WAKE FOREST UNIVERSITY	SAFETY_010 **BLOODBORNE PATHOGEN COMPLIACE PROGRAM AND EXPOSURE CONTROL PLAN**	**Revision Date:** 11/29/16 **Developed by:** Environmental Health & Safety Approved by: Associate Vice President Strategy and Operations Timothy Pepper 11/29/16
	Effective Date: January 2005	

1. PURPOSE

Wake Forest University recognizes the health hazards associated with exposure to Bloodborne Pathogens and is committed to providing a safe and healthy working environment for its employees. In pursuit of this goal, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to bloodborne pathogens. This ECP addresses the provisions of the Occupational Health and Safety Administration's (OSHA) Occupational Exposure to Bloodborne Pathogens Standard.

This compliance program is designed to provide regulatory compliance and a means by which the University employees will be informed and trained about the health risks associated with potential exposures of Bloodborne Pathogens in the workplace and to best protect them. This program will provide direction to departments with the selection and utilization of engineering controls, safe work practice controls, and personal protective equipment.

The Department of Environmental Health and Safety (EHS) is charged with development and implementation of the University's Bloodborne Pathogens Compliance Program.

2. REFERENCE

OSHA 1910.1030

WFU Biohazard Waste Management Plan and the Biohazard Waste Disposal Chart can be accessed on the EHS website. http://ehs.wfu.edu/files/2015/03/Biohazard-Waste-Management-Plan-2015.pdf

3. DEFINITIONS

Bloodborne Pathogens - 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) and human immunodeficiency virus (HIV).

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

Contaminated Sharps - any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

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.

Engineering Controls - controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident- 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.

HBV - hepatitis B virus.

HIV - human immunodeficiency virus.

Other Potentially Infectious Materials - (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or 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.

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.

Sharps container - rigid puncture-resistant container which, when sealed, is leak resistant and cannot be reopened without great difficulty.

Universal Precautions - A method of infection control in which all human blood and certain human body fluids are treated as if known to be infectious for 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.

4. RESPONSIBILITIES

Environmental, Health and Safety (EHS)

Provides oversight to the University by establishing directives and guidelines as mandated by OSHA's Occupational Exposure to Bloodborne Pathogens Standard.

Maintains, reviews, and updates the ECP at least annually, and whenever necessary to include new or modified tasks and safe work practice controls.

Coordinates with University Departments that all related medical actions, such as the HEP B Vaccination Program, are offered and that appropriate employee health and OSHA records are maintained.

Determines which employees are subject to the ECP based upon Space Hazard Assessments and information from Affected Department Heads.

Coordinates with University Departments on required training, documentation of training, and review with employees.

Human Resources

If an employee has an exposure to a body fluid, the employee or their supervisor will contact Human Resources. Human Resources Worker Compensation Coordinator will coordinate efforts with the medical examiner and employee to ensure that medical surveillance and treatment is being managed and that all employee health information remains confidential.

Affected Department Heads and Directors

Identifies the employees whether in a laboratory setting, health care, facilities care and cleaning, and waste removal, which have the potential of exposure due to their work environment and tasks.

Coordinates with EHS on the development and implementation of Engineering and Safe Work Practice Controls for their employees.

Provides and maintains all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and disposal containers as required by the standard.

Ensures that adequate supplies of the aforementioned equipment are available in the appropriate sizes and adequate supply.

As applicable, conducts an annual review of all sharps in their work area, to assess current sharp usage and identify engineering controls that would lessen or eliminate the chance of accidental needle sticks.

Maintains clean and sanitary conditions for their employees.

Ensures all employees with potential exposure are trained to this Exposure Control Plan.

Notifies EHS of new employees requiring enrollment in the HBV Vaccination Program.

Costs of the HEP B Vaccination Series for temporary employees will be the responsibility of employing department.

The following Departments are responsible for costs of their Employee HEP B Vaccination Series:

University Police	Student Health Services
Health and Exercise Science	Campus Recreation
Athletics	Graylyn
Real Estate Maintenance	Reynolda House

Employees

Those employees who are determined to have potential occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the direction and work practices outlined in this ECP.

The following table identifies departments and positions who are enrolled employees in the ECP.

Facilities and Campus Services	• Custodial Services	• Sanitation
Facilities and Campus Services	• Maintenance	• Landscaping
Athletics	• Maintenance	• Grounds / Turf
Graylyn Conference Center	• Maintenance	• Housekeeping
Graylyn Conference Center	• Grounds / Landscaping	
President's Home	• Housekeeping	• Grounds / Landscaping
Reynolda House	• Maintenance	• Housekeeping
Real Estate Properties	• Maintenance	
University Police	• Police Officers	
Student Health	• Physicians and Staff	
Health and Exercise Science	• Research Faculty and Staff	
Biology	• Research Faculty and Staff	
Physics	• Research Faculty and Staff	
Chemistry	• Research Faculty and Staff	

Medical Caregiver

Within 15 days of the exposure, the treating physician(s) shall provide to the exposed employee and to Human Resources, a copy of the written opinion as stated by the treating physician. The statement by the physician shall be limited to whether or not HBV is recommended for the

exposed employee or whether or not records indicate the employee has already had the HBV vaccination series. All documentation is to be confidentially maintained in a secure filing system by both the treating physician(s) and Human Resources.

The medical caregiver shall indicate in writing that the exposed employee has been told of any medical conditions resulting from exposure to blood or other infectious materials which will require further evaluation or treatment. The statement will also indicate that the exposed employee has been informed, by the physician, of the results of the evaluation.

5. PROCEDURES

Universal Precautions

Universal precautions will be observed by all University employees to prevent contact with blood and other potentially infectious materials. ***Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids will be considered potentially infectious.*** University employees should treat human blood, bodily fluids or tissue as potentially infectious, unless it has been tested and proven negative otherwise.

Universal precautions are methods of preventing disease by preventing transfer of blood and potentially contaminated body fluids; elimination of direct contact. Employees will treat all blood and body fluids as though they contain Bloodborne Pathogens. Universal precautions will be implemented through a variety of measures including, but not necessarily limited to:

- Engineering Controls
- Safe Work Practice Controls
- Personal Protective Equipment
- Housekeeping Measures

Engineering and Safe Work Practice Controls

Engineering and Safe Work Practice Controls serve to reduce employee exposure in the workplace by either removing the hazard or isolating the worker from exposure. These controls may include process or equipment redesign or equipment enclosure and employee isolation.

Engineering and Work Practice Controls will be used by University departments and employees to eliminate or minimize potential for exposure. Where occupational exposure remains after implementation of these controls, Personal Protective Equipment must also be used. These controls will be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

The following controls shall be in place where potential Bloodborne Pathogen exposures exist:

Hand washing facilities will be readily accessible in the workplace to employees that are reasonably anticipated to contact blood or other potentially infectious materials during the performance of their duties. Employees are required to wash their hands with warm water and soap immediately after removal of gloves or other Personal Protective Equipment and immediately following contact with blood or other potentially infectious materials.

All areas where blood or other potential infectious materials exist for research or in health care, those hazards must be identified by labeling or the University Space Hazard Placards on the outside door of that area. This is to inform all entrants and occupants of that space that potentially infectious materials exist.

All areas where biohazardous waste is stored for proper shipping and disposal must remain secure and only authorized employees may have access.

All janitor closets and janitor supply areas must be equipped with the appropriate cleanup kits for body fluids.

Contaminated needles and other contaminated sharps in the University laboratories or Student Health Services will not be recapped or removed unless such action is required by a specific medical procedure. Under these circumstances, recapping or needle removal shall be accomplished through the use of a mechanical device or a one-handed technique. Immediately after use, contaminated sharps shall be placed in a sharps container.

Eating, smoking, drinking, applying cosmetics or lip balm, and handling contact lenses is prohibited in work areas where there is reasonable likelihood of occupational exposure. Food and drink will not be stored in refrigerators, freezers, shelves, cabinets, or on cabinet tops or bench tops where blood or other potentially infectious materials are present.

In laboratories or health care, all procedures involving blood or other potentially infectious materials shall be performed in a manner to minimize splashing, spraying, spattering, and generations of droplets of these substances.

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

Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping. The container for storage, transporting, or shipping shall be labeled or appropriately color-coded and closed prior to being stored, transported or shipped.

Personal Protective Equipment

Disposable, single use gloves shall be worn when it can be anticipated that the employee may have hand contact with blood other potentially infectious materials and when handling or touching contaminated items or surfaces.

Face masks, in combination with eye protection devices, such as goggles or full face shields with must be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious

materials may be generated where eyes, nose, or mouth contamination can be reasonably anticipated. For Custodial Services, employees are required to wear a face shield when there is potential for splashes or spatter when cleaning up body fluids and googles are required when applying the disinfectant and then cleanup.

Appropriate protective clothing such as, but not limited to, splash protective gowns, coveralls, aprons, lab coats, clinic jackets, or similar outer garments shall be worn during occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated. Surgical caps, hoods, and shoe covers shall be worn in instances when gross contamination can be reasonably anticipated.

Other than laboratory coats, all PPE must be considered and managed as a one-time use with regards to working with infectious materials or body fluid clean-up. After the task is complete, the PPE must be discarded in the appropriate container for biohazardous waste collection and disposal.

Departmental Housekeeping

All equipment shall be decontaminated with an appropriate disinfectant after completion of procedures, and immediately when surfaces are contaminated or after any spill of blood or other potentially infectious materials, and at the end of the work shift.

Protective coverings, e.g., plastic wrap, aluminum foil, or imperviously-backed absorbent paper, used to cover equipment and surfaces will be removed and replaced as soon as they become contaminated or at the end of the work shift.

All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials will be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately.

Broken glassware which may be contaminated shall not be picked up directly with the hands. The spill and/or debris will be cleaned up using mechanic means such as a brush and dust pant, tongs, or forceps and placed in a sharps container.

Sharps

Sharps should only be used when alternative engineering methods are not feasible.

Great care should be used when employing sharps to minimize the chance of accidental skin puncture.

Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed.

Immediately or as soon as possible after use, contaminated sharps shall be placed in appropriate Sharps containers.

Sharps must be disposed in a container that is rigid, leak-proof when in an upright position and puncture resistant.

The container must be labeled with the biohazard symbol and the words "Sharps" and "Biohazard."

Sharps containers must be easily accessible to personnel and located as close as possible to the immediate area where sharps are used or can be reasonably anticipated to be found and replaced routinely. Sharps containers must not be overfilled.

When moving containers of contaminated sharps from the area of use, the containers shall be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling and placed in a secondary container if leakage is possible.

Exposure or Potential Exposure

An employee who has been exposed to bodily fluid will immediately wash their hands with antiseptic or soap and warm water. Employees should also check their hands for breaks in the skin whereby the contaminated fluid could have entered their body.

If an employee is exposed, or is unsure if exposure has occurred to any type of body fluid other than their own, they should immediately advise their supervisor, EHS, and Human Resources. All exposures or potential exposures are kept confidential and documentation is maintained only in Human Resources and by the treating physician(s).

Once reported to EHS, in conjunction with Department Supervision and Human Resources, an immediate investigation will begin to determine if possible, if the source of the infected fluid can be identified and contacted. If source (person) is available and willing to disclose and cooperate with medical evaluations, Human Resources will coordinate the medical evaluation with health care provider.

If an exposure occurs, as determined by a treating physician, and the source of the infectious material is known, the exposed employee is to immediately report to Human Resources. The Workers' Compensation Coordinator will take as much key information as is needed as it pertains to the exposure and it will be placed in the file along with information from the employee.

Follow-up with the exposed employee as to the outcome of the blood testing and the recommended medical follow-up will be scheduled.

Counseling will be provided by whatever means the treating physician recommends and as directed by Human Resources' Workers' Compensation Coordinator.

Evaluation of reported illness will always come strictly from the treating physician directly to the infected employee.

At no time, once a true exposure has been determined, will anyone other than the treating physician, the infected employee(s) and the Workers' Compensation Coordinator be made aware of

medical information associated with the infected employee.

Decontamination and Cleanup

Any time there is an area where body fluids exist, there is a risk of exposure and therefore any items presently associated with the risk must be cleaned and disinfected. All disinfectants must be reviewed and approved by either: Department Head, Student Health Services, or EHS. All items that are contaminated with body fluids must be cleaned and disinfected or disposed of properly.

For general decontamination and clean-up procedures, employees who are called upon by the nature of their position, such as Custodial Services, to provide body fluid clean-up, will treat all clean-up processes as infectious waste.

Any garment or PPE in contact with infectious materials must be removed and properly disposed of immediately. It must be placed in a designated container for either decontamination or disposal.

All clean-up efforts involving blood or other potentially infectious materials shall be performed in a manner to minimize splashing, spraying, splattering, or in any way creating droplets of the substance.

Collection, Storage and Disposal of Contaminated Items / Biohazardous Waste

Refer to the Wake Forest University Biohazard Waste Management Plan and Biohazard Waste Disposal Chart for specific information on collection, storage and disposal of any contaminated items.
The WFU Biohazard Waste Management Plan and the Biohazard Waste Disposal Chart can be accessed on the EHS website. http://ehs.wfu.edu/files/2015/03/Biohazard-Waste-Management-Plan-2015.pdf

Hepatitis B Vaccination Program

Hepatitis B Vaccination (HBV) will be offered to employees with a potential for exposure within ten days of their initial employment.

If an employee initially declines the HBV series and later requests to accept the offer, arrangements and payment for the HBV series will be provided at no cost to the employee. Departments are responsible for the cost of the HBV for their temporary employees. Athletics is responsible for the cost of the HBV for their employees.

Employees who decline to take the HBV series must sign the declination portion of the HBV sign-up sheet and submit to the EHS Office.

All records will be maintained for the duration of employment plus thirty years as dictated by OSHA Standard 1910.20.

HBV Vaccination Consent Forms are maintained in the EHS Office.

Medical Records

Exposure records are maintained in Human Resources. All workers compensation records are maintained in Human Resources.

OSHA Recordkeeping

HEP B Vaccination records are maintained in EHS. Data from investigations pertaining to exposures are maintained in EHS.

Sharps Injury Log

Percutaneous injuries from contaminated sharps are recorded in a Sharps Injury Log. The following information is to be included for each incident:

1. date of the injury,
2. type and brand of the device involved (syringe, suture needle),
3. department or work area where the incident occurred,
4. explanation of how the incident occurred.

This log is reviewed as part of the annual program evaluation.
http://ehs.wfu.edu/files/2014/08/ehs-form-bodily-fluid.pdf

6. TRAINING

All employees who have the potential for occupational exposure to Bloodborne Pathogens receive initial and annual training. Training records are maintained in EHS, Departmental Compliance Kits, and as necessary, individual departments such as Student Health and Health and Exercise Science.

Training includes:

- Epidemiology, symptoms, and transmission of Bloodborne Pathogen diseases
- University Engineering and Work Practice Controls
- Personal Protective Equipment
- Decon and Cleanup Procedures
- Hep B Vaccine

- Reporting and Medical Treatment of Exposures
- Sharps Review and Needle Stick Injuries
- Signage and Labeling
- Waste Collection and Disposal

7. REVISIONS

REVISION	REVISION DATE
Revised with updated links to information on the EHS website.	**11/28/2016**
Annual Review and Revisions are: New Signing Authority – Associate Vice President Strategy and Operations, Formatting Issues, Table within Department Responsibilities which defines the Costs of the Hep B Vaccination Series, and Table identifying what departments and positions are enrolled in the ECP within Responsibilities of Employees.	**1/22/2015**
Review and revision to add Human Resources to Medical Records, update web link, include electronic as means of data storage.	**10/02/2013**