PHYSICAL FACILITIES BUILDING OPERATIONS

EXPOSURE CONTROL PLAN

POLICY

The Brigham Young University Physical Facilities Building Operations Department is committed to providing a safe and healthy work environment for our entire staff. In pursuit of this endeavor, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP is a key document to assist the University in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure potential
- Implementation of various methods of exposure control, including:
  - "Universal Precautions"
  - Engineering controls and work practice
  - Personal protective equipment (PPE)
  - Housekeeping
- Hepatitis B vaccination
- Post-exposure evaluation and follow-up
- Communication of hazards and training to employees
- Record keeping
- Procedures for evaluating circumstances surrounding an exposure incident

The methods of implementation of these elements of the standard are discussed in the subsequent pages of this ECP.

1. PROGRAM ADMINISTRATION AND RESPONSIBILITIES

1.1. The BYU Biosafety Officer (BSO) and the BYU Managing Director of Building Operations (BOPS) are jointly responsible for the content and implementation of this ECP.

1.2. BSO will:

1.2.1. Annually review and update the ECP or whenever necessary to include new or modified tasks and procedures.

1.2.2. Provide annual employee training.

1.2.3. Follow-up on any BBP exposure incidents.

1.3. Managing Director of BOPS will:

1.3.1. Ensure all BOPS employees receive annual BBP training and keep documentation of each employee.

1.3.2. Ensure adequate supplies of personal protective equipment (PPE), engineering controls (e.g., sharps containers), and biohazardous waste supplies (red bags, biohazard labels) are available.

1.3.3. Ensure all equipment and supplies in the appropriate sizes are available for employees.

1.3.4. Ensure all medical actions required are performed that apply to employee health, including access to Hepatitis B vaccinations.

1.3.5. Ensure incidents are reported to Risk Management and Safety.

1.4. BOPS Managers will:

1.4.1. Store PPE and make available to employees.

1.4.2. Report accidental exposures. See section xx on reporting accidental exposures.

1.5. BOPS Employees

1.5.1. All employees whose predetermined job responsibilities might include occupational exposure to blood or other potentially infectious materials (OPIM) will comply with the BYU Bloodborne Pathogen Program and with the procedures and work practices outlined in this ECP.

2. EMPLOYEE EXPOSURE DETERMINATION

2.1. All full-time Physical Facilities BOPS employees who may have a potential occupational exposure to bloodborne pathogens falls under BYU's BBP Program.

2.2. Part-time student BOPS employees working in the Student Health Center have potential occupational exposure to BBPs. No other part-time BOPS employees will have job responsibilities which will present the potential for occupational exposure.

2.3. Only full-time BOPS employees that are trained on BBP's and Student Health Center part-time student Building Operations employees are approved to clean up any biohazard spills using the BBP clean-up kits.

2.4. Environmental Management will be notified to pick up and dispose of all regulated waste. Any large biohazard spills will be referred to RM&S for cleanup.

3. METHODS OF IMPLEMENTATION AND CONTROL

3.1. Universal Precautions

3.1.1. All BOPS employees will utilize universal precautions. This means that all blood or other potentially contaminated material will be handled as if it were contaminated with a bloodborne pathogen.

3.2. Training On Exposure Control Plan

3.2.1. BOPS employees covered by the BPP standard receive an explanation of this ECP during their initial training.

3.2.2. It will also be reviewed in their annual refresher training.

3.2.3. All BOPS employees have an opportunity to review this plan at any time during their work shifts by contacting their area supervisor.

3.2.4. BOPS employees may request a copy of this ECP. A free copy will be provided within 15 days of the request.

3.3. Engineering Controls and Work Practices

3.3.1. Engineering controls and work practice controls will be used to prevent or minimize exposure to BBP's. The specific engineering controls and work practice controls used are listed below:

(a) laminated instruction card

(b) laminated spatulas and tongs

(c) chemicals:
- WypAll X70-76 sheets/box (#41455)
- emergency cleanup powder (6/16oz)
- Ultimate Absorb 1103 (for Carpet)
- Hepacide Quat 2
- NABC

(d) PPE
- nitrile gloves (various sizes)
- Technol Fluid shield with procedure mask (#347147)
- Tyvek coveralls

(e) Other supplies:
- biohazard bags (red)
- biohazard barrier tape
- disposable shoe covers (#73532)
- Purell instant hand sanitizer (4 oz) #9651
- sharps container 16 oz bottle

3.3.2. This department identifies the need for changes in engineering control and work practices through investigation of any exposure incident and annual bloodborne pathogen training meeting

3.3.3. We evaluate procedures or new products, in the light of changes in technology that eliminate or reduce exposure to blood-borne pathogens, by reviewing employee and vendor suggestions.

3.3.4. The following staff are involved in this process: All full-time BOPS employees are invited to submit recommendations to their supervisor via email.

3.4. Personal Protective Equipment (PPE)

3.4.1. PPE is provided to all Building Operations employees at no cost.

3.4.2. Training on proper use of PPE is provided under the direction of the Managing Director of Building Operations in the use of the appropriate PPE for the tasks or procedures employees Building Operations employees will perform.

3.4.3. The types of PPE available to Building Operations employees is included with the list of engineering controls above.

(a) Disposable shoe covers (#73532)
(b) Nitrile gloves (L & XL)
(c) Tyvek coveralls
(d) Safety glasses, goggles, face shields

3.4.4. PPE is in the Area Supervisor's office or storage area. PEE may be obtained through Area supervisor.

3.4.5. All Building Operations employees using PPE must observe the following precautions:

(a) Wear appropriate gloves when it can be reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces.

(b) If needed, wear appropriate face or eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.

(c) Replace damaged PPE, like torn or punctured gloves. Also replace contaminated gloves if their ability to function as a barrier is compromised.

(d) Remove contaminated PPE before leaving the work area.

(e) Wash hands immediately or as soon as feasible after removal of gloves or other PPE.

(f) Used PPE should be disposed of in red plastic bags.

(g) Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration

(h) Never wash or decontaminate disposable gloves for reuse.

(i) Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

3.4.6. The procedures for handling used PPE is as follows:

(a) All PPE is disposable and should be discarded as infectious waste if visibly contaminated.

3.5. Housekeeping and Waste Disposal

3.5.1. Any biohazard spills in Physical Facilities, academic buildings, athletic buildings or facilities, or any other buildings on campus will be evaluated and secured with Biohazard tape and caution signs.

3.5.2. Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see Labels), and closed prior to removal to prevent spillage or protrusion of contents during handling.

3.5.3. Sharps containers are discarded into a bio-waste container maintained by the Area Supervisor. Bio-waste containers are picked up by Environmental Management.

3.5.4. Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and labeled or color-coded appropriately.

3.5.5. Bins and pails will be cleaned and decontaminated by Environmental Management before returning to Areas.

3.5.6. Broken glassware, which may be contaminated, is picked up using mechanical means, such as a spatula, tongs, brush and dustpan.

3.6. Laundry

3.6.1. Laundry contaminated with blood or other potentially contaminated material should be placed in a dissolvable plastic bag then placed in a red bag. This should then be taken to Textile Cleaning Services and laundered.

3.6.2. At the laundry facility, people handling red bag materials will wear gloves and place the dissolvable bags directly into the washing machines.

3.7. Labels

3.7.1. The University uses the Universal Biohazard Symbol to indicate a container or object is contaminated with blood or other potentially infectious material.

3.7.2. The Area Supervisor will ensure warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility.

3.7.3. BOPS employees are to notify the Area Manager or the BSO if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc. without proper labels.

3.8. Pre-Clean-up Procedures

3.8.1. Evaluate and secure the area. If necessary, secure area with biohazard tape or caution signs.

3.8.2. Prior to performing the cleanup, layout all equipment and cleaning supplies necessary for the task.

NOTE: This will help avoid cross contamination of Supply Kit

3.8.3. Put on appropriate PPE.

(a) Always put on disposable gloves.

(b) Certain spills may include larger volumes of hazardous contaminants like body fluid spills. For such cases, additional PPE may be recommended. Such as a face shield, a face mask, a Tyvek suit, shoe covers.

(c) If sharps are present the use of cut resistant gloves over disposal gloves could provide another level of protection.

3.9. Spill Clean-up Procedures

3.9.1. Hard Surfaces:

(a) Contain spill by covering with an absorbent cloth.

(b) Saturate cloth with appropriate disinfectant.

(c) Let saturated cloth sit for 5-10 minutes. The disinfectant needs time to inactivate the pathogens.

Note: Refer to the manufacturer's labeling for recommended exposure times.

(d) While waiting for the disinfectant, take out a red biohazard bag and open it up by rolling the top of the bag down until a cuff is formed which will hold the bag open.
(e) After exposure time, place contaminated cloths, PPE and other contaminated material inside the red biohazard bag.

3.9.2. Carpet/Upholstery
(a) Spray entire spill area with disinfectant. (Steriphene II or Hepacide Quat II)
(b) Wait approximately 10-minutes for disinfectant to inactivate pathogens.
(c) While waiting for the disinfectant, take out a red biohazard bag and open it up by rolling the top of the bag down until a cuff is formed which will hold the bag open.
(d) Extract with spotter or extractor.
(e) Repeat the above steps a second time. [spray-wait-extract]
(f) Using disposable wipes, wipe up the spill area.
(g) Place all contaminated items in red biohazard bag.

3.9.3. Sharps (Needles, Broken Glass, etc.)
(a) Use a mechanical device like tongs, pliers, dustpan or tray to scoop up contaminate sharps.
(b) Place needles in a sharps container.
(c) Other contaminated sharps can be placed in a leak proof container that is closable with a lid.


Sharps waste container with biohazard symbol

3.10. Waste Disposal

3.10.1. Make sure all contaminated materials are inside a red biohazard bag.
(a) bloody cloths
(b) wipes
(c) PPE
(d) apron, Tyvek suits, etc.

3.10.2. Secure biohazard bag by collecting top edge of bag and tying it closed with a twist tie or duct tape.

NOTE: Do not twirl biohazard bag when filled with biohazardous waste.

3.10.3. Close sharps container and place alongside red biohazard bag.

3.10.4. Ensure all biohazardous waste is properly labeled with the Universal Biohazard symbol.


Universal Biohazard Symbol

3.10.5. Schedule a pick-up by Environmental Management.
(a) To arrange for a pick-up, go to the Risk Management and Safety website (www.risk.edu.byu.)
(b) Find the Quick Links; follow the included Instructions to schedule a pick-up.

3.11. Cleanup and Sanitize Equipment

3.11.1. Sanitize any equipment that can be saved and reused with a solution of NABC.

3.11.2. Let air dry.

3.12. WASH HANDS

3.12.1. Wash Your Hands with soap and water

3.12.2. If soap and water is not readily available, use an alcohol hand sanitizer until you can get an area where proper hand washing is available.

4. HEPATITIS B VACCINATION

4.1. The BYU Managing Director of BOPS oversees training for employees on HBV vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability.

4.2. Employees are not required to participate in a prescreening program, as a prerequisite for receiving HBV vaccination.

4.3. The HBV vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan.

4.4. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series, 2) antibody testing reveals that the employee is immune, or 3) medical evaluation shows that vaccination is contraindicated.

4.5. If an employee chooses to decline vaccination, the employee must sign a declination form.

4.6. Documentation of refusal of the vaccination is kept at BOPS Central Office overseen by the BYU Managing Director.

4.7. Employees who decline may request and obtain the vaccination at a later date at no cost. The department shall make available the hepatitis B vaccination at that time.

4.8. If booster dose(s) of the HBV vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available to employees at no cost.

4.9. HBV vaccination will be provided by the Student Health Center.

Following HBV vaccinations, the health care professional's Written Opinion will be limited to whether the employee requires the hepatitis vaccine, and whether the vaccine was administered.

5. POST-EXPOSURE EVALUATION AND FOLLOW-UP

5.1. Immediate response to an exposure incident.

5.1.1. Clean the wound, flush the contaminated area with copious amounts of water. If soap is available, use on skin.

5.1.2. Contact Urgent Care at the Student Health Center at the following number: 801-422-5128 from 8:00 am to 6:00 pm. During the night or weekends, go directly to the Utah Valley Hospital for evaluation and post exposure follow-up.

5.1.3. The BSO and the Managing Director of BOPS will obtain the following information:

a. Document the routes of exposure and how the exposure occurred.

b. Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).

c. Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider. If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.

d. Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).

e. After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status.

f. If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

g. Note: The employer will furnish post-exposure prophylaxis, for hepatitis B, and or HIV when medically indicated as recommended by the U.S. Public Health Service, counseling; and evaluation of the reported illnesses.

5.2. Administration Of Post-Exposure Evaluation And Follow-Up

5.2.1. Risk Management and Safety ensures that the health care professional(s) responsible for employee's HBV vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's Bloodborne Pathogens Standard.

5.2.2. The BSO and the Managing Director of BOPS will ensure that the health care professional evaluating an employee after an exposure incident receives the following (if requested):

(a) a description of the employee's job duties relevant to the exposure incident
(b) route(s) of exposure
(c) circumstances of exposure
(d) if possible, results of the source individual's blood test
(e) relevant employee medical records, including vaccination status

5.2.3. The BSO will assist an employee, if needed, to obtain a copy of the evaluating health care professional's written opinion.

5.3. Procedures For Evaluating The Circumstances Surrounding An Exposure Incident

5.3.1. The BSL will review the circumstances of all exposure incidents and determine:
(a) engineering controls in use at the time
(b) work practices followed
(c) a description of the device being used
(d) PPE or protective clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
(e) location of the incident (O.R., E.R., patient room, etc.)
(f) procedure being performed when the incident occurred
(g) employee's training

5.3.2. If it is determined that revisions need to be made, The BSO will ensure that appropriate changes are made to this ECP.

6. EMPLOYEE TRAINING

6.1. All employees who have occupational exposure to bloodborne pathogens receive training coordinated by the BYU Managing Director of Building Operations.

6.2. All employees who have occupational exposure to bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

6.2.1. a copy and explanation of the standard

6.2.2. an explanation of our ECP and how to obtain a copy

6.2.3. an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident

6.2.4. an explanation of the use and limitations of engineering controls, work practices, and PPE

6.2.5. an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE

6.2.6. an explanation of the basis for PPE selection

6.2.7. information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge

6.2.8. information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM

6.2.9. 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

6.2.10. information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident

6.2.11. an explanation of the signs and labels and/or color coding required by the standard and used at this facility

6.2.12. an opportunity for interactive questions and answers with the person conducting the training session.

6.3. Training materials for this facility are available at central BOPS offices in the PFNB.

7. RECORDKEEPING

7.1. Training Records

7.1.1. Training records are completed for each employee upon completion of training. These documents will be kept only for at least three years.

7.1.2. Any **HEPATITIS B VACCINE DECLINATION** forms will be kept at BOPS offices by the BYU Managing Director of BOPS. These will be kept for the duration of employment.

7.1.3. The training records include:
(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
(d) the names and job titles of all persons attending the training sessions

7.1.4. Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to the BYU Managing Director of Building Operations.

7.2. Medical Records

7.2.1. Medical records are maintained for each employee with an occupational exposure to a BBP in accordance with 29 CFR 1910.20, "Access to Employee Exposure and Medical Records."

7.2.2. BYU Risk Management and Safety is responsible for maintenance of the required medical records. These confidential records are kept at the RMB or archives for at least the duration of employment plus 30-years.

7.2.3. Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15-working days. Such requests should be sent to the BSO.

7.3. Needle Stick Records.

7.3.1. The following information is collected and submitted to Risk Management for each percutaneous injury from a contaminated sharp on a standard Supervisors Report.

(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.

7.4. OSHA Record keeping

7.4.1. A follow-up evaluation of an BBP exposure incident is to determine if the case meets OSHA's Record Keeping Requirements (29 CFR 1904). Risk Management and Safety makes this determination and completes the recording activities.

HEPATITIS B VACCINE DECLINATION (MANDATORY)

I understand that due to my potential 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.

Employee Signature: **Employee's Written Name:**

_____ _____

Date: _____