Biological Agents and Bloodborne Pathogens Exposure Control Plan

EMAIL JABSOM EHSO FOR A WORD DOCUMENT.
ATTENTION: This ECP is a *general* ECP for JABSOM Kaka'ako and includes the forms and reporting procedures that all JABSOM departments shall use. Individual departments or laboratories shall use this ECP as a template and customize it to their program's specific risk assessments and procedures. This ECP includes bold blue instructions where you need to insert your specific procedures. Explanations of the OSHA's requirements are provided in the sections of this ECP and you may delete these once you add your specific procedures. Delete this box from your final plan.

Prepared by: JABSOM Environmental Health & Safety Office
Creation Date: January 2008
Revision Dates: October 23, 2009

Department: _____
Location(s): _____
Principal Investigator: _____
Supervisor/Manager: _____
Revision Dates: _____

TABLE OF CONTENTS & OSHA REFERENCE

1.0 INTRODUCTION (29 CFR 1910.1030(c)(1))

JABSOM Kaka'ako **Insert your Department or Lab here** is committed to providing a safe working and instructional environment. This Exposure Control Plan (ECP) has been developed in compliance with the Hawaii Administrative Rules, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety & Health, Part 8, Health Standards, Chapter 205.1, Bloodborne Pathogens and OSHA 29 CFR 1910.1030.

This Bloodborne Pathogens Exposure Control Plan (ECP) describes how occupational and instructional exposure to biological agents, blood or other potentially infectious materials (OPIM/PIM) can be eliminated or minimized through the practice of universal precautions, a continual program of training, and procedural compliance. This ECP provides procedures for incident reporting and prompt response and follow-up care of employees who are exposed while performing their official duties. Included in this ECP is the Hepatitis B Vaccination Program which shall apply to all employees, students, and volunteers identified as having occupational exposure to blood, biological agents, and OPIM.

The ECP shall be accessible to all employees in accordance with 29 CFR 1910.1020(e). (29 CFR 1910.1030(c)(1)(iii))

1.1 APPLICABILITY

This is a *general* ECP for JABSOM Kaka'ako and includes the forms and reporting procedures that all JABSOM departments shall use. Though all policies and procedures must be consistent with the intent of this ECP, flexibility exists for JABSOM Kaka'ako Supervisors to develop more stringent or specific requirements.

JABSOM employees and students who have direct patient contact at non-JABSOM facilities may also be regulated under the host facility's ECP, e.g. Queen's Hospital, Kuakini Hospital, Kapiolani Hospital, etc.

While it is recognized that other animals may be sources of human pathogens, this ECP and applicable laws are designed to prevent infection and spread of infection due to human bloodborne pathogens, especially HBV, HCV, and HIV. Sources of potentially infected material for the purpose of this ECP include humans and closely related primates.

***Exemptions*:** JABSOM Kaka'ako Custodial, Security, and Landscaping are private contractors who are responsible for providing all necessary training to their employees prior to working at JABSOM. The Kulia Grill Cafeteria is staffed by UH Kapiolani Community College employees who receive all applicable training through their program.

Individual departments or laboratories shall use this ECP OR the UH Biosafety Program's ECP (http://www.hawaii.edu/ehso/bio/) as a template and customize it to their specific tasks, risk assessments, and procedures. Insert the departments or laboratories that your ECP covers and erase the first paragraph of this section.

1.2 ECP REVIEW (29 CFR 1910.1030(c)(1)(iv))

JABSOM EHSO will review the general ECP at least annually and revise to include changes in regulations, updated forms or procedures for incident reporting, changes in training requirements, etc.

Supervisors shall annually review and update their department/lab ECP:

- to reflect new or modified tasks and procedures which affect occupational exposure
- to reflect new or revised employee positions with occupational exposure
- to reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens
- and document the consideration and implementation of effective safer engineering and work practice controls designed to eliminate or minimize occupational exposure at least annually.

2.0 DESIGNATION OF RESPONSIBILITIES

2.1 JABSOM EHSO

- Updates and enforces the rules and regulations in the ECP
- Assist in risk assessment, PPE selection and proper use, work practice modifications, etc.
- Investigate incidents and near misses
- The JABSOM Biosafety Officer shall provide Initial & Annual Training
- Conducts inspections

2.2 HUMAN RESOURCES (HR)

HR shall maintain confidential vaccination records and confidential medical records of those exposed for the duration of employment plus 30 years in accordance with 29 CFR 1910.1020 and inform JABSOM EHSO of exposure incidents.

2.3 SUPERVISORS (i.e. Principal Investigators, Department Chairs, etc.) (29 CFR 1910.1030(c)(2))

- Determine those at risk of exposure and identify these positions and/or individuals in this plan. (29 CFR 1910.1030(c)(2)(i)(A), 29 CFR 1910.1030(c)(2)(i)(B))
- Identify all tasks and procedures or groups of closely related tasks and procedures in which occupational exposure occurs and that are performed by employees in job classifications in which some employees have occupational exposure. (29 CFR 1910.1030(c)(2)(i)(C))
- Ensure that employees are informed of and in compliance with the ECP and any task/site-specific controls to prevent occupational exposure. (29 CFR 1910.1030(g)(2))
- Reevaluate lab/instructional protocols and identify practices that must be improved or modified to reflect changes in technology or tasks.
- Immediately notify JABSOM EHSO and HR of any exposure incidents, assist exposed employee in exposure reporting (completing and routing forms), and direct employee to medical care.
- Ensure employees who are at risk for exposure complete the **UH Initial/Annual Biosafety Trainings** and **Initial/Annual Bloodborne Pathogens Trainings** before working with any human material and vertebrate animal material. (29 CFR 1910.1030(g)(2)) Supervisors shall maintain records of training.
- If an employee is determined to have occupational exposure, Supervisors must offer and should encourage **Hepatitis B Vaccinations and any other applicable vaccinations**. PIs/supervisors are responsible for maintaining a confidential file of their employee's Hepatitis B immunization forms or Declination forms. See section 8. (29 CFR 1910.1030(f)(2)
- Provide the necessary PPE and engineering controls to eliminate or reduce exposure, including hand-washing facilities or antiseptic cleaner/towelettes. (29 CFR 1910.1030(d)(2))
- Provide task/site-specific training. (29 CFR 1910.1030(g)(2))
- Conduct audits and document deficiencies and corrective actions.
- 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. (29 CFR 1910.1030(c)(1)(v))
- Document the solicitation in the Department-specific ECP. (29 CFR 1910.1030(c)(1)(v))
- Prepare specific Standard Operating Procedures (SOPs) for the laboratory. The SOPs shall be reviewed and updated at least annually. Employees who work with PIM shall be advised of the potential hazards and required to read and comply with SOPs.
- Any refusal to comply with the ECP violates the mandate of HiOSH and is subject to disciplinary action by the supervisor.

2.4 EMPLOYEES

- Comply with procedures established by supervisors in accordance with the ECP, including completing **Safety Trainings**.
- Adhere to the principles and practices of Universal Precautions.
- Keep records of training and vaccinations.
- Seriously consider the offer of the Hepatitis B vaccination and either accept vaccination, provide record of previous immunization, or sign declination form.
- Promptly report any worksite injury, exposure incident, or near miss to supervisors and JABSOM EHSO.

3.0 EXPOSURE DETERMINATION (29 CFR 1910.1030(c)(2)(i))

Each department must determine their job classifications and work activities in which there is possible exposure to blood or PIM without regard to the use of personal protective equipment. Each Department or Laboratory must list:

- **the job classifications specific to their program in which all employees have occupational exposure (section 3.1, 29 CFR 1910.1030(c)(2)(i)(A))**
- **the job classifications specific to their program in which some employees have occupational exposure (section 3.2, 29 CFR 1910.1030(c)(2)(i)(B))**
- **all tasks and procedures or groups of closely related tasks and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in section 3.2 (29 CFR 1910.1030(c)(2)(i)(C)).**

This exposure determination **excludes** incidental exposures that may take place on the job, that are neither reasonably nor routinely expected, and that the employee is not required to incur in the normal course of their employment.

3.1 ROUTINE OCCUPATIONAL EXPOSURE

List the job and student classifications that are considered to routinely have occupational exposure:

Medical Students	
Physicians	
Nurses	
Nursing Assistants	
Medical and Clinical Technicians	
Dieticians, Nutritionists, Physical Therapists	
Phlebotomists	
Anatomy Lab and Morgue Staff	
Pathologists	

3.2 POSSIBLE OCCUPATIONAL EXPOSURE

Some employees with a particular job classification are covered under the ECP, while others in the same job classification are not, depending on the specific tasks performed by those employees. For example, the ECP would apply to a lab technician in a HIV/HBV laboratory, but not to a lab technician in a chemistry lab. The distinguishing factor for these groups of employees is whether there is the potential for "**reasonably anticipated**" skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee's job tasks.

List the job and student classifications that include some employees who have occupational exposure:

Faculty	**Add Department-specific classifications here:**
Medical or Clinical Support Staff	Student Help
Laboratory Animal Staff	
Environmental Health & Safety Staff	
Mailroom Staff (receive biological shipments)	
Facilities Maintenance Staff*	
Research Fellows	
Research Associates	
Research Specialists	
Research Technicians	

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3.3 TASKS & PROCEDURES WHERE OCCUPATIONAL EXPOSURE OCCURS

The general tasks/procedures listed below cause an occupational exposure to the employee conducting them when employing human blood or OPIM.

- Collecting, transporting and processing biological/clinical specimens
- Tissue Culture
- Direct contact with PIM during physical examination of patients
- Handling human cells/tissues or animal cell/tissues and products derived from cells which may contain known or unknown potentially infectious agents
- Handling blood or other tissues from infectious research animals and primates
- Animal husbandry for infectious research animals
- Handling of materials and waste contaminated with blood or PIM
  - Cleaning and reprocessing contaminated equipment
  - Repairing and performing maintenance on laboratory or clinical equipment
  - Repairing and maintaining plumbing fixtures in labs that process blood and OPIM
  - Housekeeping in areas exposed to blood or OPIM
  - Handling contaminated laundry
  - Decontamination of materials contaminated with blood or OPIM

Add Department-specific tasks here:	

4.0 CONTROLLING HAZARDS AND PREVENTING EXPOSURE (29 CFR 1910.1030(d))

To prevent employee exposure, it may be necessary to use a combination of controls, including administrative controls, engineering controls, work practice controls, and PPE. These controls will be discussed further in the following sections.

4.1 UNIVERSAL PRECAUTIONS (29 CFR 1910.1030(d)(1))

All JABSOM employees shall practice Universal Precautions. Universal Precautions is the term used to describe a *prevention strategy* in which all blood and OPIM are treated as if they are infectious, regardless of the perceived status of the source (see definition of OPIM). Universal precautions involve the use of *protective barriers* such as gloves, gowns, aprons, masks, or protective eyewear, which can reduce the risk of exposure to the employee's skin or mucous membranes. In addition, all employees must take precautions to prevent injuries caused by sharps. Certain engineering and work practice controls shall also be utilized when feasible.

4.2 ENGINEERING AND WORK PRACTICE CONTROLS (29 CFR 1910.1030(d)(2))

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Engineering controls isolate or remove the bloodborne pathogen hazard from the worker, e.g. biosafety cabinets, centrifuge safety cups, mechanical pipetting devices, splash guards, puncture resistant sharps containers, containment caging for infectious animals. Where occupational exposure remains after institution of these controls, personal protective equipment (PPE) shall also be used.

Supervisors and employees shall evaluate the effectiveness of existing controls and review the feasibility of instituting more advanced controls. Evaluations should occur on a regular basis and should be documented. Employees should report any deficiencies or concerns to supervisors immediately.

4.2.a HANDWASHING & EMERGENCY EYEWASH

Handwashing Facilities and Emergency Eyewashes* must be readily accessible to employees. If handwashing facilities are not feasible, antiseptic hand cleaner with cloth, paper towels, or antiseptic towelettes must be provided. (29 CFR 1910.1030(d)(2)(iii), 29 CFR 1910.1030(d)(2)(iv), *29 CFR 1910.1030(e)(3)(i) - JABSOM is being more stringent by requiring this for all labs manipulating PIM, as the Standard only requires emergency eyewashes for labs that manipulate HIV, HBV, or HCV.)

At JABSOM Kaka'ako BSB, all labs have sinks and some sinks are designated for handwashing only. Emergency eyewashes are located at most bench sinks; these are handheld and tested monthly by lab staff and documented on an eyewash log. Emergency eyewash/shower combos are located in the core equipment rooms and at the ends of each corridor; these are tested quarterly by JABSOM EHSO.

Add the locations of the nearest handwashing facilities and emergency eyewashes here.

Hands shall be routinely washed immediately after gloves and other PPE are removed. Handwashing should be done with disinfectant soap and running water. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or PIM. If PIM contacts the eyes, nose, mouth or open wound, these mucous membranes shall be flushed with water immediately for at least 15 minutes. (29 CFR 1910.1030(d)(2)(v), 29 CFR 1910.1030(d)(2)(vi))

4.2.b NEEDLES AND SHARPS

Contaminated needles and other contaminated sharps must not be bent, sheared, replaced in the sheath or guard, recapped, or removed from the syringe following use unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure (29 CFR 1910.1030(d)(2)(vii)(A)) and such bending, recapping or needle removal is accomplished through the use of a mechanical device or a one-handed technique (29 CFR 1910.1030(d)(2)(vii)(B)).

Reusable sharps, such as retractable blades and scalpels, which are contaminated with PIM 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. Reusable sharps must be placed in containers that are puncture-resistant, leak proof on the sides and bottom, and properly labeled until they are decontaminated. These sharps will only be used if no safer or more efficient devices are available to replace them in performing a specific laboratory-related procedure. (29 CFR 1910.1030(d)(2)(viii), 29 CFR 1910.1030(d)(4)(ii)(E))

See section 9.0 Needlestick Safety and Prevention.

Add the Department's procedures for decontamination of reusable sharps here, if applicable.

4.2.c EATING AND DRINKING

Eating, drinking, smoking, applying cosmetics/lip balm, handling contact lenses, or any behavior that could result in self-contamination are prohibited in all laboratories and work areas where there is any risk of occupational exposure.

4.2.d FOOD AND DRINK STORAGE

Food and drinks are never allowed in laboratories, refrigerators, freezers, shelves, cabinets, cold rooms or on countertops or bench tops that are designated for biological agents, blood or PIM use.

4.2.e PIPETTING

Mouth pipetting or mouth suctioning is prohibited. Mechanical pipetting devices must be used.

4.2.f SPLASH AND SPRAY PREVENTION

All procedures involving blood or PIM will be performed in such a manner as to minimize splashing, spraying, splattering and generation of droplets or aerosols of these substances, this includes restricting

manipulation of PIM to the biosafety cabinets, using safety centrifuge cups (a closed container that prevents aerosols from being released during centrifugation), implementing SOPs for Centrifuge Safety (available on the JABSOM EHSO website).

4.2.g SPECIMEN HANDLING

- Specimens of biological agents, blood or potentially infectious materials must be kept in **sturdy, labeled, leak-proof containers** during collections, handling, processing, storage or transport.
- The container must be labeled with the universal biohazard label and closed prior to being stored, transported, or shipped.
- If the exterior of the primary container becomes contaminated, the primary container shall be placed in a secondary container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled with the universal biohazard label.
- Any specimens that could puncture a primary container will be placed within a secondary container that is puncture resistant.
- When transporting within the BSB, specimens must be in secondary containment. Use a cart to transport large or heavy items. Stairways should not be used for transport.
- If transporting outside of the facility or shipping specimens, follow UH Biosafety Program transport and bioshipping procedures.

4.2.h EQUIPMENT

All equipment that is to be serviced must be decontaminated prior to maintenance and the JABSOM Decontaminated Equipment Form must be affixed. If equipment cannot be decontaminated, contact JABSOM EHSO.

Equipment that may become contaminated will be:

- inspected for contamination on a regular basis
- decontaminated on a regular basis
- labeled with the Universal Biohazard Symbol

Add the Department's schedule and procedures for decontamination of equipment here or refer to section 4.4.b.

4.2.i CLASS II BIOSAFETY SAFETY CABINETS (BSC)

BSCs are primary containment devices equipped with HEPA filters designed to provide personnel, product, and environmental protection from biohazardous materials.

All manipulation of blood and potentially infectious materials should be done in a certified Class II BSC.

Supervisors shall provide hands-on training for properly working in the BSC. JABSOM EHSO contracts the annual certification of JABSOM-owned BSCs annually.

Add the Department's locations of the certified Class II biosafety cabinets that are to be used for manipulation of potentially infectious materials here.

4.2.j AUTOCLAVES

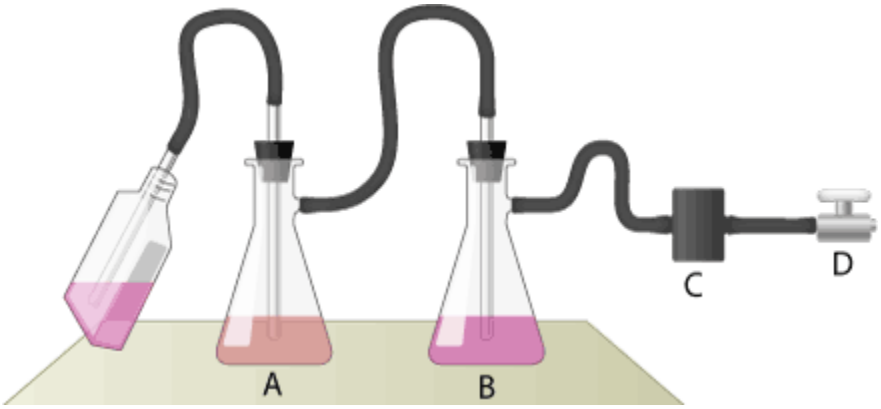
Autoclaves are used to steam-sterilize PIM with saturated steam under pressure. Sufficient kill is dependent on time, temperature, and load volume. All autoclaves at JABSOM Kaka'ako are quality control tested at least monthly. The quality control logs are maintained by JABSOM EHSO and copies are posted near each autoclave. All autoclaves (with the exception of the small autoclave in BSB rm. 166) are inspected and permitted by the Department of Labor, Boiler Division. The permits are displayed at or near the unit. Supervisors shall provide hands-on training in the proper use of the autoclave.

4.2.k OTHER ENGINEERING CONTROLS

Other engineering controls such as shielding, centrifuge safety cups, vacuum line HEPA filters, etc., are to be used for containment of PIM that may be aspirated.

HEPA filters are required to be used when the BSB central vacuum lines are used, regardless of the procedure; filters may be purchased at the BSB stockroom.

When infectious materials are manipulated, vacuum lines must be protected with liquid disinfectant traps and HEPA filters. This equipment shall be checked routinely and maintained or replaced as necessary.



The collection flask (A) is used to collect the contaminated fluids into a suitable decontamination solution. The overflow flask (B) serves as a fluid overflow collection vessel. A glass splarger in the overflow flask minimizes splatter. An in-line HEPA filter (C) is used to protect the vacuum system (D) from aerosolized microorganisms.

1. The collection flasks should be monitored and emptied or replaced before it is filled. If using the vacuum line in the biological safety cabinet, place the collection flasks inside the unit. The overflow flask can be outside the biological safety cabinet. However, do not place the glass flask at floor level unless it is stored in secondary containment, such as a plastic tray.

2. The chemical disinfectant should be added to the collection flask in full strength. Allow the aspirated fluids to complete the dilution. For example, add 50 ml of 100% bleach, aspirate 450 ml fluids and discard (=10% final bleach solution).

3. Always replace the vacuum filter when it is clogged or if liquid makes contact with the filter.

4. Check that all connections or seals are tight to assure the vacuum is adequate.

4.2.I SPILL PREPAREDNESS AND RESPONSE

In the event of a blood or OPIM spill, lab-specific spill plans will be initiated. Each lab must post a spill plan next to a spill kit in the lab. Supervisors must provide training in spill response.

Add your Lab's spill response procedures here.
Example of a basic biological spill response plan:
1. Don personal protective equipment.
2. Contain the spill with paper towels or spill absorbing pads/pillows.
3. Flood the spill/absorbent material with freshly prepared bleach solution, let sit for 20-30 minutes. Be careful not to spread or cause the spill to splatter. (If using an EPA registered disinfectant, be sure to follow manufacturer instructions on the label.)
4. Place all contaminated materials in an autoclave bag and contact JABSOM EHSO about disposal.
5. Never pick up sharps with hands; use tongs or scoops, etc.
6. Decontaminate the spill area again.
7. Document the spill and report it to JABSOM EHSO.

Add your Department's spill kit contents and location(s) here: _____
Spill kits can be purchased from lab supply vendors or a spill kit can made with the following items:

- ☐ 4 pairs of nitrile gloves
- ☐ 1 or 2 pairs of safety goggles
- ☐ 4 autoclavable polypropylene medium-large bags
- ☐ A roll of gauze or absorbent towels, "pillows" or "socks"
- ☐ Identify the appropriate disinfectant: _____
- ☐ Tongs or scoops that can be used to collect sharps

4.3 PERSONAL PROTECTIVE EQUIPMENT (PPE) (29 CFR 1910.1030(d)(3))

List the Department's PPE available here (e.g. latex gloves, nitrile gloves, disposable lab coats, face shields, etc.) and describe the Department's specific procedures for decontaminating, cleaning, or laundering reusable PPE here.
Examples of reusable PPE:
Face Shields:
Goggles:
Safety Glasses:
Lab Coats:
If only disposable lab coats are used, please note that here.

PPE is specialized clothing or equipment worn by employees for protection against a hazard. General work clothes not intended to function as protection against a hazard is not considered to be PPE. PPE will be selected based on the type of anticipated exposure to blood or OPIM and may include lab coats, gloves, chin-length face shields, eye protection. PPE will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

4.3.a PROVISION, USE, AND ACCESSIBILITY

The financial responsibility for providing PPE rests with the Principle Investigator or Department. However, there is no obligation to provide general work clothes. Appropriate sizes of PPE will be made available for use. Alternative gloves or glove liners shall be provided to employees who are allergic to the gloves normally provided. PPE will be selected to ensure that it does not permit blood or OPIM to pass through to the employee's clothes, skin, eyes, and mucous membranes under normal conditions of use and for the duration of time which the PPE will be used. Employees shall use PPE whenever working with human blood or OPIM.

4.3.b GLOVES

- Gloves will be worn whenever contact with blood, body fluids, secretions, excretions, mucous membranes and non-intact skin is expected, including touching contaminated surfaces and items soiled contaminated with blood or OPIM; during invasive procedures, during blood draws or finger sticks and if an employee has cuts, abraded skin, chapped hands, or dermatitis.
- Glove must be removed immediately upon leaving the laboratory and before entering any common areas, including elevator lobbies, stairwells, office suites, break rooms, bathrooms, and before contacting communal items such as phones, computers, door handles, elevator buttons, etc. There may be doorknobs and door handles that are designated as "Gloves On" so be aware of these; this designation must have prior approval by JABSOM EHSO.
- Disposable gloves will be replaced between when contaminated, torn or punctured, and between patient contacts. Disposable gloves may not be washed or decontaminated for reuse; these are single use only.
- Utility gloves may be decontaminated for reuse if the integrity is not compromised.

4.3.c 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. If there is broken skin on the face (e.g. acne, etc.), face shields must be worn. Masks do not protect against respiratory hazards; the appropriate respirator must be used and employees must be trained, medically cleared, and fit tested in order to wear a respirator. Contact JABSOM EHSO for more information.

4.3.d PROTECTIVE CLOTHING

Splash-resistant lab coats (gowns, aprons) will be used by laboratory staff members while working with biological materials/waste, hazardous chemical materials/waste, and when working with radioisotopes. Fluid resistant lab coats (gowns, aprons) should be worn during procedures that are likely to generate splashes or aerosols of blood or PIM. Lab coats should have a closed front or an overlapping front. Lab coats must not be worn or used outside of the laboratory. Surgical caps or hoods and shoe covers shall be worn in instances when gross contamination can be reasonably anticipated.

4.3.e CLEANING, LAUNDERING, DISPOSAL

Reusable PPE should be decontaminated, cleaned or laundered, on a regular basis, prior to storage in a designated area for future use. Contaminated lab coats shall not be sent home with the employee for cleaning. The employer shall clean, launder, and dispose of PPE. and will repair or replace PPE as needed to maintain its effectiveness at no cost to the employee.

Regular soiled non-disposable lab coats should be kept in an isolated laundry bag that will hold all contents without leakage during storage and transported to a commercial laundry that will accept soiled lab coats from clinical and research labs. Biologically contaminated lab coats that pose a risk of occupational exposure will be handled as little as possible and only while using PPE and shall be treated as biohazardous waste. (29 CFR 1910.1030(d)(4)(iv))

4.3.f REMOVAL / REPAIR / REPLACEMENT

All PPE will be removed prior to leaving the work or laboratory area and before entering any “common” areas such as lobbies, elevators, offices, or contacting communal items such as doorknobs and phones.

All garments that are penetrated by blood or other PIM shall be removed as soon as feasible and decontaminated (autoclaving) by the user or discarded as biohazardous waste. PPE will be replaced as often as necessary and at a minimum after each use where the PPE becomes contaminated and when PPE becomes old and ineffective.

4.4 HOUSEKEEPING (29 CFR 1910.1030(d)(4))

JABSOM Kaka’ako tenants shall maintain a clean and sanitary condition in all laboratories at all times.

4.4.a DECONTAMINATION SCHEDULE & PROCEDURES

Each laboratory shall implement an appropriate schedule and procedures for areas and equipment to be cleaned and disinfected. Work surfaces must be cleaned and decontaminated after completion of your work and immediately after any spill of blood or PIM; disinfectants are more effective if the surfaces are first cleaned and then disinfected. An **appropriate disinfectant** must be used at the **specified concentration** and for the **specified contact time**. It is recommended that a hospital-grade, tuberculocidal, fungicidal, and virucidal disinfectant that is registered with the EPA is used. (It is a violation of Federal Law to use an EPA registered product in a manner inconsistent with its label and labeling. Information about EPA disinfectants: http://www.epa.gov/oppad001/chemregindex.htm.)

Add the Department’s Cleaning and Decontamination Schedule and Procedures here.
Example: Cleaning and Method of Decontamination

Area/Equipment	Method	Schedule
Biosafety Cabinet Rm.____	70% ethanol	Before and After each use
Centrifuge(s)	10% bleach prepared fresh, followed by water and 70% ethanol	Monthly and when there are visible signs of contamination
Reusable Face Shields	70% ethanol	After each use
Bench tops		Daily and when there are visible signs of contamination
Exterior, lid, interior of reusable biohazard waste containers		

List the Department's disinfectant(s) with expirations date(s) here and attach the MSDS.

_____

_____

4.4.c Reusable containers with a likelihood of becoming contaminated must be inspected and decontaminated on a regular basis. When contamination does occur, receptacles should be cleaned and decontaminated immediately.

4.4.d Any **sharps** that may be contaminated must not be picked up with the hands. Tools that are used in the clean up of sharps must be decontaminated after use and the contaminated sharps should be placed in a red sharps container.

4.5 REGULATED WASTE (29 CFR 1910.1030(d)(4)(iii))

Segregate metal sharps from other sharps as much as possible. **Metal sharps** must be decontaminated (autoclave the containers) and then submitted to JABSOM EHSO as metal sharps are not permitted in the landfill. **Non-metal sharps**, such as pipet tips, glass pipets, broken glass, can be decontaminated (autoclave the container), and then placed into the trash compactor to go to landfill.

Disposal of regulated waste shall be in accordance with JABSOM EHSO Waste Disposal Guidelines http://www.hawaii.edu/ehso/jabsom/PolicyDocuments.htm.

4.5.a Non-sharps regulated waste (petri dishes, gloves, etc.) shall be placed into containers which are:

- Closable
- Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping
- Labeled with the universal biohazard symbol or red in color
- Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, and shipping
- If exterior contamination of the primary container occurs, it shall be placed in a secondary container as described in section 4.5.f.

4.5.b Contaminated sharps shall be discarded immediately or as soon as feasible in to containers that are:

- Closable
- Puncture resistant
- Leak-proof on sides and bottom
- Labeled with the universal biohazard symbol or red in color
- Easily accessible to employees and located as close as feasible to the immediate area where sharps are used or can be reasonably anticipated to be found
- Maintained upright throughout use
- Replaced routinely and not be allowed to overfill or pass the manufacturer's fill line
- **Metal sharps** must be collected in purchased vendor supplied sharps collection containers

and labeled "Metal Sharps"
- Containers used for disposable metal sharps may not be reused.

4.5.c When moving containers from area of use, the containers shall be:
- Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping
- Placed in secondary containment if leakage is possible and when transporting through lobbies or in elevators
- Placed on a cart if items are bulky or heavy and when transporting through lobbies or in elevators

4.5.d Secondary containment shall be:
- Closable
- Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping
- Labeled with the universal biohazard symbol
- Required when transporting through common areas

4.5.e Closed metal sharps containers shall be autoclaved and submitted to JABSOM EHSO for proper disposal.

5.0 HAZARD COMMUNICATION: LABELS & SIGNS (29 CFR 1910.1030(g))

Supervisors shall ensure biohazard labels are affixed to:
- Entry doorways to labs that process or store biological agents
- Refrigerators, freezers and other storage areas containing biological agents, blood materials and other PIM
- Containers used to store, transport or ship biological agents, blood and other PIM
- Regulated biological-contaminated waste that has not been decontaminated
- Blood or other potentially infectious material, e.g. specimen containers
- Equipment used to process human material and potentially contaminated with biological agents, blood or other PIM (centrifuges, water baths, etc.)

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

For entry doorways, signs shall also include the Biosafety Level 2 label/sign indicating potential biohazards and supervisor contact information and RESTRICTED ENTRY. Some labs may require additional labels or signs, e.g. HIV Research Lab, etc.

At JABSOM Kaka'ako, a door sign program has been implemented to standardize the door signs; contact JABSOM EHSO about creating a new sign or updating a current sign.

6.0 SECURITY & VISITOR POLICY

The Kaka'ako BSB is a restricted access facility. All laboratory door signs state RESTRICTED ENTRY. Entry is permitted only to those who have been granted key, card, biometric, and/or pin code access. Doors shall remain closed, i.e. not propped open. Propped doors or doors left ajar invite unauthorized visitors. Doors shall be closed and locked when there is no one in the lab.

Visitors must check in at the security desk and wear a visitor badge during the visit. If the visitor will enter a laboratory or otherwise restricted access area, the visitors must sign the BSL-2 Authorized Entry Log at the Kaka'ako BSB Security desk, and must be escorted by a knowledgeable staff member; not touch any countertops, equipment, and biological or chemical substances in the lab; and must don the appropriate PPE if there is active manipulation in the lab. The escort must advise the visitor of all potential hazards and general emergency response procedures such as how to evacuate the building and the location of emergency response equipment such as the eyewashes and fire extinguishers.

7.0 TRAINING AND INFORMATION (29 CFR 1910.1030(g)(2))

7.1 JABSOM Employees who work with any human material and any potentially infectious animal materials as defined by the UH Biosafety Program are required to complete UH Initial Biosafety Training and UH Initial Bloodborne Pathogens Training. Annual refresher trainings are required thereafter. Refer to the JABSOM EHSO website for more information http://www.hawaii.edu/ehso/jabsom/.

7.2 Bloodborne Pathogens training shall include:

- Explanation of and access to the ECP and the Standard (OSHA/HiOSH)
- Explanation of the epidemiology, modes of transmission and symptoms of bloodborne diseases
- Methods for recognizing tasks that may involve exposure to blood or PIM
- Universal Precautions
- Explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment
- Personal Protective Equipment – types, selection, use, limitations, decontamination and disposal
- Signs & Labels
- New safer needle technologies
- Spill and Exposure Procedures
- 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
- Incident Reporting, Exposure Evaluation, and Follow-Up

7.3 Supervisors will be responsible for ensuring that personnel complete UH Initial Trainings as soon as possible and before handling any potentially infectious materials, as well as provide task-specific training using the Laboratory Personnel Safety Checklist at the JABSOM EHSO website. Training must be completed within 10 days of initial assignment in which occupation exposure can be anticipated.

7.4 Additional training shall be provided by the Supervisor when there are any task or procedure changes.

7.5 If working with HIV, HBV, or HCV, the Supervisor shall determine the sufficiency of training and experience. No employees may begin work with HIV, HBV, or HCV containing materials prior to demonstrating proficiency in standard microbiological techniques and in specific operations involving these infectious agents.

7.6 Training will be provided at no cost to the employee and will be conducted during work/instructional hours.

7.7 Certificates provided by EHSO shall include the date of certification, an outline or summary describing the materials presented, the name and title of the trainer, and the names, signatures and job titles of all persons certified. (29 CFR 1910.1030(h)(2))

7.8 Certificates of training shall be maintained for three (3) years from the date of training by the employee and supervisor. (29 CFR 1910.1030(h)(2))

8.0 HEPATITIS B VACCINATION PROGRAM (29 CFR 1910.1030(f)(2))

8.1 The employer shall make available the hepatitis B vaccination series to all employees who are determined to have occupational exposure. See section 3.0 Exposure Determination. This requirement shall not apply to those whose work is limited to animals or animal materials not infected with human pathogens such as HIV or HBV (exception: closely related primates).

8.2 The employer shall ensure that the hepatitis B vaccination series is:

- Made available at no cost to the employee;
- Made available to the employee after the employee has received the training as described in section 7 and within 10 working days of initial assignment 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;
- Performed by or under the supervision of a licensed healthcare professional; and
- Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified in this section.

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

8.4 If an employee initially declines hepatitis B vaccination but at a later date decides to accept the vaccination and is still identified as an employee with occupational exposure, the employer shall make available hepatitis B vaccination at that time.

8.5 The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the Hepatitis B Vaccination Declination of the Hepatitis B Vaccination Status Form (Appendix I).

8.6 If a routine booster dose 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 8.2.

8.7 Employees are encouraged to discuss the vaccine with their personal physicians. The Hepatitis B vaccine is safe and effective. It is administered in three (3) doses injected into the arm. The second and third doses are given one (1) and six (6) months respectively after the first dose. Please refer to the CDC's Hepatitis B Vaccine – What You Need to Know Information Sheet in the appendices or online at http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-hep-b.pdf.

8.8 If the employee terminates employment before completion of the vaccination series, the individual is responsible for completion of the vaccination series at his/her own expense.

8.9 The vaccinations are available at the University of Hawaii Health Services (UHHS) during work hours. Payment arrangements should be made prior to visiting the UHHS; contact UHHS about this.

8.10 The Hepatitis B Vaccination Status Form, which includes the Declination Statement as an option, located in the appendices, must be completed. This form will be kept on file by the Supervisor and Human Resources for the period of employment plus 30 years and must be kept confidential.

9.0 NEEDLESTICK SAFETY AND PREVENTION

The Needlestick Safety and Prevention Act applies to all employers who have employees with reasonably anticipated occupational exposure to blood or other potentially infectious materials due to accidental sharps injuries in clinical and other occupational settings. It mandates additional requirements for maintaining a sharps injury log and for the involvement of non-managerial workers in evaluating and choosing devices. When possible, substitutes for needles should be used. When needles are necessary, the use of safe needle devices, e.g. self-sheathing needles, blunted surgical needles, needleless systems, is required unless there is no alternative for the specific application.

9.1 SHARPS INJURY LOG

The supervisor shall maintain a sharps injury log for the recording of percutaneous injuries from contaminated sharps (29 CFR 1910.1030(h)(5)). The Sharps Injury Log (Appendix C) shall be used and it documents:

- The date and time of incident
- The type and brand of device involved in the incident

- The department or work area where the exposure incident occurred
- An explanation of how the incident occurred

9.2 The information in the sharps injury log shall be recorded and maintained in a manner that protects the confidentiality of the injured employee.

9.3 A copy of the log shall be routed to JABSOM EHSO after each new injury is logged.

9.4 The log shall be kept for 5 years. (According to 29 CFR 1910.1030(h)(5)(iii), "The log shall be maintained for the period required in 29 CFR 1904.6." Due to 1904.6 not stating anything about a time period, JABSOM EHSO received a clarification from OSHA that directed us to 1904.33-Retention and Updating, which states that the log shall be kept for a period of 5 years. http://www.osha.gov/SLTC/bloodbornepathogens/index.html)

9.5 The supervisor 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. (29 CFR 1910.1030(c)(1)(v))

The Safety Feature Evaluation Form in the appendices can be used or the supervisor/department can determine the best way to seek and document employee evaluation of devices. As a reference, you may refer to the Safety Device List maintained by the University of Virginia Health System http://www.healthsystem.virginia.edu/internet/epinet/NEW/safetydevice.cfm.

10.0 ACCIDENTAL EXPOSURES & NEAR MISSES (29 CFR 1910.1030(f))

In the event of an exposure to potentially infectious materials, the employee should immediately wash the exposed area with copious amounts of water for at least 5 minutes.

All injuries, exposure incidents (e.g., needle stick, mucous membrane or open wound contamination) shall be promptly reported to the employee's supervisor and JABSOM EHSO. Near misses shall also be reported to the employee's supervisor and JABSOM EHSO. The **JABSOM Incident Report** must be completed. JABSOM EHSO will investigate all incidents, including near misses. The **University of Hawaii Report of Work-Related Injury/Illness** or the **Research Corporation of the University of Hawaii (RCUH) Supervisor's Report of Industrial Injury** must be completed and routed to the Office of Human Resources as soon as possible.

The employer shall make available post-exposure evaluation and follow-up to all employees who have had an exposure incident.

10.1 POST-EXPOSURE EVALUATION AND FOLLOW-UP (29 CFR 1910.1030(f)(3))

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, and documented using the appropriate forms (bolded).

10.1.a Medical Evaluation and Laboratory Tests

The employer shall ensure that all medical evaluations and procedures and post-exposure evaluation and follow-up, including prophylaxis, are (29 CFR 1910.1030(f)(1)(ii):

- Made available at no cost to the employee;
- Made available to the employee at a reasonable time and place;
- Performed by or under the supervision of a licensed healthcare professional; and
- 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 section.

The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee. (29 CFR 1910.1030(f)(1)(iii)

10.1.c Documentation of Circumstances of Exposure Incident

Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred, shall be done using either (29 CFR 1910.1030(f)(3)(i)):

- the **Blood and Body Fluid Exposure Report** (Appendix B)
- OR the **Needlestick & Sharp Object Injury Report** (Appendix C) and the **Sharps Injury Log** (Appendix E)

10.1.d Source Individual Identification/Serological Status

Identification/serological status and documentation of the source individual, if consent can be obtained, shall be done using the **Consent by Source Individual Form** (Appendix D), unless the supervisor can establish that identification is infeasible or prohibited by state or local law (29 CFR 1910.1030(f)(3)(ii))

- The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.
- When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.
- Results of the source individual's testing shall be made available to the 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.

10.1.e Employee's Serological Status

Collection and testing of blood for HBV and HIV serological status (29 CFR 1910.1030(f)(3)(iii))

- The exposed employee's blood shall be collected as soon as feasible (baseline blood collection/sample) and tested only after the employee's consent is obtained for HBV and HIV serological status.
- 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.
- Informed consent shall be in accordance with the Hawaii Revised Statutes §325-16 Informed consent for testing or disclosure.

10.1.f Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service (29 CFR 1910.1030(f)(3)(iv))

10.1.g Counseling (29 CFR 1910.1030(f)(3)(v))

10.1.h Evaluation of reported illnesses (29 CFR 1910.1030(f)(3)(vi))

10.2 INFORMATION PROVIDED TO THE HEALTHCARE PROFESSIONAL (29 CFR 1910.1030(f)(4))

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

- A copy of the Standard;
- A description of the exposed employee's duties as they relate to the exposure incident;
- Documentation of the route(s) of exposure and circumstances under which exposure occurred, either the **Blood and Body Fluid Exposure Report** (Appendix B) or the **Needlestick & Sharp Object Injury Report** (Appendix C);
- Results of the source individual's blood testing (must protect the confidentiality of the source individual), if available; and
- All medical records relevant to the appropriate treatment of the employee including vaccination status, i.e. **Hepatitis Vaccination Status Form** (Appendix I**)**.

10.3 HEALTHCARE PROFESSIONAL'S WRITTEN OPINION (29 CFR 1910.1030(f)(5))

10.3.a 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.

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

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

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

10.4 FORMS

The forms used to evaluate and document incidents and post exposure follow-up are located in the appendices of this ECP and listed in section 13.

11.0 FIRST AID RESPONDERS

OSHA has requirements for employees providing first aid as a collateral duty. Any first aid rendered by such person is rendered only as a collateral duty, responding solely to injuries resulting from workplace incidents, generally at the location where the incident occurred.

Currently, there are no employees designated by JABSOM to be first aid responders. If there are any employees designated by your department, these employees must be listed and informed of this provision. They must also be trained in accordance with section 7.

NOTE: This exception does not apply to designated first aid providers who render assistance on a regular basis, for example, at a first aid station, clinic, dispensary or other location where injured employees routinely go for assistance; nor does it apply to any healthcare, emergency, or public safety personnel who are expected to render first aid in the course of their work. These employees must be offered the vaccine prior to exposure.

11.1 All unvaccinated first aid providers who render assistance in any situation involving the presence of blood or OPIM (regardless of whether an actual "exposure incident" as defined by the standard occurred) must be offered the full Hepatitis B vaccination series as soon as possible, but in no event later than 24 hours, in accordance with section 8 and appropriate post-exposure evaluation, prophylaxis, and follow-up in accordance with section 10.

11.2 All first aid incidents involving the presence of blood or OPIM will be reported to the supervisor and JABSOM EHSO before the end of the work day during which the incident occurred.

11.3 A JABSOM incident report must be completed for each first aid provider, regardless of whether personal protective equipment was used. The incident description must include a determination of whether or not, in addition to the presence of blood or other potentially infectious materials, an "exposure incident," as defined by the standard, occurred. This determination is necessary in order to ensure that the proper post-exposure evaluation, prophylaxis, and follow-up procedures are made available immediately.

12.0 RECORD KEEPING (29 CFR 1910.1030(h)(1))

12.1 The Supervisor and Office of Human Resources (OHR) shall maintain an accurate record for each employee with occupational exposure in accordance with 29 CFR 1910.1020.

12.2 The record shall include (29 CFR 1910.1030(h)(1)(ii)):

- The name and social security number OR UH ID number of the employee;
- A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination and/or the **Hepatitis B Vaccination Status Form** (Appendix I);
- A copy of all results of examinations, medical testing, and follow-up procedures;
- The employer's copy of the healthcare professional's written opinion;
- A copy of the information provided to the healthcare professional;
- The **Consent from Source Individual Form** (Appendix D).

12.3 The Supervisor and OHR shall ensure that employee medical records are:

- Kept confidential;
- Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as permitted in 29 CFR 1910.1030(h)(3)(iii) and in accordance with 29 CFR 1910.1020.
- Maintained for at least the duration of employment plus thirty (30) years in accordance with 29 CFR 1910.1020 (for exceptions, see 29 CFR 1910.1020(d)(1)(i)).

13.0 FORMS IN APPENDICES

Appendix A **What to Do If You Are Exposed - Quick Reference Form**

Appendix B **Blood and Body Fluid Exposure Report Form *** This form shall be used to document the routes of exposure and the circumstances under which the exposure incident occurred.

- Completed by Supervisor and Employee
- Provided to Healthcare Professional
- Confidential
- Maintained for tenure of employment plus thirty years by the Supervisor and OHR

Appendix C **Needlestick and Sharp Object Injury Report Form *** This form shall be used to document an exposure incident involving a percutaneous injury, the routes of exposure, and the circumstances under which the exposure incident occurred.

- Completed by Supervisor and Employee
- Provided to Healthcare Professional
- Confidential
- Maintained for tenure of employment plus thirty years by the Supervisor and OHR

Appendix D **Consent by the Source Individual for the HIV, HBV, HCV Blood Tests Form**

- Sought by Supervisor
- Provided to Healthcare Professional
- Confidential
- Maintained for tenure of employment plus thirty years by the Supervisor and OHR

Appendix E **Sharps Injury Log Form**

- Completed by Supervisor
- Confidential – Employee's name must not appear on this form
- Copy routed to OHR
- Copy routed to JABSOM EHSO
- Maintained for 5 years by the Supervisor, OHR, JABSOM EHSO

Appendix F **JABSOM Incident Report** This report shall be completed for any incidents or **near misses** and submitted to JABSOM EHSO for evaluation and subsequent recommendations for prevention in the future.

- Copy routed to JABSOM EHSO

Appendix G **University of Hawaii Report of Work-Related Injury/Illness**

- Completed by Supervisor and Employee

- Copy provided to Healthcare Professional
- Confidential
- Send to the OHR

Appendix H **Research Corporation of the University of Hawaii (RCUH) Supervisor's Report of Industrial Injury**

- Completed by Supervisor, Employee, and Human Resources
- Copy provided to Healthcare Professional
- Confidential
- Send to the OHR

Appendix I **Hepatitis B Vaccination Status Form**

- Completed by Employee
- Copy of vaccination records should be attached
- Provided to Healthcare Professional if there is an exposure incident
- Confidential
- Maintained for tenure of employment plus thirty years by the Supervisor and OHR

Appendix J **CDC Hepatitis B Vaccination – What You Need to Know Fact Sheet**

Appendix K **Safety Feature Evaluation Form**

- Completed by Employee
- Maintained for three years by the Supervisor

*EPINet Forms are available to download for non-commercial use at
http://www.healthsystem.virginia.edu/internet/epinet/forms/epinet3.cfm

14.0 TERMS AND DEFINITIONS (29 CFR 1910.1030(b))

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).

CDC: Centers for Disease Control and Prevention http://www.cdc.gov

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.

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.

Employee means an employee of the University of Hawaii or an employee of the Research Corporation of the University of Hawaii. Within the JABSOM system, employees may be partially employed through various programs, including non-UH programs (e.g. UCERA); in these situations, employee status will be determined on a case by case basis. **In this Plan, Employee shall also mean volunteer and student except when noted**, e.g. Worker Compensation Form only applies to employees.

Engineering Controls means controls that isolate or remove the bloodborne pathogens hazard from the workplace (e.g. sharps disposal containers, self-sheathing needles, safer medical devices, such as

sharps with engineered sharps injury protections and needleless systems).

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

HBV means hepatitis B virus.

HIOSH means Hawaii Occupational Safety & Health, the Department that operates the State Plan that is approved and monitored by OSHA.

HIV means human immunodeficiency virus.

JABSOM: University of Hawaii, John A. Burns School of Medicine

JABSOM EHSO: John A. Burns School of Medicine, Environmental Health and Safety Office at Kaka'ako

JABSOM Kaka'ako: University of Hawaii, John A. Burns School of Medicine, Kaka'ako Campus

Licensed Healthcare Professional is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by 29 CFR 1910.1030(f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

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.

Occupational Exposure Incident means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials which results from the performance of an employee's duties.

OSHA means Occupational Safety & Health Administration, a Federal Program; Hawaii is one of 22 states that operates an OSHA approved State Plan (HIOSH).

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. **All body fluids that are of undetermined nature or are visibly contaminated with blood are considered to be OPIM.** Animal blood, tissues, etc. may contain potential zoonotic diseases and must be treated as potentially infectious materials. Some plant pests may be considered pathogenic, especially fungi.

Parenteral means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, animal 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 of HBV.

Record means any item, collection, or grouping of information regardless of the form or process by which it is maintained. (29 CFR 1910.1020(c)(10))

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 the production facilities.

Sharps with Engineered Sharps Injury Protections means a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a 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. Universal precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine, and vomitus unless they contain visible blood. Universal precautions do not apply to saliva except when visibly contaminated with blood or in the dental setting where blood contamination of saliva is predictable.

UH BSM: University of Hawaii Biological Safety Manual http://www.hawaii.edu/ehso/bio/frames1.htm

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).

15.0 REFERENCES

- OSHA Bloodborne Pathogen Standard - 29 CFR 1910.1030
- http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051
- OSHA-Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens
- http://www.osha.gov/pls/oshaweb/owasrch.search_form?p_doc_type=DIRECTIVES&p_toc_level=0
- Cornell University Weill Medical College Bloodborne Pathogens Exposure Control Plan
- University of Hawaii Biological Safety Manual http://www.hawaii.edu/ehso/bio/frames1.htm
- U.S. Public Health Service Guidelines for the Management of Occupational Exposure to HBV, HCV and HIV and Recommendations for Post-Exposure Prophylaxis http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5011a1.htm
- Hawaii Administrative Rules, Title 12, Department of Industrial Relations, Subtitle 8, Division of Occupational Safety and Health, Part 8, Health Standards, Chapter 205.1, Bloodborne Pathogens

HAWAII ADMINISTRATIVE RULES
TITLE 12
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
SUBTITLE 8
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
PART 8
HEALTH STANDARDS
CHAPTER 205.1
BLOODBORNE PATHOGENS

§12-205.1-1 Incorporation of federal standard
§12-205.1-2 Definitions

Historical note: Chapter 12-205.1 is based substantially upon chapter 12-205. [Eff 6/8/92; am 12/5/92; R 12/29/00]

§12-205.1-1 Incorporation of federal standard. Title 29, Code of Federal Regulations, section 1910.1030, entitled "Bloodborne pathogens" published by the Office of the Federal Register, National Archives and Records Administration, on December 6, 1991; and the amendments published on April 13, 1992; July 1, 1992; February 13, 1996; and January 18, 2001, are made a part of this chapter, except as provided in section 12-205.1-2. [Eff 12/29/00; am 8/9/01] (Auth: HRS §396-4) (Imp: HRS §396-4) §12-205.1-2 Definitions. As used in 29 CFR 1910.1030 and applied to this chapter: "§1910.1020" means section 12-202-3.1. [Eff 12/29/00; am 8/9/01] (Auth: HRS §396-4) (Imp: HRS §396-4)
http://hawaii.gov/labor/hiosh/pdf/standards/part3/part8/12-205.1/?searchterm=12-205

§12-202-3.1 Access to employee exposure and medical records. (a) Incorporation of federal standard. Title 29, Code of Federal Regulations, section 1910.1020, entitled "Access to employee exposure and medical records", published by the Office of the Federal Register, National Archives and Records administration, on September 29, 1988; and the amendments published on December 13, 1988; June 7, 1989; June 28, 1990; March 7, 1996, and redesignated June 20, 1996, are made a part of this section, except as provided in subsection (b).
(b) Definitions. As used in 29 CFR section 1910.1020 and applied to this section: "§1913.10" means chapter 12-55. [Eff 12/29/00] (Auth: HRS §396-4) (Imp: HRS §396-4)

Historical note: §12-202-3.1 is based substantially upon section 123-203-3. [Eff 7/12/82; am 6/16/84; am 3/22/91; R 12/29/00]
http://hawaii.gov/labor/rule/12-202.pdf

HAWAII ADMINISTRATIVE RULES
TITLE 12
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS
SUBTITLE 8
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
PART 1
GENERAL, LEGAL, AND ADMINISTRATIVE PROVISIONS
FOR OCCUPATIONAL SAFETY AND HEALTH
CHAPTER 55
RULES OF DOSH PRACTICE AND PROCEDURE CONCERNING
DOSH ACCESS TO EMPLOYEE MEDICAL RECORDS
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