Bloodborne Pathogen Program

CITY OF BANGOR

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1. Purpose & Scope

The City of Bangor Bloodborne Pathogen Program has been developed to address the potential hazards associated with occupational exposures to blood or other potentially infectious materials (OPIM). This program, combined with the creation and implementation of a departmental exposure control plan, will address the regulatory requirements outlined in the OSHA's bloodborne pathogen standard, 29 CFR 1910.1030. The City's Bloodborne Pathogen Program applies to all city employees who could "reasonably anticipate" having contact with blood or OPIM while performing their job functions.

2. Definitions

Biomedical Waste: liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or OPIM.

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

Bloodborne Pathogens (BBP): 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: The presence or the reasonably anticipated presence of blood or OPIM on an item or surface.

Contaminated Laundry: Laundry which has been soiled with human blood or OPIM, or which may contain sharps.

Contaminated Sharp: Any contaminated object that can penetrate the skin including, including, but not limited to, needles, scalpels, broken glass, broken capillary tubes and exposed dental wires.

Decontamination: The use of physical or chemical means to remove, inactive, 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: a specific eye, mouth, mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from performing assigned job duties.

Occupational Exposure: reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee's duties.

Other Potentially Infectious Material (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, or 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. Unfixed human tissue or organs (not including intact skin) is also considered to be OPIM.

Sharp: Needles, scalpels, broken glassware, or other sharp object that can penetrate the skin.

Sharps with engineered injury protections: A needless 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.

Source Individual: Any individual, living or dead, whose blood or OPIM may be a source of occupational exposure to the employee. Examples include but are not limited to, hospital and clinic patients, clients in institutions for the developmentally disabled, trauma victims, clients of drug and alcohol treatment facilities, residents of hospices and nursing homes, human remains, and individuals who donate or sell blood or blood components.

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

Universal Precautions: An approach to infection control. According to the concept of Universal Precautions, all human blood and other potentially infectious materials are treated as if known to be infectious for HIV, HBV and/or other bloodborne pathogens.

Work Practice Controls: means controls that reduce the likelihood of exposure by altering the manner which a task is performed (e.g. prohibiting recapping of needles by a two-handed technique).

3. Program Administration and Responsibilities

3.1 Safety and Environmental Management (SEM)

- Maintain, annually review and make available to all employees the City of Bangor Bloodborne Pathogen Program;
- Provide initial and annual Bloodborne Pathogen training for city departments;
- Maintain a copy of employee training records;
- Assist departments with developing an exposure control plan;

- Provide supervisors with guidance on identifying and selecting engineering controls to reduce or eliminate occupational exposures to blood or OPIM;
- Investigate and document exposure incidents;
- Conduct periodic audits of the Bloodborne Pathogen Program, department exposure control plans and city departments to ensure regulatory compliance; and
- Maintain employee Hepatitis B vaccination and declination records.

3.2 Supervisors

- Be familiar with the City of Bangor Bloodborne Pathogen Program and ensure personnel comply with the requirements described in the program;
- Identify the employees within your department who could "reasonably anticipate" having contact with blood or OPIM while performing their job functions;
- Develop, maintain and implement a department-specific exposure control plan;
- Provide engineering controls and adequate PPE for employees who could "reasonably anticipate" having contact with blood or OPIM while performing their job functions;
- Ensure employees that can "reasonably anticipate" having contact with blood or OPIM while performing their job functions receive initial BBP training and annual training thereafter;
- Ensure employees who experience a work-related exposure to blood or OPIM receive immediate medical care;
- Ensure all exposure incidents are documented through a first report of injury report and submitted to Safety and Environmental Management;
- Coordinate with the City's occupational healthcare provider to schedule:
    - Hepatitis B Vaccinations;
    - Post exposure evaluation and care.

3.3 Employees Included in the Bloodborne Pathogen Program

- Be familiar with and follow the requirements of the Bloodborne Pathogen Program;
- Immediately report all exposure incidents to your supervisor;
- Assist your supervisor with completing the first report of injury report for all exposure incidents;
- Attend and participate in initial & annual training; and
- Always use universal precautions when encountering blood or OPIM.

4. Exposure Determination

All departments are required to conduct an exposure determination to identify job classifications that can "reasonably anticipate" to have an occupational exposure to blood or other potentially infectious materials (OPIM) while performing the job functions. This determination will be

made without regard to the use of personal protective equipment. All job classifications identified in the determination are covered by this bloodborne pathogen program and will be included department-specific exposure control plan.

5. Exposure Control Plan

Departments are required to develop and maintain a department-specific Exposure Control Plan (ECP) that includes an exposure determination for the job classifications within the department that could foreseeably be exposed to blood or OPIM as they perform their job functions. Department ECP's are designed to identify specific tasks or group of tasks in which an occupational exposure could occur. Included with each job task, a description of a work practice, engineering control or personal protective equipment required to eliminate or minimize the potential occupational exposure.

A Department Exposure Control Plan must contain the following elements:

- List of job classifications in which all employees within that classification have an occupational exposure to blood or OPIM;
- List of job classifications in which some employees within that classification have an occupational exposure to blood or OPIM;
- A list of job tasks or group of tasks in which an occupational exposure could occur; and
- A description of a work practice, engineering control or Personal Protective Equipment (PPE) required to eliminate or minimize the occupational exposure.

Supervisors are required to review and update the department-specific exposure control plan at least annually or whenever necessary to reflect new or modified tasks and procedures. This review must include:

- Review of all required elements of the ECP;
- Consideration and/or implementation of new technologies to eliminate or reduce employee exposures; and
- Input from potentially exposed employees.

6. Minimization and Control of Exposures

Engineering and work practice controls are required throughout City departments to eliminate or minimize an employee's exposure to blood or other potentially infectious materials (OPIM). These controls must be examined by both the employee and supervisor on a regular basis to

ensure their effectiveness. Where a potential occupational exposure remains after implementation of these controls, personal protective equipment must also be used. The engineering and work practice controls listed in this section represent the minimum regulatory requirements when working with blood or OPIM. A description of the engineering control or work practice required to perform a specific job task will be listed in the department-specific Exposure Control Plan.

6.1 Universal Precautions

Universal precautions is an approach to infection control and employee safety in which all human blood and other potentially infectious material is treated as if known to be infectious for HIV, HBV and/or other bloodborne pathogens. City employees are required to use universal precautions whenever working with or potentially exposed to blood or OPIM.

6.2 Personal Hygiene and Facilities

Personal hygiene is a critical component to reducing the spread of pathogens. Employees are required to wash their hands or any other area of their body contaminated with blood or OPIM with soap and water immediately after contact. In addition, employees must flush mucous membranes with water or irrigate eyes with clean water or saline if exposures occur in these locations. In areas where occupational exposures are likely to occur, handwashing facilities supplied with anti-microbial soap must be made available. If handwashing facilities are unfeasible, such as with field work or mobile operations, then alcohol-based hand sanitizers may be used as a temporary measure until a handwashing facility can be used.

6.3 Food and Beverage

Eating, drinking, smoking applying cosmetics or lip balm and handling contact lenses are prohibited in areas (i.e. Immunization Clinic) where there is a reasonable risk of an occupational exposure to blood or other potentially infectious materials. Food and drink must not be kept in refrigerators or freezers where blood or OPIM are present. These devices must have a biohazard stickers and “No Food or Beverages” sign posted on the door.

6.4 Labels

Biohazard warning labels must be affixed to containers, refrigerators, freezers, waste bags and sharps containers that are used for contaminated materials, blood or OPIM. Labels must be orange or red in color with the biohazard symbol in a contrasting color.

6.5 Contaminated Clothing and Laundry Practices

Employees with clothing, shoes or other garments contaminated by blood or OPIM due to an occupational exposure should remove that item as soon as feasibly possible and place it into a leak-proof bag. If the contaminated item cannot be treated with an approved disinfectant or

laundered by an industrial laundry service capable of disinfecting and cleaning contaminated laundry, that item should be disposed of as bio-medical waste. Employees are not allowed to take contaminated clothing, shoes, garments or personal protective equipment home for cleaning.

6.6 Safer Medical and Related Devices

In clinical or laboratory settings, Safer Medical Devices are required to be substituted for traditional sharps whenever feasible. Safety products designed to reduce the risk of needle-sticks must be used during blood collection or manipulation of blood, tissue, or pathogen cultures. If needles must be used, self-sheathing needles or needle-less devices should be used for blood collection of injections. Supervisors must ensure that employees are consulted in the use of safety medical devices.

6.7 Sharps

The term "sharps" generally refers to needles, syringes, razor blades, scalpels and other instruments used in a clinical or laboratory procedure. However, employees should also recognize broken glassware or any other item capable of puncturing the skin are also considered a sharp. To improve employee safety and reduce the incidence of sharps-related injuries, employee are required use the following precautions:

- Do not reuse needles or syringes;
- Do not recap needles unless you use a modern, specially-designed recapping device that prevents injury or you use a one-handed technique;
- Do not shear, bend break or alter sharps prior to disposal;
- Do not dispose of sharps in the trash;
- Assume all needles and syringes are contaminated and must be disposed of in a sharps container, and
- Use a tool or other mechanical means to pick-up a syringe, needle or contaminated sharps.

6.8 Personal Protective Equipment (PPE)

When engineering controls or work practices do not effectively eliminate potential occupational exposures to blood or OPIM, departments are required to provide employees with personal protective equipment (PPE) appropriate for the job tasks. Supervisors will ensure that employees have access to and use the PPE listed in the department-specific Exposure Control Plan. Employees are responsible for notifying the supervisor if the PPE is inadequate for the exposure or is not readily available.

Protective Gloves:

Protective gloves will be provided to employees when the possibility of an occupational exposure exists. Employees are responsible for wearing protective gloves in all situations where hand contact with blood or OPIM is likely or anticipated. Gloves are also required to be worn when handling or touching contaminated items or surfaces, cleaning spills, or handling biomedical waste. Gloves are not intended to prevent puncture wounds from needles or other contaminated sharps. Disposable gloves must be discarded immediately after use and when contaminated, damaged, or otherwise compromised. Disposable gloves may not be washed or decontaminated for re-use. Utility gloves should be used when performing tasks that could easily compromise the integrity of disposable gloves. Utility gloves may be decontaminated for reuse if the integrity of the glove is not compromised.

Eye and Face Protection:

Masks combined with eye protection devices such as safety glasses with side-splash protection or goggles must be worn in situations where splashes or spray of blood or other potentially infectious materials is anticipated.

Protective Clothing:

Gowns, aprons, lab coats, clinic jackets, surgical caps/hoods, shoe covers or similar outer garments are required when contamination of personal clothing can be anticipated. The specific type and characteristics will depend upon the task and degree of exposure anticipated. Lab coats, gowns or aprons must be removed prior to leaving the work area, and should be laundered on the premises or by a commercial vendor. Disposable protective garments are an attractive option, and should be substituted in situations where no laundry facilities are available. Alternatively, lab coats should be bagged prior to them being removed off-site for laundering.

Contaminated PPE:

If personal protective equipment becomes contaminated with blood or OPIM, employees need to decide if they can properly disinfect the equipment or if it must be disposed of. Certain contaminated PPE, such as safety glasses, face shields or utility gloves may be cleaned and disinfected prior to reuse. Departments must follow all manufacturer's recommendations before attempting to clean and disinfect PPE. Departments are encouraged to use disposable PPE when performing a task that could lead to an occupational exposure.

7. Biomedical Waste

Public Health and Community Services is licensed through the State of Maine to accept biomedical waste from other city departments as long as they don't exceed 50 lbs. in any one month. All city-generated biomedical waste must be placed in a red, biomedical waste bag or sharps container labelled with a bio-hazard symbol. Both the bag and sharps container must be sealed before transporting it to Public Health and Community Services. Biomedical waste is defined as:

- Liquid or semi-liquid blood, or other potentially infectious material (OPIM);
- Paper towels, rags or other similar items saturated with blood or OPIM capable of releasing material in a liquid state if compressed;
- Pathological waste such as human tissue, organs, and anatomical parts;
- Items capable of releasing caked or dried blood or OPIM during handling; and
- ¾ full sharps containers used to dispose of syringes, needles or contaminated sharps.

In areas where needles, syringes or contaminated sharps are used, sharps containers are required to be easily accessible and located as close as feasible to the immediate area of use. Employees must be not open, reach into, or tamper with sharps containers. Sharps containers must be:

- Puncture and spill resistant;
- Properly labeled with the word "sharps" and the biohazard symbol;
- Maintained in an upright positon;
- Closed prior to handling, storage, transport, or shipping; and
- Disposed of when 3/4 full or when indicated by the manufacturer.

Non-contaminated sharps (i.e. broken glass, razor blades, etc…) other than syringes or needles that could cause injury if not properly contained must be collected in a rigid container before placing them into the trash. Broken glassware should never be handled directly. Instead, it should be removed my mechanical means such as tongs, dustpan and broom. Ensure the broken glassware container is properly sealed before placing it into the trash.

8. Employee Training

Employees whose job classification is listed in the department-specific exposure control plan are required to participate in Bloodborne Pathogens Training upon initial job assignment and at least annually thereafter. Training is also required when an existing job task is altered or when a new job task in introduced.

Training is conducted by Safety and Environmental Management or other designated individual in a classroom setting where employees have the opportunity to ask questions and provide feedback on the content of this program. All training must be documented.

BBP training includes at least the following elements:

- Identification of applicable regulations, 29 CFR 1910.1030;
- Review of City of Bangor Bloodborne Pathogen Program;
- Explanation of the epidemiology, modes of transmission, and symptoms of bloodborne diseases;
- Identification of tasks with potential exposure to bloodborne pathogens;
- Recognition of warning labels;
- Description of work practice and engineering controls;
- Selection, use, and disposal of Personal Protective Equipment (PPE);
- Information regarding Hepatitis B vaccination;
- Information on the appropriate actions to take for an emergency involving blood or OPIM;
- Procedures for exposure incidents, post exposure evaluation, & follow-up procedures; and
- Review of the department-specific Exposure Control Plan.

9. Hepatitis B Virus (HBV) Vaccinations

Employees are informed of the risks of Hepatitis B infection and the benefits of vaccination during BBP training. Employees are also informed that medical consultations and HBV vaccinations are available at no cost to all potentially exposed employees. At the conclusion of training, employees are offered the opportunity to receive the vaccination and/or consult with the City's occupational healthcare provider to discuss any personal medical issues or questions regarding the vaccination not answered during BBP training.

If an employee has previously received the completed Hepatitis B vaccination series, he or she can provide the City with a transcript of the vaccination records in lieu of accepting or declining the Hepatitis B vaccination. If the employee chooses, a Hepatitis B Titer is offered to check for surface antibodies. If the occupational medical provider recommends a HBV booster, one will be made available to the employee at no cost.

9.1 Hepatitis B Virus Vaccination Declination

Employees who decline medical consultation and/or HBV Vaccination must document their decision by signing and dating the City's Hepatitis B Vaccination Consent / Waiver Form. Signed and dated waiver forms will be kept on file. Employees who initially decline HBV vaccination, but at a later date decide to accept the vaccination must contact their supervisor and Safety and Environmental Management. At that time, provisions will be made for the employee to receive the vaccination.

9.2 Hepatitis B Virus Vaccination

Employees who accept medical consultation and/or HBV Vaccination will also sign the City's Hepatitis B Vaccination Consent / Waiver Form and begin the vaccination series within 10 working days of the initial BBP training. The supervisor will schedule an appointment for the employee with the City's occupational healthcare provider.
The initial appointment and subsequent visits to complete the HBV Vaccination series should be administered during the employee's work shift unless the employee works outside occupational healthcare provider's scheduled business hours. A licensed health care provider must provide vaccinations in accordance with current U.S. Public Health Service procedures. Records of vaccination must be kept by the occupational healthcare provider and Safety and Environmental Management.

10. Exposure Incidents

Following an occupational exposure, or suspected exposure, the exposed employee should immediately wash the affected area with soap and water, flush mucous membranes with water or irrigate eyes with clean water or saline. The employee will report the incident to their supervisor and he or she will ensure the employee receives prompt medical attention and consultation from the City's occupational healthcare provider or other after-hours healthcare facility. The employee and supervisor will complete a first report of injury and submit it to Safety and Environmental Management. If the supervisor is not immediately available, the employee should report the exposure to the next person in the chain of command or Safety and Environmental Management.

SEM will conduct an investigation of the exposure incident to determine route of exposure and the circumstances under which the exposure incident occurred. The investigation will identify recommendations for preventing future similar exposures.

10.1 Medical Surveillance

Exposed Employee:

The exposed employee must be offered the opportunity to have their blood collected and tested for the presence of a bloodborne pathogen. Collection of blood must occur as soon as feasible following the exposure incident and only if the employee consents to the procedure. The employee may choose to provide consent for baseline blood collection, but not for subsequent testing. If this occurs, the blood sample must be preserved by the City's occupational healthcare provider for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, testing must be done as soon as feasible. Exposed employees will be provided with appropriate post-exposure prophylaxis as indicated by the City's occupational healthcare provider.

Source Individual:

The City of Bangor is required to attempt to identify the source individual. If the source individual can be identified, they must be contacted as soon as feasible following the exposure incident. If consent is obtained, the source individual will be referred to a health care provider to have their blood collected and tested for the presence of a bloodborne pathogens.

If consent is not obtained, it must be documented 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, will 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 must be made available to the exposed employee within five (5) days of receiving the source individual's results. The employee also must be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

Information Provided to the Healthcare Professional:

The City of Bangor is required to provide the following information to the city's occupational healthcare provider after an exposure incident:

- A copy of the Bloodborne Pathogen Standard;
- A description of the exposed employee's duties as they relate to the exposure incident;
- Documentation of the route(s) of exposure and circumstances under which exposure occurred;
- Results 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 City is required to 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 post-exposure evaluation and follow-up must be limited to the following information:

- Confirmation that the employee has been informed of the results of the evaluation;
- Confirmation that the employee has been informed about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment;
- If Hepatitis B vaccination is indicated, and if the employee has received such vaccination; and
- Any/all findings or diagnoses will remain confidential and will not be included in the written report.

11. Recordkeeping

11.1 Medical Records

Medical records are required to be kept for each employee that experiences an occupational exposure to blood or OPIM. Medical records will be kept by Safety and Environmental Management and the City's occupational healthcare providers and must include:

- The name and social security number of the employee;
- A copy of the employee's Hepatitis B vaccination status including the dates of all the Hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination;
- A copy of all results of examinations, medical testing, and follow-up procedures;
- The employer's copy of the healthcare professional's written opinion; and
- A copy of the information provided to the healthcare professional.

Employee medical records must be kept confidential and not disclosed or reported to any person within or outside the workplace without the employee's express written consent, except as required by this section or by applicable law. Medical records must be maintained for at least the duration of employment plus 30 years.

11.2 Training Records

Bloodborne pathogens and department exposure control plan training records will be kept by the Department of Safety and Environmental Management. Training records must include the following information and will be maintained for 3 years from the date on which the training occurred:

- The dates of the training sessions;
- Names of person(s) conducting training; and
- The name and department of all persons attending the training.

11.3 Needlestick or Contaminated Sharps Injury Log

The Department of Safety and Environmental Management maintains a Needlestick or Contaminated Sharps Injury Log to document work-related injuries resulting from a needlestick or other contaminated sharp that breaks the skin (i.e. injection, cut, etc…). The information contained in the log will be recorded and maintained in such manner as to protect the confidentiality of the injured employee. The City of Bangor will keep the log for the required five-year period and which time the log will be destroyed to preserve confidentiality. The Needlestick or Contaminated Sharps Injury Log will contain the following information:

- Date;
- OSHA 300 log #;
- Type of device;
- Brand of device;
- Department or work area where the incident occurred; and
- Description of the Incident.

12. Program Review

Safety and Environmental Management will conduct a periodic review of the Bloodborne Pathogen Program, including the training and Hepatitis B Vaccination programs to assess compliance with 29 CFR 1910.1030. Periodic field audits will be conducted of departments that have employees included in the Bloodborne Pathogen Program to ensure compliance at the departmental level.