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## SAFETY POLICY & PROCEDURE

# Bloodborne Pathogens

**SPP#1910.1030**

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## **1.0 Purpose**

The purpose of this document is to eliminate or minimize employee occupational exposure to blood or certain other body fluids and to fully comply with the referenced OSHA Bloodborne Pathogens Standard.

## **2.0 Scope and Applicability**

This safety policy and procedure affects all North Carolina Department of Transportation (NCDOT) employees that, as a result of performing their job duties, are “reasonably anticipated” to come into contact with bodily fluids or other contaminated sources/materials.

## **3.0 Reference**

This safety policy and procedure is established in accordance with 29 CFR 1910.1030 of the Occupational Safety & Health Act.

## **4.0 Policy**

It is the policy of NCDOT to provide a place of employment that is free from recognized hazards that cause or are likely to cause death or serious physical harm to employees or the public. When hazards exist that cannot be eliminated, safe work practices, Personal Protective Equipment (PPE), and proper training regarding Bloodborne Pathogens will be implemented according to the referenced OSHA standard. This safety policy and procedure will include Exposure Control Plan and is not limited to the Hepatitis B Virus (HBV) and Human Immune Deficiency Virus (HIV) which causes AIDS. NCDOT will ensure that those employees who are exposed to bloodborne diseases are provided with confidential, fair, and equal treatment.

## **5.0 General and Specific Responsibilities**

It is the responsibility of each manager/unit head, supervisor and employee to ensure implementation of NCDOT’s safety policy and procedure on Bloodborne Pathogens. It is also the responsibility of each NCDOT employee to report immediately any unsafe act or condition to his or her supervisor.

### **5.1 Supervision**

It is the responsibility of NCDOT to provide accurate and timely information to employees concerning exposure, identification of labels and signs, proper use of PPE, and safeguards to prevent infection. Those who supervise others within NCDOT will ensure that all affected employees receive the applicable Bloodborne Pathogen training listed in LMS for their Unit.

### **5.2 Employees**

NCDOT employees whose primary job may expose them to Bloodborne Pathogens must receive initial and annual training concerning exposure, identification of labels and signs, proper use of PPE, and safeguards to prevent infection. Those who supervise these employees will ensure that all affected employees receive Bloodborne Pathogen training. The appropriate LMS online course “OSHA – Bloodborne Pathogens (Vivid)” should be assigned to affected employees. Classroom Bloodborne Pathogen listed in LMS may also be used.

## 5.3 Safety & Risk Management

Safety and Risk Management will provide prompt assistance to Managers/Unit Heads, Supervisors and others as necessary on any matter concerning this safety policy and procedure.

Division Safety Engineers, Consultants, and Officers will provide consultative assistance within their respective division to ensure the effective administration of this safety policy.

## 6.0 General Provisions

- Definitions
- Exposure Determination and Exposure Control Plan
- Engineering and Work Practice Controls
- Disposal of Contaminated Materials
- Training Requirements
- Pre-Exposure Vaccinations
- Post-Exposure Vaccinations
- Recordkeeping
- Confidentiality

### 6.1 Definitions

#### **Blood**

Blood means human blood, human blood components, and products made from human blood.

#### **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 Immune Deficiency Virus (HIV).

#### **Bodily Fluids**

Bodily fluids include but are not limited to blood, semen, vaginal fluids, saliva, vomit, amniotic fluid, or other body fluids that contain blood.

#### **Contaminated**

The 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 chemical or physical 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.

**Disinfectant**

An EPA approved agent that disinfects by destroying, neutralizing, or inhibiting the growth of harmful microorganisms. The most common disinfectant is a solution of at least 10 percent chlorine bleach mixed with water.

**Occupational Exposure Incident**

Skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious material that may result from the performance of an employee's duties.

**Other Potentially Infectious Materials**

Human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, 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.

**Parenteral**

Piercing mucous membranes on the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

**Personal Protective Equipment (PPE)**

Equipment used to prevent the spread of infectious diseases. Examples include disposable gloves, face shields, protective garments, mouth-to-mouth resuscitation devices, etc. Normal work attire is not considered to be protective clothing.

**Regulated Biohazardous Waste**

Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated needles; any other wastes containing blood or potentially infectious materials.

**Universal Precautions**

The concept of universal precaution is to treat all blood and body fluids as if they contain infectious Bloodborne Pathogens regardless of the source.

## **6.2 Exposure Determination and Exposure Control Plan**

In developing an exposure control plan, NCDOT has evaluated the work tasks associated with the functions of NCDOT to determine which tasks could be reasonably anticipated to result in exposure to Bloodborne Pathogens. NCDOT uses the following categorical distinctions to determine the level of potential exposure:

**Category I:**

Tasks that involve exposure to blood, body fluids, or tissues. All procedures or other job-related tasks that involve an inherent potential for mucous membrane or skin contact with blood, body fluids, or tissues, or a potential for spills or splashes of them are Category I tasks. Category I tasks are those normally associated with frequent and repetitive handling and working directly with blood products such as those performed by physicians, nurses, Emergency Medical Technicians (EMTs), etc. These jobs by design require an almost constant exposure to the potential for infection.

**NCDOT has identified no employees or job task that require Category I level tasks of potential exposure to Bloodborne Pathogens.**

**Category II:**

Tasks that involve no exposure to blood, body fluids, or tissues, but employment may require performing unplanned Category I tasks. The normal work routine involves no exposure to blood, body fluids or tissues, but exposure may be required as a condition of employment.

Category II tasks are those normally associated with employees whose primary job function does not require them normally to be exposed to blood or body fluids but who are trained to respond to emergency medical situations and are distinctly identified as emergency responders by the organization. This does not include all employees who have received employer provided first aid and Cardiopulmonary Resuscitation (CPR) training, but only those specifically designated as emergency responders. Others who are trained and respond to emergencies do so as a “good Samaritan” and should also follow all universal precautions. Category II tasks also include employees that may be exposed to biological hazards while performing tasks such as Bridge Inspection Divers and Rest Area Custodians. Those employees identified in Category II tasks are offered vaccinations free of charge prior to exposure for Hepatitis B Virus should they desire. If the employee declines the vaccination, he or she is required to signify this in writing using Appendix A.

**NCDOT has identified the following tasks as Category II tasks.**

First Responders - Ferry Division

Enforcement Officers - Division of Motor Vehicles

Rest Area Custodians – Division of Highways

Bridge Inspector Divers – Division of Highways

**Ferry Division First Responders** have been identified in the Category II tasks. In an incident that could prove life threatening to a ferry passenger, immediate contact of Emergency Medical Technicians is not always practical. Therefore, First Responders in this situation may be called upon to perform Category I tasks.

**Division of Motor Vehicle Enforcement Officers** have been identified in the Category II tasks. In incidents on our highways such as automobile accidents, DMV Enforcement Officers may be in a response situation where Category I tasks are required. In addition, due to possible confrontational situations during an arrest, exposure potential to blood or body fluids is an elevated risk.

**Division of Highways Bridge Divers** have also been identified in the Category II tasks. These divers are required to work in water bodies where the level of contamination varies. While they are not categorized as a classification that would be required to perform Category I tasks, they do have an elevated risk of acquiring the Hepatitis B Virus from possible exposure to contaminated water bodies.

**Rest Area Custodians** have been identified in the Category II tasks. Most Rest Areas are staffed by Contract personnel, but some Divisions may utilize NCDOT personnel to perform Custodial duties at certain Rest Areas.

While their normal work routines are not expected to expose them to blood, body fluids, or tissues, the potential exists for them to be exposed. Therefore, precautionary measures should be followed by these personnel in the performance of their duties.

### **Category III:**

Tasks that involve no exposure to blood, body fluids, or tissues, and Category I tasks are not a condition of employment. The normal work routine involves no exposure to blood, body fluids, or tissues (although situations can be imagined or hypothesized under which anyone, anywhere, might encounter potential exposure to body fluids).

Persons who perform these duties are not called upon as part of their employment to perform or assist in emergency medical care or first aid or to be potentially exposed in some other way.

Category III tasks are those tasks associated with normal work routines where there are no direct work tasks or pre-planned emergency response actions reasonably anticipated for the employee. All Category III employees should follow universal precautions in the performance of their duties, avoiding contact with blood, body fluids, or physical items contaminated with blood or body fluids.

The following sections detail NCDOT's Exposure Control Plan which shall be reviewed and updated as needed.

## **6.3 Engineering and Work Practice Control**

Engineering and work practice controls are to be used to eliminate or minimize the risk of employee exposure. Engineering controls and/or work practice controls are reviewed by supervisors on a regular basis not to exceed one year and any time a work task changes where the potential for occupational exposure is present. Where potential occupational exposures remain after placing engineering and work practice controls in place, PPE shall also be used.

Hand-washing facilities with hot and cold running water that are readily accessible to employees are to be provided in NCDOT facilities. Where it is not feasible to provide hand washing facilities such as on a work site, first aid kits will include an appropriate antiseptic hand cleanser or antiseptic towelettes. If an occupational exposure occurs where antiseptic hand cleansers or antiseptic towelettes are used, the employee should be transported to the nearest facility with hand washing facilities with hot and cold running water and the affected area thoroughly washed with soap and running water.

When gloves or other PPE are used and removed, employees are to wash their hands immediately after removal of the protective gear. All gloves, PPE, or clothing contaminated with blood or body fluid will be disposed of in sealed containers according to disposal procedures.

Equipment that may become contaminated with blood or potentially infectious materials are to be visibly examined before use and decontaminated as necessary.

Areas including floors where an incident occurred resulting in the presence of bloodborne pathogens shall be thoroughly cleaned with appropriate disinfectant and contaminated items will be collected in Biohazard bags for proper disposal.

## 6.4 Disposal of Contaminated Materials

All items that have been contaminated with blood or other potentially infectious materials are to be disposed of as a regulated waste. While it is not practical or economically feasible to place specially designed waste receptacles at all NCDOT facilities and work sites, this does not diminish the requirement for proper labeling, handling, and disposal of biohazardous materials. If there is waste material generated which contains or is contaminated with blood or body fluids, take the following steps: Do not handle in any manner contaminated items without proper PPE.

Place all contaminated items in a sealable container being careful not to contaminate the outside of the container. If the contaminated item is sharp or likely to puncture the container, use a container that is sufficiently sturdy to prevent the puncture of the container walls.

Label the container prominently to identify that the contents are blood and/or body fluids



Red bags or containers may be substituted for labels.

Place the container in a secure area with the label completely visible.

Dispose of gloves and other protective equipment in the same container. Ensure that glove outer surfaces do not touch the skin as they are removed.

Notify your Safety Officer immediately. Your Safety Officer will make the necessary arrangement to have the waste material properly contained, labeled, and disposed of. Safety Officers will maintain appropriate regulated biohazardous waste containers with appropriate labeling and use these containers for the disposal of contaminated articles. Safety and Risk Management will ensure that contracts are maintained with Hazardous Waste Contractors designated by DOT Roadside Environmental Unit to also include biohazardous waste and arrangements for the pickup and disposal of materials contained in biohazardous waste containers. Check with local hospitals and law enforcement as a free source of disposal.

## 6.5 Training Requirements

All employees performing at risk tasks shall receive education about precautionary measures, epidemiology, modes of transmission, and prevention of HIV/HBV and other associated infectious agents. This training is provided at no cost to the employee and during normal work hours. Training will be provided at the time of initial assignment to tasks where occupational exposures are “reasonably anticipated” to occur and at least annually thereafter. Training shall include:

- A copy of the regulatory text of this standard is available for review by any employee.
- NCDOT Exposure Control Plan for Bloodborne Pathogens shall be reviewed.
- Location and proper use of PPE, proper work practices, and the concept of Universal Precautions as it applies to their work practices.

- The meaning of color coding or other methods used to designate and dispose of contaminated articles or infectious waste.
- The actions to take if there is personal exposure to fluids or tissues, appropriate reporting procedures, and the medical monitoring recommended in cases of needle-stick injuries or other exposure to blood or body fluids.
- Information on the Hepatitis B vaccine, including information on its safety, method of administration, the benefits of being vaccinated, and that a pre-exposure vaccine is offered free of charge for Category I and II employees, and post-exposure vaccines free of charge for all employees who encounter an occupational exposure.
- Information on the post-exposure evaluation and follow-up that NCDOT provides for the employee following an exposure incident.

## **6.6 Pre-Exposure Vaccinations**

Employees identified as having Category I or II work tasks will be provided at no cost the Hepatitis B vaccination. If the employee refuses the HBV vaccination, he or she must sign a Hepatitis B vaccination declination form (See Appendix A). When completed, this form must be retained indefinitely in the employee's file.

If an employee has received an HBV vaccination from a previous employer, evidence of that vaccination must be obtained by the employee and placed in the employee's file.

## **6.7 Post-Exposure Vaccinations**

Employees who report work-related exposure will be provided at no cost a Hepatitis B vaccination. If the employee refuses the HBV vaccination, they must sign a Hepatitis B vaccination declination form (See Appendix A). When completed, this form must be retained indefinitely in the employee's file. If an employee has received an HBV vaccination from a previous employer, evidence of that vaccination must be obtained by the employee and placed in the employee's file.

Post-exposure medical evaluation will be provided at no cost through Safety & Risk Management Worker's Compensation third party administrator. A Workers Compensation claim must be filed for exposure to Bloodborne Pathogens.

Medical counseling for any employee found, as a result of the monitoring described above, to be seropositive for HBV or HIV, will be provided at no cost. Counseling guidelines have been published by the Public Health Service. For detailed information, reference the Occupational Safety & Health Bloodborne Pathogen Standard 29 CFR part 1910.1030.

Following a report of an exposure incident, a confidential medical evaluation and follow-up shall be made available to the exposed employee. The medical evaluation and follow-up provided by the physician shall include the following as a minimum:

- Documentation of routes of exposure and circumstances under which the exposure occurred.



- Identification and documentation of source individual unless prohibited by law. Results of source individual testing shall be made available to the exposed employee. (If the source denies permission for testing, the local or state health director may order testing of the source if that director determines that the exposure poses a significant risk of transmission of HIV and that the source is at high risk for HIV infection.)
- Testing of the exposed employee's blood by consent.
- Post-exposure vaccination and treatment, when medically indicated, as recommended by the United States Public Health Service.
- Counseling and evaluation of reported illnesses.

NCDOT Safety and Risk Management Workers Compensation unit shall ensure that the physician or healthcare professional responsible for medical evaluation is provided with a copy of 29 CFR 1910.1030 (Bloodborne Pathogen Standard).

## 6.8 Recordkeeping

NCDOT shall maintain records at the Division/Unit level for each employee involved in a Category I task or for Category II and III employees who have been exposed to bloodborne pathogens for a minimum period of their employment duration plus 30 years. These records will consist of:

- Training Records that indicate the dates of the training sessions, the content of the training sessions, trainer's name and qualifications.
- Inspection reports for the areas and/or tasks where biohazardous tasks are performed, identifying conditions noted and corrective actions taken.
- Incident Investigation Reports for each incident of mucous membrane or parenteral exposure to body fluids or tissue, an evaluation of these conditions, and a description of corrective measures taken to prevent a recurrence or similar exposure.

A medical record consisting of the following:

- Employee name and social security number.
- A copy of the employee's hepatitis B vaccination records and medical records relative to the employee's ability to receive vaccination.
- A copy of all results of physical examinations, medical testing and follow-up procedures as they relate to the employee's ability to receive vaccination or to post exposure evaluation following an exposure incident.
- NCDOT's copy of the physician's written opinion. A copy of all information provided to the physician.

## 6.9 Confidentiality

All employee medical records shall remain confidential. No information regarding employee medical information is to be disclosed or reported to any person outside the workplace except as may be required by law.

Employee medical and training records shall be provided upon request for examination and copying to the subject employee and to anyone having the express and written consent of the employee.

Copies of medical records shall be transferred to successor employer if employees leave NCDOT employment.

## **HEPATITIS B VACCINE DECLINATION**

*Completion of this form is mandatory for all Category I and II employees with work tasks that may have potential for exposure who decline to receive the Hepatitis B vaccination in the event of an exposure incident .*

I fully understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring the Hepatitis B virus (HBV) infection.

I have been provided with the opportunity to be vaccinated with the Hepatitis B vaccine at no charge to myself. However, I decline the Hepatitis B vaccination at this time.

I fully 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.

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**Enter Brief Description of Event or Situation causing exposure with Date and Time.**

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Employee Name

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Employee Signature

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Beacon Number

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Date

## APPENDIX B: Universal Precautions

### INFECTION THROUGH BLOOD AND BODILY FLUIDS

Universal Precautions will be utilized to ensure NCDOT employees are safeguarded against the spread of infectious diseases through contact with human blood or other bodily fluids. Regardless of the “perceived” risk involved, all employees should protect themselves from potential infection.

- Any accident/incident involving the transfer of blood or bodily fluids should be reported by the supervisor before shift end.
- Personal Protective Equipment (PPE) will be provided for and used by all employees considered to be at risk of infection.
- Gloves should be worn for touching blood and bodily fluids, mucous membranes or non- intact skin of all persons, for handling items or surfaces soiled with blood or bodily fluids, and for rendering assistance to injured persons. Always wash hands and arms after helping a victim.
- For those employees trained to perform CPR, separate yourself from direct contact with the victim by using a face shield or mask or one-way resuscitating device.
- Needlestick injuries should be reported to the supervisor immediately.
- Any items located that are believed to be human waste products (i.e., blood, soiled clothing, needles, or items identified with the universal biohazard symbol) should be handled only by a properly trained employee.
- All known items soiled with blood or other bodily fluids (i.e., clothing) should be disposed by a properly trained employee.
- All equipment and working surfaces shall be decontaminated with an appropriate disinfectant to eliminate the potential for infection.
- NCDOT will provide at no cost Hepatitis B vaccination series to supervisors and those employees considered to be at the greatest risk of infection.
- A post-exposure evaluation will be provided at no cost to the employee.

## APPENDIX C: Biohazard Symbol

The following is a universal symbol identifying material or objects contaminated with human blood or bodily fluids. When this symbol is identified, follow all Universal Precautions in this safety policy and procedure to ensure infectious diseases are not transmitted.

