

# **AUBURN UNIVERSITY**

## **EXPOSURE CONTROL**



### **PLAN**

**2006 Edition**

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This program is consistent with the intent of the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogen Standard 29 CFR 1910.1030. This standard establishes practices and procedures for employees who work with human blood and other potentially infectious materials. A copy of this plan should be located in work areas and laboratories where employees will have access to this information.

## I. Purpose

The purpose of this program is to ensure Auburn University employees, students, and visitors are protected from the hazards associated with exposure to human blood and blood products and other potentially infectious materials.

## II. Responsibilities

The University President has the ultimate responsibility for this plan and all safety and health policies and procedures at Auburn University. The Department of Risk Management and Safety, acting on behalf of the President, is responsible for the overall University Safety Program and has the responsibility to update these instructions as necessary.

The Associate Director of Risk Management and Safety is responsible for the administration and implementation of this program and has full authority to make any decisions to ensure its success. This includes the authorization to halt any operation that is not in compliance with requirements outlined in this procedure. Deans, directors, and department heads are responsible for ensuring their instructors, researchers, and supervisors comply with this procedure.

Supervisors, researchers, and instructors are responsible for providing the necessary guidance and supervision to ensure their employees, Principal Investigators (PIs) and laboratory personnel carry out their daily tasks in a manner that is compliant with this program.

## III. Definitions

**Blood** - human blood, human blood components and products made from human blood. Human blood components include plasma, platelets, and serosanguinous fluids (e.g., wound exudates).

**Bloodborne pathogens** - any pathogenic microorganisms that may be present in human blood and can cause human disease. These pathogens include but are not limited to Human Immunodeficiency Virus (HIV), agents of hepatitis A, B, and C, malaria, syphilis, babesiosis, brucellosis, leptospirosis, arboviral infections, relapsing fever,

Creutzfeldt-Jakob disease, human T-lymphotrophic virus type I and viral hemorrhagic fever.

**Contaminated** - the presence or reasonably anticipated presence of blood or other potentially infectious materials on any item or surface.

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

**Employee** - any permanent or temporary employee, graduate or undergraduate student that receives an Auburn University paycheck and could potentially be exposed to bloodborne pathogens in the course of their work.

**Engineering controls** - controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

**Exposure incident** - a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties. Non-intact skin includes skin with dermatitis, hangnails, abrasions, chafing, etc.

**Handwashing facilities** - a facility providing potable water, soap and single use towels or hot air drying machines.

**Occupational 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.

**Other potentially infectious materials**- human body fluids, any unfixed tissue or organ (other than intact skin) from a human (living or dead), and HIV-containing cell or tissue cultures, organ cultures and HIV- or Hepatitis B Virus (HBV) -containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV or HBV.

**Parenteral** - piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

**Personal Protective Equipment (PPE)**- specialized clothing or equipment worn by an employee for protection against a hazard.

**Regulated waste** - liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other

potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

**Source individual** - any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

**Universal precautions** - an approach to infection control in which all human blood and certain human body fluids are treated as if they are infected with HIV, HBV, and other bloodborne pathogens.

**Work practice controls** - controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles).

## IV. Exposure Determination

Employers must determine which employees may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of PPE (employees that wear PPE still have the potential for exposure). This exposure determination is required to list all job classifications in which **all** employees may be expected to incur such occupational exposure, regardless of frequency. These jobs are listed in [Appendix A](#).

In addition, employers must list job classifications in which **some** employees may have occupational exposure. Not all employees in this category would be expected to incur exposure to blood or other potentially infectious materials. Therefore, to clearly understand which employees in this category are considered to have occupational exposure, specific tasks or procedures that may cause occupational exposure in each job classification must be listed. The job classifications for this category are listed in [Appendix B](#).

The SUPERVISOR/PI/LABORATORY SUPERVISOR must complete [Appendix B](#), as follows:

- A.** Identify additional job classifications in their area in which employees are exposed if they are not listed in Appendix A or Appendix B. This assessment will be made without accounting for the use of PPE.
- B.** Identify those job classifications in which some employees may have occupational exposure to blood or bloodborne pathogens, and list those associated tasks or procedures that would cause employees to have potential occupational exposure.

## V. Compliance Methods

Universal precautions will be observed in order to prevent contact with blood or other potentially infectious materials. A copy of the **Exposure Control Plan for Bloodborne Pathogens** must be available in each work place where the employees in Appendices A, B, and C are located. Employees shall practice universal precautions and be trained in decontamination techniques prior to handling any blood or other potentially infectious materials. All blood or other potentially infectious materials will be considered infectious regardless of the perceived status of the source of the material.

Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees at this facility. Additional information on engineering and work practice controls may be found in the Auburn University Biological Safety Manual, which may be obtained from Risk Management and Safety. Where occupational exposure remains after institution of these controls, PPE will also be utilized.

### Engineering Controls

The following engineering controls will be utilized:

**Biological Safety Cabinet (BSCs):** Provide containment of infectious aerosols; isolate the operator from the agent; protect other personnel in the room. Cabinets must be certified by Risk Management and Safety when they are installed, whenever moved and at least annually. Consult Risk Management and Safety for type of cabinet required.

**Sharps containers:** Approved sharps containers must be used for disposal of all sharps. Sharps are defined as needles, syringes (with or without needles attached), intravenous needles and tubing, scalpel blades and other such devices. Containers must be red in color, made of rigid plastic and labeled as medical waste. Do not put broken glassware, empty vials or trash in sharps container. See Risk Management and Safety Medical Waste Management Guide for information on disposal of sharps containers.

**Pipetting:** Mechanical pipetting devices must be used. Mouth pipetting is prohibited.

**Needles:** Contaminated needles and other contaminated sharps **shall not be bent, recapped, or removed** unless a mechanical device is utilized. Self-sheathing needles may be used. Shearing or breaking of needles is prohibited. Immediately after use contaminated needles shall be placed in sharps containers for disposal or reprocessing.

**Splash hazards:** Splashguards and plastic backed absorbent pads shall be used to contain the spread of blood and potentially infectious material in the laboratory.

The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of the controls is the responsibility of the SUPERVISOR/PI/LABORATORY SUPERVISOR. Contaminated equipment (biosafety cabinets, mechanical pipetting devices, splash guards, etc.) must be decontaminated at the end of the workday or after a spill.

### Administrative Controls

Work practice administrative controls are modifications of work procedures to reduce the likelihood of occupational exposure to blood or other potentially infectious materials. At Auburn University the following work practice controls will be utilized:

**Handwashing:** Handwashing facilities must be readily accessible to all employees who incur exposure to blood or other potentially infectious materials. At Auburn University handwashing facilities shall be located in laboratories and clinical areas.

If handwashing facilities are not readily available, the SUPERVISOR/PI/LABORATORY SUPERVISOR is required to provide either an antiseptic cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. If these alternatives are used then the hands are to be washed with soap and running water as soon as feasible.

**Note: All employees must wear gloves where potentially infectious agents are used/present. These may be surgical type gloves if chemicals are not used. If chemicals are used, at a minimum, thin nitrile gloves must be used. If concentrated acids or other corrosive chemicals are used thicker gloves may be appropriate. For laboratories, review the glove chart in the chemical hygiene plan for the appropriate type.**

After removal of gloves, employees shall wash hands and any other potentially contaminated skin areas immediately or as soon as feasible with soap and water.

If employees incur exposure to their skin or mucous membranes, those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

**Sharps:** Disposable sharps shall be separated from reusable sharps at the time of their disposal. All sharps shall be placed in an appropriate sharps container immediately or as soon as possible after use. Sharps containers must be non-breakable, puncture resistant, leak proof, sealable, and labeled with the biohazard symbol. Reusable syringes and needles and other sharps must be placed in a separate container filled with disinfectant prior to decontamination and cleaning. Do not place reusable sharps in pans containing pipettes or other glassware. This will eliminate sorting later.

Filled sharps containers will be disposed of by Risk Management and Safety. Containers shall not be filled above the designated line (See the Medical Waste Management Guide)

**Work area restrictions:** In work areas or laboratories where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees shall not eat, drink, apply cosmetics or lip balm, chew gum, use tobacco products, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on counter tops or bench tops where blood or other potentially infectious materials or chemicals are present.

**Note: Eating, drinking, smoking, use of tobacco products, and application of cosmetics, are prohibited in all laboratories at Auburn University. Smoking is prohibited in all University buildings.**

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and generation of potentially infectious aerosols. The SUPERVISOR/PI/LABORATORY SUPERVISOR is responsible for identifying methods that will be employed in their areas. ([SEE Appendix C.](#))

**Specimen handling and transport:** Blood or other potentially infectious materials will be placed in a container, which prevents leakage during the collection, handling, processing, storage, and transport of the specimen.

The container used for this purpose will be labeled or color coded in accordance with (IAW) the requirements of the OSHA standard and will be closed prior to handling.

Any specimens which could puncture a primary container will be placed within a secondary container that is puncture resistant. The SUPERVISOR/PI/LABORATORY SUPERVISOR shall specify how this will be carried out, i.e. which specimens, if any, could puncture a primary container, which containers may be used as secondary containers and where the secondary containers are located in their area. Refer to the [Biosafety Manual](#) for more direction.

If outside contamination of the primary container occurs, the primary container shall be placed within a secondary container that prevents leakage during the handling, processing, storage, transport, or shipping of the specimen.

Specimens for shipping must meet Department of Transportation/U.S. Post Office (DOT/USPS) requirements. For more detailed information, call Risk Management and Safety at (334) 844-4870. All outgoing shipments of hazardous materials, including biological, must be coordinated through Risk Management and Safety.

**Contaminated equipment:** Equipment which has become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

The PI/LABORATORY SUPERVISOR shall inform the servicing contractor of any equipment that cannot be decontaminated prior to servicing or shipping.

The PI/LABORATORY SUPERVISOR must contact the shipper or service provider to obtain their requirements prior to shipping or servicing of contaminated equipment.

### **Personal Protective Equipment**

Employees who are at risk of occupational exposure to bloodborne pathogens shall be provided with PPE, at no cost to them. The PPE items will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The PPE will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment will be used.

Examples of PPE items include but are not limited to: safety glasses with side shields, gloves, surgical gowns, laboratory coats and jackets, face shields, masks, and shoe covers.

The SUPERVISOR/PI/LABORATORY SUPERVISOR will ensure that PPE is provided and worn by employees as needed and that training in the proper wearing and use of such equipment is provided. All garments that are penetrated by blood shall be removed immediately or as soon as feasible.

All PPE will be cleaned, laundered, and disposed of by the employer at no cost to employees. Soiled PPE must not be taken home to launder. The department, at no cost to the employee, will make all repairs and replacements to PPE.

**All PPE will be removed prior to leaving the work area.**

**Gloves:** Gloves shall be worn where it is reasonably anticipated that employees may have hand contact with blood, other potentially infectious materials, non-intact skin and mucous membranes, and when handling or touching contaminated items or surfaces.

Disposable gloves are not to be washed or decontaminated for re-use and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

Utility gloves may be decontaminated for re-use provided that the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or if they exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to all employees who are allergic to the gloves normally provided.

**Eye protection, Face shields and Masks:** Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.

**Note: Safety glasses with side shields must be worn at all times in laboratories or areas where chemical use occurs.**

**Protective Clothing:** Appropriate protective clothing shall be used, such as lab coats, gowns, aprons, clinic jackets, or similar outer garments. Disposable water-repellent over gowns shall be worn when contamination with blood or other potentially infectious materials is anticipated.

## Cleaning

The facility will be cleaned according to Facilities Division schedule, unless entry has been restricted by the PI/ LABORATORY SUPERVISOR. The PI/LABORATORY SUPERVISOR shall ensure that the laboratory is maintained in a clean and sanitary fashion at all times.

NOTE: Custodial services are not allowed into labs at Biosafety Level 2 or above after hours. Arrangement can easily be made with Custodial Services for lab cleaning

**Decontamination:** Establishing decontamination procedures is the responsibility of the PI /LABORATORY SUPERVISOR. A 1:10 dilution of household bleach is recommended for use in most circumstances. For further assistance in selecting an appropriate disinfectant, call Risk Management and Safety at 4-4870.

All contaminated work surfaces will be decontaminated:

- After completion of procedures
- Immediately or as soon as feasible after any spill of blood or other potentially infectious materials
- At the end of the workday if the surface may have become contaminated since the last cleaning.

Contaminated plastic backed absorbent pads shall be removed immediately or as soon as feasible after any spill of blood or other potentially infectious materials as well as at the end of the workday.

All bins, pails, cans, and similar receptacles shall be inspected and decontaminated by using a 1:10 household solution.

Any broken glassware that is contaminated must not be picked up directly with bare or gloved hands. It must be removed by mechanical means such as tongs and/or dustpans and broom and placed in an appropriate infectious waste sharps container. A spill procedure and assistance from Risk Management and Safety is available by calling 4-4870.

The PI/LABORATORY SUPERVISOR will describe the procedure to be used for decontamination and spill cleanup. ([SEE Appendix D.](#))

### **Regulated Waste Disposal (Infectious Waste)**

All disposable contaminated sharps shall be discarded as soon as feasible in sharps containers that are located in laboratories or clinical areas as close to areas of use as is feasible. Sharps containers must be replaced when 2/3-3/4 full.

Regulated waste other than sharps shall be placed in appropriate infectious waste containers located in laboratories or clinical areas. All regulated waste from laboratories must be autoclaved prior to disposal as infectious waste. For more information on regulated waste, consult the Auburn University Biological Safety Manual, and/or the Auburn University Medical Waste Disposal Guide or call Risk Management and Safety at 4-4870.

**Laundry Procedures:** Apparel contaminated with blood or other potentially infectious materials will be handled as little as possible. Such apparel will be decontaminated, preferably by autoclaving, before it is sent to a laundry for cleaning. Such apparel will not be sorted or rinsed in the area of use.

All employees who handle contaminated apparel will utilize PPE to prevent contact with blood or other potentially infectious materials.

### **Hepatitis B Vaccination**

Hepatitis B vaccination shall be made available to employees in Appendix B within 10 working days of initial assignment. Hepatitis B vaccination shall be made available to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination series, antibody testing has

revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employee shall have the hepatitis B vaccination at that time.

All employees who decline to accept hepatitis B vaccination must sign the waiver in [Appendix E](#).

### **Post-exposure Evaluation and Follow-up**

Following a report of an exposure incident, the employee shall have a confidential medical evaluation and follow-up, including:

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

**Identification and documentation of the source of exposure:**

The source or the source individual's (if permission is granted) blood shall be tested as soon as feasible in order to determine HBV and HIV infectivity.

**Results:** Results of the testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

**Information Provided to the Healthcare Professional:** The healthcare professional evaluating an employee after an exposure incident will be provided the following information:

- A copy of this plan;
- A description of the exposed employee's duties as they relate to the exposure incident;
- Documentation of the route(s) of exposure and circumstances under which exposure occurred;
- Results of the source or the source individual's blood testing, if available; and
- All medical records relevant to the appropriate treatment of the employee including vaccination status.

**Healthcare Professional's Written Opinion:** The employee shall be provided with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

The healthcare professional's written opinion for hepatitis B vaccination shall be limited to whether hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

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

- Results of the evaluation; and
- Medical conditions resulting from exposure to blood or other potentially infectious materials, which require further evaluation or treatment.

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

### **Medical Recordkeeping**

Medical records required by this exposure plan shall be maintained by Risk Management and Safety.

### **Communication of Hazards to Employees**

#### **Labels and Signs**

**Labels:** Warning labels shall be affixed to: containers of regulated waste; refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials.

Labels required by this section shall include the international biohazard symbol:



These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

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

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.

Labels required for contaminated equipment shall be IAW this paragraph and shall also state which portions of the equipment remain contaminated.

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

**Signs:** The employer shall post signs at the entrance to work areas specified in section (J), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following international biohazard symbol and following legend:



These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.

### **Training**

All employees identified in [Appendix B](#) will be provided bloodborne pathogen training at the time of initial assignment to tasks where occupational exposure may take place. Annual training for all employees shall be provided within one year of their previous training. Supervisors shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created. Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

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

- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of the Exposure Control Plan and the means by which the employee can obtain a copy of the written plan;
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and PPE;
- Information on the types, proper use, location, removal, handling, decontamination, and disposal of PPE;
- An explanation of the basis for selection for PPE;
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- 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;
- Information on the post-exposure evaluation and the follow-up that the employer is required to provide for the employee following an exposure incident;
- An explanation of the signs and labels and/or color-coding required by section (I)(A)(1) and
- The PI/ Laboratory Supervisor shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV and have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

- The PI/Laboratory Supervisor shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

**Training Records:**

Training records shall be maintained by the supervisor and may be maintained by Risk Management and Safety, and shall include the following information:

- a) Dates of the training sessions;
- b) Contents or a summary of the training sessions;
- c) Names and qualifications of persons conducting the training; and
- d) Names and job titles of all persons attending the training sessions.
- e) Training records shall be maintained for three years from the date that training occurred.

## APPENDIX A: Job Classification with Bloodborne Pathogens Exposure

The following job classifications at Auburn University have the potential for bloodborne pathogen exposure during research operations or as a result of the specific duties required as part of their job.

Division/Department	Job Classification	Duties	Hazard
Any	Principle Investigators	working with human blood or human blood products	Hepatitis B Hepatitis C HIV
Any	Research Assistants	working with human blood or human blood products	Hepatitis B Hepatitis C HIV
Any	Professors/ Associate Professors	working with human blood or human blood products	Hepatitis B Hepatitis C HIV
Facilities	Plumbers	Working in areas or repairing plumbing that has been contaminated with human sewage	Hepatitis A, Hepatitis B
Facilities	Janitorial Staff	Cleaning bathrooms Trash removal	Hepatitis A, Hepatitis B
Housing	Janitorial Staff	Cleaning bathrooms Trash removal	Hepatitis A, Hepatitis B
Athletic Department	Janitorial Staff	Cleaning bathrooms Trash removal	Hepatitis A, Hepatitis B
Athletic Department	Trainers	Physical Training of Athletes	Hepatitis B Hepatitis C HIV
Administration/Risk Management and Safety	All Employees	Providing first aid as a designated first aid provider Spill Cleanup Disposing of contaminated waste products	Hepatitis B Hepatitis C HIV

## APPENDIX B: Additional Job Classifications for Individual Labs

Department Head, PI or Laboratory Supervisors shall identify additional job classifications in their area in which employees may be exposed if they are not already identified in Appendix A.

<b>Job Title</b>	<b>Specific Duties Or Procedures That Could Lead To Exposure</b>	<b>Hazard</b>	<b>Required Protective Equipment</b>

\* Required Protective Equipment may include: gloves, goggles, lab coat, splash shield, safety glasses, clothing, or other items specified by the PI.

## APPENDIX C: Lab Specific Procedures

List laboratory and/or workplace procedures specific to your laboratory, and then explain the method/s that will be used by you and your staff to minimize splashing, spraying, splattering, and generation of potentially infectious aerosols. PI's or Laboratory supervisors are recommended to use the following format for listing all laboratory procedures individually.

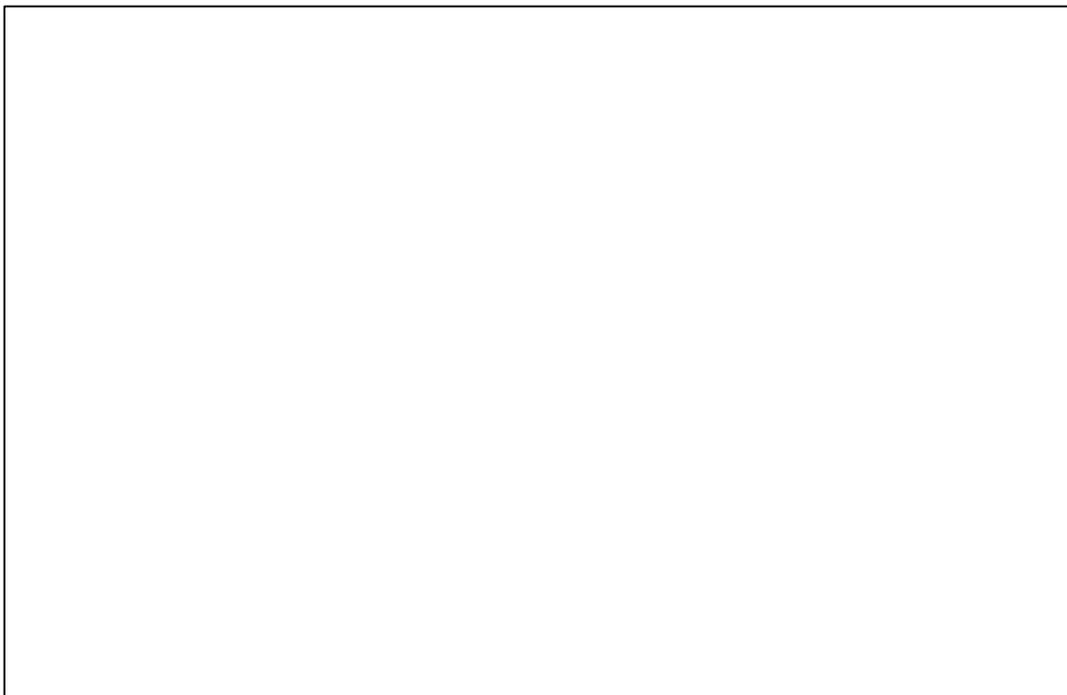
Task	Method to Minimize Exposure

## **APPENDIX D: Spill cleanup/decontamination procedures**

Spill cleanup/decontamination procedure depends on the type of spill. Please refer to the following:

1. *A Guide to the Generation, Storage and Disposal of Medical Waste at Auburn University* – for medical waste
2. *Auburn University Biological Safety Manual*– for biohazardous wastes
3. *Auburn University’s Chemical Hygiene Plan*– for chemical wastes
4. *Chemical Waste Management Guide* – for chemical wastes

Add any laboratory specific clean up procedures here:



## APPENDIX E: Hepatitis Vaccination Form

I have read and understand the Exposure Control Plan for Bloodborne Pathogens and have been trained in reference to the hazards of bloodborne pathogens.

I wish to have a hepatitis B vaccine.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

### Hepatitis B vaccine waiver

*I understand that due to potential for 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. 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 the hepatitis B vaccine, I can receive the vaccination series at no charge to me.*

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## APPENDIX F: HIV and HBV Laboratory Requirements

This paragraph applies to research laboratories engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

*Research laboratories shall meet the following criteria:*

**1. Standard microbiological practices:** All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving, known to be effective in destroying bloodborne pathogens.

**2. Special practices:**

a) Laboratory doors shall be kept closed and locked at all times when research involving HIV or HBV occurs.

b) Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leak proof, labeled or color-coded container that is closed before being removed from the work area.

c) Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established by the PI or Laboratory Supervisor whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms. This may include compliance with requirements contained in the Biological Safety Manual.

d) When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (I)(A)(2) of this standard.

e) All activities involving other potentially infectious materials shall be conducted in Biological Safety Cabinets (BSCs) or other physical-containment devices within the containment module. No work with these or other potentially infectious materials shall be conducted on the open bench.

f) Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

g) Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

h) Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving, known to effectively destroy bloodborne pathogens.

i) Vacuum lines shall be protected with liquid disinfectant traps and High-Efficiency Particulate Air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

j) Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant sharps container and autoclaved or decontaminated before reuse or disposal.

k) All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

l) A spill or accident that results in an exposure incident shall be immediately reported to the PI/Laboratory Supervisor and Risk Management and Safety at (334) 844-4870.

### **3. Containment Equipment:**

a) Certified BSCs (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols.

b) All BSCs shall be certified by an entity contracted by Risk Management and Safety, when installed, whenever they are moved, and at least annually. Please call (334) 844-4870 when a new one is obtained or an existing one has been moved.

c) HIV and HBV research laboratories shall meet the following criteria:

- i. The work areas shall contain a facility for handwashing and an eye wash station that is readily available within the work area.
- ii. An autoclave for decontamination of regulated waste shall be available.

#### **4. HIV and HBV Production Facilities:**

Production facilities shall meet the following criteria:

**a)** The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be a basic requirement for entry into the HIV/HBV work area from access corridors or other areas or activities may also be provided by a double door system, clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

**b)** The surfaces of doors, walls, floors, and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

**c)** Each work area shall contain a sink for washing hands and a readily available eye wash station. The sink shall be foot, elbow, or automatically operated, and shall be located near the exit door of the work area.

**d)** Access doors to the work area or containment module shall be self-closing.

**e)** An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

**f)** A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be re-circulated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

THE PI/LABORATORY SUPERVISOR shall consult with Risk Management and Safety for a description of applicable criteria and additional training required for employees who work in HIV/HBV research laboratories.