



BLOODBORNE PATHOGEN PROGRAM

PURPOSE

Climate Engineers Inc. is dedicated to the protection of our employees from occupational injuries and illnesses. Climate Engineers is responsible for providing a safe working environment, and the employees have and must assume the responsibility of working safely. Climate Engineers will provide Personal Protective Equipment to all employees at no cost.

An exposure control plan must be prepared for all persons who handle, store, use, process, or dispose of blood or other potentially infectious material including medical wastes. This exposure control plan complies with OSHA requirement, 29 CFR 1910.1030, Bloodborne Pathogens. The plan includes requirements for personal protective equipment, housekeeping, training, and a procedure for reporting exposures.

RESPONSIBILITIES

- Climate Engineers Inc. will designate the coordinator of the Bloodborne Pathogen Program and maintain records of training and inspections for this program. These training records will be kept for duration of 3 years.
- Climate Engineers Inc. management will ensure proper conduct of the program through a periodic audit.

DEFINITIONS

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Biological Hazard: The term biological hazard or biohazard is taken to mean any viable infectious agent that presents a risk, or a potential risk, to the well being of humans.

Medical Wastes/Infectious Wastes: All laboratory waste emanating from human or animal tissues, blood or blood products or fluids; all cultures of tissues or cells of human origin or cultures of etiologic agents; specimens of human or animal parts or tissues removed by surgery, autopsy, or necropsy.

Universal Precautions: Refers to a system of infectious disease control that assumes that every direct contact with body fluids is infectious and requires every employee exposed to be protected as though such body fluids were infected with bloodborne pathogens. All infectious/medical material must be handled according to Universal Precautions (OSHA Instruction CPL 2-2.44A)

REPORTING AND RECORD KEEPING

Any reports required by OSHA will be maintained by Climate Engineers, Inc. Safety Manager. All reports (Training Certificates, Notice of HBV Vaccinations, exposure reports) will be maintained for 30 years. Occupationally contracted HBV or HIV will be recorded on the OSHA 300 Log of Occupational Injuries and Illnesses as an illness. Exposures to bloodborne pathogens from contact with sharps will be recorded on the OSHA 300 Log of Occupational Injuries and Illnesses if treatment such as gamma globulin, hepatitis B immune globulin or hepatitis B vaccine is prescribed by a physician.

Climate Engineers shall ensure that all records be made available upon request of employees, Assistant Secretary & the Director for examination & copying. Medical records shall have a written

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consent of employee before released. All medical records will be kept for the duration of employment of each employee, plus 30 years.

All transfer of records shall comply with all regulation set forth in 29 CFR 1910.1020(h).

TRAINING

All personnel assigned duties as EMT, Paramedics, First Aid Station Staff, HAZMAT responders, and Custodial Employees (those that clean rest rooms, etc.) will receive initial and annual training on the Bloodborne Pathogen Program. Additionally, personnel trained in First Aid shall be offered this annual training.

All new and current affected employees will be trained initially and annually thereafter. The content of the training program will include:

1. Review of the Climate Engineers Inc. Policy
2. Types and transmission of Bloodborne Pathogens
3. General Safety Rules
4. Universal Precautions
5. Use of Personal Protective Equipment
6. Medical Waste Disposal Procedures
7. Post Exposure Treatment and Procedures
8. HBV Vaccinations

All Climate Engineers employees, not affected by this program, will receive an overview of the program requirements during scheduled department Safety Meetings and documentation.

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HEPATITIS-B VIRUS (HBV) VACCINATIONS

All employees with reasonably anticipated occupational exposure to blood or other potentially infectious material will be offered Hepatitis-B Virus (HBV) Vaccinations at Climate Engineers Inc. expense. Affected employees hired after March 1, 1992, will be offered HBV Vaccinations at the time of hire. Current employees will be offered HBV Vaccinations when this program is implemented. Employees that transfer to a job or their job is reclassified to include exposure to blood-borne pathogens will be offered HBV Vaccinations within 10 working days of the transfer or reclassification.

The choice for HBV vaccination is not mandatory. If an affected employee chooses not to have the vaccination at the initial offering, they will have the opportunity to be vaccinated when they are ready. Climate Engineers will document the offer, acceptance or declination, and vaccination dates with the Notice of HBV Vaccinations Form.

POST EXPOSURE TREATMENT AND NOTIFICATION PROCEDURES

Should an affected employee or an employee acting as a "Good Samaritan" be occupationally exposed to HIV/HAV/HBV, the affected employee will report the exposure to Climate Engineers, Inc.

Climate Engineers will provide for the employee to be tested for HIV/HAV/HBV at Climate Engineers expense. Following the initial blood test at time of exposure, seronegative employees will be retested at 6 weeks, 12 weeks and 6 months to determine if transmission has occurred. During this period, the Employee will follow the recommendations provided by the physician.

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An "**occupational exposure**" is defined as blood or body fluid contact from an injured or ill Employee to the affected Employee or injury by a contaminated sharp object.

Following the report of exposure, Climate Engineers will contact the exposure source and request that person be tested for HIV/HAV/HBV at Climate Engineers expense. The request is not mandatory and if refused will not effect that Employee's future employment.

During all phases of Post Exposure, the confidentiality of the affected Employee and exposure source will be maintained on a "need to know basis". Climate Engineers will document the exposure and offer of medical assistance to the affected Employee. The results of any HIV/HAV/HBV tests conducted will be provided to the exposed and source Employees within 5 business days of receipt.

GENERAL PROCEDURES

The following procedures must be followed by personnel when in medical rooms or laboratories.

All Climate Engineers Inc. supervisors must ensure their staff is trained in proper work practices, the concept of universal precautions, personal protective equipment, and in proper cleanup and disposal techniques.

Resuscitation equipment, pocket masks, resuscitation bags, or other ventilation equipment must be provided to eliminate the need for direct mouth-to-mouth contact in groups where resuscitation is a part of their responsibilities.

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a potential for exposure to any health hazard. Food and drink must not be stored in refrigerators, freezers, or cabinets where blood or other potentially infectious material is stored or in other areas of possible contamination.

Universal precautions must be observed: Eye protection, masks, gowns, aprons, or lab coats must be worn whenever there is a possibility that body fluids could splash on skin or clothing.

Gloves must be made of appropriate disposable material, usually intact latex or vinyl. They must be used in the following circumstances:

- When the employee has cuts, abraded skin, chapped hands, dermatitis, or similar conditions.
- When examining abraded or non-intact skin of a patient with active bleeding.
- While handling blood or blood products or other body secretions during routine laboratory procedures.
- When there is reasonable anticipation of hand contact with blood or other potentially infectious material.

Climate Engineers employees must wash their hands immediately, or as soon as possible, after removal of gloves or other personal protective equipment and after hand contact with blood or other potentially infectious materials.

All personal protective equipment must be removed immediately upon leaving the work area, and if this equipment is overtly contaminated, it must be placed in an appropriate area or container for storage, washing, decontamination, or disposal.

Contaminated clothing must not be worn in clean areas or outside the building.

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All procedures involving blood or other potentially infectious agents must be performed in a manner that will minimize splashing, spraying, and aerosolization.

BIOMEDICAL WASTE

Biomedical/infectious waste must be segregated from other waste at the point of origin.

Biomedical/infectious waste, except for sharps (i.e., razor blades, broken glass, needles, etc.) capable of puncturing or cutting, must be contained in double disposable red bags conspicuously labeled with the words "INFECTIOUS WASTE" and "BIOHAZARD."

Used needles or other sharps (razor blades, broken glass, scalpels, etc.) must not be sheared, bent, broken, recapped, or resheathed.

Contaminate sharps must be contained for disposal in leak-proof, rigid puncture-resistant containers. Biomedical waste contained as described above must be placed in reusable or disposable leak-proof bins or barrels that are conspicuously labeled with the words "BIOMEDICAL WASTE" and "BIOHAZARD." These waste barrels are picked up regularly by an outside company licensed to handle infectious wastes.

All infectious agents and contaminated equipment, or apparatus must be disinfected in an autoclave or otherwise disinfected before being washed or disposed of. Each individual working with infectious bio-hazardous agents is responsible for disinfection and disposal of these agents.

Biomedical wastes that do not contain radioactive or hazardous substances may be disinfected by steam sterilization (autoclave) then disposed of in the regular trash. Liquid bio-medical waste may be disposed of in the sewage system following chemical decontamination.

Reusable glassware must be decontaminated in sodium hypochlorite (household bleach) solution (1:9) prior to rinsing and acid washing. The glassware must then be sterilized in an autoclave.

To minimize the hazard to firefighters or emergency response personnel, at the close of each work day and before the building is closed, all infectious or toxic material must be placed in a refrigerator, placed in an incubator, or autoclaved or otherwise disinfected. Infectious agents must not be placed in an autoclave and left overnight in anticipation of autoclaving the next day.

Floors, laboratory benches, and other surfaces in buildings, where infectious agents are handled, must be disinfected with a suitable germicide, such as 1:9 sodium hypochlorite solution (household bleach) as often as necessary as determined by the Climate Engineers supervisor.

The surroundings must be disinfected after completion of operations involving planting, pipetting, centrifuging, and similar procedures with infectious agents.

Infectious agents must not be dumped into the building drainage system without prior disinfection.

CUTS

If a Climate Engineers Inc. employee has a needle stick, cut, splash, or mucous membrane exposure to another person's body fluids he/she must report the incident immediately to their supervisor.

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SPILLS/DISINFECTANTS

A solution of sodium hypochlorite (household bleach) diluted 1:9 with water must be used to disinfect, following initial cleanup of a spill with a chemical germicide approved as a hospital disinfectant. Spills must be cleaned up immediately.

Reusable glassware must be decontaminated in sodium hyperchlorite (household bleach) solution (1:9) prior to rinsing and acid washing. Then the glassware must be sterilized in an autoclave.

PERSONAL PROTECTIVE EQUIPMENT FOR WORKER PROTECTION AGAINST HIV AND HBV TRANSMISSION

TASK	GLOVES	APRON	MASK	EYEWEAR
Control of Bleeding w/ spurting blood	X	X	X	X
Bleeding control with minimal bleeding	X			
Emergency Child Birth	X	X	X	X
Blood Drawing	X			
Handling & Cleaning Instruments	X			
Cleaning Bio Spills	X			
Taking Temperature				
Giving Injection	X			
Measuring Blood Pressure				

The examples provided in this table are based on application of universal precautions. Universal precautions are intended to supplement rather than replace recommendation for routine infection control, such as hand washing and using gloves to prevent gross microbial contamination of hands (e.g., contact with urine or feces).

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EMPLOYEE ACCESS

Climate Engineers Inc. will make a copy of the Bloodborne Pathogen Safety Program available to all employees through one or more of the following options:

- Posted on a bulletin board in a common area of the jobsite or office.
- Mailed to each individual employee for them to read & review.
- Discussed in a weekly toolbox meeting annually.

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UNIVERSAL PRECAUTIONS AND GENERAL SAFETY RULES FOR POSTING

Exposure Determination: Climate Engineers Inc. will not perform invasive medical treatment or provide intravenous medication. Therefore, the exposure to Bloodborne Pathogens, as defined in item # 3 below, is determined to be from routine and emergency first aid treatment of common workplace injuries. The following Universal Precautions and General Safety Rules have been established to prevent the spread of viral and bacterial organisms (namely HIV/HAV/HBV). In all cases, the Universal Precautions and General Safety Rules should be followed.

1. Before and immediately after providing patient care, wash exposed areas (hands, arms, etc.) with antibacterial soap.
2. Do use the required personal protective equipment for the medical care given as outlined in the Personal Protective Equipment for Worker Protection section.
3. Treat all human body fluids and items soiled with human body fluids (blood, blood products, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, concentrated HIV/HAV/HBV, and saliva (in dental settings) as if contaminated with HIV/HAV/HBV. (Note: Feces, urine, nasal secretions, sputum, sweat, tears, or vomitus need not be treated as contaminated unless they contain visible blood)
4. No smoking, eating, drinking or storage of food products is permitted in patient treatment areas. Non-medical items, such as clothing and personal effects, should not be stored in the treatment facility.
5. Patient treatment areas will be maintained in a near sanitary condition at all times. Daily and at least once per shift, the facility will be disinfected with antibacterial/viral solution (at least 10% Chlorine Bleach or equivalent). All medical and personal protective equipment contaminated with human body fluids will be disinfected before being returned for use again.
6. To avoid special handling, all clothing contaminated with human body fluid will be presoaked (sprayed on the affected areas) with the antibacterial/viral solution before being sent to the laundry. (Note: Gloves and eye protection should be worn when handling contaminated clothing until presoaked for 10 minutes)
7. Any spills of body fluid will be presoaked (sprayed on the affected area) with antibacterial/viral solution for 10 minutes before being removed. (Note: Gloves and eye protection should be worn when handling spills of body fluids)
8. Medical Wastes (those soiled with covered human body fluids) will be treated following the Medical Wastes Treatment and Disposal Procedures before being discarded as ordinary wastes.
9. Any suspected exposure to HIV/HBV/HCV by human body fluid contact (via broken skin, human bites, needle sticks, etc.) should be reported to your supervisor immediately.



CONTROL OF BLOODBORNE PATHOGENS PROGRAM

BIOMEDICAL WASTE TREATMENT AND DISPOSAL PROCEDURES FOR POSTING

1. All Medical Wastes (infectious material or those contaminated with covered human body fluids) will be placed in a red leak-proof container marked either Biohazard or Biomedical Waste. All other wastes will be discarded following customary procedures. (Note: Soiled feminine hygiene/sanitary napkins, soiled facial tissues, etc. are not considered a biohazard or medical waste. Pretreatment is not necessary; however, Employees should wear personal protective equipment and wash hands with antibacterial soap afterwards)
2. Do use the required personal protective equipment when handling medical wastes as outlined in the Personal Protective Equipment for Worker Protection section.
3. At the end of each shift, all accumulated medical wastes will be treated to remove biohazards using the following procedure:
 - Prepare a solution of 10 percent chlorine bleach to water (approximately 2 cups chlorine bleach to 1 gallon of water)
 - Pour solution over the medical wastes and thoroughly saturate
 - Let stand for 10 minutes and then drain into sink
 - Discard as ordinary wastes
 - Caution: Sharp objects (broken glass, hypodermic needles, etc.) should not be handled by hand to prevent accidental punctures and lacerations
4. Rinse medical wastes container and return for use again.
5. Wash hands and exposed areas with antibacterial soap.