

SHORELINE FIRE DEPARTMENT		COMMUNICABLE DISEASE
STANDARD OPERATING PROCEDURES		
EMS	410	<i>Approved/Revised: 11/23/05</i>

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Fire Chief Signature: Signed copy on file

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1. Scope

- 1.1. This policy applies to all employees, elected officials and individuals performing on behalf of Shoreline Fire Department.

2. Purpose

- 2.1. This policy has been revised to comply with the Federal (OSHA) Blood-borne Pathogens Standard (29 CFR 1910.1030), which has been adopted by the State of Washington as WAC 296-62-08001. The purpose of the standard is to "reduce occupational exposure to Hepatitis B virus (HBV), Human Immunodeficiency Virus (HIV), and other blood-borne pathogens", which employees may encounter in their workplace. The intent of this policy is to comply with all applicable Federal and State standards, and will be revised, as needed, to insure such compliance. The intent of the Department is to reduce exposures, by protecting employees from potential exposures and by providing appropriate treatment and counseling, should an exposure occur.
- 2.2. The principles, which guide the intent of this policy, are that it is prudent to minimize exposure to blood-borne pathogens, that the risk of exposure should never be underestimated and, whenever and wherever possible, work practice and engineering controls should be used, to eliminate or minimize exposures.

3. Definitions

- 3.1. **Blood-Borne Pathogens** means pathogenic microorganisms that are present in human blood and can cause disease in humans.
- 3.2. **Contaminated** means the presence, or reasonably anticipated presence, of blood or other potentially infectious materials, on a surface or item.
- 3.3. **Other Potentially Infectious Materials** means:
 - 3.3.1. **Human Body Fluids:** semen, vaginal secretions, cerebrospinal fluid, pleural fluid, peritoneal fluid, amniotic fluid, saliva, body fluid contaminated with blood, and body fluids where it is difficult or impossible to differentiate between body fluids.

- 3.3.2. **Any tissue or organ from a body** (living or dead).
- 3.4. **Contaminated Sharps** means any object contaminated with infectious materials, which can penetrate the skin. These include, but are not limited to, scalpels, needles, broken glass and needles previously injected into IV tubing.
- 3.5. **Occupational Exposure** means reasonable anticipated contact with infectious materials that may result from the performance of an employee's duty.
- 3.6. **Exposure Incident** means a specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact, with potentially infectious materials that result from the performance of an employee's duties.
- 3.7. **Parenteral** means piercing the skin or mucous membranes.
- 3.8. **Engineering Controls** means controls like sharps containers and vacuutainers that isolate or remove the danger of exposure to infectious fluids.
- 3.9. **Work Practice Controls** means controls that reduce the likelihood of exposure to infectious materials, such as not breaking off or recapping needles or washing hands.
- 3.10. **Universal Precautions** means an approach to infection control such that all blood and body secretions are treated as potentially infectious.
- 3.11. **Personal Protective Equipment** means specialized clothing and/or equipment worn to protect employees against an infection hazard. General work clothes are not intended to function as protective equipment, unless specifically designed and designated for the task.
- 3.12. **Hand-Washing Facilities** means a facility with running water, soap and hand towels or hot air dryer.
- 3.13. **Regulated Waste** means contaminated items that would release potentially infectious materials in a liquid or semi-liquid state, if compressed; items that are caked with dried blood or other potentially infected substances that could release these materials during handling; contaminated sharps.
- 3.14. **Decontamination** means the use of physical and/or chemical means to remove, inactivate or destroy blood-borne pathogens, to the point where they are no longer capable of transmitting infectious particles.
- 3.15. **Sterilize** means the use of a chemical or physical procedure which destroys all microbial like including highly resistant bacterial endospores.

4. Policy

4.1. General Program Management

- 4.1.1. There are four groups of individuals whose actions are essential to the effective implementation of this plan. They are the Exposure Control Officers, department managers/supervisors, Training Instructors and the Employees.
- 4.1.2. The Exposure Control Officer position is assigned to the MSO position, or its delegate. This complies with the requirement of the Ryan White Comprehensive AIDS Resources Emergency Act of 1990. In addition, the on-duty Battalion Chief is responsible for activating the plan for treatment of employees who are exposed. No Exposure Control Committee has been established, although the Safety Committee may refer issues related to blood-borne exposures to the MSO. Activities delegated to this function include, but are not limited to:
 - 4.1.2.1. Overall responsibility for implementation and operation of the plan.
 - 4.1.2.2. Annual review of the plan.
 - 4.1.2.3. An ongoing means of obtaining feedback on the effectiveness of the plan (exposure reports) and making indicated changes.
 - 4.1.2.4. Maintaining suitable reference materials concerning blood-borne pathogens and related legal requirements.
 - 4.1.2.5. Acting as liaison during WISHA inspections.
- 4.1.3. Department managers and supervisors are responsible for monitoring the maintenance of this standard for the employees under their control. Problems or suggestions should be made in writing to the MSO.
- 4.1.4. The Department Training Officer position is responsible for keeping and providing records of infectious disease training and for scheduling of such training when notified by the MSO of the need.
- 4.1.5. Actual instruction and training shall be the responsibility of the MSO position, or its delegate, and shall include, but not be limited to:
 - 4.1.5.1. Developing or acquiring, as well as delivering, suitable training programs, including supporting materials.
 - 4.1.5.2. Notifying the Training Officer of the need to schedule training.
 - 4.1.5.3. Providing adequate documentation of training.
 - 4.1.5.4. Providing a means for review of the program, and implementation of new information.

- 4.1.6. Employees are ultimately responsible for understanding the risks involved with infectious disease, the practical means of eliminating or reducing such risks and the day-to-day practice of conducting operations, in accordance with this plan. In addition, it should be noted that this plan is performance-based; that is, each situation may be handled different from the one before it. Decisions will be driven by the evaluations of all exposures that occur, and plans adjusted accordingly.

4.2. Availability of the Plan

- 4.2.1. Our Communicable Disease Policy is available in the policy book at each of our stations. In addition, a copy of the ASHA/WISHA Regulations, Katherine West's book on infectious disease and the U.S. Fire Administration Infection Control Program book, are kept in the MSO office in a notebook titled "Disease Control."

4.3. Review and Update of the Plan

- 4.3.1. This plan will be reviewed and/or updated, under the following circumstances:
 - 4.3.1.1. Annually, on or before the 5th of May each year.
 - 4.3.1.2. Whenever new or modified tasks are identified that affect employee's occupational exposure to disease.
 - 4.3.1.3. Whenever job descriptions are revised, such that new instances of disease exposure may occur.
 - 4.3.1.4. Whenever new functional positions are added to the Department or its operation.

4.4. Exposure Determination

- 4.4.1. The law requires that we identify job tasks and procedures that put employees at risk for disease exposure, as well as job classifications in which all or some employees may have occupational exposure to blood-borne and other pathogens. Therefore, the following list has been established, to meet this requirement. Lists shall be changed, as required by changes in tasks or classifications.

4.4.2. Work Activities (tasks) involving potential exposure to blood-borne pathogens:

- 4.4.2.1. Job Classifications in which all Employees may have exposure to blood-borne pathogens.
 - 4.4.2.1.1. FF/EMT
 - 4.4.2.1.2. FF/PM
 - 4.4.2.1.3. MSO
 - 4.4.2.1.4. FF

4.4.2.2. Job Classifications in which some employees may have exposure to blood-borne pathogens.

- 4.4.2.2.1. Deputy Chief
- 4.4.2.2.2. Battalion Chief
- 4.4.2.2.3. HSO's

4.5. Methods of Compliance

4.5.1. This plan identifies five (5) areas of compliance; *Universal Precautions, Engineering Controls, Work Practice Controls, Personal Protective Equipment Use and Housekeeping Procedures.*

4.5.1.1. **Universal Precautions** - we have taught and used the concept that all body secretions are potentially infectious, since 1989. Each individual is responsible for utilizing this concept.

4.5.1.2. **Engineering Controls** - The MSO is responsible for monitoring the adequacy and effectiveness of engineering controls. Consistent with current regulations, a survey of engineering practices has identified operations, where such controls are currently being used, need to be updated or need to be implemented. The results of this survey are listed as follows:

4.5.1.3. *The following engineering controls are also used throughout operations:*

- 4.5.1.3.1. Readily accessible hand-washing facilities.
- 4.5.1.3.2. Approved sharps containers.
- 4.5.1.3.3. Approved bio-medical waste containers.
- 4.5.1.3.4. Use of vacuutainer supplies to draw blood into vacuutainer tubes.
- 4.5.1.3.5. Using only specified cleaning equipment.

4.5.1.4. **Work Practice Controls** - The following work practices are being taught and used in this Department:

4.5.1.4.1. *Hand-washing is the most important infection-control procedure. Members will wash their hands:*

- 4.5.1.4.1.1. After removing Personal Protective Equipment.
- 4.5.1.4.1.2. After handling potentially infectious materials.
- 4.5.1.4.1.3. After cleaning or decontaminating equipment.
- 4.5.1.4.1.4. After each patient contact.

4.5.1.4.1.5. After using the bathroom.

4.5.1.4.1.6. Before eating.

4.5.1.4.1.7. Before and after handling or preparing food.

4.5.1.4.2. *Other work practice controls include:*

4.5.1.4.2.1. Flushing of mucous membranes as soon as possible, after contamination or removal of PPE.

4.5.1.4.2.2. Contaminated sharps are placed in appropriate containers.

4.5.1.4.2.3. All eating, drinking, smoking, application of cosmetics or lip balm and handling contact lenses, are prohibited in work areas (including both the patient area and cab of all EMS vehicles), where there is potential for exposure to blood-borne pathogens.

4.5.1.4.2.4. Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets, countertops or bench tops, where potentially infectious materials are present.

4.5.1.4.2.5. Every reasonable effort is made to minimize accumulation, splashing or spraying of infectious substances.

4.5.1.4.2.6. New employees are brought up-to-date on this policy, as part of their indoctrination.

4.5.1.5. **Personal Protective Equipment** - The Department provides, at no cost to the employee, the following list of Personal Protective Equipment:

4.5.1.5.1. **Gloves** – to be worn before touching any patient, handling contaminated clothing or scene waste. To be disposed of, as soon as reasonably possible, if torn or contaminated. Utility gloves at the biohazard stations should be replaced whenever they are cracked, peeling or torn.

4.5.1.5.2. **Bag Valve Masks (BVM)**, or protected pocket-type masks, are to be used during all cases of artificial ventilation; mouth-to-mouth resuscitation is **not** to be practiced. Personnel must remember to carry the pediatric BVM to cases where it may be needed.

4.5.1.5.3. **Pocket Masks** – to be carried as part of a Personal Protective Kit, by Fire Prevention personnel, in the event of a witnessed need for artificial ventilation and as an adjunct to use of the defibrillator.

- 4.5.1.5.4. **Goggles** – To be used whenever splashing or spraying of infectious materials may occur. **ALWAYS** use with a mask.
- 4.5.1.5.5. **Masks** – To be used whenever there is danger of inhaling infected droplets or splashing or spraying may occur. May be used without goggles, in cases of certain known diseases, such as measles or TB. Must be used with goggles to protect against general splashing or spraying. Masks should also be routinely placed on the patient, when there is danger of infection from airborne particles.
- 4.5.1.5.6. **Tyvx Coveralls** – To be used whenever there is a possibility of gross contamination of daily uniform with infectious fluids. Typically, these will be trauma calls with significant external bleeding.
- 4.5.1.5.7. **Masks with Face Shield** – Can be used whenever splashing or spraying may occur, and is recommended for all intubations.
- 4.5.1.5.8. **Bandages** – Used to cover any areas of skin, at increased risk for infection because of unhealed breaks in the skin.
- 4.5.1.5.9. All of the department-provided Personal Protective Equipment (except for the utility gloves at the biohazard station) is disposable. None is to be re-used. All equipment that becomes contaminated with infectious materials is to be removed, as soon as possible, and disposed of as bio-medical waste. If possible, PPE should be removed at the scene and before entering the driving area of vehicles. Uncontaminated PPE should be disposed of in a regular garbage container.
- 4.5.1.5.10. All Personal Protective Equipment, other than gloves on Department EMS vehicles, is to be organized in one location and labeled with biohazard stickers, so that the location of such equipment can be easily identified during a call.
- 4.5.1.5.11. All employees, who may be at risk, receive annual instruction on the subject of disease control. The MSO position is responsible for seeing that such training is accomplished.
- 4.5.1.5.12. The Department shall insure that all employees use appropriate Personal Protective Equipment, unless the employee can demonstrate that, temporarily and briefly, they declined to use Protective Personal Equipment 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 and/or would have posed an increased hazard to the safety of the worker or co-workers.

4.5.1.6. **Housekeeping** - Some microorganisms and viruses can live on non-organic surfaces for hours, or even days. To prevent the spread of disease, the following schedule and methods should be used to clean equipment:

- 4.5.1.6.1. All contaminated equipment and working surfaces shall be cleaned first to remove gross materials and then decontaminated ASAP, after contact with potentially infectious materials. This includes, but is not limited to, stretchers, kits, floors, drawers, benches, radios, steering wheels, etc. Gloves must be worn during cleaning.
- 4.5.1.6.2. All EMS vehicles shall be inspected daily for cleanliness. Any traces of blood, dirt or other dried materials will be cleaned immediately.
- 4.5.1.6.3. In addition to cleaning, whenever required after a call, equipment and kits are to be thoroughly cleaned each week, during the assigned weekly chores and with materials suggested by the manufacturer. In general, warm soap and water, followed with 1:10 bleach solution (mixed with cool water) should be used on materials that will not be harmed by bleach. Wastebaskets shall be included in the weekly cleaning task.
- 4.5.1.6.4. Broken glassware is not to be picked up by hand.
- 4.5.1.6.5. Bloody clothing is to be bagged in biohazard bag and presented to the hospital with the patient.
- 4.5.1.6.6. Contaminated linens and towels will be put in the hospital laundry and traded for clean hospital linen, on a piece-for-piece basis.
- 4.5.1.6.7. Any other contaminated waste is to be put in the medic unit biohazard can, or in a biohazard bag, to be transferred to the regulated waste dispensers, located at Station 61 or Station 63. These regulated waste containers are supplied by our State-approved regulated waste service and meet the standards provided to the service by the State of Washington.
- 4.5.1.6.8. Non-contaminated waste is to be put in regular trash containers.
- 4.5.1.6.9. Trash should be separated at the call and should not be 'sorted through' afterwards. In general, contaminated waste should be handled as little as possible, and only when wearing gloves.
- 4.5.1.6.10. Contaminated uniforms must be removed and washed ASAP. Contaminated uniforms must be washed at the station and cannot be laundered outside the workplace, unless properly labeled and handled as contaminated by laundry service approved for this task.

4.6. Vaccinations

- 4.6.1. **Hepatitis B** - Each employee who is hired, or newly assigned to a position with occupational exposure, is to be oriented to the value of the Hepatitis B vaccine and given the opportunity to begin the series within 10 days of their assignment, at the District's expense. A refusal to receive this vaccination must be documented on a copy of the declination form, which accompanies this document. This form will be filed in the employee's confidential health record. Any employee may, at any time, change their mind and still receive the vaccination, at District expense.
- 4.6.2. **Measles** - All employees are urged to receive, at the District's expense, a valid measles vaccination.
- 4.6.3. Vaccinations are available through either Northwest Hospital or the King County Health Clinic. Arrangements may be made through the MSO.

4.7. Post-Exposure and Follow Up

- 4.7.1. Any employee who feels that they have been potentially or actually exposed to an infectious disease, must fill out a copy of the Disease Exposure Form, which is included in this policy, as soon as possible after the exposure, but no later than the end of the shift during which the employee was exposed. This form should be turned in to the immediate Shift Supervisor.
- 4.7.2. Any employee who is judged to have a 'significant exposure' is to be immediately released from duty, for the express purpose of being directly examined by a physician in an institution qualified to evaluate and treat a particular disease exposure.
- 4.7.3. In addition, the ER receiving any patient thought to be a source of contamination is to be notified, so they can do appropriate testing, if required. In cases where the employee has a significant exposure to blood or blood-tinged products, a copy of the exposure form must be sent directly to KCEMS in order to comply with the law, which allows us to have the patient tested, if required, against their will.
- 4.7.4. A copy of all exposure forms will be routed to the MSO as soon as possible. The MSO or MSO delegate is responsible for reviewing the form for possible changes to Department policy/practice. The original form and any supporting documents should be filed in the employee's health record.
- 4.7.5. An employee who is sent to a hospital for evaluation of disease exposure may not return to work, except with written permission by the physician, or other healthcare professional, who was directly responsible for investigating the potential exposure.

4.7.6. Significant exposure means:

- 4.7.6.1. Any incident where blood, blood-tinged materials, or other infectious materials from another human being, either penetrate the skin or come in contact with unprotected, open wounds or enter the employee's mucous membranes (mouth, eyes). Needles previously injected into IV sites are contaminated. These employees shall go to the ER at Harborview.
- 4.7.6.2. Bites from animals known or strongly suspected to have rabies. These employees may go to any medical facility capable of providing rabies treatment.
- 4.7.6.3. Any incident where unprotected employee skin has been in prolonged (greater than 15 minutes) contact with fresh blood or blood-tinged matter. These employees shall go to the ER at Harborview.
- 4.7.6.4. Whenever an employee has been exposed on the job to a known, airborne disease, which is either highly contagious or poses an immediate health risk to the employee. The following list suggests the types of diseases most commonly encountered in this category, but is not exclusive.
 - 4.7.6.4.1. *Active TB*
 - 4.7.6.4.2. *Active Meningococcal Meningitis*
 - 4.7.6.4.3. *Active Measles*
- 4.7.6.5. If there is any question about a given disease, consultation with the Medical Director, the ER physician or the Infectious Disease Specialist at Northwest Hospital should be made, before deciding upon a specific course of action. These employees may go to any medical facility capable of diagnosing and treating infectious diseases.

5. Reference

- 5.1. Shoreline Fire Department
- 5.2. Policy for Communicable Disease Control by Emergency Medical Service Providers