University of South Carolina Aiken
Bloodborne Pathogen Control Plan

Purpose: This document is the basic plan from which all University of South Carolina Aiken (USCA) safety training is derived from. This document does not replace federal, state, or local laws, safety rules or requirements.

Scope: This document implements the USCA Chancellor's safety policy. This plan is to serve as the basis for workplace safety plans and campus-wide safety training documents. When there is a conflict between the requirements of this plan and federal, state, or local safety rules the most stringent guidance will be applied providing it meets or exceeds federal, state, and local requirements.

Applicability: This document applies to all full-time, part-time, temporary and student employees on or off-campus while conducting official business on behalf of the University of South Carolina Aiken.

Environmental Health and Safety Office
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University of South Carolina Aiken
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Introduction

The University of South Carolina at Aiken is dedicated to promoting a safe and healthy workplace. As a result of the need to address the issue of the potential hazards associated with blood borne disease viruses (i.e., Human Immunodeficiency Virus, Hepatitis B Virus, hepatitis C virus, and etc.), the university has instituted an Exposure Control Program. This plan addresses the methods of compliance with OSHA Standard 29 CFR 1910.1030 through the use of institutional policies and standards of practice. These policies focus attention on reducing the risk of contracting a blood borne pathogen while working at the university. Safety policies and procedures have been established which will protect employees from potential biological hazards.

The following principles must be applied when employees are potentially exposed to bloodborne pathogens:

- Minimize all exposures to bloodborne pathogens.
- Institute as many engineering and work practice controls as possible to eliminate or minimize employee exposure to bloodborne pathogens.
- Routinely employ universal precautions when exposure to blood or potentially infectious materials is anticipated.

The objectives of the Exposure Control Plan are to:

- Eliminate or minimize employee occupational exposure to blood and other potentially infectious materials.
- Ensure compliance with the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030, 1910.150(b), and Addendum to OSHA information memorandum #88 x 77 (revised).

Definitions

The following is a list of common terms and their definitions as they are used in the Exposure Control Plan.

Amniotic fluid: Fluid from the uterus.

Blood: Human blood, human blood components, and products made from human blood.

Bloodborne pathogens (BBPs): Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV), hepatitis C virus (HCV), and human immunodeficiency virus (HIV).

Cerebrospinal fluid: Fluid from the spine.

Contaminated: The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

Decontamination: 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.

Engineering controls: Equipment that is designed to isolate or remove the bloodborne pathogen hazard from the workplace (e.g., sharps disposal containers, biosafety cabinets, autoclaves and safer medical devices such as sharps with engineered sharps injury protections, needleless systems, blunt suture needles, plastic capillary tubes and mylar-wrapped glass capillary tubes).

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

HBV: Hepatitis B virus; causes inflammation of the liver and may lead to long term liver damage including cirrhosis and cancer.

HCV: Hepatitis C virus; causes inflammation of the liver and can lead to long term liver damage including cirrhosis and cancer.

HIV: Human immunodeficiency virus; attacks critical cells of the immune system which leads to acquired immunodeficiency syndrome (AIDS), a life-threatening condition.

Needleless Systems: A device that does not use needles for: (A) the collection of bodily fluids or withdrawal of body fluids after initial venous or arterial access is established; (B) the administration of medication or fluids; or (C) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps (e.g. intravenous medication delivery systems that administer medication or fluids through a catheter port or connector site using a blunt cannula or other non-needle connection, jet injection systems that deliver subcutaneous or intramuscular injections of liquid medication through the skin without the use of a needle).

Occupational exposure: Reasonably anticipated (includes the potential for contact as well as actual contact with blood or OPIM) skin, eye, mucous membrane, non-intact skin, 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 (OPIM): Materials in addition to human blood that may be capable of transmitting bloodborne pathogens. These include:

- The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental settings, any fluid that is visibly contaminated with blood, and 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 human (living or dead).
- HIV-containing cell or tissue cultures, organ cultures, and HIV or HBV-containing culture media or other solutions as well as human cell cultures not shown to be free of bloodborne pathogens.
- Blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral exposure: 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 needlesticks, human bites, cuts, abrasions, or other mechanical means.

Pericardial fluid: Fluid surrounding the heart.

Peritoneal fluid: Fluid from the abdominal cavity that surrounds the major organs.

Pleural fluid: Fluid from lung tissue.

Personal protective equipment (PPE): Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts, blouses) not intended to function as protection against a hazard are not considered personal protective equipment.

Post-exposure follow-up: In the case of an exposure incident, the mandatory course of action taken by the employer to provide medical services (i.e., medical assessment, vaccination, source testing, baseline testing, and counseling) to the exposed worker in order to reduce the risk of infection.

Production facility: Facility engaged in industrial scale, large volume, or high concentration production of bloodborne pathogens (e.g., HIV).

Regulated waste: Any of the following: 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 which are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

Research laboratory: A laboratory producing or using research-laboratory-scale amounts of bloodborne pathogens, but not in the volume found in production facilities.

Sharps: Needles, syringes, scalpels, and intravenous tubing with needles attached, as well as any contaminated object that can penetrate the skin such as: Pasteur pipettes, razor blades, capillary tubes, etc.

Sharps with Engineered Sharps Injury Protections: A non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein or artery, or administering medications or other fluids, with a built-in safety feature or mechanism that effectively reduces the risk of an exposure incident (e.g. syringes with a sliding sheath that shields the attached needle after use, shielded or retracting catheters used to access the bloodstream for intravenous administration of medication or fluids, and intravenous medication delivery systems that administer medication or fluids through a catheter port or connector site using a needle that is housed in a protective covering).

Source individual: Any individual, living or dead, whose blood or other potentially infectious material may be a source of occupational exposure to an employee.

Sterilize: The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

Synovial fluid: Fluid from the joints such as the knees or elbows.

Universal precautions: A method of infection control that treats all human blood and other potentially infectious material as capable of transmitting HIV, HBV, HCV, and other bloodborne pathogens.

Work practice controls: Controls that reduce the likelihood of exposure to bloodborne pathogens by altering the manner in which a task is performed.

General Program Management

Three areas of responsibility are central to the implementation of the Exposure Control Plan at the University of South Carolina at Aiken (USCA) and they include:

1. Environmental Health and Safety Manager

2. Supervisory Personnel (including Department Chairpersons, Directors, Principal Investigators, Managers and Supervisors)

3. Employees (including student employees)

Environmental Health and Safety Manager

The Environmental Health and Safety Manager (EHS) will be responsible for management and support of the Bloodborne Pathogens Compliance Program. The EHS will serve as the Exposure Control Officer providing information and training to all employees who have an anticipated risk of exposure to bloodborne pathogens.

Responsibilities for this include:

- overseeing implementation of the Exposure Control Plan
- developing, in cooperation with administrators, any additional bloodborne pathogens related policies and practices needed to support the effective implementation of this plan
- revising, updating, and improving the Exposure Control Plan, when necessary, with a minimum of one year between revisions
- collecting and maintaining a suitable reference library related to bloodborne pathogens
- understanding current legal requirements concerning bloodborne pathogens
- conducting periodic organizational audits to maintain an up-to-date Exposure Control Plan
- develop suitable education/training programs for employees and instructors
- schedule periodic training seminars for employees and review seminars for instructors
- maintain appropriate training records
- periodically review the training programs to include appropriate new information

Training

Training for employees will be offered through supervisors, management and the Environmental Health and Safety Manager. Supervisors shall ensure that training is provided at the time of initial assignment to tasks where occupational exposure may occur, and that it shall be repeated within twelve months of the previous training. Training shall be tailored to the education and language level of the employee and offered during the normal work shift. The training will be interactive and cover the following:

a.) A copy of the standard and an explanation of its contents.

b.) A discussion of the epidemiology and symptoms of bloodborne diseases.

c.) An explanation of the modes of transmission of bloodborne pathogens.

d.) An explanation of the University of South Carolina's Bloodborne Pathogen Exposure Control Plan (this program), and a method for obtaining a copy.

e.) The recognition of tasks that may involve exposure.

f.) An explanation of the use and limitations of methods to reduce exposure, for example engineering controls, work practices and personal protective equipment (PPE).

g.) Information on the types, use, location, removal, handling, decontamination, and disposal of PPE.

h.) An explanation of the basis of selection of PPE.

i.) Information on the Hepatitis B vaccination, including efficacy, safety, method of administration, benefits, and that it will be offered free of charge.

j.) Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.

k.) An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting and medical follow up.

l.) Information on the evaluation and follow up required after an employee exposure incident.

m.) An explanation of the signs, labels, and color-coding systems.

The person conducting the training shall be knowledgeable in the subject matter. Training will be documented, and the record of training shall be maintained by the employee's supervisor. Employees who have received training on bloodborne pathogens in the twelve months preceding the effective date of this policy shall only receive training in provisions of the policy that were not covered. Additional training shall be provided to employees when there are any changes of tasks or procedures affecting the employee's occupational exposure.

Supervisory Personnel (including Department Chairpersons, Directors, Principal Investigators, Managers and Supervisors)

Supervisory personnel are responsible for training and compliance in their areas. They shall work with the Environmental Health and Safety Manager as well as their employees to assure that:

- all employees in their area who are at risk of exposure to bloodborne pathogens receive initial training
- proper exposure control procedures are followed as outlined in the "Methods of Compliance" section of this document
- appropriate personal protective equipment is available and in good working condition for all employees at risk of exposure to bloodborne pathogens
- any employee who experiences an occupational exposure incident to blood or other potentially infectious materials is provided with post-exposure medical services as outlined in the "Post-Exposure Evaluation and Follow-Up" section of this document.

Employees

The employees are responsible for following procedures and practices as outlined in the Exposure Control Plan. This includes but is not limited to:

- attending the bloodborne pathogens initial training session and annual retraining sessions
- demonstrating an understanding of which tasks have a potential occupational exposure to bloodborne pathogens
- conducting all operations in accordance with established work practice controls
- following universal precautions
- developing and maintaining good personal hygiene habits
- reporting all occupational exposure incidents.

Availability of the Exposure Control Plan to Employees

The Exposure Control Plan must be readily available to all employees through their supervisor. Employees are to be advised of the availability of the plan during their education/training sessions. Copies of the Exposure Control Plan are available for each supervisor in areas where exposure to bloodborne pathogens can be anticipated. Employees must have access to this copy of the plan. Although it is not necessary for each employee to have an individual copy, additional copies are available through the Department of Operations by request.

Review and Update of the Plan

The USCA Exposure Control Plan will be reviewed and updated:

- annually
- when new or modified tasks and procedures are implemented which affect occupational exposure of employees

- when new functional positions are established that may involve exposure to bloodborne pathogens
- to reflect changes in technology that eliminate or reduce exposure to bloodborne pathogens; and
- to document annually the consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

Exposure Determination

OSHA's Bloodborne Infectious Diseases Standard states that all employees who have duties which potentially expose them to blood or other potentially infectious material are determined to have a reasonably anticipated risk of exposure to bloodborne pathogens and are acknowledged in the Exposure Control Plan.

Bloodborne pathogens may be transmitted the following ways:

- Injuries from sharps
- Skin or eye contact
- Scratches or cuts
- Bites or wounds

Job classifications which have been determined to have a reasonably anticipated risk of exposure to bloodborne pathogens, either by the nature of the occupation or by specific tasks which an employee is required to perform as part of their job, are divided into categories and are listed below. The potential for occupational exposure to blood-borne pathogens can be defined based on the probability of exposure to potentially infectious material and has been classified into the following three categories based on OSHA guidelines.

Category I

Category I consists of occupations that require procedures or other occupation related tasks that involve routine exposure or reasonably anticipated exposure to blood or other potentially infectious material or that involve a likelihood for spills or splashes of blood. This includes procedures or tasks conducted in non-routine situations as a condition of employment.

The following have job classifications or duties that fall into category I.

Job Classification	Tasks/Procedures
Child Care providers	Provide first aid, exposure to blood and body fluids.
Athletic Trainers	Provide first aid, exposure to blood and body fluids.
Custodial Services (Allegiance)	Handles contaminated laundry, empties trash, and cleans contaminated areas.
Direct Health Care providers	Works with sharps, exposure to blood and body fluids.
First Responders	Provide first aid, exposure to blood and body fluids.
USCA Police Officers	Provide first aid, exposure to blood and body fluids.

Category II

Category II consists of occupations that require tasks that involve some 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.

The following have job classifications or duties that fall into category II.

Job Classification	Tasks/Procedures
Child Care providers	Provide first aid, exposure to blood and body fluids.
USCA Police Officers	Provide first aid, exposure to blood and body fluids.
Laundry/Locker Room Personnel	Handle clothes or towels that may be exposed to blood or bodily fluids.
Researchers in a Laboratory Setting	Exposure to blood or blood products or infectious waste, virus.

Category III

Category III consists of occupations that never require tasks that involve exposure to blood or other potentially infectious material on a routine or non-routine basis as a condition of employment.

Note: The Hepatitis B Vaccine will be offered to all employees in Category I and will be offered to some in Category II.

Methods of Compliance

The Supervisory Personnel are responsible for ensuring compliance with the USCA Exposure Control Plan. The plan addresses the following areas:

- principles of universal precautions
- appropriate engineering controls
- appropriate work practice controls
- personal protective equipment
- housekeeping procedures
- post-exposure incident response

Each area will be reviewed with employees during their bloodborne pathogens training. Completion of this training will be documented and should be kept on file in the Department of Operations for regulatory review if required.

Universal Precautions

Employees at the University of South Carolina Aiken campus will observe universal precautions. All human blood and other potentially infectious materials (OPIM) are treated as if they are known to be infectious for HBV, HIV and other bloodborne pathogens. Universal precautions apply to blood and body fluids containing visible blood, tissues, semen, vaginal secretions, cerebrospinal, synovial, pleural, peritoneal, pericardial, and amniotic fluids. Universal precautions currently do not apply to feces, nasal secretions, sputum (spit), sweat, tears, urine, vomit, or saliva unless they are visibly contaminated with blood. In circumstances where it is difficult or impossible to differentiate between body fluid types, all fluids are assumed to be potentially infectious.

Engineering Controls

Engineering controls such as hand washing facilities, eye wash stations, sharps disposal containers, biological safety cabinets, ventilating laboratory hoods, autoclaves, and safer medical devices are to be used when appropriate.

Environmental Health and Safety (EHS) will review tasks and procedures performed to determine where engineering controls can be implemented or updated. EH&S will upon request inspect:

- areas where engineering controls are currently employed
- areas where engineering controls can be updated
- areas currently not employing engineering controls, but where engineering controls could be beneficial.

The following engineering controls are to be used throughout the University:

1. Safer Medical devices are to be used, where appropriate, in order to reduce the risk of injury from needlesticks and from other sharp medical instruments. For example, a safer needle device incorporates engineering controls to prevent needlestick injuries before, during, or after use through built-in safety features. The term, "safer needle device," is broad and includes many different types of devices from those that have a protective shield over the needle to those that do not use needles at all. The common feature of effective safer needle devices is that they reduce the risk of needlestick injuries for health care workers.

2. Hand washing facilities are readily accessible to all employees who have a potential for exposure. Waterless antiseptic hand cleansers or antiseptic towelettes must be available to employees at risk of exposure if running water is not readily available. If waterless cleansers or towelettes must be used, the employee must follow-up with a soap and water wash as soon as feasible.

3. Emergency eye wash stations are in close proximity to workstations where employees perform tasks that produce splashes of potentially infectious materials. Eyewash stations should meet the following ANSI requirements:

- Provide at least 0.4 gallons of water per minute for 15 continuous minutes, flushing both eyes simultaneously with hands free to hold eyes open.
- Eye wash facilities must not exceed 95 psi (pounds per square inch) water flow pressure.
- It is recommended that the eye wash facility be flushed on a regular basis. A log documenting the recommended weekly five-minute flush is encouraged.

4. Autoclaves are available in some departments to decontaminate solid biohazardous waste. These departments will monitor this equipment to assure that proper sterilization occurs. Proper instrumentation will be used to verify that time, temperature, and steam are adequate.

5. Sharps containers are used to properly store and dispose of sharps. Approved sharps containers are designed to isolate the cut or puncture hazard associated with handling sharp items such as needles, scalpels, or Pasteur pipettes. Approved sharps containers are:

- puncture-resistant
- red in color or labeled with a biohazard warning label
- leak-proof on the sides and bottom
- closable

Containers for reusable sharps must meet the same requirements as containers for disposable sharps, with the exception that they are not required to be closable. Reusable sharps will not be stored or processed in a manner that requires reaching into containers of contaminated sharps. Food containers such as coffee cans should not be used to dispose of contaminated sharp objects.

6. Storage and/or transport containers are used to reduce the potential for an environmental release of potentially infectious materials. Primary containers should be designed to be leak-proof, puncture-resistant, and capable of being closed. Single primary containers used for potentially infectious materials should be labeled with the biohazard symbol. Containers of blood, blood components, or blood products which are labeled as to their contents, and which have been released for transfusion or other clinical use are exempted from these labeling requirements. If multiple primary containers are stored in a secondary container (such as a rack of specimen tubes contained in a cooler for transport), only the secondary container must be labeled with the biohazard symbol. Secondary containers are used for additional protection against an environmental release and therefore must be leak-proof, puncture-resistant, and capable of being closed. Labeling of the secondary container with emergency contact information is required. Use of secondary containers is required for any transportation or long-term storage of all potentially infectious materials.

7. Proper use of secondary containers for shipment of potentially infectious materials to destinations off campus is essential. A minimal system includes a primary container as previously described, enclosed in a secondary container that contains enough shock-resistant, absorbent material to accommodate the contents of the primary container. The secondary container must then be placed in an appropriate shipping container that is labeled in accordance with applicable shipping regulations.

8. Contaminated Equipment is the responsibility of each department for ensuring that the equipment contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless decontamination of the equipment is not feasible.

Work Practices

Supervisors, working in conjunction with Deans, Directors, Chairpersons, or designees will oversee the implementation of Work Practice Controls in cooperation with EH&S.

The following Work Practice Controls are to be implemented:

1. Employees will wash their hands:

- after removal of gloves or other personal protective equipment
- when visible contamination with blood, body fluids, or other potentially infectious materials are present
- when work is completed and before leaving the laboratory
- before eating, drinking, smoking, applying makeup, changing contact lenses, or using the bathroom
- before activities that entail hand contact with mucous membranes, eyes, or breaks in the skin.

Regular soap and warm water is adequate for hand washing. Use antiseptic soap when the removal of both transient and resident microorganisms is desired. If a waterless hand cleanser or antiseptic towelettes are used due to lack of available running water, the employee must follow-up with a soap and water wash as soon as feasible.

2. Contaminated needles and other contaminated sharps must not be bent, recapped, or removed unless:

- it can be demonstrated that there is no feasible alternative or
- the action is required by a specific medical procedure.

When recapping or removal of needles is required because there are no alternatives, a mechanical device or a one-handed method must be used.

3. Use mechanical means (i.e., tongs) when handling contaminated sharps when possible and eliminate hand-to-hand passing of sharp instruments.

4. Contaminated sharps must be placed in appropriate containers immediately, or as soon as possible after use.

5. Eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses is prohibited in work areas where there is potential for exposure to bloodborne pathogens.

6. Food and drink must not be kept in refrigerators, freezers, on countertops, or in other storage areas where blood or other potentially infectious materials are present.

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

8. Minimize splashing, spraying or other actions generating droplets of blood or other potentially infectious materials during all procedures.

9. Specimens of blood or other materials must be placed in designated leak-proof containers, appropriately labeled for handling and storage. If outside contamination of a primary specimen container is likely, that container must be placed within a second leak-proof container, appropriately labeled, for handling and storage. If the specimen can puncture the primary container, the secondary container must be puncture-resistant.

10. Primary containers of potentially infectious materials must be placed in puncture-resistant, leak-proof, closable secondary containers for transportation outside of the work area (i.e. from lab to lab where a common hallway is used, etc.).

When a new employee is hired or an employee changes jobs, the Department Manager or Supervisor must ensure the proper determination of the bloodborne pathogen risk associated with an employee's job classification. This includes:

- checking the employee's job classification and the tasks and procedures that he/she will perform against the Job Classifications and Task Lists which are identified in the Exposure Control Plan as those in which occupational exposure can occur
- checking the job classifications and tasks/procedures pertaining to the employees' previous position against these lists
- identifying the new job classifications and/or tasks and procedures which will potentially expose the employee to blood or other potentially infectious materials
- providing onsite training regarding work practice controls
- informing EH&S so records can be updated.

Personal Protective Equipment (PPE)

Personal protective equipment will be provided by the employer at no cost to the employee with an occupational exposure to blood or potentially infectious material. This equipment may include gloves, gowns, laboratory coats, face shield/masks, safety glasses, goggles, mouthpieces, resuscitation bags, pocket masks, hoods, and shoe covers. In addition, hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives will be provided to those employees who are allergic to the PPE normally provided. The Department Manager or Supervisor will ensure that all work areas have appropriate personal protective equipment available to employees. Employees must be trained regarding the use of the appropriate personal protective equipment for their job classification and the tasks/procedures they perform.

Personal protective equipment is considered to be appropriate only if it does not permit blood or other potentially infectious material to pass through to or 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 that the protective equipment will be used. A supervisor shall ensure that the personal protective equipment is available in appropriate sizes and accessible locations.

A supervisor shall ensure that an employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use PPE when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance the use of PPE would have:

- prevented the delivery of health care or public safety services or
- would have posed an increased hazard to the safety of the worker or coworker.

When the employee makes this judgment, the circumstances shall be investigated and documented to determine if changes can be made to prevent future occurrences.

To ensure that personal protective equipment is not contaminated and is in the appropriate condition to protect employees from potential exposure, the following practices are to be utilized:

1. All personal protective equipment must be inspected periodically by the department manager or supervisor and repaired or replaced as needed.

2. Reusable personal protective equipment is cleaned, laundered and decontaminated as needed.

3. Single-use personal protective equipment (or equipment that cannot, for whatever reason, be decontaminated) is disposed of through existing practices and procedures as outlined in the USCA Hazardous Waste Disposal Program.

The employees must adhere to the following practices when using personal protective equipment:

1. Any garments, including personal clothing, penetrated by blood or other infectious materials, must be removed as soon as possible. These garments are to be collected in biohazard bags and decontaminated by housekeeping.

2. All personal protective equipment must be inspected prior to use to verify that it is in good working condition.

3. All personal protective equipment must be removed prior to leaving the work area.

4. Gloves must be worn:

- when employees anticipate hand contact with potentially infectious materials
- when performing vascular access procedures
- when handling or touching contaminated items or surfaces.

5. Disposable gloves must be replaced as soon as possible after contamination or immediately when torn, punctured, or are otherwise rendered unable to function as an exposure barrier.

6. Non-latex gloves must be provided to employees who are allergic to the gloves normally provided.

7. Utility gloves must be decontaminated for reuse; if utility gloves are cracked, peeling, torn or exhibit other signs of deterioration, they must be disposed.

8. Masks and eye protection must be used whenever there is a chance that a splash or spray may generate droplets of infectious materials.

9. Protective clothing must be worn whenever potential exposure to the body is anticipated.

10. Surgical caps/hoods and shoe covers/boots must be used in any instances where gross contamination is anticipated.

Housekeeping

Departments and Units, together with Custodial Services (Allegiance) or other assigned employees must do the following:

1. Clean and decontaminate all equipment and surfaces after contact with blood or other potentially infectious materials. Gross contamination must be cleaned up before decontaminating to ensure the disinfectant is completely effective. Clean and decontaminate:

- after the completion of medical procedures
- immediately (or as soon as feasible) when surfaces become contaminated
- after any spill of blood or infectious materials
- at the end of the work shift, especially if the surface may have become contaminated during that shift.

2. Equipment that becomes contaminated must be examined prior to servicing or shipping, and if it can be demonstrated that decontamination is not possible, then the following steps need to be taken:

- a biohazard warning label is attached to any contaminated equipment, identifying the contaminated portions
- all affected employees, the equipment manufacturer, and the equipment service representative, are informed of remaining contamination prior to handling, servicing, or shipping.

3. Clean up spills of infectious materials as soon as possible. The following considerations should be made when treating and removing a spill of infectious material:

- Wear appropriate personal protective equipment when cleaning up spills
- Spills should be covered with an absorbent material (it is recommended to add a disinfectant to the absorbent material if it does not contain one), wiped up and disposed of in a biohazard bag
- Surfaces should be wiped down with a disinfectant following a spill clean-up. It is important to follow the manufacturer's instructions for contact time.

4. Remove and replace protective coverings as soon as it is possible when contaminated and also at the end of the work shift.

5. Routinely inspect, clean, and properly decontaminate when visibly contaminated, all pails, bins, cans, and other receptacles.

6. Pick up potentially contaminated broken glassware using mechanical means (such as dustpan and brush) and dispose of in an appropriate sharps container.

7. Inspect laundry to verify that it is free of sharps and other hazardous materials prior to placement in the hamper and shipment to the laundry. Handle contaminated laundry as little as possible. Facilities should place any contaminated laundry in a biohazard bag. Attach a label to the bag listing contaminants (i.e. blood).

8. Disposal of all regulated waste shall be in accordance with applicable federal, state, and local regulations for infectious waste as well as the USCA Hazardous Waste Disposal Program. When disposing of biohazardous waste:

- if autoclaving, discard in USCA approved orange biohazard bags with the word "Autoclaved" used as a heat indicator on the bag
- after autoclaving, place bags in a non-transparent bag and dispose in the regular solid waste receptacle
- place containers for regulated waste within easy access to employees and as close as possible to the source of the waste so it can be disposed of immediately or as soon as feasible
- maintain waste containers in an upright position, replace routinely, and do not overfill
- close the containers of regulated waste before disposal or transportation and place the container inside an appropriate labeled secondary container
- reusable containers shall not be opened, emptied, cleaned manually, or in any other manner which would expose employees to the risk of percutaneous injury.
- blood and body fluids may be disposed of by pouring liquid wastes down the sanitary sewer system.

OSHA does not generally consider discarded feminine hygiene products to fall within the definition of regulated waste and does not generally consider janitorial staff employed in non-health care facilities to have occupational exposure as defined by the standard. OSHA expects these products to be discarded into waste facilities to have occupational exposure as defined by the standard, and OSHA expects these products to be discarded into waste containers which are lined in such a way as to prevent contact with the contents. Therefore, ladies' restrooms are not subject to section 1910.1030.

HIV and HBV Research Laboratories and Production Facilities

USCA does not have HIV or HBV research laboratories or production facilities that are engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV as defined by this standard. The ECP will be modified to meet these requirements if the research status changes on this campus. These special requirements for HIV or HBV research laboratories do not apply to clinical or diagnostic laboratories that are engaged solely in the analysis of blood, tissues, or organs.

Hepatitis B Vaccination, Post-Exposure Evaluation and Follow-Up

A "Hepatitis B Vaccination Program" and procedure for post-exposure evaluation and follow-up have been established through USCA Environmental Health and Safety in the Department of Operations (See Appendix 1).

Vaccination Program

The University of South Carolina Aiken has implemented a vaccination program through the Family Medical Center of Aiken. This program is:

1. offered at no cost to all employees who have occupational exposure to bloodborne pathogens

2. performed by or under the supervision of a licensed physician or another licensed healthcare professional

3. provided according to the recommendations of the U. S. Public Health Service.

The vaccination program consists of a series of three inoculations over a six-month period and a post-vaccine titer. At the time of the bloodborne pathogen training, employees will receive information regarding the vaccination program. They will also receive a vaccination request form or waiver form to be completed and returned to the Environmental Health and Safety Manager. The bloodborne pathogens standard requires that Hepatitis B vaccine be made available to the employee within ten days of employment.

Upon completion of each vaccination within the series, the healthcare professional administering the vaccination will send verification to the Environmental Health and Safety Manager that the vaccinations were received for record keeping purposes. If the employee has received the vaccination at another institution, the employee will provide either documentation of the vaccine series or a completed medical release form (See Appendix 2) to the Environmental Health and Safety Manager.

Post-Exposure Evaluation and Follow-Up

If an employee is involved in an incident where exposure to bloodborne pathogens may have occurred, the employee should seek medical consultation and treatment expeditiously. In these instances, actions should include the following:

- If contact with blood or other potentially infectious material occurs on skin with cuts, rashes, acne or dermatitis, wash the area for 15 minutes with soap and water.
- If blood or other potentially infectious material splashes in the eyes or on mucus membranes, flush the area for 15 minutes with water or normal saline.

Note: In the case of contact of blood or OPIM with intact skin, the employee should clean the skin immediately soap and water. If the contact was prolonged, or if there is any doubt regarding the condition of the contaminated skin, the employee must be medically evaluated as described in this section!

- Report the incident to the Human Resources department and a supervisor if available.
- Initiate medical follow-up immediately.
- The supervisor refers the employee and the source, if available, to Family Med Centers of Aiken for immediate care and follow-up. (After hours/weekends: refer to Aiken Regional Medical Center Emergency Room)
- Collection and testing of blood for HBV and HIV serological status will comply with the following:

a) the exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained

b) the employee will be offered the option of having their blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status.

- A University of South Carolina Aiken Exposure Incident Report form should be completed by the employee and supervisor and returned to Human Resources. These forms can be found in the Human Resources department or on http://hr.sc.edu/hr/forms.htm#workers
- A follow-up appointment to review the employee's medical status should be scheduled with Family Med Centers of Aiken at 648-4224. In addition, a USCA Post Exposure Evaluation & Follow-up Report must be completed by Family Med Centers of Aiken as well.
- The EHSM will evaluate all bloodborne pathogens exposure incidents and record the following information on the Exposure Incident Investigation Report:

    1. Date of Incident
    2. Time of Incident
    3. Name of Employee
    4. Department
    5. Job Title
    6. Supervisor
    7. Whether an incident report was completed
    8. Route of exposure
    9. Description of device in use
    10. Incident description
    11. Engineering controls used
    12. Work practice controls used
    13. PPE used
    14. Date of last bloodborne pathogen training
    15. Comments/Recommendations/Corrective Action

- The EHSM will also complete a Sharps Injury Log for all bloodborne pathogens exposure incidents.

- The information in the Exposure Incident Investigation Report and the Sharps Injury Log will be recorded and maintained in such a manner as to protect the confidentiality of the employee.
- The Exposure Incident Investigation Report shall be maintained in the Department of Human Resources, but the Sharps Injury Log will be maintained in the Department of Operations.
- Following a report of an exposure incident, the exposed employee shall immediately receive a confidential medical evaluation and follow-up, including at least the following elements:

a) documentation of the route of exposure, and the circumstances under which the exposure incident occurred

b) identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law

c) the source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the Health and Safety Coordinator for USC shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

d) when the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

e) results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Information Provided to the Employee and Healthcare Professional

The USCA HR office shall ensure that the supervisor and healthcare professional responsible for the employee's Hepatitis B vaccination are provided with the following:

- a copy of 20 CFR 1910.1030
- a written description of the exposed employee's duties as they relate to the exposure incident
- written documentation of the route of exposure and circumstances under which exposure occurred
- results of the source individual's blood testing, if available
- all medical records relevant to the appropriate treatment of the employee including vaccination status.

Healthcare Professional's Written Opinion

The Environmental Health and Safety Manager shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation. The healthcare professionals written opinion for HBV vaccination shall be limited to whether HBV vaccination is indicated for an employee, and if the employee has received such vaccination. The healthcare professionals written opinion for post exposure follow up shall be limited to the following information:

- A statement that the employee has been informed of the results of the evaluation; and
- A statement that the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

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

Recordkeeping/Medical Records

The Human Resources Department is responsible for maintaining medical records as indicated below. These records will be kept by the Environmental Health and Safety Manager. Medical records will be maintained in accordance with OSHA Standard 29 CFR 1910.20. These records shall be kept confidential and must be maintained for at least the duration of employment plus 30 years. The records shall include the following

- The name and social security number of the employee.
- A copy of the employees HBV vaccination status, including the dates of vaccination.
- A copy of all results of examinations, medical testing, and follow up procedures.
- A copy of the information provided to the healthcare professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure.

Training Records

EH&S Manager and each department and supervisor are responsible for maintaining the following training records. These records will be kept with the employee's file. Training records shall be maintained for three years from the date of training. The following information shall be documented:

- The dates of the training sessions
- An outline describing the material presented
- The names and qualifications of persons conducting the training
- The names and job titles of all persons attending the training sessions.

Availability of Records

All employee records shall be made available to the employee in accordance with 29 CFR 1910.20. All employee records shall be made available to the Assistant Secretary of Labor for the Occupational Safety and Health Administration and the Director of the National institute for Occupational Safety and Health upon request.

Transfer of Records

If this facility is closed or there is no successor employer to receive and retain the records for the prescribed period, the Director of the NIOSH shall be contacted for final disposition.

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Appendix 1

USCA Vaccination Administration Procedure

Bloodborne pathogen standard requires that the vaccine be made available within 10 days of employment.

Employee: 1. Attends initial bloodborne pathogen training.

2. Obtains Hepatitis B vaccine request/waiver/history form. Chooses to request or decline Hepatitis B vaccine.

3. To receive vaccine:

A. Signs and dates vaccine request.

B. Gives request form to the EHSM in Dept. of Operations

C. Follows department directions on how to obtain vaccine from Family Med Centers of Aiken.

To decline vaccine:

A. Signs waiver form.

B. If declines vaccine for medically indicated reason, must provide appropriate medical records to Family Med Centers of Aiken.

C. If previously immunized, completes vaccine history section.

D. Returns form to bloodborne pathogen to EHSM in Dept. of Operations.

Supervisor/Manager: 1. Receives Hepatitis B request from employee.

2. Chooses facility for vaccine administration:

3. Contact the USCA Student Health Center for availability. If the Student Health Center cannot administer the vaccine, then the Family Med Centers of Aiken should be contacted.

A. Provides account number for billing. (USCA- Director of Student Health, or Family Med Centers - Industrial Coordinator)

B. Call to arrange an appointment.

C. Informs employee of appointment

Medical Facility 1. Sends letter or proof of receipt of vaccination to EHSM in Operations for purposes of record keeping as well as any additional information.

* Reminder: if an employee is at risk for exposure to human biological specimens an initial health assessment is required. Call the EHSM (x3538) to schedule an appointment.

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Appendix 2

USCA Hepatitis B Vaccination Request/Waiver/History Form

University of South Carolina Aiken

Hepatitis B Surveillance Program

Name:_____ Department: _____

SS#: _____ Supervisor: _____

Date of Birth: _____ Work Phone: _____

Please choose one of the following options:

OPTION A: If choosing to receive vaccine, sign request and return to Environmental Health and Safety Manager in the Department of Operations.

VACCINE REQUEST: I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring hepatitis B virus (HBV) infection. I elect to receive the hepatitis B vaccine at this time and at no cost to myself.

Signature: _____ Date: _____

OPTION B: If choosing not to receive vaccine, sign waiver and return to Environmental Health and Safety Manager in the Department of Operations.

WAIVER: I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signature: _____ Date: _____

OPTION C: If the series has been completed, fill out the information below and return to Environmental Health and Safety Manager in the Department of Operations.

HISTORY/Dates of Previous Vaccinations:

1st: _____ 2nd: _____ 3rd: _____

Titer Date: _____ Result: _____

Facility Address: _____

Signature: _____ Date: _____

Please send completed form via campus mail to: USCA Human Resources.

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Appendix 3

USCA Exposure Incident Report Date of Completed Report:_____

This form must be completed following an exposure incident. Complete the form by filling in the blanks or checking all that apply. A copy of this completed form will remain in the USCA employee's Bloodborne Pathogen medical record.

Name: _____ SS#: _____

Job Classification :_____ Dept.: _____

Date of Exposure:_____ Time of Exposure: _____

Treatment Administered to the Exposed Area: Yes □ No □ If yes, describe:

Description of the Duty, Task, or Procedure Performed at the Time of the Exposure Incident:_____

_____

PPE Used: Yes □ No □ If yes, describe:

Type of Bodily Fluid:

□ Body fluids visibly contaminated with Blood □ Amniotic fluids □ Vomitus

□ Blood or Blood products □ Semen □ Urine

□ Human Tissues □ Breast Milk □ Sputum

□ Wound Dressings □ Feces □ Saliva

□ Vaginal Secretions

A. **Type of Exposure:** Sharp Exposure: Yes □ No □

Deep Injury: Yes □ No □

Type: □ Lancet □ Needle & Needle Gauge_____ □ Solid or □ Open Bevel

□ Broken Glass □ Other Describe:_____

Condition of Sharp: □ Visibly Contaminated with Blood or OPIM

□ Presumably Contaminated with Blood or OPIM

Blood or body fluids from contaminated sharp injected into employee: Yes □ No □

If yes, amount of fluid: _____ and type of fluid: _____

Description of the procedure being performed with the sharp at the time of the exposure incident (e.g., IM, IV, Heparin Lock, etc.): _____

_____

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B. Exposure to Mucous Membranes/Head/Face: Yes □ No □

If yes, volume of fluid: _____ Specify: □ Eye □ Nose □ Mouth □ Head/neck

C. Skin Contamination: Yes □ No □ If yes, surface area exposed: _____

□ Intact skin □ Integrity of Skin Compromised (Check on of the following:)

□ Human Bite □ Open Wounds □ Hang-nails □ Chapped Skin

□ Abrasion □ Scabbed Areas □ Rash/Inflammation □ Acne

Other? Describe: _____

Source Individual: Is the Identity of the source individual known? Yes □ No □

Name of the Source Individual: _____

The Following Information to be Completed by the Health Care Professional:

Testing of the source individual: □ IS or □ IS NOT necessary.

□ Consent obtained (attach documentation) □ Not obtained for HIV antibody test

□ Consent obtained (attach documentation) □ Not obtained for HEP B antibody test

□ Consent obtained (attach documentation) □ Not obtained for HEP C antibody test

Consent for testing of the exposed employee's blood:

□ Consent obtained (attach documentation) □ Not obtained for HIV antibody test

□ Consent obtained (attach documentation) □ Not obtained for HEP B antibody test

□ Consent obtained (attach documentation) □ Not obtained for HEP C antibody test

Facility where Source Individual and USCA Employee received treatment:

_____

Facility Performing Blood Test(s): Accredited: Yes □ No □

Name of the Evaluation Physician: _____

Contact USCA Environmental Health and Safety Manager at 803-641-3538 if you have questions about this form.

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Appendix 4

USCA Post Exposure Evaluation & Follow-up Report

USCA Employee Name: _____

Date of Exposure: _____

Results of Blood Tests for the Post Exposure Evaluation:

Source Individual Name: _____

Test Results: _____ _____ _____

Hep B antigen Hep C antibody HIV antibody

USCA Employee's Baseline Test Results:

_____ _____ _____

Hep B antigen Hep C antibody HIV antibody

Physician's Written
Opinion:_____
_____
_____
_____
_____
_____

I have received and reviewed the circumstances of the exposure incident and the medical records relevant to the treatment of the employee including results of all blood tests and the employee's vaccination status. I have counseled the employee on the following (check all that apply):

□ Risks of acquiring bloodborne pathogens from the exposure.

□ Need to report and seek medical evaluation for any acute flu-like illnesses within 12

months of exposure.

□ Information and pre-test counseling about baseline serological tests when recommended by the evaluating physician.

□ Information about □ HBV or □ HIV post-exposure prophylaxis.

□ Potential for follow-up serological testing.

□ Observe "safer sex" practices for six months following exposure.

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☐ Other:_____

Prophylaxis Prescribed: Yes ☐ No ☐

Description:_____

_____

_____

_____

_____

Recommended testing schedule for exposed employee's blood:_____

_____

_____

(The results of the baseline test for Hep B, Hep C, and HIV taken immediately following the exposure incident should be printed on the front of this form.)

Health Care Professional Needs to Follow the Current CDC Recommendations

Follow-up HIV Testing:

Write in the recommended schedule

for follow-up testing in weeks/months. Actual Date of Test: Result:

_____(wks/mos) _____ _____

_____(wks/mos) _____ _____

_____(wks/mos) _____ _____

Follow-up HCV Testing:

Write in the recommended schedule for follow-up testing in weeks/months.

Actual Date of Test:_____ Result:_____

_____(wks/mos) _____ _____

_____(wks/mos) _____ _____

_____(wks/mos) _____ _____

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HBV Status: Source Individual: □ HBsAG pos. □ HBsAG neg. □ Unknown

Employee: Administered HepB Vaccine series? Yes □ No □

Administered HBIG x2? Yes □ No □

Administered HBIG x 1 & initiate revaccination? Yes □ No □

Administered HBIG 1 & vaccine booster? Yes □ No □

Write in the recommended schedule for follow-up testing in weeks/months.

Actual Date of Test:_____ Result:_____

_____(wks/mos) _____ _____

_____(wks/mos) _____ _____

_____(wks/mos) _____ _____

Additional
Comments:_____

Environmental Health and Safety Office
Phone: (803) 641-3538