I. PURPOSE

This Exposure Control Plan (ECP) is designed to minimize or eliminate occupational exposures to blood or other potentially infectious materials. This plan is also designed to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) General Industry Standard Part 554 Bloodborne Infectious Diseases.

II. SCOPE

All Eastern Michigan University departments working with or having the potential for contact with blood or other potentially infectious materials are required to comply with this Exposure Control Plan (ECP). This plan applies to all faculty, staff, lab or teaching assistants and student employees who may be exposed to blood or other potentially infectious material during the course of their routine work or in an emergency.

III. DEFINITIONS

Biologically hazardous conditions – equipment, containers, rooms, materials, experimental animals, animals infected with HBV or HIV virus, or combinations thereof that contain or are contaminated with blood or other potentially infectious material.

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

Bloodborne pathogens – pathogenic microorganisms present in human blood and can cause disease in humans. These pathogens include hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

Clinical laboratory – a workplace conducting diagnostic or other screening procedures on blood or other potentially infectious material.

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

Contaminated laundry – laundry soiled with blood or other potentially infectious materials or that may contain sharps.

Contaminated sharps – any contaminated object that can penetrate the skin including the following:

- Needles
- Scalpels
- Broken Glass
- Broken capillary tubes

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

Disinfect – to inactivate virtually all recognized pathogenic microorganisms, but not necessarily all microbial forms, on inanimate objects.

Engineering controls – controls that isolate or remove the Bloodborne pathogen hazard from the workplace. Examples include sharps disposal containers, self-sheathing needles or safer medical devices, such as sharps with engineered sharps injury protections and needleless systems.

Exposure – 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. "Exposure" does not include incidental exposures that may take place on the job, that are neither reasonably nor routinely expected and that the worker is not required to incur in the normal course of employment.

Exposure incident – a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that results from the performance of an employee's duties.

Handwashing facilities – facilities that provide an adequate supply of running, potable water, soap and single-use towels or an air-drying machine.

Licensed health care professional – a person whose legally permitted scope of practice allows him or her to independently perform hepatitis B vaccinations and post-exposure evaluation and follow-up.

Needleless systems – a device that does not use needles for any of the following:

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

Other potentially infectious material

- Any of the following human body fluids:
  - Amniotic fluid.
  - Cerebrospinal fluid.
  - Pericardial fluid.
  - Peritoneal fluid.
  - Pleural fluid.
  - Saliva in dental procedures.
  - Semen.
  - Synovial fluid.
  - Vaginal secretions.
  - Any body fluid that is visibly contaminated with blood.
  - All body fluids in situations where it is difficult or impossible to differentiate between body fluids.
- Any unfixed tissue or organ, other than intact skin, from a living or dead human.
- Cell or tissue cultures that contain HIV, organ cultures, and culture medium or other solutions that contain HIV or HBV and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral – exposure occurring as a result of piercing mucous membrane or the skin barrier, such as exposure through subcutaneous intramuscular, intravenous or arterial routes resulting from needle sticks, human bites, cuts and abrasions.

Personal protective equipment or PPE – specialized clothing or equipment worn to protect a person from a hazard. General work clothes, such as uniforms, pants, shirts or blouses that are not intended to function as protection against a hazard are not considered to be personal protective equipment.

Regulated waste – any of the following:

- Liquid or semiliquid blood or other potentially infectious material.
- Contaminated items that would release blood or other potentially infectious material in a liquid or semiliquid state if compressed.
- Items that are caked with dried blood or other potentially infectious material and that are capable of releasing these materials during handling.
- Contaminated sharps.
- Pathological and microbiological waste that contains blood and other potentially infectious material.

Research laboratory – a laboratory that produces or uses research laboratory-scale amounts of HIV or HBV.

Sharps with engineered sharps injury protections – a non-needle sharp or a needle device that is used for withdrawing body fluids, accessing a vein or artery, or

administering medications or other fluids, and that has a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident.

Source individual – any living or dead individual whose blood or other potentially infectious material may be a source of occupational exposure to an employee. Examples include:

- A patient of a hospital or clinic.
- A victim of trauma.
- A client of a drug or alcohol treatment facility.
- A resident of a hospice or nursing home.
- Human remains.

Standard operating procedures (SOPs) – any of the following that address the performance of work activities to reduce the risk of exposure to blood and other potentially infectious material:

- Written policies.
- Written procedures.
- Written directives.
- Written standards of practice.
- Written protocols.
- Written systems of practice.
- Elements of an infection control program.

Sterilize – the use of a physical or chemical procedure to destroy all microbial life, including highly resistant bacterial endospores.

Universal precautions – a method of infection control that treats all human blood and other potentially infectious material as capable of transmitting HIV, HBV and other Bloodborne pathogens.

Work practices – controls that reduce the likelihood of exposure to Bloodborne pathogens by altering the way a task is performed.

IV. EXPOSURE CONTROL PLAN (ECP) REQUIREMENTS

Each department with employees having the potential for contact with blood or other potentially infectious material, referred to as “Category A” employees, must ensure the requirements of the Exposure Control Plan (ECP) are followed.

A. The ECP requirements include but are not limited to the following:

1. Conduct exposure determinations of routine and reasonably anticipated procedures and categorize employees into their Category A or B.
2. Implement each of the applicable rules of the ECP.

3. Enforce all control measures to minimized exposures including universal precautions, engineering controls, workplace practices and personal protective equipment (PPE).
4. Investigate and document all exposure incidents. Implement corrective actions for the prevention of future accidents.
5. Develop written Standard Operating Procedures (SOPs) for potentially infectious procedures.
6. Provide Hepatitis B vaccinations to potentially exposed employees.
7. Ensure post-exposure evaluation and follow-up for exposed employees.
8. Ensure proper waste handling procedures are in place and practiced.
9. Provide training on the ECP and its requirements to affected employees.
10. Maintain training records.
11. ECP must be readily available to all employees.

B. The ECP cannot be effective without the ability to ensure compliance.

The integrity of the ECP is compromised if employees, faculty and/or students violate the plan and the supervisor, faculty, department head and/or dean do not address the violation. Disciplinary action should be taken by faculty in teaching and research labs when students violate the rules and by supervisors and/or department heads when employees and/or faculty violate the rules. Subject to the provisions of the specific collective bargaining agreement for the employee, disciplinary action will depend on the seriousness of the violation, if it is a repeat violation and/or if injuries occurred. The Deans and Human Resources should become involved when there are repeated violations and/or a pattern of non-compliance.

V. RESPONSIBILITIES

A. Deans, Directors and Department Heads

1. Provide leadership and the management systems necessary to ensure safe working conditions are maintained in their Colleges and Departments.
2. Implement the ECP in their department.
3. Motivate and assist supervisors with ECP compliance.
4. Provide the necessary resources to maintain a safe work environment.
5. Require faculty and staff to attend all applicable training sessions.
6. Ensure graduate assistants and student employees receive Bloodborne pathogen training, as necessary.
7. Enforce disciplinary actions for employees violating safety rules.

B. Faculty, Managers and Supervisors

1. Develop SOPs for each procedure involving potential contact with blood or other potentially infectious material.
2. Enforce the rules and requirements of the ECP.
3. Provide appropriate training to each employee who might contact blood or other potentially infectious material.
4. Conduct and document safety inspections and required training.
5. Correct safety deficiencies in a timely manner.
6. The ECP must be readily available to all departmental employees.
7. Must update the departmental ECP whenever new or modified tasks and procedures are implemented.
8. Follow up with Risk Management and/or Environmental Health and Safety regarding possible exposures, known exposures, accidents or near misses.

C. Employees and Students

1. Follow the ECP, SOPs and safety rules provided by your department.
2. Attend all required safety trainings.
3. Use all required personal protective equipment (PPE).
4. Report any defects in PPE and possible safety hazards to your supervisor.
5. Report possible exposures, known exposures, accidents and near misses to your supervisor.

D. Environmental Health and Safety

1. Develop, maintain, annually review and update the ECP.
2. Provide consultation, training and inspections to support ECP compliance.
3. Primary contact and coordinator for biomedical waste disposal and large blood and other potentially infectious material spills.
4. Liaison with state, federal and local regulatory agencies.
5. Documentation of ECP trainings and inspections.

E. Risk Management/Workers' Compensation

1. Assists departments with possible exposures, known exposures and accidents.
2. Maintains the OSHA 300 log and the Sharps Injury Log.

VI. COMPLETION AND EXECUTION OF THIS EXPOSURE CONTROL PLAN

This Exposure Control Plan provides most of the procedures necessary for compliance with the Bloodborne Pathogen Standard. It is the responsibility of each department or laboratory to customize the ECP where indicated, for the specific procedures conducted in their laboratories or work areas. This ECP is not complete without these additions.

A. Customization Of The ECP

1. Written departmental work specific SOPs must include the following:
   a. Each procedure or process must have its own SOP. Similar procedures may be grouped together.
   b. Each procedure must include recognition of reasonably anticipated exposure to blood and other potentially infectious material.
   c. Each procedure must include the required PPE, emergency controls and workplace practices.
   d. Each procedure must include emergency plans for foreseeable circumstances that prevent following the recommended SOPs.
   e. Waste disposal information must be included for all chemical, radiological and biohazardous waste generated by the procedure.
   f. Special approval requirements, if any.
   g. Requirements for peer group review, if any.
   h. To assist with SOP development, please see Appendix A for the SOP form.

2. Training documentation
   a. Each department must document the SOP specific training provided to the workers in their area. Either a sign in sheet or training documentation signature page will suffice.
   b. Training records must be kept on file for the duration of employment plus 30 years.

VII. EXPOSURE DETERMINATION

A. Evaluation of routine and reasonably anticipate tasks and procedures

1. A qualified departmental representative must evaluate routine and reasonably anticipated tasks and procedures to determine whether there is actual or reasonably anticipated employee exposure to blood or other potentially infectious material.
   a. A qualified representative is someone who has adequate knowledge of workplace procedures or tasks and the specific requirements of the Bloodborne Pathogen Standard.

b. Based on this evaluation, all employees must be categorized into either category A or B as defined below.
    i. Category A consists of occupations that require procedures or other occupation-related tasks that involve exposure to reasonably anticipated exposure to blood or other potentially infectious material or that involve a likelihood for spills or splashes of blood or other potentially infectious material. This includes procedures or tasks conducted in non-routine situations as a condition of employment.
    ii. Category B consists of occupations that do not require tasks that involve exposure to blood or other potentially infectious material on a routine or non-routine basis as a condition of employment. Employees in occupations in this category do not perform or assist in emergency medical care or first aid and are not reasonably anticipated to be exposed in any other way.
    iii. To assist with Category A and Category B determinations please see Appendix B: Category A Exposure Determination Classification Form and Appendix C: Category B Exposure Determination Classification Form.

2. An exposure determination must be made without regard to the use of personal protective clothing and equipment.
3. Please see Appendix D for the EMU list of the job classifications determined to be Category A.

B. Universal Precautions

1. Universal precautions is a method of infection control treating all human blood and other potentially infectious materials as capable of transmitting HIV, HBV and other Bloodborne pathogens.
2. Universal precautions must be followed to prevent contact with blood and other potentially infectious materials.
3. If differentiation between body fluid types is difficult or impossible, all body fluids must be considered potentially infectious materials.

C. Engineering Controls

1. Engineering controls are technology and devices used to isolate or remove hazards from the worker. Examples of engineering controls include puncture-resistant sharps containers, splashguards, pipetters, needleless systems and self-sheathing needles.
2. Engineering controls in combination with work practices must be used to minimize and/or eliminate employee exposure to blood and other potentially infectious material.
3. When exposure hazards remain after the use of engineering controls and work practices then personal protective equipment (PPE) must also be used.

4. Engineering controls must be examined and maintained or replaced when needed to ensure their effectiveness.
5. Hand-washing facilities must be readily accessible and stocked with appropriate supplies. When this is not feasible, appropriate antiseptic hand cleanser with paper towels or antiseptic towelettes must be provided.
6. All departments who have employees with occupational exposure to Bloodborne pathogens **MUST** consider, where appropriate, the use of safer medical devices in order to reduce the risk of injury from needle sticks and from other sharp medical instrument. Safer medical devices include, but are not limited to the following:
   a. Sharps with engineered sharps injury protections.
   b. Needleless systems.
7. Departments must obtain employee input in the identification, evaluation and selection of engineering controls and/or devices.

D. Work Practices

1. After establishing the appropriate engineering controls, the likelihood of exposure to blood and other potentially infectious material must further be reduced by developing and implementing work practices.
2. This may require altering some tasks in an attempt to reduce the likelihood of a worker's exposure to blood or other potentially infectious materials.
3. At a minimum, the following work practices **MUST** be followed:
   a. All personal protective equipment (PPE) must be removed before leaving the work area and placed in a designated area or container for storage, washing, decontamination or disposal.
   b. If blood or other potentially infectious material penetrates a garment, the garment must be removed immediately or as soon as feasible.
   c. Employees must wash their hands with warm water and soap immediately after removing gloves or other protective clothing and before leaving the work area.
   d. Employees must immediately wash their hands and any other skin or flush mucous membranes with water after contact with blood or other potentially infectious materials.
   e. When hand-washing facilities are not available, hands must be washed with waterless antiseptic hand cleansers or antiseptic towelettes. Hands must then be washed with warm water and soap or antiseptic cleanser as soon as feasible.
   f. Supervisors and faculty must ensure employees and students are following proper hand washing practices and procedures.
   g. Used needles and other contaminated sharps must not be sheared, bent or broken and must not be recapped or resheathed when other disposal methods are available.
      i. Used needles and other contaminated sharps must not be

recapped, resheathed or removed unless it can be demonstrated that no alternative is feasible or the action is required by a specific medical procedure.

ii. Needle recapping or removal must be accomplished by use of a mechanical device or a one (1) handed technique.

h. Needles and sharps **MUST** be disposed of in sharps containers and as regulated waste, see Regulated Waste, section G 3.

i. Eating, drinking, applying cosmetics or lip balm or handling of contact lenses is strictly prohibited in laboratories or work areas where there is a reasonable likelihood of exposure to blood and other potentially infectious materials.

j. Food and beverages must not be stored in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious material is present or in other areas of possible contamination.

k. Procedures must be in place to minimize splashing, spraying and aerosolization of blood and other potentially infectious materials.

l. Measures must be taken to minimize contamination of the work area. Gloves must be removed prior to answering telephones, using computers, etc.

m. Mouth pipetting or suctioning is strictly prohibited.

4. **Supervisors, Mangers, Faculty MUST add work practices for specific procedures (SOPs) conducted in their department/laboratory.**

E. Protective Work Clothing and Equipment (PPE)

Each department **MUST** provide appropriate personal protective equipment (PPE) to any employee having the potential for exposure to blood or any other potentially infectious material. A work hazard assessment must be performed to determine if hazards requiring the use of PPE are present. Please use Appendix E, the EMU PPE Hazard Assessment Form and Appendix F, the EMU PPE Worksheet to perform and document the hazard assessment.

Departments **MUST** provide protective work clothing and equipment under the following guidelines:

1. When there is occupational exposure, the supervising department must provide, at no cost to the employee, and ensure the employee uses, appropriate personal protective clothing and equipment. PPE clothing and equipment includes, but is not limited to, the following:
   a. Gloves.
   b. Gowns.
   c. Fluid-proof aprons.
   d. Laboratory coats.
   e. Head and foot coverings.

f. Faceshields or mask and eye protection
g. Mouthpieces.
h. Resuscitation bags.
i. Pocket masks.
j. Other ventilation devices.

2. PPE is appropriate only if it does not permit blood or other potentially infectious material to pass through or to reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth or other mucous membranes under normal conditions of use and for the duration of time the protective equipment is used.
3. Departments issuing PPE must ensure that employees use the appropriate PPE. The only exceptions are as follows:
   a. If the supervisor can show that the employee temporarily and briefly declined to use PPE under rare and extraordinary circumstances,
   b. It was the employee's professional judgement that in the specific instance the use of PPE would have prevented the delivery of health care or public safety services or
   c. Would have posed an increased hazard to the safety of the worker or coworker.
   d. When an employee makes this judgement, the circumstances must be investigated and documented to determine if changes can be made to prevent future occurrences.
4. Departments issuing PPE must ensure that appropriate protective equipment and clothing in the appropriate sizes are readily accessible at the worksite or issued to the employees at no cost to the employees.
5. Hypoallergenic gloves, glove liners, powderless gloves or other similar alternatives must be readily accessible to employees who are allergic to the gloves normally provided.
6. Law enforcement may require tear and puncture resistant gloves.
7. Inappropriate gloves, such as the "baggy" gloves used by food service workers, are not meant for contact with blood or other potentially infectious materials.
8. Departments issuing PPE must provide for the cleaning, laundering or disposing of protective clothing and equipment.
9. Departments issuing PPE must repair or replace required protective clothing and equipment as needed to maintain their effectiveness.
10. Employees must wear gloves as follows:
    a. If there is a reasonable anticipation of direct skin contact with blood, other potentially infectious material, mucous membranes or nonintact skin of patients.
    b. When performing vascular access procedures
    c. When handling items or surfaces that are soiled with blood or other potentially infectious materials.

11. Disposable (single use) gloves:
    a. Must be replaced as soon as practical if contaminated or as soon as feasible if torn, punctured or ineffective as barriers.
    b. Must not be washed or decontaminated for reuse.
12. Utility gloves:
    a. Must be discarded if any are cracked, peeling, discolored, torn, punctured or exhibit other signs of deterioration.
    b. May be decontaminated for reuse if the integrity of the glove is maintained.
13. Employees must wear masks and eye protection or chin-length face shields as appropriate if splashes, sprays, spatters, droplets or aerosols of blood or other potentially infectious materials may be generated and if there is a likelihood for eye, nose, or mouth contamination.
14. Employees must wear gowns, lab coats, aprons, clinic jackets or similar outer garments where appropriate if there is a reasonably anticipated exposure.
    a. Such clothing must protect all areas of exposed skin that have significant likelihood for contamination.
    b. The type of characteristics will depend upon the task and degree of exposure anticipated.
15. Employees must wear surgical caps or hoods and shoe covers or boots where appropriate if there is a reasonable anticipation of gross contamination.

F. Housekeeping

1. Each department **MUST** ensure the work site is maintained in a clean and sanitary condition. An appropriate written schedule for cleaning and decontamination must be determined based on the following:
    a. Location within a facility.
    b. Type of surface to be cleaned.
    c. Type of contamination present.
    d. Tasks or procedures being performed.
2. Work surfaces must be cleaned and decontaminated with an appropriate disinfectant in all of the following instances.
    a. After completion of procedures.
    b. When surfaces are overtly contaminated or suspected of contamination.
    c. Immediately when blood or other potentially infectious material is spilled.
    d. At the end of each work shift.
    e. Please see the EPA website for Selected EPA-Registered Disinfectants for the most up-to-date list of approved disinfectants.
3. Protective coverings such as plastic wrap, aluminum foil or plastic-backed absorbent paper may be used to cover equipment, work and environmental surfaces.

   a. These coverings should be removed and replaced at the end of the work shift or
   b. As soon as feasible when they become overtly contaminated.
4. Equipment that may become contaminated with blood and other potentially infectious materials must be examined before being serviced or shipped and must be decontaminated as necessary. Use Appendix G, the EMU Equipment Decontamination Form to document cleaning and measures needed if decontamination is not feasible.
5. Bins, pails, cans and similar receptacles intended for reuse and have a likelihood of becoming contaminated with blood and other potentially infectious materials must be inspected and decontaminated on a regularly scheduled basis.
   a. Each department must schedule decontaminations as needed based on utilization.
   b. Containers must be cleaned and decontaminated immediately, or as feasible, upon visible contamination.
6. Broken glassware should not be picked up directly by hand. Mechanical means, such as a brush and dustpan, tongs or forceps should be used. If mechanical means are used to aid in the cleanup of potentially contaminated broken glass, the following should be followed:
   a. Decontaminate all brushes, dustpans, tongs or forceps used to pick up broken glass before replacing them for reuse.
   b. Dispose of contaminated glass in a white bucket marked as biohazard or in a red sharps container.
   c. Clean, uncontaminated broken glassware should be placed in yellow broken glassware buckets.
   d. White and yellow buckets and sharps containers are available from EHS.
7. Specimens of blood or other potentially infectious materials must be placed in a closable leak-proof container during collection, handling, processing, storing, transporting or shipping.
   a. If the outside of the primary container is likely to become contaminated, it must be placed into a secondary container.
   b. If puncture of the primary container is likely, it must be placed into a leak-proof puncture-resistant secondary container.
   c. **All containers must be properly labeled with the biohazard symbol.**
8. Reusable sharps contaminated with blood or other potentially infectious materials must not be stored or processed in any way that requires employees to reach by hand into the containers where these sharps have been placed.

G. Regulated Waste Disposal

1. Regulated waste refers to any of the following:
   a. Liquid or semi-liquid blood or other potentially infectious materials.
   b. Contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed.
   c. Items caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling.
   d. Contaminated sharps.
   e. Pathological and microbiological waste that contains blood or other potentially infectious materials.
2. Regulated waste for disposal **MUST** be placed in closable, leak-proof containers or bags that are properly color-coded or labeled with the biohazard symbol.
   a. If the outside of the primary container is likely to become contaminated, a second leak-proof container or bag must be placed over the primary container and sealed to prevent leakage.
   b. The secondary container must also be properly color coded or labeled with the biohazard symbol.
3. Immediately after use, contaminated sharps (needles, scalpels, etc.) must be disposed of in closable, leak-proof, puncture-resistant disposable containers that are labeled or color-coded as biohazardous.
   a. Sharps containers must be readily accessible in the area of use.
   b. Sharps containers must not be filled more than 3/4 full.

H. Medical Waste Disposal

1. Medical waste is categorized into five (5) types defined as follows:
   a. **Type 1:** Cultures and stocks of infectious agents and associated biologicals, including laboratory waste, biological production waste, discarded live and attenuated vaccines, culture dishes, and related devices.
   b. **Type 2**: Liquid human and animal waste, including blood and blood products and body fluids, but not including urine or materials stained with blood or body fluids.
   c. **Type 3**: “Pathological Waste” such as human organs, tissues, body parts other than teeth, products of conception, and fluids removed by trauma or during surgery of autopsy or other medical procedure. This does not include animal parts.
   d. **Type 4**: “Sharps” such as needles, syringes, scalpels, and intravenous tubing with needles attached.
   e. **Type 5**: Contaminated wastes from animals that have been exposed to agents infectious to humans.
2. For disposal of medical waste, the following procedures must be followed:
   a. **Type 1 and 2 Solids**
      i. Store in a leak proof biohazard bag prior to decontamination.

ii. The use of a secondary leak proof container or bag is recommended.
iii. Bags must not be filled more than three-quarters (3/4) full.

b. **Type 1 and 2 Liquids**
   i. Store in a closeable, puncture resistant container and decontaminate by autoclaving or chemically treating.
   ii. After autoclaving or chemically treating liquids, decontaminated waste can be disposed of in a sanitary sewer if no other hazardous materials are present (i.e. chemicals and/or radioactive materials).

c. **Type 3 Waste**
   i. Contact EHS for disposal information.

d. **Type 4 Waste**
   i. Place into an approved sharps container. An approved sharps container is one that is leak proof, puncture resistant, closeable, bears the biohazard symbol and is manufactured as a sharps container.
   ii. Do not clip, bend, break or recap sharps.
   iii. A sharps container must be permanently closed and disposed of through EHS when three-quarters (3/4).

e. **Type 5 Waste**
   i. Must be collected in biohazard bags or other leak proof containers labeled with a biohazard sticker.

3. Biohazardous waste disposal is coordinated by EHS.

I. Laundry

1. Laundry that is or may be soiled with blood or other potentially infectious materials or that may contain contaminated sharps must be treated as if it were contaminated and must be handled as little as possible with a minimum of agitation.
2. Contaminated laundry must be bagged at the location where it was used.
3. Contaminated laundry must be placed and transported in bags or containers labeled or color coded as biohazardous.
4. If laundry is wet and presents the likelihood for soaking through or leaking from the bag, it must be placed and transported in leak-proof bags.
5. Currently, EMU does not have laundry facilities. Departments with blood or other potentially infectious materials for laundering must coordinate laundry services with a professional cleaning company able to handle biohazardous materials.
6. Contaminated laundry delivered/picked-up or sent to a cleaners must be labeled or color-coded as biohazardous and the person turning over the laundry must indicate that it is contaminated with blood or other infectious materials.
7. In lieu of coordinating laundry services, disposable lab coats may be used. Unless grossly contaminated, these may be disposed of in the normal trash.

J. HIV and HBV Research Laboratories

Large research facilities using HIV and HBV materials require a Biosafety Level 3 containment facility. Eastern Michigan University currently does not have a Level 3 facility. Please contact EHS at 7-0794 for further information.

K. Vaccinations and Post Exposure Follow-Up

All employees whose jobs involve the risk of directly contacting blood or other potentially infectious materials **MUST** be offered hepatitis B vaccinations (HBV). Hepatitis B vaccinations are offered through any of the clinics listed in the Risk Management injury report packet for all employees who may contact human blood, serum, body fluids or unfixed tissues. This is a free service to the employee. Each individual department is responsible for the vaccination costs. Although this program is voluntary, it is **highly recommended** all employees who handle blood or other infectious materials take advantage of the HBV.

1. Within ten (10) working days of the time of initial assignment and after training the employee on Bloodborne pathogens, departments **MUST** provide the following to each Category A employee:
   a. A hepatitis B vaccination.
      i. If an employee initially declines vaccination, but later, decides to accept the HBV vaccine, the department must provide the vaccine at that time.
      ii. If in the future, a booster dose or doses is/are recommended by the U.S. Public Health Service, departments must provide for the booster dose or doses.
   b. If an employee previously received the complete HBV vaccination series, is found to be immune to HBV by virtue of adequate antibody titer or the vaccine is contraindicated for medical reasons, the department is not required to offer the HBV vaccine to that employee.
   c. Supervisors cannot make participation in a prescreening program a prerequisite for receiving the hepatitis B vaccination.
2. An employee who declines to accept the hepatitis B vaccination **MUST** sign the EMU Hepatitis B Vaccination Declination Form, Appendix H.
   i. The supervisor must keep the signed declination form on file for the employee's duration of employment.
   ii. When the employee leaves the University, the declination form must be sent to Human Resources for 30 years.
3. Following an exposure incident to blood or other potentially infectious materials, the employee will be referred to any of the EMU designated clinics listed on the EMU Risk Management injury report packet for a confidential medical evaluation and follow-up. The evaluation and follow-up, at a minimum, must include the following:

i. Documentation of the route or routes of exposure and the exposure circumstances.
ii. Identification and documentation of the source individual, if feasible and permitted by state or local law must include the following:
    a) The source individual's blood must be tested as soon as feasible and after consent is obtained to determine HBV and HIV infectivity. If consent is not obtained, the department must establish that legally required consent cannot be obtained. If the source individual's consent is not required by law, their blood, if available, must be tested and the results documented.
    b) If the source individual is already known to be infected with HBV or HIV, testing does not need to be repeated.
    c) Results of the source individual's testing must be made available to the exposed employee and the employee must be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.
iii. Collection and testing of blood or HBV and HIV serological status must include both of the following:
    a) The exposed employee's blood must be collected as soon as feasible and tested after consent is obtained.
    b) If the exposed employee consents to baseline blood collection, but not to HIV testing at that time, the sample must be preserved for at least 90 days. If within 90 days the employee elects to have the baseline sample tested, the testing must be done as soon as feasible.
iv. Post exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service.
v. Counseling on risk reduction and the risks and benefits of HIV testing in accordance with state law.
vi. Evaluation of reported illnesses.

4. EHS is responsible for ensuring the health care professional responsible for the hepatitis B Vaccination is provided a copy of the Bloodborne pathogen standard and appendices.
5. Supervisors of an employee after an exposure incident must ensure the health care professional is provided with the following information:
    i. A description of the affected employee's duties as they relate to the employee's exposure incident.
    ii. Documentation of the route or routes of exposure and the circumstances under which exposure occurred.
    iii. Results of the source individual's blood testing, if available.
    iv. All medical records that are relevant to the appropriate treatment of the employee, including vaccination status and that are EMU's responsibility to maintain.

6. For each evaluation, the supervisor **MUST** provide the exposed employee a copy of the evaluating health care professional's written opinion within 15 working days of the completion of the evaluation. The written opinion is limited to the following information:
    i. Whether hepatitis B vaccination is indicated for the employee and if the employee received the vaccination.
    ii. A statement that the employee has been informed of the results of the medical evaluation and that the employee has been told about any medical conditions that have resulted from exposure to blood or other potentially infectious materials and that require further evaluation or treatment.
    iii. The written opinion must not reveal specific findings or diagnoses that are unrelated to the employee's ability to wear protective clothing and equipment or receive vaccinations. Such findings and diagnoses must remain confidential.
7. The supervisor must keep the above medical records confidential for employee's duration of employment and then sent to Human Resources for 30 years.

L. Communication of Hazards to Employees and Others

Each department **MUST** communicate biohazardous areas by posting appropriate signs where blood or other potentially infectious materials are being used or stored.

1. The signs and labels must be fluorescent orange or orange-red with lettering and symbols in a contrasting color: The signs and labels should look like the following:

2. A laboratory door sign with the biohazard symbol **MUST** be posted at the entrance of work areas where blood or other potentially infectious materials are being used. Door signs are available from EHS.
3. Biohazard labels must be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials and other containers used to store or transport blood or other potentially infectious materials unless red bags or red containers with the biohazard symbol as an integral part of the container are used.
4. Labels either must be an integral part of the container or must be affixed to the container by string, wire or adhesive or by another method preventing the loss of labels or the unintentional removal of labels.
5. Individual containers of blood or other potentially infectious materials placed in a labeled container during storage, transport, shipment or disposal are exempted from labeling requirements.
6. Labels required for contaminated equipment must comply with the above labeling requirements.
7. Decontaminated regulated waste does not need to be labeled or color-coded.

M. Recordkeeping

1. EMU must establish and maintain medical records for each Category A employee in compliance with MIOSHA Occupational Health Standard Part 470, Employee Medical Records and Trade Secrets.
2. The medical records, at a minimum, **MUST** contain all of the following:
   a. The name, social security number and EMU ID number of the employee.
   b. A copy of the employee's hepatitis B vaccination status, including the dates administered and medical records relating to the employee's ability to receive a vaccination.
   c. A copy of all results of examinations, medical testing and follow-up procedures.
   d. The employer's copy of the physician's written opinion.
   e. A copy of the information provided to the physician.
3. Employee medical records must be kept confidential and are not disclosed or reported without the employee's express written consent to any person within or outside the workplace, except as required by MIOSHA standards or permitted by law.
4. Medical records must be maintained for the duration of employment plus 30 years.
5. Each department with Category A employees must develop and maintain training records for the duration of employment plus 30 years.
6. Training records **MUST** include all of the following information:
   a. The dates of the training sessions.
   b. The contents or summary of the training session.
   c. The names and qualifications of persons who conducted the training.

d. The names and job titles of the training attendees.

7. The above records must be made available for examination and copying to:
   a. MIOSHA inspectors
   b. The subject employee
   c. To anyone with written consent of the subject employee
8. Risk Management maintains the Sharps Injury Log for the University.
   a. The log is for the recording of percutaneous injuries from contaminated sharps.
   b. The information in the log must be recorded and maintained in a manner that protects the confidentiality of the injured employee.
   c. The log must contain the following information:
      i. The type and brand of device involved in the incident.
      ii. The work unit or work area where the exposure incident occurred.
      iii. An explanation of how the incident occurred.
   d. Supervisors must report injuries from sharps to Risk Management using the Employee Occupational Injury Report Packet, Appendix I, reporting all of the information required in item c above.

N. Information and Training

1. All Category A employees **MUST** be trained on Bloodborne pathogen hazards as follows:
   a. At the time of initial assignment to Category A work and annually thereafter.
   b. When changes, such as the modification of tasks or procedures or new tasks or procedures, affect an employee's occupational exposure. This training may be limited to addressing the new exposures created.
2. The training program **MUST** contain all of the following:
   a. Accessibility of the MIOSHA Bloodborne Pathogen Standard and an explanation of the rules and appendices.
   b. A general explanation of the epidemiology and symptoms of Bloodborne diseases.
   c. An explanation of the modes and transmission of Bloodborne pathogens.
   d. An explanation of this exposure control plan, including the standard operating procedures, and how an employee can access the written plan.
   e. An explanation of the appropriate methods for recognizing tasks and other activities involving exposure to blood and other potentially infectious material.
   f. An explanation of the use and limitations of practices preventing or reducing exposures, including appropriate engineering controls, work practices, and personal protective equipment.
   g. Personal protective clothing and equipment information on all of the following:
      i. Types.

ii. Proper use.
iii. Limitation.
iv. Location.
v. Removal.
vi. Handling.
vii. Decontamination.
viii. Disposal.

h. An explanation of the basis for selecting protective clothing and equipment.
i. Information on the hepatitis B vaccine and post exposure prophylaxis, including all of the following information:
   i. Availability.
   ii. Efficacy.
   iii. Safety.
   iv. The benefits of being vaccinated.
   v. Method of administration.
   vi. The vaccination is free of charge.
j. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious material.
k. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up and counseling that will be made available.
l. An explanation of the signs and labels or color-coding for biohazardous materials.

3. Training must be conducted as follows:
   a. At the time of initial assignment to tasks where occupational exposure may take place and at least annually thereafter.
   b. Training sessions must allow the employees the opportunity for discussion and the answering of questions by a knowledgeable trainer.
   c. The person conducting the training must be knowledgeable in the subject matter of the training program and as it relates to the University.
4. Trainings must be documented including the following:
   a. Date of the training.
   b. Contents or summary of the training.
   c. Names and job titles of the trainees.
   d. Names and qualifications of the trainers.

VIII. REFERENCES

A. MIOSHA General Industry Safety and Health Standard Part 554. Bloodborne Infectious Diseases
B. MIOSHA General Industry Safety and Health Standard Part 470. Employee Medical Records and Trade Secrets
C. Selected EPA-Registered Disinfectants

IX. APPENDICIES

A. EMUDPS-EHS-f073 SOP Form
B. EMUDPS-EHS-f036 Category A Exposure Determination Classification Form
C. EMUDPS-EHS-f037 Category B Exposure Determination Classification Form
D. EMUDPS-EHS-f039 EMU Category A Job Classifications
E. EMUDPS-EHS-f079 EMU PPE Hazard Assessment Form
F. EMUDPS-EHS-f040 EMU PPE Worksheet Form
G. EMUDPS-EHS-f025 EMU Equipment Decontamination Form
H. EMUDPS-EHS-f032 EMU Hepatitis B Vaccination Declination Form
I. Employee Occupational Injury Report Packet

X. HISTORY

Revision	Date	Changes
0	12/1997	Original Program
1	4/30/20	Updated format, compliant with MIOSHA Part 554 as amended 10/28/14, updated forms, hyperlinks.