

# **BRUNSWICK SEWER DISTRICT**

## **Bloodborne Pathogen**

### Table of Contents

#### TOPIC

**Introduction**

**Definitions**

**Exposure Determinations**

**Compliance Methods**

**Housekeeping**

**Hepatitis B Vaccine**

**Labels and Signs**

**Information and Training**

**Record Keeping**

**Evaluation and Review**

**Appendix A**

**29 CFR 1910.1030**

**Appendix B**

**Hepatitis B Vaccine Declination**

## **Bloodborne Pathogens**

As wastewater treatment and collection employees who work in confined spaces we are required to receive CPR and First Aid training. The District provides training to all of its employees. With this training the District recognizes the need to have a bloodborne pathogen exposure control plan. This policy will address only those situations in which first aid and CPR are required.

Blood is the most important fluid in our bodies. It is involved with just about every bodily function we have. Blood carries nutrients and oxygen throughout our bodies. However blood also carries disease and for this reason we need to protect ourselves from blood and other potentially infectious materials that may carry diseases.

The two most common diseases carried by blood are Hepatitis B (HBV) and human immunodeficiency virus (HIV), the virus that leads to acquired immune deficiency syndrome, AIDS. Hepatitis B is an inflammation of the liver. It can result in severe liver damage, cirrhosis of the liver and death. Fortunately, there is a vaccine available that is 90% effective against HBV.

There is no vaccine against HIV at this time. It attacks the body's immune system and leads to AIDS, and AIDS is always fatal. Today, 2019, HIV/AIDS is a manageable chronic condition.

The most common ways these bloodborne pathogens are spread is through IV drug use and sexual transmission. However, any contact with infected blood or body fluids carries the risk of potential infection.

Although HIV is the most publicized, there is greater risk of infection when exposed to HBV since it is relatively easy to catch. In each milliliter of blood from a person with HBV, there are approximately 1-billion viral particles, yet the infectious dose required to be introduced into your body to acquire the disease is only about 1000 particles.

It is important to note that anytime an employee responds to a minor injury of another person, i.e. a lacerated finger that is bleeding, the employee is at risk of exposure to bloodborne pathogens.

## **EXPOSURE CONTROL PLAN**

### **Definitions**

- ❑ Bloodborne Pathogens: means pathogenic microorganisms that are present in human blood and can cause disease in humans
- ❑ Engineering Controls: Controls that isolate or remove the bloodborne pathogens hazard from the workplace. Examples include sharps disposal containers.
- ❑ Exposure Incident: Contact with blood or other potentially infectious materials as a result of work activities.
- ❑ Other Potentially Infectious Materials (OPIM): 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 to differentiate between body fluids; any unfixed tissue or organ (other than intact skin) from a human living or dead.

These substances, feces, nasal secretions, sputum, sweat, tears, urine, vomitus or saliva (other than saliva from dental procedures), are not included in the standard's definition of other potential infectious materials.

- ❑ Universal Precautions: An approach to infection control. According to the concept of universal precautions, all human blood and certain 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 changing the way a job is done.

### **Exposure Determination**

At the Brunswick Sewer District all employees administer first aid as a collateral duty to their routine work assignments. This means that all employees of the Brunswick Sewer District have potential exposure to bloodborne pathogens.

### **Compliance Methods**

Universal Precautions will be observed at this facility in order to prevent contact with blood or OPIM. All blood or OPIM will be considered infectious regardless of the perceived status of the source individual.

Supervisors are responsible for ensuring that the following provisions are met:

All personal protective equipment (PPE) used at BSD will be provided at no cost to the employee. PPE will be chosen based on anticipated exposure blood or OPIM. The PPE will be considered appropriate only if it does not permit blood or OPIM to pass through

or reach employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time, which the PPE will be used.

The Safety Coordinator is responsible for PPE Distribution. PPE will be available in appropriate sizes and is issued with out cost to the employee.

All PPE will be cleaned, laundered and disposed of by the employer at no cost to the employees. The employer will make all repairs and replacements needed by the employee at no cost.

All garments that are penetrated by blood shall be removed immediately or as soon as feasible. Employees shall remove all PPE before they leave the work area. Do not pull contaminated clothing off over your head. Cut t-shirts off instead. This eliminates the possibility of blood or OPIM passing over your mouth or other mucous membranes.

When PPE is removed, it shall be placed in an appropriately designated container for storage, washing, decontamination or disposal. Wash hands or other affected body parts with warm water and soap. Vigorously scrub all areas to remove all potentially infectious contamination. Friction from scrubbing helps kill viruses.

### *Gloves*

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, OPIM, non-intact skin, or mucous membranes; and when handling or touching contaminated items or surfaces.

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

Utility gloves can be reused following decontamination, but only in if in good condition.

Disposable gloves may be layered underneath utility gloves to provide extra protection.

### *Eye and Face Protection*

Masks in combination with eye protection devices, such as goggles or glasses with solid side shield, or chin-length face shields, are required to be worn whenever splashes, splatters, or droplets of blood or OPIM may be generated and eye, nose, or mouth contamination can reasonably be anticipated.

### *Gowns, Boots, Aprons and other Protective Clothing*

Wear whenever exposure to body, head, feet or clothing is possible. Type and characteristics of covering will vary depending on task and exposure anticipated.

### *CPR Mouth Pieces*

Use when CPR is given to prevent contamination from the victim. Included in First Aid Kit and in each vehicle.

### **Housekeeping**

Housekeeping refers to methods for cleaning and decontaminating infected surfaces and the disposal of blood and OPIM.

All contaminated work surfaces will be decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or OPIM.

Surfaces will be cleaned with 1 part household bleach to 10 parts water solution and the surface should remain wet for at least 10 minutes.

Any broken glassware that may be contaminated with blood or OPIM will **NOT** be picked up directly with the hands. Sweep or brush the material into a dustpan. Glassware can be disposed of in biohazard broken glassware bin located in the laundry room.

Contaminated sharps shall be discarded immediately in containers that are closable, puncture resistant, leak-proof on sides and bottom, and labeled. The Town of Brunswick recommends liquid laundry detergent bottles.

### *Other Regulated Waste*

Other regulated waste shall be placed in containers that are closeable, constructed to contain all contents and prevent leakage of fluids during handling, storage, transportation or shipping.

The waste must be labeled or color-coded and closed before removal to prevent spillage or protrusion of contents during handling, storage, and transport.

NOTE: Disposal of all regulated waste shall be in accordance with applicable federal, state and local regulations.

### *Laundry Procedures*

Laundry contaminated with blood or OPIM will be handled as little as possible. Such laundry will be placed in appropriately marked bags (biohazard labeled, or color-coded red bag) at the location where it was used.

Laundry at this facility will be disposed of in accordance with state and local regulations.

Contaminated laundry will **NOT** be washed in the District washing machine!

### **Hepatitis B Vaccine and Post-Exposure Evaluation and Follow-Up**

Brunswick Sewer District shall make available the Hepatitis B vaccine and vaccination series to all employees who have potential occupational exposure, and post-exposure follow-up to employees who have had an exposure incident.

The District contracts with Concentra, for after hour care go to MidCoast Hospital. They will provide the medical evaluations and procedures including the Hepatitis B vaccine and vaccination series and post-exposure follow-up. This will be available at no cost to the employee; made available to the employee at a reasonable time and place; performed under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and provided according to the recommendations of the U.S. Public Health Service.

An accredited laboratory at no cost to the employee shall conduct all laboratory tests.

#### *Hepatitis B Vaccination*

The Assistant General Manager is in charge of the Hepatitis B vaccination program. BSD contracts with Concentra to provide this service.

Hepatitis B vaccination shall be made available after the employee has received the training in occupational exposure and within 10 working days of initial assignment. It shall be made available to all employees who have potential occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

Participation in a pre-screening program shall not be a prerequisite for receiving Hepatitis B vaccination.

If the employee initially declines Hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the vaccination shall be made available at no cost to the employee.

All employees who decline the Hepatitis B vaccination offered shall sign the OSHA required waiver indicating their refusal. (See Appendix B)

If a routine booster dose of Hepatitis B vaccine is recommended, such booster doses shall be made available at no cost to the employee.

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

All exposure incidents shall be reported, investigated and documented. When the employee incurs an exposure incident, it shall be reported immediately or as soon as possible to the employee's supervisor.

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:

- ❑ Documentation of the route of exposure, and the circumstances under which the exposure incident occurred;
- ❑ Identification and documentation of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law.
- ❑ 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 Assistant General Manager shall establish that legally required consent cannot be obtained. When law does not require the source individual's consent, the source individual's blood if available, shall be tested and the results documented.
- ❑ 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.
- ❑ 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.

*Collection and testing of blood for HBV and HIV serological status will comply with the following:*

- ❑ The exposed employee's blood shall be collected as soon as possible and tested after consent is obtained;
- ❑ The employee will be offered the option of having his or her 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.

All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard. The District's occupational health service provider, Concentra will perform all post-exposure follow-ups.

#### *Information Provided to the Healthcare Professional*

The Assistant General Manager shall ensure that the healthcare professional responsible for the Hepatitis B vaccination is provided with the following:

- ❑ 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;
- ❑ Result's of the source individual's blood testing if available; and
- ❑ All medical records relevant to the appropriate treatment of the employee, including vaccination status.

#### *Healthcare Professional's Written Opinion*

The Assistant General 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 professional's 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 professional's 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 OPIM that require further evaluation or treatment.

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

## **Labels and Signs**

Biohazard labels shall be affixed to containers used to store, transport or ship potentially infectious materials.

The universal biohazard symbol shall be used. The label shall be fluorescent orange or orange-red.

## **Information and Training**

Brunswick Sewer District 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 annually.

Training will cover:

- ❑ Signs and symptoms of bloodborne diseases
- ❑ An explanation of the modes of transmission of bloodborne pathogens;
- ❑ An explanation of BSD's Bloodborne Pathogen Exposure Control Plan;
- ❑ A copy of BSD's Bloodborne Pathogen Exposure Control Plan;
- ❑ A copy of the OSHA standard;
- ❑ The recognition of tasks that may involve exposure;
- ❑ An explanation of the use and limitations of methods to reduce exposure, for example, work practices and personal protective equipment.

## **Record keeping**

### *Medical Records*

The Assistant General Manager is responsible for maintaining medical records as indicated below. These records will be kept in the Administration Building.

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 employee's HBV vaccination status, including dates of vaccination.
- ❑ A copy of 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*

The Assistant General Manager is responsible for maintaining the following training records. These records will be kept in a binder in the vault at the Administration Building.

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 of all persons attending the training sessions.

#### *Availability*

All employee records shall be made available to the employee.

All employee records shall be made available to the Bureau of Labor upon request.

#### *Transfer of Record*

If this facility is closed and there is no successor employer to receive and retain the records for the prescribed period, the Director of the National Institute for Occupational Safety and Health (NIOSH) shall be contacted for final disposition.

#### **Evaluation and Review**

The General Manager is responsible for annually reviewing this program, and its effectiveness, and for updating this program as needed.

**APPENDIX A**  
29 CFR 1910.1030  
Occupational Exposure to Bloodborne Pathogens

**APPENDIX B**  
Hepatitis B Vaccine Declination

## **Hepatitis B Vaccine Declination**

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; I can receive the vaccination series at no charge to me.

---

Signature

Date

---

Witness

Date