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Standard Operating Procedure
for

Bloodborne Pathogen Exposure Control Plan

REVISION

Rev No.	DCN No.	Change Summary	Release Date	DCN Initiator	Document Owner
3	DCN0197	Add title page, CNSE terminology and CNSE logo. Remove Appendices and make separate forms listed under Associated Documents.	10/12/06	B. Borden	R. Segura

Prior revision history, if applicable, is available from the Document Control Office.

1. PURPOSE AND SCOPE

1.1 Purpose

1.1.1 To meet the legal requirements set forth by Occupational Standard and Health Administration's Bloodborne Pathogen Standard 29 CFR 1910.1030.

1.1.2 To meet specific requirements of the OSHA standard that will prevent transmission of Bloodborne diseases to employees.

1.1.3 To provide specific work instructions and training requirements for Emergency Response Team (ERT) members and housekeeping personnel.

1.1.4 To establish a written Exposure Control Plan (ECP) designed to eliminate or minimize employee exposure.

1.2 Scope

1.2.1 The ECP shall contain at least the following elements:

- Exposure determination,
- Methods of compliance,
- Hepatitis B vaccination and post exposure evaluation and follow-up,
- Communication of hazards to employees via training, and
- Record keeping requirements.

1.2.2 These work instructions apply only to CNSE employees, tenant employees, contractors and sub-contractors engaged in work activities that could lead to a possible occupational exposure to bloodborne pathogens or other potentially infectious materials (OPIM).

1.2.3 The requirements set forth in this procedure are the minimum standard. Tenant employees, contractors and sub-contractors may comply with their own Organization's program provided that it meets and/or exceeds the minimum requirements set forth in this procedure.

2. DEFINITIONS

2.1 **Biohazard Sign:** Universal logo used to label a biohazard waste.

2.2 **Biohazard Waste:** Any waste containing body fluids contaminated by visible blood, blood limited to no more than a band-aid shall not be included.

2.3 **Blood:** Refers to human blood components, and products made from human blood.

2.4 **Contaminated:** The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

2.5 **Clinical Laboratory:** A workplace where diagnostic or other screening procedures are performed on blood or OPIM.

2.6 **Exudates:** Accumulation of fluid in a cavity, or matter that penetrates through vessel walls into adjoining tissue or the passing of puss or serum.

2.7 **Febrile:** The elevation of one's temperature due to injury or illness.

2.8 **HBV:** Hepatitis B Virus.

2.9 **HCV:** Hepatitis C Virus.

2.10 **Health Care Worker:** is a person trained in First Aid methods of giving emergency care to an injured or ill person in the absence of professional Health Care Workers.

2.11 **HIV:** Human immunodeficiency virus (precursor to AIDS).

2.12 **Occupational Exposure:** Means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

2.13 **OPIM:** Other potentially infectious materials.

2.14 **OSHA Log 300:** Mandatory log form for reporting accidents /illness occurring at work and meeting the Occupational Safety and Health Administration regulations.

2.15 **Oxidative Lesions:** Draining wound - infectious material draining from wound.

2.16 **Personal Protective Equipment:** Specialized protective equipment used by CNSE employees to protect themselves or their clients from direct exposure to blood or other potentially infectious materials.

2.17 **Professional Healthcare Worker:** is a person whose legally permitted scope of practice allows him or her to independently perform the activities of ordering /or administering vaccine, and giving appropriate counseling.

2.18 **Red Bio Hazard Containers:** Red plastic bags labeled with the Biohazard logo used for disposing of bio hazard waste.

2.19 **Red Sharps container:** Special sealed container used for collecting and disposing of all needle and syringe potentially used in the CNSE site.

2.20 **Regulated 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 other potentially infectious materials and are capable of releasing these materials, during handling; contaminated sharps; and pathological and micro biological wastes containing blood or OPIM.

2.21 **Source Client:** An individual who has a transmissible disease, which may infect others.

2.22 **Source individual:** Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to employees. *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 its components.

2.23 **Universal Precautions:** Refers to a method of infection control in which all potentially infected bodily fluids are treated, as apply to feces, nasal secretions, sputum, sweat, or vomit unless they contain visible blood.

2.24 **Weeping Dermatitis:** Any skin disease or wound, which is open and causing drainage.

3. RESPONSIBILITIES

3.1 Environmental, Health and Safety (EH&S) Department

3.1.1 The EH&S staff is responsible for the implementation of the ECP. The EH&S staff will maintain, review and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. The EH&S department shall make a copy of the ECP accessible to all employees, please contact EH&S at extension 78627 in NFN with any questions.

3.1.2 EH&S shall identify all employees who may potentially be exposed directly to blood or other OPIM. The following is a list of all job classifications for which all employees have occupational exposure. Included are the associated job classifications in which exposure may occur.

Job Classification	Task(s)
EH&S Staff	Provides First Aid and CPR, and in house service.
ERT members	Responding to rescue calls where First Aid and CPR may be needed or evacuating employees with injuries/bleeding
Housekeeping	Housekeeping and clean-up

3.2 ERT Members

3.2.1 The ERT members currently working on site are responsible for responding to medical emergencies that occur on site and for providing First Aid and administrating CPR to employees working on site.

3.2.2 ERT members incur a risk of infection and subsequent illness each time they are exposed to blood or OPIM. Therefore, the infection control program is the core element used to reduce worker risk by minimizing or eliminating employee exposure incidents to Bloodborne pathogens specifically HIV, HBV and HCV.

3.3 Housekeeping

3.3.1 Housekeeping currently working on site is responsible for the cleanup and correct disposal of blood or OPIM after a spill or medical emergency, they also incur a risk of infection and subsequent illness each time they are exposed to blood or OPIM and have been also added to this program.

3.4 Employees

3.4.1 All CNSE employees, tenant employees, contractors and sub-contractors who have an accident or injury are responsible for contacting a member of the ERT for assistance and/or First Aid treatment.

3.5 Tenants, Contractors and Sub-Contractors

3.5.1 Tenants, contractors and sub-contractors are responsible for maintaining and tracking health records, training records, first aid-incidents and medical records for employees in their organization.

4. ASSOCIATED DOCUMENTS

4.1	EHS-00012-F1	Bloodborne Pathogen Post Exposure Checklist
4.2	EHS-00012-F2	Health Resources Consent for Serology Testing
4.3	EHS-00012-F3	EH&S Consent for Serology Testing
4.4	EHS-00012-F4	Hepatitis B Vaccine Form
4.5	EHS-00012-F5	Hepatitis B Vaccine Declination Form
4.6	EHS-00012-F6	Bloodborne Pathogen Training Program Quiz
4.7	EHS-00012-F7	First Aid Report

5. PROCEDURES/ METHOD OF COMPLIANCE

5.1 Employee Prevention and Controls Methods

5.1.1 Universal Precautions: All employees will utilize universal precautions. Universal precautions is a method of infection control in which human blood and certain human body fluids are treated as if known to be infectious with HIV, HBV and other BBP. Universal precautions are to be observed in all situations where there is a potential for contact with blood or OPIM. For the purpose of this document, human "exposure" is defined as contact with blood or other body fluids to which universal precautions apply through contact with an open wound, non-intact skin, or mucous membrane during the performance of normal job duties. An "exposed worker" is defined, for the purposes of this document, as an individual exposed to, as described above, while performing normal job duties.

5.1.2 CNSE employees shall routinely use appropriate barrier precautions and universal precautions to prevent skin, and mucous membrane exposure when in contact with blood or other OPIM of any employee is anticipated. Gloves shall be worn for touching blood and body fluids, mucous membranes, or non-intact skin of all patients, for handling items or surfaces soiled with blood or body fluids. Gloves shall be changed after contact with each patient.

5.1.3 Hands and other skin surfaces shall be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands shall be washed immediately after gloves are removed.

5.1.4 Although saliva has not been implicated in HIV, HBV and HCV transmission, barrier devices are available to help minimize the spread of

disease during mouth to mouth resuscitation. These ventilation devices include but are not limited to CPR microshields and/or CPR pocket masks. They shall be available (at a minimum) on the First Aid Responder bags located in NanoFab South, NanoFab North, and CESTM. Some personal ventilation devices may also be worn/carried by the First Aider on his/her person. If any ventilation device is used, it should be disposed of after use, as biohazard waste, and a replacement device will be issued by EH&S. It should be noted on the First Aider's Report Form that the device was used and disposed of.

5.1.5 ERT members who have extensive open areas on skin or weeping dermatitis should refrain from all direct care until condition is resolved.

5.1.6 Pregnant ERT members are not known to be at any greater risk of contracting HIV, HBV or HCV infection than other health care workers. Employees incur the risk of infection and subsequent illness each time they are exposed to blood or other potentially infectious materials. Therefore, the infection control program is the key element to reduce worker risk by minimizing or eliminating exposure incidents to BBP, such as HIV, HBV and HCV. Because of the risk to the unborn child, pregnant ERT members shall be especially familiar with and strictly adhere to precautions to minimize the risk of HIV, HBV and HCV transmission.

5.2 Barrier Techniques and Controls

5.2.1 Personal Protective Equipment (PPE)

5.2.1.1 Personal protective clothing or equipment must be worn or used whenever the ERT member anticipates any contact with blood or OPIM. All forms of personal protective clothing and equipment shall be immediately disposed of as biohazard waste, after use.

5.2.1.2 Personal protective clothing shall be provided at no cost to the employee by CNSE and shall include but not be limited to gloves, gowns, masks, eye wear and foot protection. Part or all shall be worn as deemed appropriate for circumstances involved at time of incident.

5.2.1.3 CNSE shall provide and assure that ERT members use gloves, pocket masks, or other ventilation devices when there is a potential for exposure to blood or other potentially infectious materials.

5.2.1.4 CNSE shall provide for cleaning, laundering, or disposal of PPE used in the course of an emergency treatment within ANT working environment.

5.2.1.5 CNSE shall repair or replace PPE as needed to maintain its effectiveness.

5.2.1.6 Surgical or examination gloves shall be replaced when visibly soiled, torn, and punctured or whenever their integrity is compromised. A new pair will

be donned for each patient. They shall not be washed, disinfected, or otherwise reused. At no time are gloves to be considered a replacement for hand washing.

5.2.1.7 You must follow a safe procedure for glove removal, being careful that no pathogens from the soiled gloves contact your hands or body.

- Carefully remove all other PPE while still wearing both gloves.
- With both hands gloved, peel one glove off from top to bottom and hold it in the gloved hand.
- With the exposed hand, peel the second glove from the inside, tucking the first glove into the second.
- Dispose of the entire bundle promptly.
- Wash hands thoroughly.

5.2.2 Engineering Controls

5.2.2.1 Biohazard "red sharps" containers shall be available in areas where needles or syringes are to be stored and or used.

5.2.2.2 "Red contamination" labeled bags or boxes shall be available in all CNSE First Aid Rooms or other places of anticipated need for disposal of biohazard waste materials.

5.2.2.3 Proper instruction and annual review of Bloodborne Pathogens Standard shall be provided by CNSE EH&S Department and mandatory attendance for all CNSE ERT members and housekeeping.

5.2.2.4 Engineering controls will be examined annually to ensure their effectiveness and will be replaced as needed.

5.3 Biohazard Waste Clean-Up and Disposal

5.3.1 Tags, Labels, and Bags

5.3.1.1 Tags that comply with 29 CFR 1910.1030 shall be used to identify the presence of an actual or potential biological hazard.

5.3.1.2 Tags shall contain the word "BIOHAZARD" or the biological hazard symbol and state the specific hazardous condition or the instructions to be communicated to employees.

5.3.1.3 The word and message must be understandable to all employees who may be exposed to the identified hazard.

5.3.1.4 Labels/tags may be an integral part of the container or affixed as close as safely possible to their respective hazards by string, wire, or adhesive to prevent their loss or unintentional removal.

5.3.1.5 Red bags or red containers may be substituted for labels on containers of infectious waste.

5.3.1.6 All employees shall be informed of the meaning of various labels, tags and color coding system.

5.3.2 Portable Biohazard Clean-up kits, including PPE, are available in all First Aid Responder bags and at all emergency evacuation First Aid cabinets.

5.3.3 Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see Labels), and closed prior to removal to prevent spillage or protrusion of contents during handling:

5.3.3.1 All infectious waste shall be placed in closable, leak proof containers or bags that are color coded, labeled, or tagged.

5.3.3.2 Disposable syringes, needles, scalpel blades and other sharp items shall be placed in closable puncture-resistant containers for disposal.

5.3.4 Puncture-resistant sharp containers shall be easily accessible to workers and located in areas where they are commonly used. These containers should not be filled more than 2/3 full before disposal.

5.3.5 Double-bagging prior to handling, storing, and/or transporting infectious waste is necessary if the outside of a bag is contaminated with blood or other potentially infectious materials.

5.3.6 Lab specimens of body fluids shall be transported in a container that will prevent leaking, and disposed of in accordance with institutional policies and regulatory requirements.

5.3.7 Initial cleanup of blood or OPIM shall be done with a dilute solution of household bleach, solution strength of 1:10 with water or with cleaning kit provided in the First Aid bags.

5.3.8 CNSE shall ensure that contractor housekeeping workers wear appropriate PPE and clothing including gloves during all cleaning of potentially infectious materials, which have been previously decontaminated by a CNSE ERT member. Clean up shall be done under the direction of a CNSE ERT member.

5.4 Post Exposure Evaluation and Follow Up

5.4.1 Following a report of an exposure incident, CNSE shall make available to the employee a confidential medical evaluation and follow-up of the incident (EHS-00012-F1).

5.4.2 The EH&S department shall document the route of exposure, HIV, HBV or HCV status of the source, if known, and the circumstances under which the exposure occurred.

5.4.3 The EH&S department shall notify the source client of the incident and attempt to obtain consent to collect and test the source's blood to determine the presence of HIV, HBV or HCV.

5.4.4 EH&S shall offer to collect a blood specimen from the exposed employee as soon as possible after the exposure incident for determination of HIV, HBV or HCV status. This service can be offered at any of the approved health care clinics.

5.4.5 EH&S shall offer to repeat HIV testing to exposed worker six weeks post exposure and on a periodic basis thereafter (12 weeks, and 6 months post exposure).

5.4.6 BBP post exposure packets are available in the EH&S Department and in all First-Aid Responder bags. This packet contains the forms that need to be completed. This folder needs to be brought with the exposed employee to the clinic/hospital.

5.5 EH&S Exposure Management

5.5.1 Any CNSE employee, tenant employee, contractor and/or sub-contractor who obtains an infectious blood or OPIM exposure shall report this to the EH&S department, and or dial 7-8600. If an onsite EH&S professional is available, they will proceed with the follow up. If an EH&S professional is not available, the assigned ERT member will provide the immediate First Aid assistance. The ERT member will then make arrangements for the exposed employee to be seen immediately at either any approved health care clinic or the nearest emergency room. The emergency room will continue with post exposure follow up. The provider will inform the client of the exposure potential and request a written consent (see EHS-00012-F2) for testing the source client. If request is denied a signed denial must be obtained from the source person and a copy to the victim. Each employee's medical file must also contain a copy of either the serological consent or denial (see EHS-00012-F3).

5.5.2 If the source client has AIDS, is positive for HIV, HBV or HCV or refuses to be tested the employee shall be counseled by the consulting physician regarding the risk of infection. The employee shall be evaluated clinically

and serological for evidence of HIV, HBV or HCV within 48 hours following the potential exposure.

5.5.3 Counseling shall include advice to seek a medical evaluation for any acute febrile illness that occurs within 12 weeks after the exposure, need for routine blood tests at time of incident, 12 weeks post incident and 6 months post HBV shall be reviewed.

5.5.4 Serologic testing and counseling shall be made available to all CNSE employees, tenant employees, contractors and/or sub-contractors who are concerned that they may have been infected with HIV even when source client is not identified.(see EHS-00012-F3)

5.6 Hepatitis B Vaccination

5.6.1 The EH&S Department upon request or potential exposure from an employee shall make the HBV vaccination available (EHS-00012-F4).

5.6.2 EH&S will provide training to employees on hepatitis vaccinations, addressing the safety, benefits, efficacy, methods of administration, and availability. The hepatitis B vaccination series is available at no cost after training and within 10 days of initial assignment to employees identified in the exposure determination section of this plan. One to two months after the completion of the series, the worker will be encouraged to be screened for antibody HBs AG to ensure immunity. Employees who do not respond to the primary vaccination series will be encouraged to be re-vaccinated with a second three-dose series and re-tested. Non-responders must be medically evaluated.

5.6.3 Vaccination is encouraged unless:

5.6.3.1 Documentation exists that the employee has previously received the series.

5.6.3.2 Antibody testing reveals that the employee is immune.

5.6.3.3 Medical evaluation shows that vaccination is contraindicated.

5.6.3.4 However, if an employee chooses to decline vaccination, the employee must sign a declination form (EHS-00012-F5). Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept in EH&S Department.

5.7 Waste Management

5.7.1 All waste biological waste which conforms to this specification will be placed in a Red Biohazard bag or Biohazard container and placed in the Biohazard waste box located in hazardous waste storage shed.

5.7.2 The EH&S Department will select and manage the account with a Medical Waste Management Company. The criteria for selection will include: certification with the Department of Health (DOH) and the EPA. All this information is stored in the Infectious Waste Binder stored in the EH&S Department.

5.7.3 EH&S shall be responsible for notifying the contractual waste management company that a pick up of biohazard hazard waste is necessary. At that time plans shall be made for date and time of pick up.

5.7.4 EH&S shall complete their necessary portion of the manifest which shall accompany the waste to its grave. A report of this shall be forwarded to the EH&S Department by the medical waste company following the destruction of the biohazard hazard waste.

5.7.5 The EH&S Department shall be provided with a new manifest and biohazard hazard waste container by the medical waste company contracted to destroy the medical waste generated at the facility.

5.7.6 The manifest and biohazard waste container shall be stored in the EH&S Department in the binder labeled Infectious Waste.

5.7.7 The EH&S Department will maintain a log of all manifest and destruction records in the Infectious Waste Binder. If the "Return to Generator" copy of the manifest is not returned to CNSE within 30 days of the pick up date, the EH&S department shall contact the medical waste company representative. The "Return to Generator" copy of the manifest will be immediately requested by phone and in writing. The EH&S Manager will be notified of this, should this occur.

5.8 Training and Education of ERT Members and Housekeeping

5.8.1 CNSE shall ensure that employees with a potential for exposure to infectious materials participate in a training educational program annually.

5.8.2 The training requires that there be an opportunity for interactive questions and answers with the person conducting the training.

5.8.3 CNSE shall ensure that training materials are appropriate in content, vocabulary, literacy, and language appropriate to the background of potentially exposed health service workers.

5.8.4 Training Program Content and Elements of the Program

5.8.4.1 A copy and explanation of the standard.

5.8.4.2 An explanation of our ECP and how to obtain a copy.

5.8.4.3 An explanation of methods to recognize task and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident.

5.8.4.4 A general explanation of the epidemiology and symptoms of HIV, HBV and HCV.

5.8.4.5 An explanation of the modes of transmission of HIV, HBV and HCV.

5.8.4.6 An explanation of the use and limitations of methods of control that may prevent or reduce exposure including universal precautions, engineering controls, work practices, and PPE.

5.8.4.7 Explanation of basis for selecting PPE.

5.8.4.8 Information on the HBV vaccine, including its efficiency, safety, and the benefits of being vaccinated

5.8.4.9 An explanation of the process to follow if an incident occurs, method of reporting the incident, and medical follow-up that shall be made available by CNSE.

5.8.4.10 An explanation of the signs, labels, tags and color-coding used to denote biohazards.

5.8.4.11 A BBP Training Program Quiz (EHS-00012-F6) will be conducted on all ERT members and housekeeping employees following training. A passing score of 70 is required in order for the worker to continue to be part of the team. If a score of 70 is not attained, the candidate will be retrained and re-tested. Re-Training may include some or all of the following methods: lecture, CD ROM, Video, literature review.

6. RECORDS

6.1 Health Records

6.1.1 The EH&S Department shall record and track each CNSE employee's, tenant employee's, contractor's and sub-contractor's reported exposure incident to blood or OPIM on the Bloodborne Pathogen Post Exposure Checklist (EHS-00012-F1) and on the monthly injury statistics.

6.1.2 Blood exposures shall be recorded on the injury and illness log if medical treatment such as Gamma Globulin, Hepatitis B Immune Globulin, or Hepatitis B vaccine is prescribed and administered by a licensed medical person, or meets other OSHA recordability criteria.

6.1.3 The medical record of both the client and the employee shall contain a copy of the employee's vaccination status as prescribed by law.

6.1.4 The medical record shall include examinations results, medical testing, follow–up procedures, vaccination status, the Health Care Professional's written opinion, and a copy of the information provided to the employee; and will be maintained in the medical record as stated by the OSHA Standard.

6.1.5 The EH&S Department shall ensure that the employee medical records required by law shall be held in strict confidence in a separate locked file.

6.1.6 No record or report may be disclosed without the employee express written consent to any person within or outside of the facility except as required by the law.

6.1.7 The EH&S Department shall maintain the record for the duration of employment plus 30 years in accordance with the law.

6.2 Training Records

Training records shall include:

6.2.1 The date of training session.

6.2.2 The contents or summary of training sessions.

6.2.3 The names and qualifications of persons conducting training.

6.2.4 The names and job titles / or departments of persons attending training.

6.2.5 Training records shall be maintained for three years from date on which training occurred.

6.3 Transfer of Records

CNSE shall comply with transfer requirements of all medical and training records as set forth in OSHA Standards 29 CFR 1910.20.

6.4 First-Aid Incidents

6.4.1 All first-aid incidents involving the presence of blood or OPIM will be reported to EH&S Department on extension 7-8627 prior to the end of the work shift during which the incident occurred.

6.4.2 The First Aid Report (EHS-00012-F7) will include the names of ERT members associated with the incident, incident date and time and a description of First Aid incident. The report will also ask if there was the presence of blood or OPIM, and whether or not an exposure occurred.

6.4.3 The First Aid Reports will be kept in the EH&S Department.

6.4.4 The First Aid Report will also state that the full hepatitis B vaccination is available within 24 hours to all unvaccinated ERT members who have rendered assistance in any situation including the presence of blood or OPIM, regardless of whether an exposure has occurred.

6.5 Medical Records

6.5.1 Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.20, "Access to Employee Exposure and Medical Records".

6.5.2 The EH&S Department is responsible for maintenance of the required medical records. These confidential records are kept in the EH&S office for at least the duration of employment plus 30 years.

6.5.3 Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days.

6.6 Other Records

6.6.1 Tenants, contractors and sub-contractors are responsible for maintaining and tracking health records, training records, first aid-incidents and medical records for employees in their organization.