____	HBsAB _____ AntiHCV _____
Will consent for baseline blood collection:	<input type="checkbox"/> no	<input type="checkbox"/> yes
Signed consent form:	<input type="checkbox"/> no	<input type="checkbox"/> yes
Will consent for HIV serologic testing:	<input type="checkbox"/> no	<input type="checkbox"/> yes
Referred to anonymous testing in community:	<input type="checkbox"/> no	<input type="checkbox"/> yes
2. Date, time, & place of exposure: _____		

3. Description of work duties during incident: _____		

4. Personal protective equipment used at the time: _____		

5. Route(s) of exposure (check as appropriate):		
<input type="checkbox"/> Needlestick:	<input type="checkbox"/> contaminated	<input type="checkbox"/> not contaminated
<input type="checkbox"/> Sharp Instrument:	<input type="checkbox"/> contaminated	<input type="checkbox"/> not contaminated
<input type="checkbox"/> Injection of Blood:	<input type="checkbox"/> no	<input type="checkbox"/> yes, estimated amount: _____
<input type="checkbox"/> Splashing/spraying of blood or other infectious material		
<input type="checkbox"/> Other: _____		
<input type="checkbox"/> non-intact skin	<input type="checkbox"/> intact skin	<input type="checkbox"/> mucous membrane

Exposure Incident Evaluation Form (continued)

<p>6. Type of fluid(s): <input type="checkbox"/> Blood: definite, possible, none, unknown <input type="checkbox"/> Vaginal Secretions <input type="checkbox"/> Urine <input type="checkbox"/> Other _____</p>
<p>7. Source person: <input type="checkbox"/> known <input type="checkbox"/> unknown Consent for HIV/HBV infectivity testing obtained by employer: <input type="checkbox"/> yes, will agree to testing <input type="checkbox"/> no, but asked <input type="checkbox"/> Not asked: State reason _____ Hepatitis B: <input type="checkbox"/> no <input type="checkbox"/> acute <input type="checkbox"/> chronic carrier <input type="checkbox"/> unknown Hepatitis C: <input type="checkbox"/> no <input type="checkbox"/> acute <input type="checkbox"/> chronic carrier <input type="checkbox"/> unknown HIV: <input type="checkbox"/> negative <input type="checkbox"/> positive <input type="checkbox"/> unknown, date of test: _____ Other risk factors: _____ Date when results of source person's serologic testing made available to exposed HonCC's employee abiding with confidentiality law: _____</p>
<p>8. Circumstances under which exposure occurred: _____ _____ _____</p>
<p>9. Confidential medical evaluation and follow-up by: _____ _____</p>
<p>10. Disposition or recommendations (if known): _____ _____</p>
<p>11. Evaluation of incident: Is new engineering or work practice needed to minimize chance of recurrence? <input type="checkbox"/> yes <input type="checkbox"/> no a. Suggestions for remedial action: _____ _____ _____ b. If procedure changed, describe how/when implementation will occur: _____ _____ _____</p>

Note: A copy of this document is to be retained in exposed employee's confidential medical record for the length of employment plus 30 year.

Exposure Incident - Report to Healthcare Professional Form

Instructions: Exposed employee and immediate supervisor should complete this form together. Give this form to the healthcare professional responsible for post-exposure medical evaluation and follow-up.

Name of Exposed employee: _____		
Date of incident: _____		
Name & address of healthcare professional responsible for post exposure follow-up: _____ _____ _____		
Exposed employee previously vaccinated against HBV? <input type="checkbox"/> yes doses: _____ year completed: _____ <input type="checkbox"/> no		
Description of job duties relevant to exposure incident: _____ _____ _____		
Route(s) of exposure: <input type="checkbox"/> Needlestick: <input type="checkbox"/> contaminated <input type="checkbox"/> not contaminated <input type="checkbox"/> Sharp Instrument: <input type="checkbox"/> contaminated <input type="checkbox"/> not contaminated <input type="checkbox"/> Inject of Blood: <input type="checkbox"/> no <input type="checkbox"/> yes, estimated amount: _____ <input type="checkbox"/> Splashing/spraying of blood or other infectious material <input type="checkbox"/> Other: _____		
Circumstances under which exposure occurred: _____ _____ _____		

Exposure Incident - Report to Healthcare Professional Form (continued)

Source individual:	<input type="checkbox"/> known	<input type="checkbox"/> unknown
Known to be infected with HBV:	<input type="checkbox"/> yes	<input type="checkbox"/> no
Known HIV infection:	<input type="checkbox"/> yes	<input type="checkbox"/> no
Consent obtained for blood testing of source:	<input type="checkbox"/> yes	<input type="checkbox"/> no
Results of testing on source: (positive, negative or unknown)		
Hepatitis B _____	Hepatitis C _____	HIV _____
(Information on applicable disclosure laws & regulations concerning the source identity and infectious status must be provided.)		
Exposed employee:		
will give consent for baseline blood collection:	<input type="checkbox"/> yes	<input type="checkbox"/> no
will give consent for HIV serologic testing:	<input type="checkbox"/> yes	<input type="checkbox"/> no
Date when relevant employee medical records, including vaccination status, given to healthcare professional post-exposure evaluator: _____		
Copy of HIOSH Bloodborne Pathogens Standard, Chapter 205.1, given to healthcare professional on _____		

**Healthcare Professional's Written Opinion:
Post-Exposure Evaluation and Follow-up Form**

Instructions to medical professional: All other findings or diagnoses should not be noted on this form and should remain confidential.

Instructions to employer: File in exposed worker's confidential medical record at Honolulu Community College for the length of employment plus 30 years.

Name of individual: _____

Date of this post-exposure medical evaluation: _____

1. Is a Hepatitis B vaccination indicated for this employee?

Yes No

2. Has this individual received this vaccination?

Yes No

3. Has this employee been informed of the results of this evaluation?

Yes No

4. Has this individual been counseled regarding the option of HIV/HBV testing?

Yes No

5. Has this employee been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment?

Yes No

Printed Name and Office Address:

Health Practitioner's Signature: _____

*HIOSH requires that employer provide the exposed worker with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. Please send **confidentially** to:*

*Vice Chancellor of Administrative Services
Honolulu Community College
874 Dillingham Blvd
Honolulu, HI 96817*

HIV Testing/HBV Testing/AZT Consent Form

Instructions: The individual who has been involved in the blood exposure incident should fill this form out together with his/her physician or consultant HIV physician. Please give this form to the health care professional responsible for medical evaluation and follow-up of exposed Honolulu Community College's employee. Check with Human Resource Officer for additional recordkeeping procedures.

By signing below, I (print name) _____

do do not give informed consent for HIV (Human Immunodeficiency Virus) testing based on my having received an explanation satisfactory to me of this test, including the following:

1. The test is to determine the presence or absence of antibody to or other evidence of HIV infection. It is not diagnostic for AIDS. You may have antibody and not develop AIDS. The absence of antibody does not rule out infection with HIV.
2. The test for HIV is VOLUNTARY.
3. The test is strictly confidential and the results will not be disclosed without my permission.
4. False positives and false negatives may occur due to the screening procedure's limitations.
5. I agree to pay all costs associated with testing.

Signature: _____

Date: _____

I also give do not give permission to release the results of this HIV antibody test to the following individuals: _____

_____ (This may include, but are not limited to, the other person involved in the blood exposure incident, the individuals involved in the evaluation of the blood exposure incident, your private physician, etc.)

Signature: _____

Date: _____

I do do not give my permission for the blood test assessing exposure to Hepatitis B.

I do do not accept treatment with Hepatitis-B Immune Globulin (HBIG).

I do do not accept treatment with zidovudine (AZT). If I decline, I agree to assume the risk of injury or damages from the lack of medical treatment.

Signature: _____

Date: _____

Individual's Medical Record Keeping Form

Instructions: Use to ensure compilation of all medical records for the individual with an occupational exposure to blood or bloodborne pathogens in accordance with 29 CFR 1910.1030. Then attach this worksheet to those confidential medical records.

Employee Name: _____

Social Security Number: _____

Date began working at HonCC: _____

Date terminated working at HonCC: _____

Check the empty space when the following records are placed in the medical records of the individual with occupational exposure:

- A copy of the "HCC'S Hepatitis B Immunization Form" including the dates of all hepatitis B vaccinations.
- A copy of all results of examinations, medical testing, and follow-up procedures
- The employer's copy of the healthcare professional's written opinion ("Exposure Incident - Health Care Professional's Written Opinion for Post-Exposure Evaluation and Follow-up Form")
- A copy of the "HCC Exposure Incident - Report to Health Care Professional Form."
- A copy of the "HCC Exposure Incident - Individual's Checklist."

*Under the HIOSH's requirements, the Honolulu Community College (HonCC) must ensure that medical records of workers with occupational exposure be kept confidential and are not disclosed or reported without the individual's express written consent to any person within or outside the HonCC except as required by law. The records must be maintained for at least **the duration of employment or work plus 30 years.***

Occupational exposure medical records are to be made available upon request to HIOSH Administrator. It is understood that the HonCC must inform the HIOSH Administrator at least three months before disposing of these records. Confidential medical records are kept within HonCC's Administration Office.

Hepatitis B, Hepatitis C, and HIV: Information Sheet for an Exposed Person

Instructions: Provide this information sheet to HCC's employees exposed to blood or bloodborne pathogens.

This sheet contains information for individuals who may have been exposed to infectious blood or body fluids. Contact with infectious blood or body fluids could result in infection. A number of diseases may be transmitted by exposure to infectious blood or body fluids. The greatest concerns relate to Hepatitis B, Hepatitis C and Human Immunodeficiency Virus (HIV).

Hepatitis B

Source: <http://www.cdc.gov/hepatitis/HBV/PDFs/HepBGeneralFactSheet.pdf>

What is hepatitis?

“Hepatitis” means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected.

Hepatitis is most often caused by a virus. In the United States, the most common types of viral hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C. Heavy alcohol use, toxins, some medications, and certain medical conditions can also cause hepatitis.

What is Hepatitis B?

Hepatitis B is a contagious liver disease that results from infection with the Hepatitis B virus. When first infected, a person can develop an “acute” infection, which can range in severity from a very mild illness with few or no symptoms to a serious condition requiring hospitalization. **Acute** Hepatitis B refers to the first 6 months after someone is exposed to the Hepatitis B virus. Some people are able to fight the infection and clear the virus. For others, the infection remains and leads to a “chronic,” or lifelong, illness. **Chronic** Hepatitis B refers to the illness that occurs when the Hepatitis B virus remains in a person’s body. Over time, the infection can cause serious health problems.

The best way to prevent Hepatitis B is to get vaccinated.

Is Hepatitis B common?

Yes. In the United States, approximately 1.2 million people have chronic Hepatitis B. Unfortunately, many people do not know they are infected. The number of new cases of Hepatitis B has decreased more than 80% over the last 20 years. An estimated 40,000 people now become infected each year. Many experts believe this decline is a result of widespread vaccination of children.

How is Hepatitis B spread?

Hepatitis B is usually spread when blood, semen, or other body fluids from a person infected with the Hepatitis B virus enter the body of someone who is not infected. This can happen through sexual contact with an infected person or sharing needles, syringes, or other injection drug equipment. Hepatitis B can also be passed from an infected mother to her baby at birth.

Hepatitis B is not spread through breastfeeding, sharing eating utensils, hugging, kissing, holding hands, coughing, or sneezing. Unlike some forms of hepatitis, Hepatitis B is also not spread by contaminated food or water.

Can Hepatitis B be spread through sex?

Yes. In the United States, Hepatitis B is most commonly spread through sexual contact. The Hepatitis B virus is 50–100 times more infectious than HIV and can be passed through the exchange of body fluids, such as semen, vaginal fluids, and blood.

What are the symptoms of acute Hepatitis B?

Not everyone has symptoms with acute Hepatitis B, especially young children. Most adults have symptoms that appear within 3 months of exposure. Symptoms can last from a few weeks to several months and include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Grey-colored stools
- Dark urine
- Joint pain
- Jaundice

What are the symptoms of chronic Hepatitis B?

Many people with chronic Hepatitis B do not have symptoms and do not know they are infected. Even though a person has no symptoms, the virus can still be detected in the blood. Symptoms of chronic Hepatitis B can take up to 30 years to develop. Damage to the liver can silently occur during this time. When symptoms do appear, they are similar to acute infection and can be a sign of advanced liver disease.

How serious is Hepatitis B?

Over time, approximately 15%–25% of people with chronic Hepatitis B develop serious liver problems, including liver damage, cirrhosis, liver failure, and liver cancer. Every year, approximately 3,000 people in the United States and more than 600,000 people worldwide die from Hepatitis B-related liver disease.

How is Hepatitis B diagnosed and treated?

Hepatitis B is diagnosed with specific blood tests that are not part of blood work typically done during regular physical exams. For acute Hepatitis B, doctors usually recommend

rest, adequate nutrition, fluids, and close medical monitoring. Some people may need to be hospitalized. Those living with chronic Hepatitis B should be evaluated for liver problems and monitored on a regular basis. Even though a person may not have symptoms or feel sick, damage to the liver can still occur. Several new treatments are available that can significantly improve health and delay or reverse the effects of liver disease.

Can Hepatitis B be prevented?

Yes. The best way to prevent Hepatitis B is by getting vaccinated. For adults, the Hepatitis B vaccine is given as a series of 3 shots over a period of 6 months. The entire series is needed for long-term protection. Booster doses are not currently recommended.

Hepatitis C

Source: <http://www.cdc.gov/hepatitis/HCV/PDFs/HepCGeneralFactSheet.pdf>

What is Hepatitis C?

Hepatitis C is an infection of the liver that results from the Hepatitis C virus. **Acute** Hepatitis C refers to the first several months after someone is infected. Acute infection can range in severity from a very mild illness with few or no symptoms to a serious condition requiring hospitalization. For reasons that are not known, about 20% of people are able to clear, or get rid of, the virus without treatment in the first 6 months. Unfortunately, most people who get infected are not able to clear the Hepatitis C virus and develop a chronic, or lifelong, infection. Over time, **chronic** Hepatitis C can cause serious health problems including liver disease, liver failure, and even liver cancer.

How is Hepatitis C spread?

Hepatitis C is usually spread when blood from a person infected with the Hepatitis C virus enters the body of someone who is not infected. Today, most people become infected with Hepatitis C by sharing needles, syringes, or any other equipment to inject drugs. Before widespread screening of the blood supply in 1992, Hepatitis C was also spread through blood transfusions and organ transplants. While uncommon, poor infection control has resulted in outbreaks in healthcare settings.

While rare, sexual transmission of Hepatitis C is possible. Having a sexually transmitted disease or HIV, sex with multiple partners, or rough sex appears to increase a person's risk for Hepatitis C. Hepatitis C can also be spread when getting tattoos and body piercings in unlicensed facilities, informal settings, or with non-sterile instruments. Also, approximately 6% of infants born to infected mothers will get Hepatitis C. Still, some people don't know how or when they got infected.

What are the symptoms of Hepatitis C?

Many people with Hepatitis C do not have symptoms and do not know they are infected. If symptoms occur, they can include: fever, feeling tired, not wanting to eat, upset stomach, throwing up, dark urine, grey-colored stool, joint pain, and yellow skin and eyes.

When do symptoms occur?

If symptoms occur with acute infection, they can appear anytime from 2 weeks to 6 months after infection. If symptoms occur with chronic Hepatitis C, they can take decades to develop. When symptoms appear with chronic Hepatitis C, they often are a sign of advanced liver disease.

How would you know if you have Hepatitis C?

The only way to know if you have Hepatitis C is to get tested. Doctors use a blood test, called a Hepatitis C Antibody Test, which looks for antibodies to the Hepatitis C virus. Antibodies are chemicals released into the bloodstream when someone gets infected. Antibodies remain in the bloodstream, even if the person clears the virus.

A positive or reactive Hepatitis C Antibody Test means that a person has been infected with the Hepatitis C virus at some point in time. However, a positive antibody test **does not** necessarily mean a person still has Hepatitis C. An additional test called a RNA test is needed to determine if a person is currently infected with Hepatitis C.

Who should get tested for Hepatitis C?

Testing for Hepatitis C is recommended for certain groups, including people who:

- Were born from 1945 - 1965
- Received donated blood or organs before 1992
- Have ever injected drugs, even if it was just once or many years ago
- Have certain medical conditions, such as chronic liver disease and HIV or AIDS
- Have abnormal liver tests or liver disease
- Have been exposed to blood from a person who has Hepatitis C
- Are on hemodialysis
- Are born to a mother with Hepatitis C

Can Hepatitis C be treated?

Yes. However, treatment depends on many different factors, so it is important to see a doctor experienced in treating Hepatitis C. New and improved treatments are available that can cure Hepatitis C for many people.

Testing is the only way to know if you have Hepatitis C.

How can Hepatitis C be prevented?

Although there is currently no vaccine to prevent Hepatitis C, there are ways to reduce the risk of becoming infected with the Hepatitis C virus.

- Avoid sharing or reusing needles, syringes or any other equipment to prepare and inject drugs, steroids, hormones, or other substances.
- Do not use personal items that may have come into contact with an infected person's blood, even in amounts too small to see, such as razors, nail clippers, toothbrushes, or glucose monitors.
- Do not get tattoos or body piercings from an unlicensed facility or in an informal setting.

Human Immunodeficiency Virus (HIV)

Source: <https://aidsinfo.nih.gov/education-materials/fact-sheets/19/45/hiv-aids--the-basics>

Key Points

- HIV is the virus that causes HIV infection. Acquired Immune Deficiency Syndrome (AIDS) is the most advanced stage of HIV infection.
- HIV is spread through contact with the blood, semen, pre-seminal fluid, rectal fluids, vaginal fluids, or breast milk of a person infected with HIV. In the United States, HIV is spread mainly by having anal or vaginal sex or sharing drug injection equipment with a person infected with HIV.
- The use of HIV medicines to treat HIV infection is called antiretroviral therapy (ART). ART involves taking a combination of HIV medicines (called an [HIV regimen](#)) every day.
- ART can't cure HIV infection, but it can help people infected with HIV live longer, healthier lives. HIV medicines can also reduce the risk of transmission of HIV.

What is HIV/AIDS?

HIV stands for human immunodeficiency virus, which is the virus that causes HIV infection. The abbreviation "HIV" can refer to the virus and or to HIV infection.

AIDS stands for acquired immunodeficiency syndrome. AIDS is the most advanced stage of HIV infection.

HIV attacks and destroys the infection-fighting [CD4 cells](#) of the [immune system](#). Loss of CD4 cells makes it difficult for the body to fight infections and certain cancers. Without treatment, HIV gradually destroys the immune system and advances to AIDS.

How is HIV spread?

HIV is spread through contact with certain body fluids from a person infected with HIV.

These body fluids include:

- Blood
- Semen
- Pre-seminal fluid
- Vaginal fluids
- Rectal fluids
- Breast milk

The spread of HIV from person to person is called HIV transmission. The spread of HIV from an HIV-infected woman to her child during pregnancy, childbirth, or breastfeeding is called mother-to-child transmission of HIV.

In the United States, HIV is spread mainly by having sex with or sharing drug injection equipment with someone who is infected with HIV. To reduce your risk of HIV infection, use condoms correctly and consistently during sex, limit your number of sexual partners, and never share drug injection equipment.

Mother-to-child transmission is the most common way that children become infected with HIV. HIV medicines, given to HIV-infected women during pregnancy and childbirth and to their babies after birth, reduce the risk of mother-to-child transmission of HIV.

You can't get HIV by shaking hands or hugging a person infected with HIV. And you can't get HIV from contact with objects such as dishes, toilet seats, or doorknobs used by a person with HIV.

What is the treatment for HIV?

The use of HIV medicines to treat HIV infection is called antiretroviral therapy (ART). ART involves taking a combination of HIV medicines (called an HIV regimen) every day. (HIV medicines are often called antiretrovirals or ARVs.)

ART prevents HIV from multiplying and reduces the level of HIV in the body. Having less HIV in the body protects the immune system and prevents HIV infection from advancing to AIDS.

ART can't cure HIV, but it can help people infected with HIV live longer, healthier lives. ART also reduces the risk of HIV transmission.

What are the symptoms of HIV/AIDS?

Soon after infection with HIV, many people have flu-like symptoms, such as fever, headache, or rash. The symptoms may come and go for a month or two after infection.

After this earliest stage of HIV infection, HIV continues to multiply but at very low levels. More severe symptoms of HIV infection, such as chronic diarrhea, rapid weight loss, and other signs of opportunistic infections, generally don't appear for many years.

(Opportunistic infections are infections and infection-related cancers that occur more frequently or are more severe in people with weakened immune systems than in people with healthy immune systems.)

Without treatment, HIV can advance to AIDS. The time it takes for HIV to advance to AIDS varies, but it can take 10 years or more.

HIV transmission is possible at any stage of HIV infection—even if an HIV-infected person has no symptoms of HIV.

How is AIDS diagnosed?

The following criteria are used to determine if a person infected with HIV has AIDS:

- The person's immune system is severely damaged as indicated by a CD4 count of less than 200 cells/mm³. A CD4 count measures the number of CD4 cells in a sample of blood. The CD4 count of a healthy person ranges from 500 to 1,600 cells/mm³.

AND/OR

- The person has one or more opportunistic infections.

APPENDIX D: POST-EXPOSURE GUIDELINES

Post-Exposure Protocol

When an occupational exposure to blood and/or OPIM occurs, follow these guidelines:

1. If the exposure incident involves medical emergency, follow the College's emergency procedures (HonCC's Emergency Action Plan):
 - a) Call 911 for an ambulance. Give essential information:
 - Location - building, room number, and road to enter campus
 - Type of emergency and victim's condition, including potential blood/OPIM exposure
 - Your name and phone number
 - b) Call Campus Security, 284-1270 or 271-4836 to notify about the incident and request assistance.
2. Report the incident to the Division Chair and Health Nurse to initiate the Post-exposure Evaluation/follow-up and documentation procedures

Immediate Treatment of Exposed Person:

Immediately following exposure:

1. Flush the injured area with water or saline.
2. Thoroughly clean the area with soap and water if possible.
3. If exposure to the eyes has occurred, use an eyewash station, or, use the nearest sink to flush the eyes with water for at least five minutes.
4. Injuries requiring medical intervention should be promptly evaluated in the Health office.

Management and Treatment of Exposed Person:

Follow guidelines advised by the Centers for Disease Control and Prevention:

<http://www.cdc.gov/niosh/topics/bbp/guidelines.html>

APPENDIX E: CONFIDENTIALITY OF INFORMATION AND RECORDKEEPING

Confidentiality of Information and Recordkeeping

1. Information related to exposures must be limited to those with a clear need to know.
2. Confidential records of exposure shall be kept in an access-restricted location in the Administration Office.
3. Testing results for both exposure source and exposed person shall be made available to exposed person accompanied by the appropriate counseling, and to the exposed person's physician if requested. The exposed person shall also be informed of the confidentiality laws protecting those results.
4. Other medical records related to the exposure shall be made available as follows:
Faculty and staff - All records related to the exposure shall be provided on request for examination and copying to the exposed person and anyone having his/her written consent and to the Director of the State DLIR or his/her representative.
Student - All records related to the exposure shall be provided on request for examination and copying to the exposed student and anyone having his/her written consent and to HCC Chancellor.

APPENDIX F: HEPATITIS B VACCINE FACT SHEET
CENTER FOR DISEASE CONTROL AND PREVENTION (CDC)

Hepatitis B Vaccine

What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1 What is hepatitis B?

Hepatitis B is a serious infection that affects the liver. It is caused by the hepatitis B virus.

- In 2009, about 38,000 people became infected with hepatitis B.
- Each year about 2,000 to 4,000 people die in the United States from cirrhosis or liver cancer caused by hepatitis B.

Hepatitis B can cause:

Acute (short-term) illness. This can lead to:

- loss of appetite
- diarrhea and vomiting
- tiredness
- jaundice (yellow skin or eyes)
- pain in muscles, joints, and stomach

Acute illness, with symptoms, is more common among adults. Children who become infected usually do not have symptoms.

Chronic (long-term) infection. Some people go on to develop chronic hepatitis B infection. Most of them do not have symptoms, but the infection is still very serious, and can lead to:

- liver damage (cirrhosis)
- liver cancer
- death

Chronic infection is more common among infants and children than among adults. People who are chronically infected can spread hepatitis B virus to others, even if they don't look or feel sick. Up to 1.4 million people in the United States may have chronic hepatitis B infection.

Hepatitis B virus is easily spread through contact with the blood or other body fluids of an infected person. People can also be infected from contact with a contaminated object, where the virus can live for up to 7 days.

- A baby whose mother is infected can be infected at birth;
- Children, adolescents, and adults can become infected by:
 - contact with blood and body fluids through breaks in the skin such as bites, cuts, or sores;
 - contact with objects that have blood or body fluids on them such as toothbrushes, razors, or monitoring and treatment devices for diabetes;
 - having unprotected sex with an infected person;
 - sharing needles when injecting drugs;
 - being stuck with a used needle.

2 Hepatitis B vaccine: Why get vaccinated?

Hepatitis B vaccine can prevent hepatitis B, and the serious consequences of hepatitis B infection, including liver cancer and cirrhosis.

Hepatitis B vaccine may be given by itself or in the same shot with other vaccines.

Routine hepatitis B vaccination was recommended for some U.S. adults and children beginning in 1982, and for all children in 1991. Since 1990, new hepatitis B infections among children and adolescents have dropped by more than 95%—and by 75% in other age groups.

Vaccination gives long-term protection from hepatitis B infection, possibly lifelong.

3 Who should get hepatitis B vaccine and when?

Children and adolescents

- Babies normally get 3 doses of hepatitis B vaccine:

1st Dose:	Birth
2nd Dose:	1-2 months of age
3rd Dose:	6-18 months of age

Some babies might get 4 doses, for example, if a combination vaccine containing hepatitis B is used. (This is a single shot containing several vaccines.) The extra dose is not harmful.

- Anyone through 18 years of age who didn't get the vaccine when they were younger should also be vaccinated.

Adults

- All unvaccinated adults at risk for hepatitis B infection should be vaccinated. This includes:
 - sex partners of people infected with hepatitis B,
 - men who have sex with men,
 - people who inject street drugs,
 - people with more than one sex partner,
 - people with chronic liver or kidney disease,
 - people under 60 years of age with diabetes,
 - people with jobs that expose them to human blood or other body fluids,



- household contacts of people infected with hepatitis B,
 - residents and staff in institutions for the developmentally disabled,
 - kidney dialysis patients,
 - people who travel to countries where hepatitis B is common,
 - people with HIV infection.
- Other people may be encouraged by their doctor to get hepatitis B vaccine; for example, adults 60 and older with diabetes. Anyone else who wants to be protected from hepatitis B infection may get the vaccine.
 - Pregnant women who are at risk for one of the reasons stated above should be vaccinated. Other pregnant women who want protection may be vaccinated.

Adults getting hepatitis B vaccine should get 3 doses—with the second dose given 4 weeks after the first and the third dose 5 months after the second. Your doctor can tell you about other dosing schedules that might be used in certain circumstances.

4 Who should not get hepatitis B vaccine?

- Anyone with a life-threatening allergy to yeast, or to any other component of the vaccine, should not get hepatitis B vaccine. Tell your doctor if you have any severe allergies.
- Anyone who has had a life-threatening allergic reaction to a previous dose of hepatitis B vaccine should not get another dose.
- Anyone who is moderately or severely ill when a dose of vaccine is scheduled should probably wait until they recover before getting the vaccine.

Your doctor can give you more information about these precautions.

Note: You might be asked to wait 28 days before donating blood after getting hepatitis B vaccine. This is because the screening test could mistake vaccine in the bloodstream (which is not infectious) for hepatitis B infection.

5 What are the risks from hepatitis B vaccine?

Hepatitis B is a very safe vaccine. Most people do not have any problems with it.

The vaccine contains non-infectious material, and cannot cause hepatitis B infection.

Some mild problems have been reported:

- Soreness where the shot was given (up to about 1 person in 4).
- Temperature of 99.9°F or higher (up to about 1 person in 15).

Severe problems are extremely rare. Severe allergic reactions are believed to occur about once in 1.1 million doses.

A vaccine, like any medicine, could cause a serious reaction. But the risk of a vaccine causing serious harm, or death, is extremely small. More than 100 million people in the United States have been vaccinated with hepatitis B vaccine.

6 What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or behavior changes.

Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would start a few minutes to a few hours after the vaccination.

What should I do?

- If you think it is a severe allergic reaction or other emergency that can't wait, call 9-1-1 or get the person to the nearest hospital. Otherwise, call your doctor.
- Afterward, the reaction should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor might file this report, or you can do it yourself through the VAERS web site at www.vaers.hhs.gov, or by calling **1-800-822-7967**.

VAERS is only for reporting reactions. They do not give medical advice.

7 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at www.hrsa.gov/vaccinecompensation.

8 How can I learn more?

- Ask your doctor.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call **1-800-232-4636 (1-800-CDC-INFO)** or
 - Visit CDC's website at www.cdc.gov/vaccines

Vaccine Information Statement (Interim) Hepatitis B Vaccine

2/2/2012

42 U.S.C. § 300aa-26



APPENDIX F: BLOODBORNE PATHOGENS STANDARD
29 CFR 1910.1030

APPENDIX B TO §1910.1029—INDUSTRIAL HYGIENE AND MEDICAL SURVEILLANCE GUIDELINES

I. INDUSTRIAL HYGIENE GUIDELINES

A. *Sampling* (Benzene-Soluble Fraction Total Particulate Matter).

Samples collected should be full shift (at least 7-hour) samples. Sampling should be done using a personal sampling pump with pulsation damper at a flow rate of 2 liters per minute. Samples should be collected on 0.8 micrometer pore size silver membrane filters (37 mm diameter) preceded by Gelman glass fiber type A-E filters encased in three-piece plastic (polystyrene) field monitor cassettes. The cassette face cap should be on and the plug removed. The rotameter should be checked every hour to ensure that proper flow rates are maintained.

A minimum of three full-shift samples should be collected for each job classification on each battery, at least one from each shift. If disparate results are obtained for particular job classification, sampling should be repeated. It is advisable to sample each shift on more than one day to account for environmental variables (wind, precipitation, etc.) which may affect sampling. Differences in exposures among different work shifts may indicate a need to improve work practices on a particular shift. Sampling results from different shifts for each job classification should not be averaged. Multiple samples from same shift on each battery may be used to calculate an average exposure for a particular job classification.

B. *Analysis*.

1. All extraction glassware is cleaned with dichromic acid cleaning solution, rinsed with tap water, then dionized water, acetone, and allowed to dry completely. The glassware is rinsed with nanograde benzene before use. The Teflon cups are cleaned with benzene then with acetone.

2. Pre-weigh the 2 ml Teflon cups to one hundredth of a milligram (0.01 mg) on an autobalance AD 2 Tare weight of the cups is about 50 mg.

3. Place the silver membrane filter and glass fiber filter into a 15 ml test tube.

4. Extract with 5 ml of benzene for five minutes in an ultrasonic cleaner.

5. Filter the extract in 15 ml medium glass fritted funnels.

6. Rinse test tube and filters with two 1.5 ml aliquots of benzene and filter through the fritted glass funnel.

7. Collect the extract and two rinses in a 10 ml Kontes graduated evaporative concentrator.

8. Evaporate down to 1 ml while rinsing the sides with benzene.

9. Pipet 0.5 ml into the Teflon cup and evaporate to dryness in a vacuum oven at 40 °C for 3 hours.

10. Weigh the Teflon cup and the weight gain is due to the benzene soluble residue in half the Sample.

II. MEDICAL SURVEILLANCE GUIDELINES

A. *General*. The minimum requirements for the medical examination for coke oven workers are given in paragraph (j) of the standard. The initial examination is to be provided to all coke oven workers who work at least 30 days in the regulated area. The examination includes a 14" × 17" posterior-anterior chest x-ray reading, pulmonary function tests (FVC and FEV 1.0), weight, urinalysis, skin examination, and a urinary cytologic examination. These tests are needed to serve as the baseline for comparing the employee's future test results. Periodic exams include all the elements of the initial exam, except that the urine cytologic test is to be performed only on those employees who are 45 years or older or who have worked for 5 or more years in the regulated area; periodic exams, with the exception of x-rays, are to be performed semiannually for this group instead of annually; for this group, x-rays will continue to be given at least annually. The examination contents are minimum requirements; additional tests such as lateral and oblique x-rays or additional pulmonary function tests may be performed if deemed necessary.

B. *Pulmonary function tests*.

Pulmonary function tests should be performed in a manner which minimizes subject and operator bias. There has been shown to be learning effects with regard to the results obtained from certain tests, such as FEV 1.0. Best results can be obtained by multiple trials for each subject. The best of three trials or the average of the last three of five trials may be used in obtaining reliable results. The type of equipment used (manufacturer, model, etc.) should be recorded with the results as reliability and accuracy varies and such information may be important in the evaluation of test results. Care should be exercised to obtain the best possible testing equipment.

[39 FR 23502, June 27, 1974, 41 FR 46784, Oct. 22, 1976, as amended at 42 FR 3304, Jan. 18, 1977; 45 FR 35283, May 23, 1980; 50 FR 37353, 37354, Sept. 13, 1985; 54 FR 24334, June 7, 1989; 61 FR 5508, Feb. 13, 1996; 63 FR 1290, Jan. 8, 1998; 63 FR 33468, June 18, 1998; 70 FR 1142, Jan. 5, 2005; 71 FR 16672, 16673, Apr. 3, 2006; 71 FR 50189, Aug. 24, 2006; 73 FR 75585, Dec. 12, 2008]

§ 1910.1030 **Bloodborne pathogens.**

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

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

Assistant Secretary means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

Blood means human blood, human blood components, and products made from human blood.

Bloodborne Pathogens means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical Laboratory means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

Contaminated means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Contaminated Laundry means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

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

Decontamination means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

Director means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Engineering controls means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact

with blood or other potentially infectious materials that results from the performance of an employee's duties.

Handwashing Facilities means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

Licensed Healthcare Professional is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

HBV means hepatitis B virus.

HIV means human immunodeficiency virus.

Needleless systems means a device that does not use needles for:

- (1) The collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established;
- (2) The administration of medication or fluids; or
- (3) Any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

Other Potentially Infectious Materials means

- (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;
- (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and
- (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral means piercing mucous membranes or the skin barrier through

such events as needlesticks, human bites, cuts, and abrasions.

Personal Protective Equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Production Facility means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

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

Research Laboratory means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

Sharps with engineered sharps injury protections means a nonneedle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source Individual means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

Sterilize means the use of a physical or chemical procedure to destroy all

microbial life including highly resistant bacterial endospores.

Universal Precautions is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

Work Practice Controls means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

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

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

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

(B) The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

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

(iii) Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.20(e).

(iv) The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure. The review and update of such plans shall also:

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

(B) Document annually consideration and implementation of appropriate commercially available and effective

safer medical devices designed to eliminate or minimize occupational exposure.

(v) An employer, who is required to establish an Exposure Control Plan shall solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls and shall document the solicitation in the Exposure Control Plan.

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

(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 handwashing facilities which are readily accessible to employees.

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

(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 bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

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

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

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

(xiv) Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping

and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

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

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

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

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

(iii) *Accessibility.* The employer shall ensure that appropriate personal protective equipment in the appropriate

sizes is readily accessible at the work-site 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)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

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

(B) Disposable (single use) gloves shall not be washed or decontaminated for 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 then 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 task and degree of exposure anticipated.

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

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

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

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

(B) Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when 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)(1)(i) of this standard.

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

(i) Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., 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 area of use, the containers shall be:

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

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

(A) Closable;

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

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

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

(B) *Other Regulated Waste Containment*—(1) Regulated waste shall be placed in containers which are:

(i) Closable;

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

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

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

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

(i) Closable;

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

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

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

(C) Disposal of all regulated waste shall be in accordance with applicable regulations of the United 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)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

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

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

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

(e) *HIV and HBV Research Laboratories and Production Facilities.* (1) This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not

apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

(2) Research laboratories and production facilities shall meet the following criteria:

(i) *Standard microbiological practices.* All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(ii) *Special practices.* (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 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 paragraph (g)(1)(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 from 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 the work area).

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

(f) *Hepatitis B vaccination and post-exposure evaluation and follow-up—(1) General.* (i) The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had an exposure incident.

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

(A) Made available at no cost to the employee;

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

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

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

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

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

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

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

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

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

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

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

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

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

(A) The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

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

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

(iii) Collection and testing of blood for HBV and HIV serological status;

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

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

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

(v) Counseling; 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)(1) of this section.

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

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



BIOHAZARD

(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.

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

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

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

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

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

(ii) *Signs.* (A) The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:



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

(ii) Training shall be provided as follows:

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

(B) At least annually thereafter.

(iii) [Reserved]

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

(v) Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

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

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

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

(B) A general explanation of the epidemiology and symptoms of bloodborne diseases;

(C) An explanation of the modes of transmission of bloodborne pathogens;

(D) An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

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

(F) An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

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

(H) An explanation of the basis for selection of personal protective equipment;

(I) Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

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

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

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

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

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

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

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

(A) The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in 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 1910.1020.

(ii) This record shall include:

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

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

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

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

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

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

(A) Kept confidential; and

(B) Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(iv) The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

(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

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maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(ii) Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.

(iii) Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.1020.

(4) *Transfer of Records.* (i) The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(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.

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

(4) Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) House-keeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g) (1) Labels and Signs, shall take effect July 6, 1992.

(5) *Sharps injury log.* (i) The employer shall establish and maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured

employee. The sharps injury log shall contain, at a minimum:

(A) The type and brand of device involved in the incident,

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

(C) An explanation of how the incident occurred.

(ii) The requirement to establish and maintain a sharps injury log shall apply to any employer who is required to maintain a log of occupational injuries and illnesses under 29 CFR 1904.

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

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.

[56 FR 64175, Dec. 6, 1991, as amended at 57 FR 12717, Apr. 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5508, Feb. 13, 1996; 66 FR 5325, Jan. 18, 2001; 71 FR 16672, 16673, Apr. 3, 2006; 73 FR 75586, Dec. 12, 2008]

§ 1910.1043 Cotton dust.

(a) *Scope and application.* (1) This section, in its entirety, applies to the control of employee exposure to cotton dust in all workplaces where employees engage in yarn manufacturing, engage in slashing and weaving operations, or work in waste houses for textile operations.

(2) This section does not apply to the handling or processing of woven or knitted materials; to maritime operations covered by 29 CFR Parts 1915 and 1918; to harvesting or ginning of cotton; or to the construction industry.

(3) Only paragraphs (h) Medical surveillance, (k)(2) through (4) Recordkeeping—Medical Records, and Appendices B, C and D of this section apply