



**University of
Northern
Iowa**

Physical Plant

Bloodborne Pathogens Exposure Control Program

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I. Purpose

The Exposure Control Plan For Bloodborne Pathogens is a written document developed and implemented by the Physical Plant of the University of Northern Iowa to enhance the safety and health of employees in the workplace and establish compliance with the standards identified in the OSHA Bloodborne Pathogen standard, 29 CFR 1910.1030.

II. Exposure Determination

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment (i.e. employees are considered to be exposed even if they wear personal protective equipment.) This exposure determination is required to list all job classifications in which employees may be expected to incur such occupational exposure, regardless of frequency. For the sake of this program, these employees are designated "at risk".

At the University of Northern Iowa the following job classifications (including trainees in designated classification) are designated "at risk":

<u>Job Classification</u>	<u>Tasks/Procedures</u>
Custodian I	normal duties
Custodian II	normal duties
Area Mechanics	traps/plumbing
Managers/Asst. Managers/ Supv.	normal duties
Pipefitters/Steamfitters	traps/plumbing
Power Plant Repairers	traps/plumbing
Equipment Operators	turf conversion
Facilities Coordinator	normal duties
Facilities Mechanic	traps/plumbing
Grounds	turf conversion
Elevator Mechanics	normal duties
Safety Consultants	normal duties

III. Compliance Methods

All Physical Plant Employees will receive Bloodborne Pathogen Awareness training. Those identified as "at risk" will receive more extensive annual training, including approved actions to take when responding to a blood spill. This training will be coordinated by the Physical Plant and utilize trainers from the Wellness & Recreation Center and the Student Health Center.

Universal precautions will be observed at the University of Northern Iowa in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees at this facility. Where occupational exposure remains after institution of these controls, PPE shall be utilized.

Handwashing facilities are available to the employees who incur exposure to blood or other potentially infectious materials. At the University of Northern Iowa hand washing facilities are located:

Men's/Women's Restrooms	West end of Physical Plant and East end of Physical Plant
Men's/Women's Restrooms	located in each academic building
Custodial Closets	located in each academic building

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area 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. The employee's supervisor should be notified immediately. A determination needs to be made as to whether or not an exposure incident has occurred. If it is determined that an exposure incident has occurred, instructions listed under **Section IX – Post exposure Evaluation and Follow-Up** should be followed.

IV. Work Area Restrictions

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees will not eat, drink, apply cosmetics or lip balm, smoke, 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 are present.

The Student Health Center, the Price Lab School Nurses room, and the Wellness & Recreation Training room are academic buildings/rooms where, because of the nature of the facility, personal protective equipment must be worn by Physical Plant employees when effecting plumbing repairs.

Custodians must employ normal precautions when cleaning restrooms and when unexpectedly encountering small volumes of spilled bodily fluids (i.e. blood from a cut finger or bloody nose spattered on a lavatory or mirror). Normal precautions include wearing rubber gloves or a disposable alternative, spraying the surface with End Bac II, wiping the surface with a disposable towel, disinfecting surface with Virex, carefully removing gloves from hands, and washing hands with soap and hot water immediately afterward.

It can be reasonably anticipated that on very rare occasions, even in classroom facilities, the Physical Plant will be asked to respond to a major spill of bodily fluids.

V. Contaminated Equipment

Tools/equipment (i.e. table saws, power tools, air handlers) that have been exposed must also be considered potentially contaminated. Before clean-up, assure that equipment has been properly locked out / tagged out to prevent accidental start-up. Clean up procedures include wearing rubber gloves or a disposable alternative, spraying the tool/equipment with End Bac II, wiping the tool/equipment with a disposable towel, disinfecting tool/equipment with Virex, carefully removing gloves from hands, and washing hands with soap and hot water immediately afterward. Each building is equipped with a "blood" kit containing disinfectant products. Disinfecting products are also located in Art II and accessed by contacting the Building Services Assistant Manager.

Any work areas that become contaminated with blood or other potentially infectious materials shall be posted and decontaminated as necessary. Posting will read, "Area restricted, contact 3-4400 before entering". Posting will be applied directly on entrance or in a highly visible location. Posting will be removed once area is decontaminated.

VI. Personal Protective Equipment

All personal protective equipment used to protect Physical Plant employees from potentially infectious materials will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment 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 which the protective equipment will be used.

Protective clothing can be obtained from Stores located in the Physical Plant:

- Disposable latex gloves
- Face mask
- Safety glasses
- Red Biohazard Plastic bags

All contaminated PPE will be discarded into one of the two Red Biohazard Plastic bags included in the kit. All other garments, which are penetrated by blood, shall be removed immediately or as soon as feasible. Garments must be contained in a Red Biohazard plastic bag. Additional biohazard bags are also available from custodial services. It is the responsibility of the employee to notify their immediate supervisor/manager if garments, including personal items, are to be disposed of. Employees will be reimbursed by the Physical Plant for any clothing that has to be disposed.

VII. Procedures For Physical Plant Employees

When a Physical Plant employee encounters a major spill of bodily fluids (example a severed artery) they will respond in the following manner:

- a. secure the area keeping other individuals and spectators away from the exposure.
- b. contact Public Safety at 27(3-4000) or radio Physical Plant base and ask them to contact the Public Safety office and advise if other emergency aid is required; if the employee does not have a radio and other individuals are present one of the individuals should be asked to call Public Safety 27(3-4000) and Physical Plant Dispatch 27(3-4400) while the employee remains on the scene; if alone and without a radio the employee should go to the nearest phone and call 27(3-4400).

- c. if an individual is injured the Physical Plant employee should wait for assistance and offer comfort/advise that help is on the way; if the injured person is able to help themselves the employee may provide whatever is handy to assist in that effort (i.e. An employee may hand an absorbent towel or clean dressing to an injured person who can then apply them to the wounded area to stem bleeding).

VIII. Procedures For Dispatch

When Physical Plant Dispatch 27(3-4400) is notified of an incident involving a major spill of bodily fluids by one of our staff or the Public Safety Office, the dispatcher will immediately contact one of the Physical Plant employees who has previously been designated as "at risk". This procedure will occur whether the emergency occurs in a class room facility, in the Department of Residence, or in a residence facility.

- a. Physical Plant has designated all Assistant Managers, all Custodians and the Facilities Mechanic I in the Building Services department as "at risk" and Dispatch 27(3-4400) will send one of these individuals to an emergency in a classroom facility.
- b. All area mechanics have also been designated as "at risk" and can be dispatched to secure the area if one of the above is currently unavailable.
- c. Department of Residence 27(3-2333) has similarly designated individuals for emergencies involving major spills of bodily fluids occurring in Residence halls; Dispatch 27(3-4400) should contact the DOR office and allow them to call their people.
- d. Physical Plant Dispatch 27(3-4400) will maintain accurate records of date/time/place of the incident and the emergency and forward to the Physical Plant Safety Coordinator.

Note: Any Physical Plant employee on the scene who has not been previously designated as "at risk" should not participate in assisting the clean-up process or attempt to administer emergency aid. The employee should remain at the site and assist as directed by emergency-aid providers and assist with crowd control as directed by Building Services personnel.

IX. Clean-Up (Custodians refer to Appendix C for more instructions)

Physical Plant Dispatch 27(3-4400) will send a Custodian or an Assistant Manager of Building Services to the site to supervise clean-up efforts. When a Custodian or Assistant Manager is notified of a major spill of bodily fluids they will respond immediately to the scene. They will implement the universal precautions in the following manner:

- a. if an injury has occurred they will assist other Physical Plant personnel in securing the area until emergency aid has been rendered.
- b. clean-up will be done **by custodians only**. When possible proceed as follows:
 1. disposable gloves will be worn at all times and will be considered as hazardous material and disposed of accordingly
 2. if additional protective clothing is worn, it will be considered as hazardous material and disposed of accordingly
 3. apply the absorbing compound Chlora-Sorb from the clean-up kit to the exposure area to soak up excess fluids. When the compound has absorbed the fluids, use the dustpan and scraper to collect. Dispose of contents in a red hazardous waste bag.
 4. the entire area will be treated with End Bac II
 5. absorbent disposable towels will be used to sop up excess fluids then disposed of as hazardous materials
 6. the entire area will be disinfected with Virex
 7. the entire area will be washed and mopped with a general detergent
 8. all hazardous material will be placed a Red Biohazard plastic bag; the bag will be sealed then placed in another similarly marked bag for transport
 9. double-bagged contents will be disposed of in the approved manner (currently an outside contractor disposes of bio-waste and the collection point is Art #2 basement)
 10. hands will be washed immediately afterward with hot soapy water

X. Hepatitis B Vaccine

All employees who have been identified as being "at risk" to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee. The vaccine will be offered within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials. Employees who decide to take the Hepatitis B series of inoculations must complete the top portion of the Hepatitis B Immunization Form (Appendix A) Employees who decline the Hepatitis B vaccine must sign the bottom portion of the form.

Employees who initially decline the vaccine but who later wish to have it are still eligible to have the vaccine at no cost to them. Department managers/supervisors have the responsibility to assure that the vaccine is offered and Immunization Forms signed and forwarded to the safety office.

XI. Post-Exposure Evaluation and Follow-up

When an employee(s) incurs an exposure incident, it must be reported immediately to the employee's immediate supervisor. The supervisor/manager must then contact the UNI Safety Office. The Safety Office will call Sartori Covenant Occupational Health Clinic at 268-3215 immediately and will discuss the necessity of a post exposure evaluation. During evening or weekend hours Sartori Hospital's emergency room can be called at 268-3000.

The UNI Environmental Health and Safety Office personnel will assure the required information is filled out and a copy of the Bloodborne Pathogen standard be given to the employee(s) prior to sending employee to Sartori Covenant Occupational Health Clinic. The POST EXPOSURE INCIDENT CONFIDENTIAL RECORD form (Appendix B) will be used to document post exposure activities.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard.

The follow-up can include the following:

- a. documentation of the route of exposure and the circumstances related to the incident
- b. if possible, the identification of the potential source individual and, if possible, the status of the source individual. The blood of the source individual will be tested (after consent is obtained) for HIV/HBV infectivity.
- c. results of testing of the source individual will be made available to the exposed employee with the exposed employee informed about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- d. 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. However, if the employee decides prior to that time that testing will or will not be conducted then the appropriate action can be taken and the blood sample discarded.
- e. The employee will be offered post exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Services.

- f. The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences to appropriate personnel.
- g. The following person(s) has been designated to assure that the policy outlined here is effectively carried out as well as to maintain records related to this policy: UNI Environmental Health and Safety Office personnel and Unit Assistant Directors.

XII. Interaction with Health Care Professionals

A written opinion shall be obtained from the health care professional that evaluates employees of the University of Northern Iowa. Written opinions will be obtained in the following instances:

- a. When the employee is sent to obtain the Hepatitis B vaccine.
- b. Whenever the employee is sent to a health care professional following an exposure incident.

Health care professionals shall be instructed to limit their opinions

- a. Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine, or for evaluation following an incident
- b. That the employee has been informed of the results of the evaluation,
- c. That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials. (Note that the written opinion to the employer is not to reference any personal medical information)

XIII. Incident Reporting

All incident reports, involving a major spill of bodily fluids, will be maintained in the UNI Environmental Health and Safety Office. The record will include the time, date, place of the incident, and the name of the employee(s) who participated in the emergency. It will also include a description of the clean-up efforts and confirmation of the disposal of the infected waste.

XIV. Training

Training for all employees will be conducted on initial assignment to tasks, assignment to new tasks, or when new tasks have been introduced where occupational exposure may occur.

Training for employees will include the following:

- a. OSHA standard for Bloodborne Pathogens
- b. Epidemiology and symptomatology of bloodborne diseases
- c. Modes of transmission of bloodborne pathogens
- d. Exposure Control Plan, i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc)
- e. Procedures which might cause exposure to blood or other potentially infectious materials at this facility
- f. Control methods that will be used at the University of Northern Iowa to control exposure to blood or other potentially infectious materials.
- g. Personal protective equipment available at this facility and who should be contacted concerning
- h. Procedures for Post Exposure evaluation and follow-up
- i. Signs and labels used at the University of Northern Iowa
- j. Hepatitis B vaccine program at the University of Northern Iowa

XV. Recordkeeping

The UNI Environmental Health and Safety Office will maintain all records required by the OSHA standard.

Records will be maintained in the same location regarding employees who have been offered the inoculation program as to whether they elected to take the series of shots and when they were administered or, that the employee was offered the shots and refused.

The Exposure Control Program for Bloodborne Pathogens is designed to comply with local, state, and federal regulations applicable to the University of Northern Iowa, Cedar Falls, Iowa. Annual review of the program shall be completed with the assistance and cooperation of all affected personnel and departments.

Appendix A

HEPATITIS B IMMUNIZATION FORM

Employee or Student Name (please print)	Social Security Number	Work Unit

CONSENT TO HEPATITIS B VACCINE

I consent to take the Hepatitis B vaccinations. I have read the information about Hepatitis B and the Hepatitis B vaccine, which was given to me. I have had an opportunity to ask questions and I understand the benefits and risks of the Hepatitis B vaccination. I understand that I must have 3 doses of the vaccine to obtain immunity. However, as with all medical treatment, there is no guarantee that I will become immune or that I will not experience side effects from the vaccine. I also understand that the medication will be administered free of any cost to me.

Signature of person receiving vaccine

Date Signed

Witness

Date Signed

REFUSAL OF HEPATITIS B VACCINATION

I understand that due to my occupational exposure to blood and 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, a 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.

Date

Employee or Student Signature

Date

Signature of Witness

Appendix B

University of Northern Iowa POST EXPOSURE INCIDENT CONFIDENTIAL RECORD

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Employee Name (last, first, middle)

Job Title: _____

	Hepatitis B Vaccination Date	Lot Number	Site	Administered by
1.				
2.				
3.				

Additional Hepatitis B status information:

Post-exposure incident: (Date, time, circumstances, route under which exposure occurred)

Identification and documentation of source individual:

Source blood-testing consent:

Description of employees duties as relate to exposure incident:

Copy of information provided to healthcare professional evaluating an employee after exposure incident:

Training Record: (date, time, instructor, location of training summary)

Attach a copy of all results of examinations, medical testing, follow-up procedures, and healthcare professional's written opinion.

Appendix C

Bodily Fluids Clean-Up Procedures – Handout

Note: Custodians and their related management staff are the only ones authorized at the University of Northern Iowa to clean up bodily fluids.

When a custodian in any building encounters a major spill of bodily fluids, they will respond in the following manner.

1. Secure the area keeping other individuals away from the exposure.
2. Contact Public Safety at 273-4000; if other individuals are present, ask one of them to contact the Public Safety office while you remain on the scene keeping others away from the exposure. If alone, go to the nearest phone and call Public Safety (report the incident, identify yourself and the location, and advise whether emergency aid is needed; also ask the dispatcher to contact your Assistant Manager immediately and advise them of the incident) then return to the scene immediately.
3. If the employee has a 2-way radio, they may contact Physical Plant dispatch immediately (if station is operating) instead of Public Safety while remaining on the scene.
4. If an individual is injured, wait for assistance; do not attempt to administer emergency aid yourself. Do not attempt to move the individual unless they are in a life-threatening situation. Offer comfort and solace to the injured person and advise that help is on the way. You may assist an injured person in providing assistance to themselves (provide a towel, or similar item, to the injured person to press against a wound to stop bleeding, ect.)

Once emergency aid is complete, clean up will proceed as follows:

1. An emergency clean up kit will be brought to the scene from the custodial closet. (Kits will be available in the main custodial closet in each academic building.)
2. Disposable gloves will be put on by all employees participating in the clean up and will be worn throughout; gloves will then be considered infectious and disposed of accordingly after clean up is completed.
3. Additional personal protective equipment (safety glasses, face mask and eye shield, foot coverings, and impervious gown) are not generally required, but if used must be treated as infectious material and disposed of in red hazardous waste bag.

4. Apply the liquid absorbing compound, from the clean up kit to the exposure area to soak up excess fluids; when the compound has absorbed the fluids, use the dust pan and scraper to collect; then dispose of the contents in a red hazardous waste bag.
5. If exposure is small enough to clean up with disposable towels, spray the fluid with End Bac II disinfectant. Allow spray to set for 10 minutes for germ killing time. Then wipe up the area with a disposable towels and dispose of in red hazardous waste bag. Disinfect surface area again by applying End Bac II again, then let affected area air dry.
6. If exposure is large enough to require a mop and bucket, use Virex disinfectant at ½ oz. per gallon of water to mix a disinfectant solution. Then mop the affected area leaving it damp to air dry.
7. If personal protective devises are used, dispose of face mask and eye shield, foot coverings, and impervious gown in red hazardous waste bag.
8. The mop and bucket contain disinfectant; rinse mop in hot water, wring out thoroughly and place in normal dirty laundry; empty bucket and rinse both bucket and wringer with hot water.
9. Carefully remove gloves and dispose of in red hazardous waste bag. The double-bagged contents will be disposed of by the Assistant Manager or the Custodian II in the approved manner. Currently at the Art II basement where it is staged for pickup.
10. Immediately wash hands for 2 minutes with soap and hot water.
11. Assistant Manager or Custodian II will replace used items in the emergency clean up kit.
12. The Assistant Manager or Custodian II will make a report of the incident. The report should include date, time, location, names of employees participating in cleanup, names of victims if appropriate and available. A copy of the report will be sent to the Environmental Health and Safety Office.