Bloodborne Pathogens and Biohazardous Materials Management

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Purpose

The NCF Bloodborne Pathogen (BBP) Program requires participation **by all employees and non-employees** (students, volunteers, affiliates, etc.) who have occupational exposure to bloodborne pathogens. However, non-employees may be required to provide HBV vaccination records **prior to** their acceptance into a project or program. Although OSHA's BBP Standard does not specifically extend to non-employed students conducting research or classroom activities, the risk of exposure is still prevalent. Therefore, students working with blood or other body fluids on New College related projects shall be held to the same level of compliance.

Definitions

Blood

Blood refers to human blood, human blood components, and products made from human blood.

Bloodborne Pathogens

Bloodborne Pathogens are 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), hepatitis C virus, and human immunodeficiency virus (HIV).

Decontamination

Decontamination is the use of physical or chemical 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.

Engineering Controls

Engineering controls are those controls (e.g. sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

Exposure Incident

An exposure incident is a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Needle-less systems

A device that does not use needles for (A) the collection of bodily fluids or withdrawal of bodily fluids after initial venous or arterial access is stabled, (B) the administration of medications or fluids, or (C) any other procedure involving the potential for occupational exposure to bloodborne pathogens due to percutaneous injuries from contaminated sharps.

Occupational Exposure

Occupational exposure means **reasonably anticipated** skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

Other Potentially Infectious Materials (OPIM)

Materials other than human blood are potentially infectious for bloodborne pathogens. These include 1) 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 or impossible to differentiate between body fluids; 2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); 3) HIV or HBV-containing cell or tissue cultures, organ cultures, culture medium or other solutions; and 4) blood, organs, or other tissues from experimental animals infected with HIV or HBV.

Parenteral

Parenteral means piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, or abrasions.

Personal Protective Equipment

Personal protective equipment is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g. uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

Sharps with Engineered Sharps Injury Protections

A non-needle sharp or needle device used for withdrawing body fluids, accessing a vein or artery, or administrating medications or other fluids, with a built-in safety or mechanism that effectively reduces the risk of an exposure incident.

Universal Precautions

Universal Precautions are an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens (see policy, pg. 10).

Work Practice Controls

Work Practice Controls are those practices that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles).

Responsibility

Department chairpersons and/or **directors** are responsible to ensure that individual departments and divisions are in compliance with the bloodborne pathogen standard.

Faculty members, **principal investigators** or **laboratory supervisors** are responsible to ensure that the requirements and procedures outlined in the Exposure Control Plan that are appropriate to the individual work areas are carried out.

Employees are responsible for reporting exposures to their supervisors and complying with all components of the Exposure Control Plan.

The Student Health Care Center (SHCC) on campus is responsible for providing immunizations, post-exposure follow-up, and keeping medical records for employees and students.

Environmental Health & Safety (EH&S) is responsible for reviewing and overseeing the Exposure Control Plan. This includes coordinating compliance efforts for NCF, acting as a consultant for departments regarding implementation and enforcement, evaluating work practices and personal protective equipment, providing educational materials to departments, tracking employee training, and tracking medical monitoring.

Hepatitis B Vaccination

The vaccine for hepatitis B shall be offered at no cost to employees identified as at-risk for occupational exposure to bloodborne pathogens.

Vaccine refusal shall be documented by the employee signing the Hepatitis B Vaccine Declination statement. The statement shall be maintained in the employee's medical record.

Refusal of the vaccine is not final and the employee may request vaccination at any future time.

Exposure Prevention

Universal Precautions

Universal Precautions shall be practiced to prevent employee exposure to blood and other potentially infectious materials.

Engineering and Work Practice Controls

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Personal protective equipment shall be used when occupational exposure may occur even though the engineering and work practice controls are in place.

Engineering controls shall be examined and maintained or replaced on a regular schedule.

1. Hand washing facilities shall be provided and maintained with adequate supplies.
2. Contaminated sharps and needles shall be disposed of in puncture resistant, color-coded, or labeled, leak-proof containers.

3. Resuscitation devices including mouthpieces or resuscitation bags shall be available for use in areas where the need for resuscitation is predictable.
4. All specimens of blood or OPIM shall be placed in closable, leak-proof containers prior to transport. If contamination of the outside of the primary container is likely, then a second container such as a plastic bag should be placed over the primary container to prevent contamination and/or leakage during handling, storage or transport.
5. Eye wash stations shall be easily accessible and functional.

Syringes, safety syringes and needle-less systems used for direct patient care

Safety devices such as sheathing needles and needle-less systems will be used for staff protection whenever possible. These devices will be reviewed by non-managerial staff representatives and chosen by consensus for ease of use and engineering controls.

Work practice controls include general and site specific safety practices. Examples include:

1. Hand washing shall be performed after removal of gloves and after contact with blood or OPIM.
2. Employees who have exudative lesions or weeping dermatitis shall refrain from handling blood or OPIM until the condition resolves.
3. Contaminated sharps and needles shall not be bent, recapped, or sheared.
4. Eating, drinking, smoking, handling contact lenses, and applying cosmetics are prohibited in work areas where there is a potential for blood or OPIM exposure.
5. Food and drink are prohibited in work areas where there is a potential for blood or OPIM exposure.
6. All procedures involving blood and OPIM shall be performed in such a manner to minimize splashing, spraying, spattering, generation of droplets, or aerosolization of these substances.
7. Mouth pipetting and suctioning are not allowed. Mechanical pipetting devices shall be used.

Personal Protective Equipment (PPE)

Personal protective equipment, including gloves, gowns, laboratory coats, face shields, face masks, eye protection, foot coverings and other items shall be provided to employees, as appropriate, to prevent exposure to blood or OPIM. These items shall be worn selectively, as needed for the task involved. PPE shall be considered "appropriate" if it does not permit the passage of blood or OPIM through to an employee's skin, mucous membranes or street clothes.

Gloves

1. Disposable use gloves shall be worn when it is reasonably anticipated that the employee will have hand contact with blood or OPIM. The gloves shall be replaced when worn, torn or contaminated. They shall not be washed or decontaminated for re-use.
2. Utility gloves may be decontaminated and re-used if not punctured.
3. Latex free gloves will be provided as necessary.

Masks, eye protection, face shields

Masks in combination with eye protection devices (with side shields) or a chin-length face shield with a mask shall be worn when there is a reasonably anticipated chance of exposure to blood or OPIM through splashes, sprays, spatters or droplets.

Gowns, coats, aprons and other protective coverings

Protective coverings shall be worn depending upon the task and the degree of exposure anticipated.

Surgical caps, hoods or boots

Head and foot covers shall be worn when gross contamination is reasonably anticipated.

There shall be a designated area in each work setting for the dispensing, storage, cleaning and disposal of PPE. Contaminated PPE that is not immediately decontaminated shall be clearly designated and treated as biohazardous material. All PPE must be removed before leaving the work area.

Closed-toe shoes must be worn at all times in laboratory/clinical areas and all animal housing/procedure areas at the New College of Florida.

Housekeeping

Cleaning, Disinfection, and Sterilization Practices

1. All environmental and work surfaces shall be properly cleaned and disinfected on a regular schedule and after contamination with blood or OPIM (see procedures).
2. Appropriate personal protective equipment (e.g. gloves) shall be worn to clean and disinfect blood and OPIM spills.
3. Cleaning, disinfection, and sterilization of equipment shall be performed, as appropriate, after contamination with blood and OPIM.
4. Disinfectants must be EPA listed “tuberculocidal.”

Waste

1. Gloves shall be worn by employees who have direct contact with contaminated waste.
2. All biohazardous and/or biomedical waste designated for removal and incineration off-site shall be labeled according to the US DOT rule and Florida statutes.
3. Each work area shall develop a written waste plan.

All infectious wastes shall be managed according to NCF Biological Waste Disposal Policy

Labels

1. Warning labels as specified by the bloodborne pathogen standard shall be used. Red bags or red containers may be substituted for labels.
2. The labels shall include the biohazard symbol and be fluorescent orange or orange red.
3. Warning labels shall be placed on containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials. Other containers used to store, transport or ship blood and OPIM shall also be labeled.
4. Warning labels should be affixed to contaminated equipment and state which portions of the equipment are contaminated.

Exposure Management

Exposure management including post exposure prophylaxis shall be done in compliance with OSHA standard 1919.1030 and Florida statutes.

NCF employees who have been determined to be at risk shall receive education regarding the management of exposures to bloodborne pathogens that shall include the following:

1. Wound and skin exposures shall be immediately washed with soap and water for approximately 15 minutes.
2. Eye and mucous membrane exposures shall be rinsed in running water for 15 minutes.
3. Exposures shall be reported to the supervisor. The supervisor is responsible for notifying the Workers Comp Office and completing the appropriate paperwork.
4. Exposed individuals shall immediately report to the designated Workers Compensation clinic for treatment. The health care provider shall provide a confidential medical evaluation and follow-up of all exposure events to employees. The follow-up shall include these components:
   a) The route and circumstances of the exposure shall be documented.
   b) The identification of the source individual shall be documented unless it is unfeasible or prohibited by state law.
   c) The source individual shall be tested for HIV, HBV, or HCV according to Florida Statutes. Re-testing the source individual is not necessary when that individual is known to be positive for HIV, HBV, or HCV. Those results shall be disclosed to the exposed employee according to Florida statutes.
   d) Serologic testing of the exposed employee shall be offered within the provisions of Florida statutes for HIV. If the employee consents to baseline blood collection, but chooses not to be tested for HIV at that time, the sample shall be held for 90 days after the incident, enabling the employee to have HIV testing within the 90 days.
5. The evaluation and follow-up protocols are based upon U.S. Public Health Service recommendations. A written follow-up letter shall be provided to the exposed employee with 15 days of the completion of the evaluation. The letter shall document:
   a) That the employee has been informed of the results of the evaluation.
   b) That the employee has been informed about any medical conditions resulting from exposure to blood or other potentially infectious materials which require any further evaluations or treatment.
   c) The hepatitis B immunization status and the need for immunization.
   d) The letter shall not include any confidential material.
   e) The medical personnel responsible for evaluation of exposures shall be knowledgeable about the OSHA Bloodborne Pathogen standard 1910.1030 and Florida Statute. The Worker's Comp provider shall provide the results of the source individual's blood testing and the immunization status to the Workers Comp Case Manager. A description of the exposed employee's duties as they relate to the incident shall also be given to the case manager and to EH&S.

Research and/or Production Laboratories

There are special requirements for research laboratories and production facilities engaged in the culture, roduction, concentration, experimentation and manipulation of HIV and HBV (see procedures, pg. 12). These requirements apply in addition to the other requirements of the BBPP rule. These requirements DO NOT apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissue or organs.

Training

Scope

1. All employees with reasonably anticipated exposure to bloodborne pathogens shall receive annual training regarding the prevention and control of bloodborne pathogens.
2. New employees with reasonably anticipated exposure to bloodborne pathogens shall receive training upon assignment.

3. Additional training shall be provided to employees as their job duties change. This will be monitored by individual supervisors in consultation with EH&S.

Record-keeping

1. The dates of the training sessions, content outline, attendees list, and presenters list shall be maintained by the individual departments for 3 years.
2. Departmental compliance with the training requirement will be monitored by EH&S. A list of persons trained shall be submitted to EH&S annually by each department or division.

Content

The training program shall contain the following elements:

1. An accessible copy of the bloodborne pathogen standard.
2. A general explanation of the epidemiology and symptoms of bloodborne diseases.
3. An explanation of modes of transmission of bloodborne pathogens.
4. A review of the exposure control plan.
5. An explanation of the appropriate methods for recognizing procedures and other activities that may involve exposure to blood and OPIM.
6. An explanation of the use and limitations of practices that will prevent or reduce the likelihood of exposure. This includes the appropriate use of personal protective equipment and proper work practices.
7. Information on the types, proper use, location, removal, handling, decontamination, and/or disposal of personal protective equipment.
8. An explanation of the rationale for selecting personal protective equipment.
9. Information on the hepatitis B vaccine, including information on its efficacy, safety, and the benefits of being protected against hepatitis B.
10. An explanation of the post-exposure evaluation in the event of an exposure including reporting mechanisms, time frame for reporting and the medical management that is available.
11. Information on the management of emergencies associated with bloodborne pathogens including persons to contact and precautions.
12. Review of signs, labeling, and containment procedures associated with prevention and control of bloodborne pathogens.
13. Handling, use and disposal of bloodborne pathogens, syringes, safety syringe devices and biomedical wastes.

EH&S will provide a BBP test that is to be used at the end of the training session. After the test is completed, we recommend the trainer go over the answers with the participants to ensure understanding of the material and to reinforce the information provided.

Assessment Monitoring, Review, and Update

1. Each department chairperson or director shall be responsible for monitoring his or her department's or division's compliance with the bloodborne pathogen standard.
2. EH&S shall assist departments in monitoring compliance with the bloodborne pathogen standard.

Review and Update

EH&S shall review and assess the Exposure Control Plan annually. Input from the departments and from campus-wide monitoring will be used to update this plan as needed. This review must include changes in the technologies that reduce or eliminate exposures to bloodborne pathogens and the consideration and implementation of available and effective safer medical devices designed to eliminate or minimize occupation exposures into use in the workplace.

Universal Precautions Policy

According to the concept of Universal Precautions, all human blood, human blood components, products made from human blood and certain other materials are treated and handled as if known to be infectious for HIV, HBV and other bloodborne pathogens.

The other potentially infectious materials (OPIM) which require Universal Precautions include 1) 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 or impossible to differentiate between body fluids; 2) any unfixed tissue or organ (other than intact skin) from a human (living or dead); 3) HIV-containing cell or tissue cultures, organ cultures and HIV or HBV-containing culture medium or other solutions; and 4) blood, organs or other tissues from experimental animals infected with HIV or HBV.

The following shall be observed:

Personal Protective Equipment (PPE)

Personal protective equipment shall be used to prevent skin and mucous membrane contact with blood and OPIM. These may include the use of gloves, masks, protective eyewear or face shields and gowns or aprons, as appropriate for the task.

Handwashing

Hands and other skin surfaces shall be washed immediately after contact with blood or OPIM. Hands shall be washed each time gloves are removed.

Sharps

Sheathing safety syringes or needle-less systems will be used when possible. All sharps (needles, scalpels and razor blades) shall be disposed of in labeled, leak-proof, puncture-proof sharps containers. Needles shall not be bent, sheared or recapped. Sharps containers shall be available in the area where sharps are being used.

Dermatitis

Employees who have exudative lesions or weeping dermatitis shall refrain from handling blood or OPIM until the condition resolves.

Biological Safety Cabinets (BSC)

BSC are required for procedures (vortexing, grinding, blending etc.) that may generate an aerosol hazard.

Disinfection and Sterilization Procedures

Blood spills

All blood and OPIM spills must be decontaminated with a freshly prepared 1:10 dilution of household bleach or other properly-prepared, EPA-registered tuberculocidal disinfectant.

Disinfection and cleaning

Surfaces contaminated with blood or OPIM should be cleaned using a freshly prepared 1:10 dilution of chlorine bleach solution that is prepared daily. The contaminated area should be flooded with the bleach solution and then cleaned up using paper towels. Ten minutes of exposure is required for disinfection. Gloves should be worn during the clean-up procedures. Chlorine bleach can corrode metal and metal items treated with chlorine should be rinsed thoroughly. Thorough soap, water and a final rinse will remove chlorine residue. Other high-

level disinfectants (i.e. 2% glutaraldehyde) may be used after consultation with the Biological Safety Office.

Work surfaces, biosafety cabinets, and other laboratory equipment may be cleaned and disinfected with a freshly prepared 1:100 dilution of household bleach. Other EPA approved disinfectants may be used for routine cleaning and disinfection if they are labeled "tuberculocidal."

If you have questions about a specific item or about the efficacy of a specific disinfectant, please call the Biological safety Office for assistance.

Sterilization

Objects to be sterilized should first be thoroughly cleaned to remove blood, tissue, food, and other organic residue.

Steam sterilization is the best way to achieve inactivation of biological agents. If the item may be damaged by heat, pressure, or moisture or if it is otherwise not amenable to steam sterilization, please call the Biological Safety Office for advice.

Biological Waste Disposal Policy

This policy is intended to provide guidance and insure compliance with the NIH/CDC guidelines, the State of Florida Administrative Code 64E-6, and restrictions of the Sarasota County landfill.

Categories of Biological Waste

1) Infectious, potentially infectious, or R-DNA waste:

a) human pathogens
b) animal pathogens
c) plant pathogens
d) recombinant DNA
e) human blood, blood products and other potentially infectious material (OPIM)
f) any material containing or contaminated with any of the above (test tubes, needles and needle/syringe combinations*, syringes, tubing, culture dishes, flasks, gloves, other PPE, etc.)

*must be in plastic sharps boxes

This waste must be inactivated prior to leaving the facility. The preferred method is steam sterilization (autoclaving), although chemical inactivation (ex. addition of bleach prior to sewering) or incineration may be appropriate in some cases. Storage of non-inactivated waste is restricted to within the generating laboratory. The material may not be stored longer than 24 hours prior to inactivation.

2) Non-infectious Biological Waste

This category includes waste that is **NOT** contaminated with any of the biological wastes listed in category 1 above. Non-infectious biological waste includes the following:

gloves used in clinical settings or biomedical research	test tubes, centrifuge tubes	petri dishes
needles*	razor blades*	tissue culture flasks
syringes	culture dishes	serological pipettes
scalpels*	Pasteur pipettes*	micropipette tips*
broken glass and plastic ware **	needle/syringe combinations *	disposable medical devices/biomedical devices

This material does not require sterilization prior to leaving the facility.

* must be packaged in plastic sharps boxes.

3) Mixed radioactive/biological waste

The biohazardous component of mixed radioactive/biohazardous waste shall be inactivated (if possible) prior to its release to Radiation Safety for disposal as radioactive waste. Steam-sterilization or chemical inactivation shall be employed as above. Although some radioactive materials can be autoclaved safely, please check with the EH&S regarding the best method of inactivation.

4) Mixed chemical/biological waste

The biohazardous component of mixed chemical/biohazardous waste shall be inactivated (if possible) prior to its release for chemical disposal. Precautions should be taken to prevent the generation and release of toxic chemicals during the inactivation process. In general, autoclaving is not recommended because flammable or reactive compounds should not be autoclaved due to the explosion hazard. Please check with EH&S for guidance regarding particular chemicals.

5) Animal carcasses and materials

Dry (drained of most fluids) animal carcasses and parts may be disposed through the biomedical/biological waste box. Ensure that nor RCRA hazardous wastes are present, and that no free liquids are present. The containers should be closed at all times except when adding waste materials.

Packaging Biological Waste

1) Biohazard bags – used for the initial collection of certain biological wastes.
All biohazard bags must meet impact resistance (165 grams), tearing resistance (480 grams), and heavy metal concentration (<100 PPM total of lead, mercury, chromium and cadmium) requirements. Written documentation (a test report) from the manufacturing regarding these requirements must be on file. These bags must be placed in cardboard boxes (see #3 below) prior to disposal. The generator must order and supply these red bags.

2) Sharps

Place needles, scalpels, razor blades, pipette tips, and pasteur pipettes in red plastic sharps containers. These can be ordered from most commercial scientific supply vendors.

3) Corrugated biomedical/biohazardous cardboard boxes

Place all biological waste in rigid, specially-labeled, puncture resistant boxes as the terminal receptacle. Get these from your custodian or HSC Building Services (392-4414), Rm. AG-133. Do not overfill. Tape all seams.

Labeling

Please note that biohazard bags and sharps containers must be labeled even though they will be placed inside a secondary container for final disposal. All packages containing biological waste shall be labeled with indelible ink marker (i.e., Sharpie®) as follows:

1) Date

Biohazard bags shall be labeled with the date they were put into use. **Sharps containers** shall be labeled with the date the container is full.
Corrugated boxes (biomedical/biological waste boxes) shall be labeled with the date the biohazardous waste was treated. Boxes used for non-biohazardous waste collection shall be dated when the box is sealed.

2) Name/Location/Phone number

Generator's (principal investigator's name, lab location (room number) and phone number will be clearly printed on each container, bag or box.

3) Biohazard sign
Use only manufacturer containers with the preprinted universal biohazard symbol and the words "biomedical," "biohazardous," or "infectious."

Transport
Transport biohazardous waste outside of the laboratory (i.e., to a storage area) in a closed leak-proof container labeled "biohazard". Only trained personnel may transport biological waste. Labeling may be accomplished by use of a red biohazard bag or a biomedical/biological waste box with the universal biohazard symbol.

Only corrugated biomedical/biological waste boxes will be accepted for pickup or transport to the biomedical/biological waste storage area.

Training
All employees who handle biological waste shall be trained annually regarding the proper handling of biological waste. All new employees shall be trained before they are allowed to handle biological waste.
Training may be accomplished through the NCF Bloodborne Pathogen Training Program, informally in the lab setting, or through formal training programs set up by individual departments or divisions. For assistance, please call EH&S.

According to Florida Administrative Code (64E-16 F.A.C.), records of the training session shall be maintained for each employee, along with an outline of the training program. Training records shall be retained for a period of three (3) years.

NCF Bloodborne Pathogen (BBP) Exposure Guidelines

Medical care guidelines for NCF Faculty, Staff, and Students with potential bloodborne pathogen exposures.

Because some **treatment** regimens for bloodborne pathogen exposures must be started **within 1 to 2 hours of exposure**, the following guidelines are established to ensure prompt and appropriate care for those who have sustained a potential exposure-needle stick, sharps injury, or mucous membrane splash.

After-hours and on weekends, persons with post exposure will be triaged to the closest Emergency Room for treatment.

> **Faculty, Staff or Non-Student OPS Employees, TAs or Student Assistants:** You must report all potential bloodborne pathogen exposures to your supervisor. Time is critical! You or your supervisor must then call the NCF Workers' Compensation Office (487-4585) immediately and report for treatment at the designated Workers Compensation Provider.
>
> **NCF Students - Not employed by the College:** Your care must be paid for through your student/personal insurance or by some other means.

If you are on an off-site rotation further than one-hour travel time from NCF, seek care at the nearest medical facility.

Packaging and Shipping of Biological Materials

This policy is intended to provide guidance and insure compliance with DOT/IATA/ICAO* regulations.

Relevant Categories:

1. Category A Infectious substances
2. Category B infectious substances (now includes diagnostic or clinical specimens)
3. Exempt specimens
4. Regulated medical waste or biomedical waste

Requirements:

In addition to the OSHA BBP training and compliance, anyone involved in the packaging and/or shipping of biological materials, particularly #2 above, must be trained.

Training is required every 2 years. You should contact the EH&S Office in advance if you plan to ship biomedical materials.

Contact the EH&S Office at 487-4585

or
rhambrick@ncf.edu for information.

Recordkeeping

Employee medical records pertaining to occupational BBP exposure and HBV shall be maintained by EH&S for the duration of employment, plus 30 years.

References

1. Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1030, Bloodborne Pathogens
2. DOT Regulations, 49 CFR, Part 42.