



Environmental Health and Safety
Laboratory Safety Program

TABLE OF CONTENTS

Section I:	Purpose of the Plan	1
Section II:	General Program Management	2
	Responsible Parties	
	Availability to Employees	
	Review and Update	
Section III:	Exposure Determination	4
Section IV:	Methods of Compliance	5
	Universal Precautions	
	Engineering Controls	
	Work Practice Controls	
	Personal Protective Equipment	
	Personal Hygiene	
Section V:	Housekeeping.....	8
Section VI:	Rhode Island Regulated Medical Waste	10
Section VII:	Rhode Island Regulated Medical Waste Disposal Procedures	11
Section VIII:	Hepatitis B Vaccination, Post-Exposure Evaluation and Follow-up.....	12
	Vaccination program	
	Post-Exposure Follow-up	
	Evaluation and Written Report	
	Medical Recordkeeping	
	Exposure Incident Evaluation	
Section IX:	Hazard Communication	16
	Labels and Signs	
Section X:	Training and Recordkeeping	17
Section XI:	Sharps Injury Log.....	17

EXPOSURE CONTROL PLAN FOR RESEARCHERS

Section I

Purpose of the Exposure Control Plan

- A. The purpose of the Exposure Control Plan is to minimize the occupational exposure of employees to blood or other potentially infectious materials (OPIM), as required by OSHA 29 CFR 1910.1030, the Bloodborne Pathogens Standard.

A copy of the OSHA Standard is available on-line at:

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=10051&p_table=STANDARDS

- B. Occupational exposure is defined as “reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials (OPIM) that may result from the performance of an employee’s duties.”
- C. Other potentially infectious materials are defined as (1) The following human body fluids: semen, vaginal fluids, 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 Hepatitis B virus-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV; (4) Human cell cultures.
- D. All at-risk employees who may have occupational exposure are expected to follow the guidelines established in this policy. Compliance is mandatory.

Section II

University Responsibility and Employee Inclusion in the Plan

- A. The Department of Public Safety’s Environmental Health and Safety (EHS) division is responsible for implementing the Exposure Control Plan (ECP), maintaining the Sharps Injury Log, reviewing and updating the ECP at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure, and as necessary, to reflect new or revised employee positions with occupational exposure.
- B. All University of Rhode Island employees who, by the nature of their job-required tasks, have occupational exposure to blood or other potentially infectious materials (OPIM)

shall be included in this plan.

All at risk employees who have occupational exposure shall receive bloodborne pathogens training within 10 days of initial job assignment. Employees will also be offered the HBV vaccine within 10 days of initial job assignment.

- C. Post-doctoral fellows are considered employees of the University and are covered under the Bloodborne Pathogens Standard. Graduate students and Undergraduates who perform tasks that put them at risk as part of their learning experience are not covered by this Standard. However, it is the responsibility of the educator to advise students of the risks involved and teach them how to perform all tasks and procedures safely.

Supervisors (including Department Heads and Managers) will perform an exposure determination for each job classification within their administrative division to identify at risk personnel. The determination will be done without regard for the use of personal protective equipment.

Employees who have occupational exposure and are included in the program shall complete the EHS Bloodborne Pathogens + Biosafety training on Brightspace within 10 days of being assigned to their positions.

Schedule training at https://web.uri.edu/ehs/training_registration_form/

Faculty and staff should contact EHS directly to schedule the HBV series at (401) 874-7019. NOTE: The Institutional Biosafety Committee (IBC) requires everyone who works in a lab and has occupational exposure to complete annual BBP + Biosafety Training. Refresher training is available on CITI.

- D. Supervisors will re-evaluate positions on a regular basis to identify changes in job responsibilities, and to identify those individuals who might need to be included in the plan because of those changes. Supervisors will immediately advise EHS when employees become eligible for inclusion to assure compliance with all provisions of the regulation.
- E. All required training, personal protective equipment, supplies, engineering controls, record keeping, as well as any testing necessary for compliance with the standard shall be supplied at no cost to the employee.
- F. When the potential for occupational exposure exists, students, faculty and staff shall utilize the methods described in the plan to minimize occupational exposure.

Preventive measures that should be considered include, but are not limited to:

Engineering Controls

- Enclosed containers
- Mechanical pipetting devices

- Splash shields
 - Sharps disposal containers
 - Secondary leak-proof containers for transport of materials for autoclaving
 - Biological safety cabinets
- See **Appendix C: Safe Use of Biosafety Cabinets SOP**

Administrative Controls

- Safe work practices
- Workplace policies
- Written Standard Operating Procedures (SOPs)
- Risk Assessments

Personal Protective Equipment (PPE)

- Gloves
- Safety glasses, safety goggles, face shield
- Lab coats
- Impervious aprons
- Shoe covers

- G. Research utilizing blood or other potentially infectious materials must be approved by the Institutional Biosafety Committee (IBC) before work can begin or samples used in the lab. This policy also includes preliminary research done to determine if a project is viable.

If research involves human subjects, the project must also be reviewed and approved by the Institutional Review Board (IRB).

- H. Exposure control plans must be reviewed periodically, and updates made to reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens. Review allows for the investigation of commercially available and safer medical devices that are designed to eliminate or minimize occupational exposure.
- I. At the time of review, employers are required to solicit employee input to help evaluate and select effective engineering and work practice controls. Employee input and suggestions must be documented.

Section III

See **Appendix M: Exposure Determination**

KINGSTON CAMPUS

Research laboratory job classifications in which some employees are covered:

1. The Research Office:
 - Assoc. VP for Research Admin, Director of Research Integrity, Attending Veterinarian, Facility Manager,

- Technicians: Potential exposure to research involving human materials.
2. College of Pharmacy:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Analysis of blood and OPIM, research using materials of human origin including cell cultures.
 3. Department of Cell & Molecular Biology:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Analysis of blood and OPIM including cell cultures.
 4. Department of Nutrition and Food Sciences:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Finger sticks, analysis of blood and OPIM.
 5. Kinesiology Department:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Venipuncture, finger sticks and analysis of blood and OPIM.
 6. Department of Chemistry:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Analysis of blood and OPIM, research using materials of human origin including cell cultures.
 7. Department of Physics:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Analysis of blood and OPIM, research using materials of human origin including cell cultures.
 8. Department of Public Safety, EHS division:
Coordinator of Hazardous Materials and Chemical Waste, Chemical Hygiene Officer, Biosafety Officer.
Pick up and transportation of medical waste, access to and inspection of areas where blood and OPIM are stored or used.
 9. College of Engineering:
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Chemical analysis of blood for inorganic materials (metals), analysis of water samples, manipulation of human body fluids or equipment contaminated with human body fluids.
 10. Center for Vector-Borne Disease:
Professor, Graduate Assistant, Post-doctoral fellow, Research Assistant, Research Associate
Analysis of blood and OPIM, work with bloodborne pathogens.
 11. Graduate School of Oceanography – Dr. Rainer Lohmann’s Lab
Professor, Post-doctoral fellow, Graduate student, Marine Research Specialist
Evaluation of wastewater influent and effluent for presence of PFAS and other chemicals.

PROVIDENCE CAMPUS (Feinstein College of Continuing Education – CCE)

1. Department of Cell & Molecular Biology:

Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant.
Analysis of blood and OPIM including cell cultures.

2. Clinical Laboratory Science (Biotechnology Program)
Professor, Associate Professor, Assistant Professor, Lecturer, Graduate Assistant,
Lab Manager
Human cell cultures
3. Clinical Laboratory Science (Cytopathology Program) Human
blood and other potentially infectious materials.

Section IV

Methods of Compliance

It is the responsibility of each supervisor (including Deans, Directors, Department Heads, Principal Investigators and Lab Managers, etc.) to ensure that persons under their supervision work in a safe and healthy environment. Immediate supervisors will advise employees of the potential hazards of their assigned duties and make them aware of the measures outlined below that they must follow to protect themselves against accidental exposure.

Universal Precautions shall be observed to prevent contact with blood and other potentially infectious materials. All human blood, body fluids and cell cultures shall be treated as if they are known to be infectious for HBV, HCV, HIV and other bloodborne pathogens even though they might not be. Gloves will be worn when handling blood or other potentially infectious materials.

A. Engineering Controls

Engineering controls are used to eliminate the hazard and minimize employee exposure to bloodborne pathogens. Engineering controls include, but are not limited to the following:

- Biosafety cabinets
 - Hand washing stations
 - Sharps disposal containers
 - Safe sharps devices
 - Enclosed transport containers
 - Safety centrifuge cups
- See **Appendix D: Safe Use of Centrifuges SOP; Appendix K: Centrifuge Safety Poster**

B. Personal Protective Equipment (PPE)

Personal Protective Equipment shall be worn to create a physical barrier between the lab worker and the hazard.

1. When there is the possibility of occupational exposure, properly fitted personal

protective equipment shall be provided to the employee at no cost.

2. Supervisors are responsible for training employees in the safe use of PPE.
3. When there is risk of occupational exposure, supervisors are responsible for assuring that their employees use appropriate personal protective equipment.

Laboratory PPE includes, but is not limited to, the following:

- Gloves
 - Gowns
 - Lab coats
 - Impervious aprons
 - Face shields or masks
 - Eye protection
4. Masks in combination with eye protection, such as goggles or glasses with solid side shields, or chin-length face shields shall be worn whenever splashes, spray, splatter, or droplets of blood or OPIM may be generated.
 5. Barrier lab coats shall be worn when there is the risk of occupational exposure.
 6. Personal protective equipment shall be repaired or replaced by the employer as needed to maintain its effectiveness.

C. Administrative Controls

Administrative controls are used to help manage the risk of working with infectious materials and include, but are not limited to the following:

- Safe work practices
- Written Standard Operating Procedures (SOPs)
- Policies (institutional and lab)
- Risk Assessments
- Training
- Licenses and permits

Safe Work Practices

These are controls that reduce the likelihood of exposure by altering the way a task is performed (e.g., prohibiting recapping of needles using a two-handed technique).

- D. If using needles to manipulate blood or other potentially infectious materials, this must be indicated on your IBC Protocol Review Form.
 1. Contaminated needles and other sharps shall not be bent, sheared, or broken. Recapping or removing needles is prohibited unless there is no alternative, or such

action is required by a specific procedure. If recapping or removing a needle from a syringe is required, justification must be included on the IBC form and the procedure approved prior to implementation. Recapping or removal must be accomplished using a one-handed technique, alone or in combination with a mechanical device. See **Appendix G: Sharps Handling and Disposal SOP**.

2. Sharps disposal containers that are labeled with the international biohazard symbol (available from laboratory supply vendors) must be available at the work site.
3. Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be puncture resistant and labeled with the universal biohazard symbol.
4. Eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses is prohibited in work areas where there is a reasonable likelihood of occupational exposure. Hand cream is not considered a “cosmetic” and is permitted. However, some petroleum-based hand creams can adversely affect glove integrity. See **Appendix B: Standard and Special Microbiological Practices**.
5. Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or bench tops where blood or other potentially infectious materials are present.
6. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering and generation of aerosols or droplets of these substances. See **Appendix E: Avoiding the Production of Biological Aerosols SOP**.
7. Mouth pipetting is prohibited.
8. Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport or shipping.
9. Labels that incorporate the universal “Biohazard Symbol” shall be used to identify areas where blood or other potentially infectious materials are used and shall be purchased by the user (available from lab supply vendors).
10. Equipment which may become contaminated with blood or other potentially infectious materials shall be decontaminated prior to servicing. See **Appendix I: Disinfectants for Biohazardous Material SOP** and **Appendix O: Equipment Decontamination Label**. If complete decontamination cannot be accomplished, a readily observable label shall be attached to the equipment identifying the areas that are still contaminated.

E. Personal Hygiene

1. Hand washing facilities shall be readily available in areas where exposure to blood or other potentially infectious materials is likely to occur. If running water is not available, hand sanitizer shall be used. Hands will be thoroughly washed as soon as running water is available.
2. Employees shall wash their hands after removing gloves and/or other personal protective equipment, and before leaving the work area.
3. Following contact with blood or other potentially infectious materials, employees shall wash the affected areas with soap and water, or flush mucous membranes with water immediately or as soon as feasible.
4. If a garment is penetrated by blood or other potentially infectious material, the garment shall be removed immediately or as soon as feasible. Spot-decontaminate soiled lab coats with an effective agent such as 70% ethanol.
5. All personal protective equipment shall be removed prior to leaving the work area. Gloves and lab coats are not to be worn in public areas such as hallways or elevators.
6. Reusable personal protective equipment, if contaminated, shall be decontaminated and inspected prior to reuse.
7. Soiled lab coats shall not be laundered at home. Laundry service is available from a local vendor. Contact EHS for information (401) 874-7019.

Section V

Housekeeping

It is the responsibility of supervisors to ensure that the worksites under their control are maintained in a clean and sanitary condition. They are also responsible for ensuring that work areas have appropriate written schedules for cleaning and method(s) for decontaminating based upon the type of surface to be cleaned, the type of matter or contaminant present, and tasks or procedures being performed. These written schedules shall become part of the lab's biosafety manual.

All equipment and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials, and at the end of each 7-hour shift. See **Appendix I: Disinfectants for Biohazardous Materials SOP**.

- A. Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly or after any spill of blood or other potentially infectious materials; and at the

end of the work shift if the surface may have become contaminated since the last cleaning.

An appropriate disinfectant is defined as one that is approved by the U.S. Environmental Protection Agency (EPA) for the intended use, and mixed to the appropriate strength, or a

solution of household bleach diluted to 10% with water. The disinfectant must be properly labeled, readily available at the work site, made up fresh for use and given adequate contact time to accomplish the goal. EPA recommends 10 minutes of contact time for 10% bleach. Bleach is highly corrosive to stainless steel and surfaces must be wiped 4-5 times with clear water to remove all trace of residue and prevent corrosion. It is not recommended for use in a biosafety cabinet. Commercial disinfectant products are also suitable if they are EPA-approved for hospital use.

- B. Protective coverings, such as plastic wrap, aluminum foil, and plastic backed absorbent matting used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated, or at the end of the work shift if they may have become contaminated during the shift. If these coverings are compromised causing contamination of a work surface, surfaces must be decontaminated with an appropriate disinfectant such as 10% bleach or a hospital-approved disinfectant. Sufficient contact time must be allowed for complete decontamination.
- C. Bins, pails, cans, and similar receptacles intended for reuse, which have a reasonable likelihood of becoming contaminated with blood or other potentially infectious materials, shall be inspected for contamination each time before being put into service and decontaminated after each use.
- D. Broken glassware which may be contaminated with human blood or body fluids shall not be picked up directly with the hands. Handle them using mechanical means, such as a brush and dustpan, tongs or forceps. Contaminated broken glassware shall be placed in a puncture resistant container, autoclaved or chemically disinfected and disposed in the lab's "Broken Lab Glassware" box. Seal the box and carry it out to the Dumpster. Custodial staff have been instructed not to handle this waste stream.
- E. Broken contaminated glass or plastic ware shall not be picked up by hand even if gloves are worn. Use tongs or a dustpan and broom instead.
- F. Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires persons to reach by hand into the containers until after decontamination has been completed and documented.

Section VI

Rhode Island Regulated Medical Waste (250-RICR-140-15-1)

<https://rules.sos.ri.gov/regulations/part/250-140-15-1>

URI has established a policy to ensure safe disposal of its infectious (biohazardous) waste. See **Appendix H: Managing Biohazardous Waste SOP**.

Infectious waste must be properly identified, segregated from the solid waste stream, and deposited in specially designated Biohazard Waste boxes provided by EHS. The biohazardous waste pickup schedule is posted on the EHS web site.

Regulated Medical Waste is any waste generated in the diagnosis (including testing and laboratory analysis), treatment (e.g., provision of medical services), or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, or in the development of pharmaceuticals. Regulated medical wastes mixed with non-hazardous solid wastes shall be considered regulated medical wastes.

This policy governs all University activities involving any of the types of biological waste listed below:

A. Cultures and Stocks: Cultures and stocks of infectious agents and associated biologicals including: cultures from medical and pathology laboratories; cultures and stocks of infectious agents from research laboratories; wastes from the production of biologicals; discarded live and attenuated viruses; and culture dishes and devices used to transfer, inoculate and mix cultures.

A. Pathological Wastes: Human pathological wastes, including tissues, organs, and body parts that are removed during surgery or other medical procedures.

B. Human Blood, Body Fluids and Blood Products:

1. Liquid waste human blood or body fluids.
2. Blood products.
3. Items saturated and/or dripping with human blood or body fluids.
4. Items that are saturated and/or dripping with human blood or body fluids. including, but not limited to, serum, plasma, and other blood components, and their containers (e.g., blood bags and blood vials) and body fluids as described in Section I, C of the regulation.
5. Specimens of body fluids and their containers.
6. Human cell cultures.

C. Sharps:

1. Sharps that have been used in animal or human care or treatment, including sharps generated in research laboratories, including, but not limited to, hypodermic

needles, syringes with or without the attached needle, Pasteur pipettes, microscope slides, scalpel blades, blood vials, and needles with attached tubing, glass carpules, and glass culture dishes regardless of presence of infectious agents. Also included are other types of broken or unbroken glassware that have been used in animal or human care or treatment, and used microscope slides and cover slips. Disposable syringes and needles are considered medical waste after one use.

2. Sharps must be segregated and disposed of in leak-proof, rigid, puncture-resistant, shatterproof containers (sharps containers are available from lab supply vendors). If contaminated with infectious agents, sharps must be rendered non-infectious by autoclaving or chemical disinfection. Sharps containers must be disposed in Biohazard Waste. If a Biohazard Waste box is not available, call EHS to arrange pickup when a sharps container is full.
- D. Animal Waste: Contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research, including production of biologicals or testing of pharmaceuticals. Animal carcasses are considered Pathological Waste and are trans-shipped to a second vendor for incineration. See Section VII, H, 2 below.
- E. Unused sharps: Unused, discarded sharps, as defined in Section VI, A, d, of the regulation.
- F. Spill/Cleanup Material: Any material collected during or resulting from the cleanup of a spill of regulated medical waste.
- G. Mixtures: Any waste which is a mixture of regulated medical waste and some other type of waste which is neither radioactive nor a hazardous waste of a type other than regulated medical waste.

Section VII

Rhode Island Regulated Medical Waste Disposal Procedures

In the lab, dry infectious waste shall be collected in red bags provided by EHS. The bags are labeled with the international biohazard symbol and used to line cardboard biohazard waste disposal boxes. If the provided bags are translucent and daylight is visible through them, two bags shall be used. Smaller bags can be purchased from laboratory supply vendors for step-on cans and bench top collection. Bags must be closed at the end of each day unless contained in a step-on receptacle.

- A. Free-draining blood, blood products and biotechnology effluents shall be stored in securely sealed leak-proof containers and deactivated prior to sink disposal. If a final dilution of 10% bleach is used, the waste must be collected and disposed as hazardous waste if the pH is outside the pH 5-9 window.

- B. Sharp objects such as disposable serological pipettes that could cause a breach in the containment bag are prohibited from disposal in biohazard waste boxes.

Disinfected disposable serological pipettes shall be collected in a glassware disposal box that is lined with a plastic bag. A plain cardboard shipping box lined with a clear plastic bag can also be used for collection. When the box is full, seal the bag, tape the box and carry out to the Dumpster for disposal. Custodial staff has been instructed not to handle this waste. Do not dispose red biohazard waste bags to the Dumpster.

Alternatively, if the lab generates a lot of pipettes, they can be collected in a 31-gal red tote and disposed as Regulated Medical Waste. Contact EHS for information (401) 874-7019.

- C. Biohazard waste boxes and 31-gallon totes shall be labeled with the investigator's name.
- D. Equipment and work areas where infectious materials, including cell cultures, are used must be identified with a universal biohazard label. These are available from lab supply vendors.

Section VIII

Hepatitis B Vaccination and Post-Exposure Evaluation

- A. OSHA requires new employees who have Occupational Exposure to complete Bloodborne Pathogens training within 10 days of initial assignment. Environmental Health and Safety (EHS) offers Bloodborne Pathogens training for researchers in conjunction with biosafety training (BBP + Biosafety) online through Brightspace. Register for class at https://web.uri.edu/ehs/training_registration_form/

Employees who wish to receive the Hepatitis B vaccine should contact EHS (401- 874-7019). The safety, benefits, efficacy, methods of administration and availability of the vaccine will all be described at that time.

1. Hepatitis B vaccinations will be arranged by EHS through an outside vendor, in compliance with current U.S. Public Health Service recommendations.
2. Covered employees who decline the Hepatitis B vaccination when offered, shall sign the Hepatitis B Decline Form.
3. Employees who initially decline Hepatitis B vaccination, but at a later date, while still covered under the standard, decide to accept the vaccination, shall be given the vaccine in a timely manner.

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

B. Post-exposure evaluation and follow-up

Following an exposure incident, the wound shall be cleaned with soap and warm water and/or eyes or other mucous membranes flushed with water for 15 minutes.

After first aid has been administered:

1. Employee exposure (faculty and staff): Report the exposure incident to the supervisor, (manager, department head or dean) and complete a URI Incident/Injury Report form (USP14-A). To expedite this process, forms are available online at: https://web.uri.edu/hr/files/URI_InjuryReport_USP-14A.pdf
2. Faculty and staff: call 911 for transport to South County Hospital, 100 Kenyon Ave., Wakefield. Alternatively, seek medical attention at another qualified medical facility.
3. Students - call 911 for transport to Health Services. Depending on the nature of the exposure and following evaluation at Health Services, students may also be transported to South County Hospital for post-exposure evaluation and follow-up which shall include the following:
 - a. Documenting the route(s) of exposure and circumstances under which the exposure incident occurred
 - b. Identifying and documenting the source individual if applicable, unless the employer can establish that identification is infeasible or prohibited by state or local law.
 - c. Obtaining consent and making arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; documenting that the source individual's test results were conveyed to the employee's health care provider.
 - d. If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
 - e. Results of the source individual's testing shall be made available to the exposed employee and the employee shall be informed of laws regulating the disclosure of the identity and infectious status of the source individual.
 - e. The exposed employee's blood shall be collected as soon as feasible and tested

after consent is obtained.

- f. 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.
- g. Post exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service will be offered to the exposed employee.
- h. Counseling of the exposed worker will cover symptomatology, risk of disease transmission and behavior modification recommended for at-risk individuals.
- i. Exposed employees are encouraged to report illness symptoms consistent with HIV, HBV and HCV infection for the six-month period immediately following exposure.
- j. The healthcare professional's written opinion shall be made available to the employee within 15 days of completion. The evaluation shall contain the following information:
 - (i) Hepatitis B vaccination status of the employee and vaccination or booster advisability.
 - (ii) Statement that the employee has been informed of the results of the evaluation and has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation. All other findings or diagnoses shall remain confidential and shall not be included in the written report.

The University's Risk Manager will ensure that all pertinent information is received from the healthcare provider, and copies retained in the exposed employee's permanent file.

- k. Health Services will coordinate with South County Hospital if there is a student exposure.
- C. Records for employees included in this plan shall be kept on file in Human Resources for at least the duration of employment plus 30 years, in accordance with 29 CFR 1910.20.

Records will include the following:

- Employee name and ID number
- Infectious Materials Exposure Determination Form

- Training documentation
- Hepatitis B Vaccination Consent/Refusal Form
- Medical records indicating receipt of all three shots for those who have consented to the series, including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive the vaccination as required by this rule
- Medical records indicating receipt of the titer if the person consented to have the vaccination series during or after 1999.
- If applicable, a copy of all results of post exposure examinations, medical testing, and follow-up procedures required by the regulation.

Employee medical records will be kept confidential and will not be disclosed or reported without the employee's express written consent to any person within or outside the University, except as required by this section or by law.

D. Procedure for Evaluating an Exposure Incident

Human Resources will forward a copy of the URI Incident/Injury Report Form (USP 14A) to Environmental Health & Safety.

EHS will use the following information to evaluate exposure incidents:

- Location of the incident
- Procedure being performed when the incident occurred
- A description of the device being used (if applicable)
- Work practices followed
- Engineering controls in use at the time
- Employee's training history

EHS will review the circumstances of exposure incidents to determine if and how the incident could have been prevented or avoided. Following an interview with the employee and evaluation of the exposure incident, recommendations may be made to change the procedure to reduce the risk of a similar event in the future.

Section IX

Hazard Communication

A. Labels and signs:

1. Proper signage shall be used to identify laboratories where blood or OPIM are used.
2. Biohazard warning labels shall be affixed to equipment or containers used to store, transport or ship blood or other potentially infectious materials. This includes

containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material (OPIM), water baths, incubators and any other equipment used with human blood or OPIM. Labels shall be purchased by user.

3. Labels required by this section shall include the universal biohazard symbol and the word BIOHAZARD.
4. Labels shall be fluorescent orange or orange-red with lettering and symbols of a contrasting color, usually white, black, or yellow.
5. Required labels shall be affixed as close as feasible to containers by adhesive or other method that prevents their loss or unintentional removal.
6. Red bags or red containers marked with the biohazard symbol may be substituted for labels.
7. Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment, or disposal are exempted from the labeling requirement.
8. Labels required for contaminated equipment shall be in accordance with this section and shall also state which portions of the equipment remain contaminated (Appendix I, J).
9. Regulated medical waste shall be accumulated, stored, and disposed of in accordance with established University policy. Refer to the EHS web site.

Section X

Training and Recordkeeping

- A. Training required by the Bloodborne Pathogens Standard shall be provided within 10 days of initial assignment to tasks where occupational exposure may take place, and at least annually thereafter.
- B. Training records will be maintained by Human Resource Administration, and shall include the dates of the training session, contents or summary of the training session, name(s) and qualifications of the trainer(s) and names and job titles of all persons attending the sessions. The records shall be maintained for a minimum of 3 years from the date on which training occurred.
- C. Availability of medical records:
 1. Medical records for at-risk employees will be maintained in Human Resources.
 2. Employee medical records shall be provided upon request for examination and

copying to the subject employee, to anyone having written consent of the subject employee, to the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative and to the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

Section XI

Sharps Injury Log

A sharps injury log shall be maintained for recording of percutaneous injuries from contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The injury log is used to track devices that are causing injuries and may need to be replaced by better-engineered products.

The log shall contain the type and brand of device involved in the incident, the department and work area where the exposure occurred, and an explanation of how the incident occurred. Employee identification shall be kept confidential and not be used as part of the log. The sharps injury log shall be retained for 5 years.

If you have any questions about this Exposure Control Plan, the OSHA Bloodborne Pathogens Standard or their applicability to you or your workplace, please contact Environmental Health & Safety at (401) 874-7993.