

**BLOODBORNE PATHOGENS EXPOSURE
CONTROL PLAN**

Barkhamsted Fire District

Including

**Barkhamsted East Fire Department
&
Pleasant Valley Fire Department
&
Riverton Fire Department**

October 1, 2002

In accordance with OSHA Bloodborne Pathogens standard, 29 CFR 1910.1030

PURPOSE: To identify those tasks and corresponding job positions within the Barkhamsted Fire District for which it can be reasonably anticipated that an exposure to blood, or other body fluids, or other potentially infectious materials may occur; to establish a schedule for implementation of the District infection control plan; and to identify the procedures for the evaluation of the circumstances surrounding exposure incidents.

I. Exposure Determination

- A. The following tasks are reasonably anticipated to involve exposure to blood, body fluids, airborne diseases or potentially infectious materials.
- Provisions of emergency medical care to injured or ill victims;
 - Rescue of victims from hostile environments, including burning structures, water contaminated areas or oxygen deficient atmospheres;
 - Extrication of persons from vehicles, machinery or collapsed excavations or structures;
 - Recovery and/or removal of bodies from any situation cited above;
 - Response to hazardous material emergencies, both transportation and fixed site, involving potentially infectious substances.
- B. The following job positions within this District are reasonably anticipated to involve exposure to blood, body fluids, airborne diseases or potentially infectious substances in the performance of their duties:

Chief Officers	Engineers
Captains	Fire Police
Lieutenants	Firefighters
Fire Marshal	Junior Firefighters
Deputy Fire Marshals & Inspectors	Rescue Personnel

II. Implementation Schedule and Methodology

Compliance Methods

Universal precautions or Body Substance Isolation (BSI) will be observed at District facilities and in the field in order to prevent contact with blood and other potentially infectious materials. All blood or other potentially infectious materials will be considered infectious regardless of the perceived status of the source individual.

Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees at District facilities and in the field. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be utilized. At District facilities and in the field, the following controls will be utilized:

- a. Bio Hazard Bags
- b. Sharps Containers

The above controls will be examined and maintained on a regular schedule.

The schedule for reviewing the effectiveness of the controls is as follows:

	<u>Control</u>	<u>Frequency</u>	<u>Responsibility</u>
a.	Bio Hazard Bags	Monthly	Captain or designee
b.	Sharps Containers	Monthly	Captain or designee

Hand washing facilities are also available to the employees who incur exposure to blood or other potentially infectious materials. Portable eye wash stations are installed at each station. OSHA requires that these facilities be readily accessible after incurring exposure. At District facilities, hand-washing facilities are located:

- a. Restroom, first floor
- b. Handicapped restroom, first floor
- c. Each medical kit shall contain an approved disinfectant that can be used as an immediate cleaning agent for the hands in the field. Hand washing shall be performed upon return to quarters.

After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.

If employees incur exposure to their skin or mucous membranes then those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

Needles

The District will comply to the degree possible with the Safe Needle act of 2001. The District shall maintain a log will have:

- Date & Time Of Injury
- Job Class / Dept.

- Body Part Injured
- Location of Incident
- Type / Brand of Device
- Safety Device?
- How Injury Occurred
- Means Of Prevention

OSHA allows an exception to this if the procedure would require that the contaminated needle be recapped or removed and no alternative is feasible and the action is required by the medical procedure. If such action is required, then the recapping or removal of the needle must be done by the use of a mechanical device or a one-handed technique. At this facility and in the field, recapping or removal is not permitted

Containers for Sharps

Contaminated sharps are to be placed immediately, or as soon as possible after use, into an appropriate sharps container. At this facility and in the field, the sharps containers are puncture resistant, labeled with biohazard label, and are leak proof. Sharps containers are located **on key responding apparatus.**

Work Area Restrictions

In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees are not to eat, drink, apply cosmetics or lip balm, smoke, or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, cabinets, shelves, on bench tops, or counter tops where blood or other potentially infectious materials are present.

All procedures will be conducted in a manner that will minimize splashing, spraying, splattering, and generation of droplets of blood or other potentially infectious materials.

Contaminated Equipment

Equipment, which has become contaminated with blood or other potentially infectious materials, shall be examined prior to servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

Personal Protective Equipment

All personal protective equipment used at this facility and in the field will be provided without cost to employees. Personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials. The protective equipment will be considered appropriate only if it does not permit blood or

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other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

Protective clothing will be available to each employee in the following locations:

Barkhamsted East Fire Department:

- a. BE1 In the Medical Compartment
- b. BE2 In the Medical Compartment
- c. BE3 In the Medical Compartment

Pleasant Valley Fire Department

- a. Rescue #3 Medical Cabinet, Walk-in Box
- b. Engine #1 In Cab with Medical Bag
- c. Engine #5 In Compartment with Medical Supplies

Riverton Fire Department

- a. Engine #4 In the Medical compartment
- b. Squad 51 In the Medical compartment

The following are examples of recommended personal protective equipment for protection against HIV and HBV transmission in the pre-hospital setting.

Hazardous Analysis /PPE Matrix #1

<u>Task</u>	<u>Disposable</u>			
	<u>Gloves</u>	<u>Gowns</u>	<u>Masks</u>	<u>Eye Wear</u>
Patient Assessment	X		(TB)	
Bleeding Control Spurting Blood	X	X	X	X
Bleeding Control Minimal Blood	X			
Emergency Childbirth	X	X	X	X
Cardio Pulmonary Resuscitation	X		X	X
Pulmonary Resuscitation	X		X	X
Airway Management/ Suctioning	X		X	X
Handling, Cleaning Contaminated Items	X	X	X	X

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Measuring Vital Signs	X	
Rescue/Extrication	X	X

All personal protective equipment will be cleaned, laundered, and disposed of by the Barkhamsted Fire District at no cost to the employees. The Barkhamsted Fire District at no cost to employees will make all repairs and replacements.

All garments, which are penetrated by blood, shall be removed immediately or as soon as feasible. All personal protective equipment will be removed prior to leaving the work area. The following protocol has been developed to facilitate leaving equipment at the work area.

- a. Members shall utilize the recommended PPE when handling contaminated equipment.
- b. Disposable items which are contaminated or potentially contaminated shall be placed in a biohazard bag.
- c. Contaminated clothing shall be placed in the provided Poly-Vinyl Alcohol Bags for laundering at the Contact Facility.
- d. Durable items will be washed with hot soapy water, rinsed with clean water, and disinfected with an approved agent. Equipment is to be air-dried.
- e. Delicate equipment (radios, etc.) will be wiped clean of any debris using a moist cloth containing a hot soapy water solution, wiped with another cloth containing clean water, then wiped with an approved disinfecting agent and air dried.
- f. Any equipment that is damaged must be cleaned and disinfected before being sent for repairs.
- g. All other work surfaces will be decontaminated with an approved disinfecting agent. Seats on response vehicles contaminated with body fluids from soiled personal clothing will be disinfected upon return to quarters.
- h. Contaminated structural firefighting gear will be cleaned according to the manufacture's guidelines found on attached labels. Normally, this consists
of a wash with hot soapy water followed by rinse with clean water and air-dried. Chlorine bleach may impair the fire retardant properties of firefighting gear, therefore will not be used. Only oxygenated bleach may be used. Use only Clorox II or liquid Vivid.
- i. Contaminated boots, helmets, and structural firefighting gloves will be brush scrubbed with a hot soapy water solution, then rinsed with clean water, and allowed to air dry.

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- j. Contaminated personal clothing should be exchanged for clean clothes. The member should shower if body fluids were in contact with skin under work clothes. Contaminated clothes should be washed with hot water and appropriate solution.
- k. Infectious wastes generated through the cleaning process will be properly disposed of in biohazard, color coded bags and or containers.

Gloves shall be worn where it is reasonably anticipated that employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes. The following situations require the gloves be utilized (see Hazardous Analysis /PPE Matrix #1).

Disposable gloves used at this facility or in the field are not to be washed or decontaminated for re-use. They are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Utility gloves may be decontaminated for re-use provided that the integrity of the gloves is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Masks in combination with eye protection devices, such as: (goggles or glasses with solid side shield, or chin length face shields), are required to be worn whenever: splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonable be anticipated. The following situations require that masks be utilized: (see Hazardous Analysis /PPE Matrix #1)

The OSHA standard also requires appropriate protective clothing to be used, such as lab coats, gowns, aprons, clinic jackets, or similar outer garments. The following situations require that protective clothing be utilized (see Hazardous Analysis /PPE Matrix #1).

Facility Decontamination

The District fire stations will be cleaned and decontaminated according to the following schedule:

- a. Bathrooms as needed
- b. Kitchen as needed

Decontamination will be accomplished by utilizing the following materials: bleach and Lysol.

All contaminated work surfaces will be decontaminated after completion of procedures and immediately or as soon as feasible after any spill of blood or other potentially infectious materials, as well as the end of the work shift if the surface may have become contaminated since the last cleaning.

All bins, pails, cans, and similar receptacles shall be inspected and decontaminated on a regular basis. The member assigned house check shall be responsible for this on an as needed basis.

Any broken glassware, which may be contaminated, will not be picked up directly with the hands; a dustpan and broom shall be utilized.

Regulated Waste Disposal

Regulated waste other than sharps shall be placed in appropriate containers. Biohazard bags are in each first aid bag on key apparatus and are to be used in the field. While at the scene of any incident where regulated waste is generated, the waste will be transferred to the responding ambulance for appropriate disposal. A license medical waste disposal contractor will dispose any regulated waste at the District Fire Stations.

Laundry Procedures

Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible. Such laundry will be placed in appropriately marked bags or containers where it was used. These bags or containers will be labeled with a biohazard label or color-coded. Such laundry will not be sorted or rinsed in the area of use.

All employees who handle contaminated laundry will utilize personal protective equipment to prevent contact with blood or other potentially infectious materials.

Contaminated laundry will be cleaned in a commercial grade washing machine at a District fire station.

Hepatitis B Vaccine

All employees who have been identified as having occupational exposure to blood or other potentially infectious materials will be offered the hepatitis B vaccine, at no cost to the employee, under the supervision of a licensed physician or licensed healthcare professional. The vaccine will be offered after bloodborne pathogens training and within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials unless the employee has previously received the complete hepatitis B vaccination series, antibody

testing has revealed that the employee is immune or that the vaccine is contraindicated for medical reasons.

Employees who decline the Hepatitis B vaccine will sign a declination statement. See appendix A of this exposure control plan.

Employees who initially decline the vaccine but who later wish to have it at a later date may then have the vaccine provided at no cost.

The Chief or delegated officer for each department has the responsibility for assuring that the vaccine is offered, the declination statements are signed, etc. An appropriate medical care provider shall administer the vaccine.

Post Exposure Evaluation and Follow up

When the employee incurs an exposure incident, it should be reported to the Chief or delegated officer of each department.

All employees who incur an exposure incident will be offered a confidential medical evaluation and follow up as follows:

- Documentation of the route(s) of exposure and the circumstances related to the incident.
- If possible, the identification of the source individual. The blood of the source individual will be tested after consent (if required by law) is obtained for HIV/HBV infectivity.
- The results of testing of the source individual will be made available to the exposed employee with the employee informed about the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- The employee will be offered the option of having their blood collected for testing of the employees HIV/HBV serological status. The blood sample will be preserved for at least 90 days to allow the employee to decide if the blood should be tested for HIV serological status. If the employee decides prior to that time that the testing will be conducted, then testing will be done as soon as feasible.
- The employee will be offered post exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service.
- The employee will be given appropriate counseling concerning infection status, results and interpretations of tests, and precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to have the benefit of early medical evaluation and subsequent treatment.

The Chief or designated officer for each department will assure that the policy outlined here is effectively carried out as well as to maintain records related to this policy.

Interaction with Health Care Professionals

A written opinion shall be obtained from the health care professional who evaluates employees of this facility. In order for the healthcare professional to adequately evaluate the employee, the healthcare professional shall be provided with:

- 1) A copy of the OSHA standard.
- 2) A description of the exposed employees duties as they relate to the exposure incident.
- 3) Documentation of exposure route(s). Circumstances under which the exposure occurred.
- 4) Results of the source individual(s) blood tests (if available).
- 5) Medical records relevant to the appropriate treatment of the employee.

Written opinions will be obtained from the healthcare professional in the following instances:

- 1) When the employee is sent to obtain the Hepatitis B vaccine.
- 2) Whenever the employee is sent to a health care professional following an exposure incident.

Health care professionals shall be instructed to limit their opinions to:

- 1) Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine, or for evaluation following an incident.
- 2) That the employee has been informed of the results of the evaluation, and
- 3) That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials. (Note that the written opinion to the employer is not to reference any personal medical information.)
- 4) The healthcare professional's written opinion shall be provided to the employee within 15 days of completion of the evaluation.

Labels

Biohazard warning labels will be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious materials; and other containers used to store, transport, or ship blood or other potentially infectious materials. Red bags or red containers may be substituted for labels.

Training

Training for all employees will be conducted prior to initial assignment to tasks where occupational exposure may occur. All employees will also receive annual refresher training. (This training is to be conducted within one year of the employee's previous training.)

Training for employees will include an explanation of the following:

- 1) The OSHA standard for Bloodborne Pathogens.
- 2) Epidemiology and symptomatology of bloodborne diseases.
- 3) Modes of transmission of bloodborne pathogens.
- 4) This Exposure Control Plan, i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc.
- 5) Procedures which might cause exposure to blood or other potentially infectious materials at this facility.
- 6) Control methods that will be used at the facility to control exposure to blood or other potentially infectious materials.
- 7) Personal protective that is available.
- 8) Hepatitis B vaccine program at the facility.
- 9) Procedures to follow in an emergency involving blood or other potentially infectious materials.
- 10) Procedures to follow if an exposure incident occurs.
- 11) Post exposure evaluation and follow up.
- 12) Signs and labels used at the facility.
- 13) An opportunity to ask questions.

Instructors contracted through the Burrville Fire Training School will train employees or by in-house instructors who are CT. State certified and who have had training in Bloodborne Pathogens. All employees will receive annual Bloodborne Pathogens refresher training.

Recordkeeping

A designated health care agency shall maintain medical records required by OSHA.

The Chief or designated officer of the departments shall maintain training records required by OSHA.

APPENDIX A
Hepatitis B Vaccine Declination Statement
For the Barkhamsted Fire District

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with the hepatitis B vaccine at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with the hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Signature _____

Date _____

APPENDIX B
Infectious Exposure Form NFPA 1581
For the Barkhamsted Fire District

Pasted on the this page is an image of an infectious exposure form

APPENDIX C
Sharps Injury Log

**BARKHAMSTED FIRE DISTRICT
SHARPS INJURY LOG**

Date of Injury	Department	Activity Performed	Type or Brand	Safe Needle Device	Describe Incident or Injury.	Prevention

