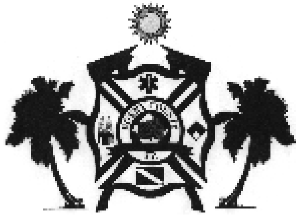

*HORRY COUNTY*
*FIRE/RESCUE DEPARTMENT*
***PROUD * PREPARED * PROFESSIONAL***

# *STANDARD OPERATING PROCEDURE*

**APPROVED BY GARRY B ALDERMAN, FIRE CHIEF:**

**DATE: August 12, 2011**

# SOP 611

## INFECTION AND EXPOSURE CONTROL POLICY AND PROCEDURE MANUAL

## PURPOSE OF THIS STANDARD

To provide control measures to prevent an exposure to a communicable disease during the delivery of patient care.

## SECTION 1 – GENERAL

### 1.01 SCOPE AND APPLICATION

A. HCFR will set forth specific procedures that comply with the requirements of NFPA 1581, *Standard on Fire Department Infection Control Plan* and 29 CFR 1910.1030, *Occupational Exposure to Blood borne Pathogens*.

B. The unpredictable and emergent nature of exposures encountered by HCFR emergency response personnel may make the differentiation between hazardous body fluids and those that are not hazardous very difficult and often times impossible an unanticipated. Therefore, when HCFR emergency response personnel encounter body fluids under uncontrolled, emergency circumstances, they should treat all body fluids as potentially hazardous.

## 1.02 RESPONSIBILTY

A. The goal of the HCFR infection control program is identifying the risks of exposures to members and the means to prevent those exposures. All HCFR members have the individual responsibility for their own health, safety and welfare. Each member is responsible for complying with all departmental SOP's including Occupational Safety and Health. Each HCFR member must ensure his/her own safety and health against occupational exposures by:

1. Participating in health maintenance programs, including annual physicals and immunizations.
2. Practicing good personal hygiene.
3. Reporting any personal medical conditions that could require work restrictions.
4. Following infection control procedures at emergency incidents or while conducting patient care at any time.
5. Properly using all protective clothing and equipment.
6. Reporting and documenting all exposures.
7. Complying with medical follow –up treatment
8. Assuring proper decontamination of equipment after each incident.
9. Proper storage and disposal of contaminated waste
10. Attending annual retraining of all members as required by 29 CFR 1910.1030.

## 1.03 SCHEDULE AND IMPLEMENTATION

A. The Exposure control plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures, which affect occupational exposure, and to reflect new or revised employee positions with relation to occupational exposure.

# SECTION 2- PLAN ELEMENTS

## 2.01 EXPOSURE DETERMINATION

A. An **exposure incident** is defined as specific eye, mouth, or other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties.

   1. **Parenteral**, for the purposes of this SOP, is defined as piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts and/or abrasions.

B. An **occupational exposure** is defined as reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from the performance of an employee’s duties.
C. **Contamination** is defined as the presence or reasonably anticipated presence of blood or OPIM on an item or surface.
D. Risk potential for emergency response personnel depends on the degree of exposure. Five factors in assessing potential risk in an exposure situation are:

1. **Communicability**. Is dependent upon identification of the infectious agent. Some disease-producing organisms are more communicable than others, meaning, they are more easily spread from one person to another.
2. **Dosage.** Refers to the number of live organisms received during an exposure. Each illness requires that a certain number of infectious agents be present in order to cause disease.
3. **Virulence**. Is defined as the strength or ability of the disease organism to infect or overcome bodily defenses.
4. **Hardiness of the organism**. The organisms’ ability to survive in the environment, usually outside the body. For example, TB dies when exposed to light and air. Where Hepatitis B may live outside the body for up to seven days in dried blood.
5. **Host resistance**. Is the ability of the host to fight infection.

E. All HCFR emergency response personnel are at risk for contracting an infectious disease.

a. First Responders
b. EMT’s and EMT-I’s
c. Paramedics
d. Firefighters (includes volunteers)

F. The following is a list of tasks, procedures and groups of related tasks and procedures, which involve occupational exposure to blood borne pathogens. The employee at all times shall, when performing these tasks and procedures, use PPE. These tasks are job specific depending on the employee’s level of training.

a. Intravenous Fluid therapy, maintenance or D/C of IV therapy
b. IV, IM, ET, or SQ drug therapy
c. Endotracheal and nasal intubations and/or inserting of an OPA/NPA
d. Splinting
e. Bandaging and bleeding control
f. Pleural decompression
g. Oxygen therapy
h. Maintaing C-spine/Spinal immobilization

i. Patient Assessment
j. Decontamination of equipment/apparatus
k. Performing Dextrostix
l. Application of heart monitor leads/defibrillation paddles
m. Transport or treatment of known or suspected contagious patients
n. Suctioning of airways and cavities
o. Entering crime scenes
p. Auto accidents where individual vehicles and there parts must be contacted
q. Changing soiled linen
r. Childbirth
s. Contacting all types of body fluids
t. MAST trouser application
u. IO cannulation

G. **Infectious vs. Communicable**. A communicable disease is one that can be transmitted from one person to another. An infectious disease results from invasion of a host by disease producing organisms. NOT ALL INFECTIOUS DISEASES ARE COMMUNICABLE.

H. Modes of Transmission

1. **Direct transmission**. The spread of communicable disease through direct contact with the blood or other body substances of an infected individual.
2. **Indirect transmission**. Occurs without direct person to person contact; the disease –producing organism passes from the infected individual to an inanimate object. Another person may then come into contact with the contaminated object and contract the disease.

I. Emergency response personnel are at risk of contracting two types of diseases, blood borne and airborne.

1. **Blood borne diseases** are spread by the direct contact with the blood or OPIM of an infected person. Examples include, HIV, HBV, HCV, and Syphilis.
2. **Airborne diseases** are spread by droplets of the disease-producing organism being expelled into the air by a productive cough or sneeze or by direct contact with infected bodily secretions. Airborne diseases include: TB, Meningitis, Mumps, Rubella, and Chicken Pox.

J. Risk of exposure from blood borne diseases varies according to the type of exposure. The most common types of exposure are as follows:

1. Contaminated needle stick injury (a stick with a large bore, hollow needle carries more risk than a small bore solid needle).
2. Cuts with sharp objects covered with blood/OPIM.
3. Blood /OPIM contact with open, non-intact area of the skin; a deep vs. superficial opening, and the amount of blood present/exchanged.
4. Blood/OPIM contact to mucous membrane surface of eyes, mouth or nose.

K. Risk of Infection from airborne diseases varies according to type of exposure. The risk depends on the following:

1. Duration of exposure, was it prolonged?
2. Type of ventilation present
3. Mode of transmission and virulence of disease organism

L. Risk of potential for contracting TB may be reduced by doing the following:

1. Maintaining shorter transport times
2. Maximize ventilation
3. Proper use of PPE. Employee use of N95 particulate filter respirator ONLY because it filters what comes in, not what goes out. Place either an oxygen or dust mask on patient.

M. High hazard procedures for contracting TB:

1. Suctioning/Intubation
2. Bronchoscopy
3. Sputum Induction
4. Aerosolized Medication
5. Transport in closed vehicle/inside residence for long amounts of time without adequate ventilation

N. High Risk Workplaces for contracting TB:

1. Emergency health care settings
2. Correctional Facilities
3. Homeless shelters
4. Long term care facilities
5. Drug treatment centers

## 2.02 **<u>METHODS OF COMPLIANCE</u>**

A. **General.** Universal precautions shall be observed to prevent contact with blood or OPIM. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

B. **Universal precautions.** is an approach to infection control. According to the concept, all human blood and certain human body fluids are treated as if known for HIV, HBV, and HCV. It also includes other potentially infectious materials such as body fluids containing visible blood, semen, vaginal secretions, tissues, CSF (cerebral spinal fluid), synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, and amniotic fluid.

C. **Body substance isolation** (BSI). The concept that blood and all body fluids are to be considered potentially infectious. Thus in addition to those fluids listed under universal precautions, other body fluids that pose a risk for possible spread of infection if sufficient amounts of blood is visible are: sweat, tears, saliva, urine, stool, vomitus, nasal secretions, and sputum. BSI may be accomplished through the use of personal protective equipment (PPE).

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

## 2.03 **TYPES OF PERSONAL PROTECTIVE EQUIPMENT**

A. **Gloves.** Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood or OPIM. ~~Latex,~~ Nitrile, Extrication, ~~or interior structure firefighting~~ gloves may be worn depending on the nature of the call and task being performed.

1. Sterile gloves must be worn for sterile suctioning and any other procedures involving normally sterile areas of the body.
2. Examination gloves are single use and disposable, and shall be replaced as soon as practical when contaminated, or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.
3. Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, or their ability to function as a barrier is compromised. ***Extrication And Structural Firefighting gloves are not to be worn while performing Pt Care.*** ~~If interior structural firefighting gloves that are not OSHA approved and do not provide a moisture barrier, it is recommended to wear a pair of latex gloves underneath to serve as a moisture barrier EXCEPT when there is excessive heat or open flame present, as these gloves are highly flammable.~~

4. Gloves must be worn if the employee has cuts, scratches, or other breaks in his or her skin.
5. HCFR shall ensure that appropriate PPE (gloves), in the appropriate sizes is readily available/accessible.
6. Hypoallergenic gloves, or other alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.
7. ~~When wearing latex gloves, DO NOT use oil-based lotions or hand creams.~~
8. ~~Learn to recognize the symptoms of latex allergy such as skin rashes, hives, itching, flushing, asthma, sinus congestion, and even shock. A line of demarcation may be present where the gloves stop at the wrist.~~

B. **Gowns**. Gowns must be worn when a procedure is likely to generate splashes of body fluids. The employee must don a gown anytime there is a large amount of blood or OPIM present, or in situations when it is reasonable to anticipate the presence of a large amount of blood or OPIM (i.e. childbirth).

C. **Protective eyewear**. Face shields, goggles. Protective eyewear must be worn when contamination of the eyes is likely due to splashes of blood or OPIM. Protective eyewear must be worn in situations such as endotracheal intubation, suctioning, and childbirth. Interior structural firefighting helmet shields are considered a SECONDARY means of eye protection when eye protection is being used during vehicle extrication during the delivery of patient care or while working with equipment.

D. **Masks**. The NIOSH approved respirator must be worn anytime the possibility of an airborne disease is suspected (i.e. fever of unknown origin, persistent cough, hemoptysis). It must also be worn in situations such as intubations, suctioning, and pleural decompressions. Each employee shall be fit tested and given the appropriate size NIOSH approved respirator. If the respirator becomes unusable, wet or visibly contaminated with blood while on a call, dispose of the mask and don a new one. Dust/mist masks may be used for deconning procedures that require a mask. These masks may also be placed on the patient, as the situation requires. These masks are disposable, and after use should be disposed of in a regulated waste container. Two types of NIOSH approved respirators currently in use are the following:

1. **N 95 particulate filter respirator.** This type respirator is a non-powered, air-purifying, particulate-filter respirator. It has a filter efficiency of 95 percent and is not resistant to oil as defined under 42 CFR part 84. Each employee shall be fit tested using the Bitrex qualitative fit test protocol as stated in the respiratory protection program.
2. **SCBA.** (Self contained breathing apparatus). This is a positive pressure SCBA respirator designed and provided to ensure that emergency response personnel breathe contaminate free air where ambient atmosphere is deemed hazardous to health or is IDLH.

E. **Turn out Gear**. This includes bunker coat and pants, flash hood, helmet, and boots.

F. **Provision**. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate PPE. PPE will be considered "appropriate" only if it does not permit blood or OPIM to pass through to or reach the employee's work clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal circumstances of use and for the duration of time that the protective equipment will be used.

G. **Use**. The employer shall ensure that the employee uses appropriate PPE unless the employer shows that the employee temporarily and briefly declined to use PPE when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services to the public and/or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgment, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

H. **Cleaning, laundering and disposal**. The employer, HCFR, shall clean, launder, and dispose of PPE at no cost to the employee.

1. Uniforms must be kept clean at all times. If, at any time, any part of your uniform becomes contaminated, it is to be removed as soon as feasible.
2. The maintenance and cleaning of contaminated uniforms or bunker gear will be the responsibility of HCFR.
3. If a garment/uniform is penetrated by blood or OPIM, the garment shall be removed immediately, placed in a designated container (or biohazard bag) for washing, storage, decontamination or disposal.
4. The employee must then inform the DICO that clothes are contaminated and fill out and incident report as to how he/she became contaminated.
5. Each employee MUST have in his/her possession a spare uniform at the beginning of each shift. This must include at a minimum a shirt and trousers.

## 2.03 <u>MEDICAL SURVEILLANCE</u>

A. **Health maintenance**. All members of HCFR shall participate in a health maintenance process. It includes but is not limited to:

1. Access to immunization to Hepatitis B
2. Access to TB screening on an annual basis
3. A medial surveillance program that complies with NFPA standard 1582, *Standard on Medical Requirements for Firefighters.*

4. The development of a confidential health database established and maintained for each member in accordance with NFPA 1580 and 29 CFR 1910.20, *Access to Exposure and Medical Records.*
5. In the event of an exposure, the member shall receive a confidential medical evaluation, post exposure prophylaxis if indicated, counseling, and post exposure follow-up.
6. Return to work policy.

B. **Immunization programs**. The Hepatitis B vaccine and vaccination series, TB PPD skin test screening, and Hepatitis A vaccine programs.

1. Made available at no cost to employee and at a reasonable time and place.
2. Performed by and under the supervision of a licensed health care professional.
3. Provided according to the U.S. Public Health Service current at the time that these evaluations and procedures take place.
4. The Hepatitis B vaccination shall be made available after the employee has received the training required and within ten working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contra indicated for medial reasons.
5. The employer shall not make participation in a prescreening program a prerequisite for receiving the Hepatitis B vaccination.
6. If the employee initially declines Hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available the Hepatitis B vaccination at that time.
7. HCFR shall assure that employees who decline the Hepatitis B vaccine, once offered, sign a declination form to be placed in the employees' medical record.
8. If the U.S. Public Health Service recommends a routine booster of Hepatitis B vaccine at a future date, such booster shall be made available. Boosters may be recommended post-exposure.
9. Until such time that CDC or OSHA requires pre-employment or routine Hepatitis B titers, HCFR shall provide them only ~~1-2~~ *3-4* months after the completion of a recent series as of 1/2002. At such time that titers are required, they will be offered at no cost to employees. Titers are drawn post-exposure.
10. Until such time that CDC or OSHA requires Hepatitis A vaccines for all personnel, dive team members ONLY will be offered Hepatitis A vaccines at no cost and are not mandatory.

C. **TB PPD skin tests**. They will be given initially upon hire, and annually thereafter. They must be read within 48-72 hours after having been given. They must be read by a licensed health care professional. Once an employee tests positive, he/she may not be skin tested again. Those individuals will be given chest X-rays to confirm the

presence of active TB. If none is found, the employee shall complete annually the TB surveillance form, making any note of any signs/symptoms experienced during the past year and each year thereafter. The presence of a positive skin test DOES NOT automatically confirm the presence of active TB. Upon confirmation that an employee did have an exposure to a patient with active TB, he/she WILL NOT automatically be given a PPD until up to six weeks post exposure. The employee would then be followed- up with by DHEC, and may or may not be placed on chemoprophylaxis as recommended.

## 2.04 **TRAINING**

A. HCFR shall ensure that all employees with occupational exposure participate in a training program, which must be provided at no cost to the employee and during working hours.
B. Training shall be provided at the time of initial assignment to tasks where occupational exposure may take place, either in recruit training, or company in-service training. Training shall also take place annually and within one year of their previous training.
C. HCFR shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures that affect the employee's occupational exposure, and further more, when there is a change in job assignments or functions, or, if new protective clothing or equipment is placed in service.

D. The training shall contain at a minimum the following elements:

1. An accessible copy of the regulatory text of the standard, 29 CFR 1910.1030, and an explanation of its contents
2. A general explanation of the epidemiology and symptoms of blood borne diseases.
3. An explanation of the modes of transmission of blood borne pathogens.
4. An explanation of the HCFR exposure control plan, and a means by which the employee can obtain a copy of the written plan.
5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and OPIM.
6. An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate PPE, engineering controls, and work practices.
7. Information on the types, proper use, location, removal, handling, and decontamination and disposal of PPE.
8. An explanation of the basis of selection of PPE.
9. Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM.

10. Information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
11. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available.
12. Information on the post-exposure evaluation and follow-up that HCFR is required to provide for the employee following an exposure incident.
13. An explanation of the signs and labels and/or color-coding required.
14. The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

## 2.05 RECORDKEEPING AND CONFIDENTIALITY

A. The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

1. The name and social security number of the employee
2. 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 vaccinations.
3. A copy of all results of examinations, medical testing, and follow-up procedures will be kept by the designated medical authority.
4. The employer's copy of the healthcare professionals written opinion shall be maintained in the individuals file by the DICO.
5. A copy of any and all return to duty paperwork, and fit testing results.

B **Medical records and confidentiality**. The employer shall ensure that the employee medical records are kept confidential and:

1. Not disclosed or reported without the employee's expressed written consent to any person within or outside the workplace except as required by law.
2. HCFR shall maintain the records for at least the duration of employment plus thirty years in accordance with 29 CFR 1910.1020
3. Under 1904.29, confidentiality requirements for reporting injuries and illnesses states that any needle stick injuries that are to be recorded in the OSHA log shall be recorded as a "privacy case", and that a separate confidential list with the employees name must be kept.

D. **Training records**. Training records shall include the following information.

1. The dates of the training sessions
2. The contents or summary of the training sessions
3. The names and qualifications of persons conducting the training.
4. The names and job titles of all persons attending the training sessions
5. Training records shall be maintained for three years from the date on which the training occurred.

E. Employee medical records shall be provided upon request for examination and copying to the employee, to anyone having consent of the employee, and to the DICO. Any employee medical records being maintained by the designated medical authority are available to that employee upon request, and the employee understands that he/she signs for release of that medical information to the DICO as needed and with employee consent.

F. **Transfer of records**. If the employer ceases to do business and there is no successor with said designated medical authority, the employer (HCFR), shall notify the County three months prior to that time, and transfer those records, if required to do so, within that three month period. The designated medical authority has three months to transfer those records.

G. **Sharps injury log**. HCFR shall establish and maintain a sharps injury log for the recording of percutaneous injuries form contaminated sharps. The information in the sharps injury log shall be recorded and maintained in such a manner as to protect the confidentiality of the injured employee. The sharps log shall contain at a minimum:

1. The type and brand of device involved in the incident.
2. Describe briefly the incident and how the exposure incident occurred.
3. A work related sharps injury is recordable on the OSHA 300 log if it: causes death, causes an illness, involves an injury that requires medical treatment, (even if the treatment if offered and refused).

H. Under 29 CFR part 1904 HCFR is required to record all injuries, illnesses and fatalities that are new cases, work related, and meet the other criteria in the standard.

I. General recording requirements. All injuries and illnesses must be recorded if they result in:

1. Medical treatment beyond first aid
2. Days away from work
3. Restricted work or transfer t another job
4. Loss of consciousness
5. Death

## SECTION 3- ENGINEERING AND WORK PRACTICE CONTROLS

3.01 **Engineering controls**. Are measures in place that isolate or remove bloodborne pathogens from the workplace. The definition of engineering controls shall include safer medical devices, such as sharps, sharps engineered with injury protections, and needleless systems.

A. **Sharps containers**. Must be leak proof, closable, color coded and/or labeled, and puncture resistant. Place all used needles, syringes, and other sharps in the large sharps container mounted or secured in each medic unit, or in the small sharps container located in each jump kit provided for field use. When, for example a medication ampule does not fit in the small sharps container, the employee shall put in the smaller jump kit sharps container until they are able to dispose of it into the larger one properly.

1. When the used needle container is 2/3 full, securely tape it closed, making sure it is labeled with a biohazard label and HCFR's *Station* tracking number
   a. **SC 260092 G** ***(STA #23)***
   ***b. SC 260331 G (STA #1)***
   c. ***SC 260332 G (STA #35)***
   d. ***SC 260330 G (STA #7)***
   and placed into the Regulated Medical waste container at your Designated Facility, for pick-up by a Regulated Medical Waste transport company.
2. **DO NOT** throw needles in any trashcan, and **DO NOT** leave any sharps at the scene. Needles are not to be stuck into the stretcher cushions, bench seats, or dropped on the floor. **ANY** such incidents are subject to disciplinary action.
3. Contaminated sharps are defined as any contaminated object that can penetrate the skin including but not limited to: broken glass, sharp edges of contaminated metal, and glass blood tubes. Sharps can also include, used IV drug needles, knives at crime scenes, contaminated metal on cars at accident scenes and blood lancets.

B. **Regulated waste** is defined as 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.

1. Regulated waste may be disposed of in an approved sharps container and/or biohazard bag, or one labeled with a biohazard label.
2. These labels shall be fluorescent orange or red with the biohazard legend.
3. Red biohazard bags or red sharps containers may be substituted for labels.
4. ~~All regulated waste shall be disposed of at the ER into a marked biohazard regulated waste container for proper disposal.~~

**C. Disposal of regulated waste** *Following the procedures as outlined in Section 3.01A1 of this policy, all sharps container regulated waste will be disposed of, in a time*

*appropriate manner, at one of the four available regulated waste storage facilities provide by the department, in the following manner.*

1. *The following sites have been licensed as regulated waste storage facilities and will be the only acceptable regulated waste drop-off sites for sharps containers:*

   ~~a. Conway warehouse (During normal weekday business hours)~~
   *A HCFR STA # 23*
   *b. HCFR STA # 1*
   *c. HCFR STA # 35*
   *d. HCFR STA # 7*

2. *Designated facilities will have an easily identifiable Regulated Medical Waste Container available for storage/disposal of used sharps containers.*
3. *Reasonable attempts should be made by all personnel to dispose of used sharps containers at the following locations, as designated by station assignment.*

| *Disposal Site* | *Generating Station* |
|---|---|
| *HCFR ~~Warehouse~~ STA # 23* | *29, 23, 8, 3, 24, 46, 43, 40.* |
| *HCFR STA # 1* | *1, 20, 31, 36, 4.* |
| *HCFR STA # 35* | *35, 25, 34, 15, 41, 27, 6.* |
| *HCFR STA # 7* | *7, 18, 30, 32, 45, 2 39.* |

4. *The only exceptions to this will be if you have a 2/3 full sharps container after running a call and are closer to a different Designated drop off facility then you may drop off there.*
5. *Medic crews switching from one ambulance into another shall insure that they do not leave a 2/3 full sharps container within the ambulance being vacated. If a 2/3 full sharps container exists within the vacated ambulance the medic personnel shall take the 2/3 full sharps with them to be dropped at their assigned Designated facility. (Full only)*
6. *Any ALS Engines that have a 2/3 full sharps container need to go to the nearest Designated facility to drop off their own generated waste.*
7. ***At no time are any full sharps containers to removed from any unit and left at a station to be picked up by another unit for transport to a Designated Drop off Facility.***

**D. Designated Facility.**

1. *Shall insure reasonable access to the Regulated Waste Container for all use by all HCFR personnel.*
2. *Shall insure that the public does not have direct access to the Regulated Medical Waste Containers, and that no materials other than regulated waste are placed within these containers.*

3. *Clearly mark the designated Regulated Waste Container area with Biohazard stickers so as to alert all reasonable persons to the Regulated Waste Container's location.*
4. *The Regulated Medical Waste Container will be picked up by a licensed Regulated Waste Transport Company, on or about the last week of the month. If the Regulated Waste Container becomes full, prior to the pick up week, The HCFR Compliance Officer shall be notified.*
5. *Regulated Waste Containers should be closed and taped shut, prior to a quantity being placed in them that would prohibit normal closure. Once a Regulated Waste Container is closed and sealed, the date of closure shall be marked on the container in an easily identifiable and legible manner. This task will be the responsibility of the crew on duty, at the designated station, on the day the container becomes filled in the manner as described above.*
6. *Sharps containers from any other agencies (i.e. Rescue squads, Transport services, other Fire Departments, Nursing facilities or home health care nurses) are not be accepted by the designated Regulated Waste Stations.*

E. **Needleless systems**. As a result of the Health Care Worker Needlestick Safety and Prevention Act, NIOSH released an alert which states that needle safe devices should be utilized, when feasible, in the health care setting. Needle safe devices with safety features should be evaluated to ensure that:

   A. The safety feature works effectively and reliably.
   B. The device is acceptable to the health care worker
   C. The device does not adversely affect patient care.

F. Revisions to the *Occupational Exposure to Bloodborne Pathogens Standard*, 29 CFR 1910.1030, obligate employers to consider safer needle devices when they conduct their annual review of their exposure control plan and requires that a needlestick log of injuries from contaminated sharps be maintained.

   A. The term sharps with engineered sharps injury protections shall be defined as a non-needle sharp or 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.

   B. HCFR must document annually consideration and implementation of appropriate commercially available and effective safer medical devices designed to eliminate or minimize occupational exposure.

   C. The employer shall also solicit input from non-managerial employees responsible for direct patient care who are potentially exposed to injuries from contaminated sharps in the identification, evaluation, and selection of effective engineering and work practice controls.

3.02 **Work practice controls**. Are techniques used that help reduce the likelihood of exposure by altering the manner in which a task is performed.

A. **Hand washing**. Is the most effective overall infection control measure. Hands shall be washed whenever:

   1. Gloves are removed
   2. After all patient contact
   3. After disinfecting equipment/handling contaminated items
   4. Before and after eating and using the bathroom
   5. After any type of exposure (Flush mucous membranes with copious amounts of water.)
   6. When coming on or going off duty
   7. When hands are obviously soiled

B. **Procedures for handwashing**. Using warm, soapy water with lots of mechanical agitation, paying special attention to cuticle areas, between fingers, and the surface of the palm. Hands shall be well lathered with regular soap and scrubbed for 15-20 seconds before drying. Also include the soiled areas of the wrist and forearm and around jewelry and watches. When this is not possible, and hand washing facilities are not available, viricidal, antiseptic handi-wipes are available on each piece of apparatus for use until such time that hand washing facilities are available.

C. Gloves shall be removed after having provided patient care and before the driving of any apparatus. The driver shall cleanse their hands with any anti-septic hand wipe prior to entering the cab portion of the vehicle. The driver of the medic unit must don appropriate PPE before assisting with the unloading of the patient.

D. The bending, recapping, or removal of any needles is **PROHIBITED** and may be accomplished **ONLY** through the use of an appropriate, approved mechanical device or a one-handed technique.

E. Immediately, or as soon as possible after use, contaminated sharps shall be disposed of in the proper storage container as set forth in this policy.

F. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are **PROHIBITED** in work areas where there is reasonable likelihood of occupational exposure such as the patient care area.

G. Food and drink shall not be kept on shelves, cabinets, or on countertops or bench seats where blood or OPIM are present.

H. All procedures involving blood or OPIM shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

I. **Decontamination** is the use of physical and/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.

J. Decontamination is done with a hypochlorite solution. **Hypochlorite** is a cleansing solution made fresh daily with ninety-nine parts water and one part bleach. At the beginning of each shift, the employee shall, as part of his/her morning check out, replace the remaining hypochlorite from the previous shift, and date and initial the bottle, making sure the hazard label is placed on the front of the spray bottle and is clearly legible, as stated in the Hazardous Communications policy. This solution **MUST** be changed and remixed at least once every 24 hours.

K. During vehicle extrication, care shall be taken to protect the patient and any personnel inside the vehicle from glass or sharp metal be covering them with sheets or tarps. HCFR personnel shall wear their other appropriate PPE as well.

L. Any disposable pieces of equipment such as BVM's and ET blades shall be disposed of in a manner consistent with this policy.

M. During defibrillation, the employee must position himself/herself in such a manner so that if the patient's body and/or extremities contract violently during defibrillation, the employee and those around him/her, will not be struck and thereby inadvertently exposed or contaminated.

N. Since 10/30/92 HCFR no longer allows any employee to collect blood in vaccutainers. Equipment for this procedure is no longer required on the medic units per DHEC regulations.

O. Handling amputations shall be done in accordance with the accepted medical protocols and/or standards. The employee must place the amputated part in a heavy duty, leak proof bag, and seal and label it with a biohazard, and place it in the provided plastic receptacle provided for transport (if needed) to the ER.

P. Childbirth. The employee must place absorbent material beneath the patient to absorb blood and body fluids so as to not create potential, uncontrolled collection of fluid. Prior to and during the birth of the neonate, the employee must stand to the side of the mother if possible, and reach over the mother's leg to attend to the neonate. The employee must suction the neonate with a bulb-type DeLee suction apparatus. NO MOUTH PIPETTING WILL BE ALLOWED. The employee must cut the umbilical

cord in such a manner to avoid splashes and sprays unto themselves and other. FULL PPE SHALL BE REQUIRED FOR THIS PROCEDURE.

## 3.03 WORK RESTRICTION GUIDELINES

A. In order to reduce the transmission of infection to co-workers and patients, it is often necessary to exclude personnel from work or direct patient care activities when the employee has an infectious, communicable illness and is immuno-compromised.
B. Encourage employees to participate in vaccine programs to help prevent the spread of disease. Such as chicken pox and influenza.
C. Complete the health history form, including dates of prior vaccinations and immunizations.
D. Notify the DICO if a patient with a known contagious illness has been transported so that other pertinent personnel may be notified of a possible exposure.
E. Furnish the DICO with a return to duty notice from your physician after having been seen or treated for a contagious/infectious illness.

## 3.03 HOUSEKEEPING, MAINTENANCE AND CLEANING

A. **Genera**l. The employee must maintain the work area in a clean and sanitary condition. Although the work area quite often becomes soiled and/or contaminated, the employee must, as soon as patient care is completed, clean and decontaminate the work area.
B. **Schedule**. The employee must strictly comply with the following schedule for cleaning and decontamination. This schedule is based on the type of surface to be cleaned and/or contaminant present, the tasks and/or procedures being performed in the area, and the location of the work area and the soil and/or the contaminant present.
C. For decontamination of any surface, item, or area that is not routine and requires the use of a special product, type PPE or safety devices to be in place, the employee shall refer to the Hazardous Communications policy and the MSDS before starting the task.
D. **After each call**. Immediately after completing patient care, the employee must clean and/or decontaminate every piece of equipment and surface that has become soiled or contaminated in a manner consistent with this plan.
E. **Daily**. At the end of each shift, the employee must complete the following duties:

    1. Sweep and mop the floor of the medic unit.
    2. Wipe all exposed surfaces in the patient compartment and cab with a one percent hypochlorite solution, allowing the solution to remain on the surfaces for a minimum of ten minutes. Wipe the surfaces again, this time with a clean, damp cloth to remove the hypocholorite solution, allowing the surface to air dry.
    3. The employee must check all equipment used during the shift to ensure that no blood, OPIM, or soil remain. *At the beginning of each shift, all equipment must be checked for blood or OPIM*. If any contaminants are found on the

equipment, the employee must decontaminate the equipment in accordance with this plan and then notify the Company Officer.

F. Every Saturday the employee must clean and decontaminate the work area of the station.

    1. Wipe all exposed surfaces with a one percent hypochlorite solution. Allow the solution to remain on the surfaces for a minimum of ten minutes. Wipe the surfaces again, this time with a clean, damp, cloth to remove the hypochlorite solution. Allow the surfaces to air dry.
    2. Remove the liner from the trash receptacles. Clean as above, replace liner.
    3. The floors of the station are to be swept and mopped and/or vacuumed and maintained daily, and the bay floors swept, making note to absorb any leaking oil dry and dispose of it properly.
    4. The bathroom is to be cleaned and maintained daily.
    5. The bunkroom mattresses are to be aired out.

G. Every Thursday the employee must decontaminate the interior of the medic unit.

    1. The employee must remove all supplies from the shelves and cabinets on the inside and outside of the medic unit. The shelves must then be wiped down with a one percent hypochlorite solution. Allow the solution to remain on the surfaces for a minimum of ten minutes. The employee must then remove the solution by using a clean, damp towel and allow the surfaces to air dry.
    2. The employee must inspect each piece of equipment for blood, OPIM, or soil, and then wipe the equipment with hypochlorite and then a clean towel. The equipment must be allowed to air dry before being placed back in the medic unit.
    3. The employee shall empty the jump kit, wiping the interior of the bag with a hypochlorite solution, allowing to air dry, making special note of the handles, and checking the bottom of the bag for any loose sharps. THE LID TO THE SHARPS CONTAINER MUST BE SECURE AT ALL TIMES.
    4. The employee shall also pay special attention to the decontamination of certain pieces of equipment such as the steering wheel, inside and outside of door handles, radio microphones, and cell phones.

H. The employee shall decontaminate all contaminated equipment in a manner consistent with this policy. Decontaminating procedures for each of the following pieces of equipment include the donning of PPE, either soaking or spraying of the piece of equipment with a one percent hypochlorite solution, and leaving it stand for up to ten minutes; then washing with warm, soapy water and rinsing with clean water to remove all debris and cleaning solutions. The employee must also pat dry the equipment to remove excess water and allow it to completely air dry before placing back in service.

1. Long spine board
2. Laryngoscope handles (blades are disposable) DO NOT SUBMERGE HANDLE IN WATER
3. Scissors
4. Blood pressure cuff
5. Stethoscope
6. Stretcher straps/quick connect LSB (must be replaced with clean, spare straps)
7. MAST trousers /pump
8. Traction splint
9. Board splints
10. Frac pacs and Vacu splints
11. Suction units (suction canisters are disposable, tubing on the portable units is not)
12. Oxygen humidifier

I. Spills of blood and body fluids. Soak up excess fluids with towels. The employee must place towels in a trash bag, seal the bag, and label the bag with a biohazard label or place it inside a red biohazard bag. Reusable towels are to be handled in a manner consistent with the handling of contaminated linen. If the towels are disposable, the bag is to be placed in a regulated biohazard waste container. Clean the contaminated surface with the same procedures as above.

J. All contaminated linen must be removed from the stretcher as soon as the patient is removed from the stretcher.

1. Employees who work at stations, which trade linen with the hospital will, when at that hospital, while wearing PPE, immediately place the contaminated linen in the receptacle, which the ER has designated for contaminated linen.
2. All soiled linen that must be transported by the medic unit must be treated as if it were contaminated. It must be bagged, sealed, and labeled with a biohazard label and placed in the container in the outside compartment for disposal at the ER in the soiled linen bin or hamper.

## SECTION 4- COMPLIANCE AND QUALITY MONITORING

### 4.01 COMPLIANCE AND QUALITY MONITORING

A. This program will serve as an ongoing problem identification/problem solving process. It will be done to ensure that all personnel are following prescribed infection control procedures and practices. This will be accomplished through:

1. Direct observation by the Company Officer.
2. Post Exposure follow up
3. Company level SOP monthly review and training
4. Weekly decontamination and daily equipment and apparatus checks by crews.

5. Annual training and updates
6. Monthly and annual reports of exposures. Preventable vs. Non-preventable exposures, different types of exposures, and number of exposures reported vs. number of actual confirmed exposures.
7. Following each report of an "unprotected" exposure, an investigation will be conducted by the DICO as to why PPE was not used, or not used properly.
8. Through posting of work related injuries for employee review at the workplace.
9. Compliance is an employee responsibility. Reporting exposures, wearing PPE, and complying with applicable laws, standards and guidelines are a part of acting responsibly.

## SECTION 5- RESPONDING TO CALLS POV

### 5.01 RESPONDING TO CALLS POV

A. Any employee who is wearing an HCFR uniform is representing himself/herself as a pre-hospital, medically trained provider, to a level of first responder, EMT, EMT-I or paramedic, and as a member of HCFR. Therefore, the employee must respond to a call if called upon to do so. Any employee who is wearing the HCFR uniform while enroute to or from his/her assigned shift or other mandated duty, or is running calls as a volunteer in his/her own POV, must have in their possession, PPE including but not limited to; protective eyewear and gloves.
B. The employee must don PPE as otherwise stated in this manual and comply with this plan while engaging in patient care.
C. Before the medic unit departs the scene, the employee must dispose of all PPE in the appropriate waste container on board the unit and clean his/her hands with an anti-septic hand wipe in a manner consistent with this policy.
D. If the employee is not soiled or contaminated, he/she may drive his/her vehicle. If the employee becomes soiled or contaminated, the employee must leave the scene in the medic unit, and, upon arrival at the ER, decontaminate himself/herself in a manner consistent with this plan. Arrangements shall be made to retrieve the employee's vehicle.
E. The employee shall be able to replace any PPE used while on the call.
F. When the employee responds in a manner described above, a medic unit must respond to the scene in order to facilitate a method of containing regulated waste and provide proper paperwork in order to comply with departmental policies.

## SECTION 6- POST EXPOSURE EVALUATION AND FOLLOW UP

### 6.01 POST EXPOSURE EVALUATION AND FOLLOW UP

A. Immediately after an exposure the employee shall notify the DICO. The DICO is on call 24 hours a day and available by pager, along with the Infection Control nurse.
B. Upon notification, the DICO, in conjunction with the Infection control nurse, shall investigate the nature of the possible exposure, and hold the employee and/or crew until a determination can be made. The BC on duty will be made aware of the crew and/or individual members out of service status, maintaining confidentiality to the fullest extent possible, by the DICO, until such time that the unit can be placed back in service. An employee that has had an exposure may be returned to full duty that same shift.
C. Following a report of an exposure incident, HCFR DICO shall make immediately available to the exposed employee, following confirmation of an actual exposure, a confidential medical evaluation and/or counseling by the ER physician.
D. The employee shall provide written documentation of the route of exposure and the circumstances under which the exposure occurred on the Horry County S and E Incident report, and the Workers Compensation First Report of Injury and Illness Form.
E. The incident report must be faxed by the member to the secured administration fax line and the hard copy placed in an envelope marked CONFIDENTIAL to be sent to the DICO's attention through the BC on duty. This information will then by faxed, the next business day to Personnel/HR. Any charges shall be billed directly to Horry County. The incident report must contain all pertinent details relative to the exposure incident including but not limited to:

    1. The circumstances under which the exposure occurred
    2. The route of entry.
    3. Engineering controls in place at the time of the exposure incident.
    4. Work practice controls being exercised at the time of the exposure incident.
    5. Any failures of the above controls at the time of the exposure incident.
    6. Identification of the source individual if possible
    7. Recommendations for avoidance of future exposure incidents in similar situations

F. Identification and documentation of the source individual shall be made as soon as possible. The crew or employee that had the exposure should go to the same ER as the source individual for testing.
G. The source individual's blood shall be tested as soon as possible and after consent has been obtained. When, in the event that consent is not given by the source individual, under SC Dept. of LLR rule # 44-29-230 section 44-29-210, it states that no consent is needed, and testing is required when a healthcare

worker is exposed to a bloodborne disease. The source individual is then tested and the results documented.

H. When the source individual is already known to be infected with HBV or HIV, testing for confirmation of the source individuals known disease status is not indicated.

I. The exposed employee shall also be baseline tested at that time for the presence of any bloodborne diseases once consent has been obtained.

J. If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be held for ninety (90) days. If, within ninety days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as possible.

K. Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

L. Post exposure prophylaxis, when medically indicated and as recommended by CDC, will be offered at no cost to the employee.

M. The ER physician and/or infection control nurse shall provide post exposure counseling.

N. HCFR shall provide the employee a copy of the health care professional's written opinion within fifteen days of the medical evaluation. The HCP's written opinion for post exposure evaluation and follow up shall be included and limited to the following information:

    1. That the employee has been informed of the results of the medical evaluation
    2. That the employee has been told about any medical conditions resulting from exposure to blood or OPIM, which require further evaluation or treatment
    3. All other findings are confidential and shall not be included in the written report.

O. All documentation pertaining to the exposure incident shall be kept in the employees' confidential medical record kept by the DICO and available to the employee for review.

## **APPENDIX**

### 7.01 ***HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE STANDARD (HAZWOPER)*** as stated in 1910.120

The HAZWOPER standard covers three groups, including those workers expected to respond to emergencies caused by the uncontrolled release of hazardous substances.

The definition of hazardous substances includes any biological agent or infectious material, which may cause disease or death. There are three potential scenarios where the bloodborne and hazardous waste operations and emergency response standard may interface. These scenarios include: workers involved in clean up operations at hazardous waste sites involving regulated waste, workers at RCRA permitted incinerators that burn infectious waste, and workers responding to an emergency caused by the uncontrolled release of regulated waste (e.g., a transportation accident).

Employers of employees engaged in any of these three activities must comply with the requirements in 29 CFR 1910.120 as well as the Bloodborne Pathogens Standard. If there is a conflict or overlap, the provision that is more protective over employee health and safety applies.

## 7.02 **PRECAUTION REFERENCES**

AIDS/HIV Infection………………………Gloves, ***Protective Eyewear***

Chicken Pox………………………………Mask, Protective Eyewear and Gloves

Diarrhea…………………………..Gloves, ***Protective Eyewear***

Draining Wounds………………Gloves, ***Protective Eyewear***

Encephalitis…………………………..Gloves

Fever of Unknown Origin………NIOSH respirator, protective eyewear, gloves

Hepatitis……………………………Gloves, ***Protective Eyewear***

Herpes Zoster………………………Gloves

Malaria……………………………Gloves

Measles…………………………Mask, eyewear, gloves

Meningitis………………………Mask, eyewear, gloves

Mumps…………………………Mask, eyewear, gloves

Polio………………………..Gloves

Purulent Draining………………..Gloves, ***Protective Eyewear***

Rubella………………………..Mask, eyewear, gloves

Shingles……………………….Mask, eyewear, gloves

Syphilis………………………….Gloves, ***Protective Eyewear***

Tuberculosis………………………NIOSH respirator, eyewear, gloves

WHEN THERE IS THE POSSIBILITY OF SPLASHES OR SPRAYS OF CONTAMINATED MATERIAL ASSOCIATED WITH ANY OF THE ABOVE CONDITOINS, PROTECTIVE EYEWEAR IS ALSO INDICATED. ANY TIME MASKS OR RESPIRATORS ARE USED, PROTECTIVE EYEWEAR IS INDICATED.

7.03 **DISEASES AND MODES OF TRANSMISSION (see hard copy SOP)**

7.04 **WORK RESTRICTION GUIDELINES**

A. The following are a list of illness that would pose work restrictions for health care workers exposed to or infected with certain vaccine-preventable diseases.

1. Active Diphtheria
2. Hepatitis A, B, C
3. Upper respiratory infections (URI's)
4. Measles
5. Mumps
6. Pertussis
7. Rubella
8. Varicella (Chicken Pox)
9. Zoster (Herpes/Shingles)

B. A hard copy of the actual type of work restriction and duration for each of the above is available in the SOP manual and upon request.