

	<b>Standard Operating Guideline: OPS 1</b>	
	Subject:	Exposure Control Plan
	Effective Date:	October 1, 2012
	Revision Date:	December 1, 2022
Director:		<i>William Ferguson</i>

**Purpose:** To assure consistency when reacting to and documenting potential exposure to bloodborne disease, airborne disease, toxins, and carcinogens.

## **I. Exposure Control Plan – Emergency Medical Services**

A. The following job classifications, both volunteer and career staff are those which hold a reasonable occupational risk of exposure to blood/airborne, carcinogens, or other potentially infectious materials:

1. Paramedic
2. Intermediate
3. Advanced EMT
4. EMT
5. Firefighter
6. Fire/EMS Officer
7. EMS/Fire Instructor
8. Operations Captains
9. Lieutenants
10. Chaplains
11. Division Chief of Operations
12. Law Enforcement Officer
13. Animal Control Officers
14. Shelter Employees
15. Adoption Specialist
16. Other Fire/EMS Responder
17. Fire Marshal
18. Deputy Fire Marshal
19. Director of Public Safety

B. The following job classifications are those which hold little or no risk of occupational exposure to blood or other potentially infectious materials:

1. Administrative Assistants
2. Secretaries
3. Non-Fire/EMS Office Staff

- C. The Franklin County Department of Public Safety shall ensure that this guideline is made accessible to each existing member.
- D. Food or drink shall not be permitted to be stored or transported in any patient compartment area of an EMS vehicle, or in any work area where there is a reasonable likelihood of occupational exposure.
- E. Personnel shall not eat, drink, smoke, vape, chew tobacco/smokeless tobacco, apply cosmetics or lip balm, or handle contact lenses in any patient compartment area of an EMS vehicle, or any work area where there is a reasonable likelihood of occupational exposure.
- F. All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering and generation of droplets of these substances.
- G. Personnel with extensive skin lesions or severe dermatitis on their hands, arms, head, face or neck, shall not engage in direct patient contact, handle patient care equipment or handle medical waste.
- H. The Franklin County Department of Public Safety shall ensure this document is reviewed and updated annually. Any additions or changes in policy or procedure shall be passed on to the intended audience.
- I. The Franklin County Department of Public Safety shall provide the following personal protection equipment:
  - 1. Disposable Examination Gloves
  - 2. Disposal Surgical Masks
  - 3. Disposable Gowns
  - 4. Eye Protection
  - 5. Waterless hand cleaner or equivalent
- J. The equipment listed above, shall be placed onto every vehicle whose primary responsibility is to respond to EMS calls by the EMS agency licensed by OEMS.
- K. Appropriate barrier protection shall be implemented whenever the possibility exists for occupational exposure. Disposable gloves shall be worn on all EMS calls where a likelihood of exposure exists for the care providers. During incidents such as motor vehicle crashes, personnel shall wear appropriate gloves, latex or leather, consistent with the anticipated activity.
- L. Masks and protective eyewear shall be worn in situations where airborne transmission of fluids or splashes of body fluids are likely to occur.

- M. Gowns shall be worn during situations that are likely to generate splashes or body fluids.
- N. Adjunct respiratory devices shall be utilized to perform artificial ventilations.
- O. Gloves shall be changed between the contacts of different patients.
- P. Gloves shall be changed as soon as practical when they become contaminated, torn, or punctured.
- Q. Personnel shall wash their hands and any other exposed skin as soon as possible after the removal of gloves or other barrier protection. If the personnel are away from the station or medical facility, these body areas shall be cleaned with a waterless hand cleaner. As soon as feasible, personnel shall wash these body areas with soap and water.
- R. Personnel shall wash as listed above or flush any mucous membranes with water, immediately or as soon as possible following contact of these body areas with blood or other potentially infectious materials.
- S. The Franklin County Department of Public Safety shall provide the following waste control devices:
  - 1. Waste Containers for Apparatus
  - 2. Waste Containers for Stations
  - 3. Large and Small Red Biohazard Bags
  - 4. Needle/Sharps Disposal Containers
- T. When handling infectious waste, personnel shall wear appropriate barrier protection.
- U. Infectious waste shall be handled in the following manner:
  - 1. Scene Waste:
    - a) Infectious waste at the scene shall be placed into a bio-waste bag at the point of origin at which it was generated.
    - b) Picking up bio-waste and carrying it to a bio-waste container shall not be permitted.
    - c) Once all bio-waste is placed into the bio-waste bag, the bio-waste bag shall be placed into the bio-waste container on board the apparatus.
    - d) If there is no ambulance at the scene, the bio-waste bag shall be sealed and transported to the station or hospital and disposed of in the proper container.
  - 2. Waste in an emergency vehicle:
    - a) Any infectious waste generated in the emergency vehicle shall be placed in the vehicle's bio-waste container.

- b) Upon returning to the station, the liner shall be removed from the vehicle's bio-waste container and placed into the station's bio-waste container.
- c) A new liner shall be placed into the bio-waste container in the ambulance.

3. Linens:

- a) Linens, which have been contaminated, shall be placed in the appropriate container upon arrival at the receiving medical facility.
- b) Contaminated linens that are not transferred to a medical facility shall be placed into a red waste bag at the site.
- c) The bio-waste bag is to be sealed and transported back to the station or medical facility where it shall be placed into the proper waste container.

4. Needles/Sharps:

- a) At no time shall contaminated needles or other sharp instruments be recapped, bent, or broken.
- b) Contaminated needles shall not be removed from the syringe.
- c) Contaminated needles/sharps shall be placed into an appropriate sharps' container as soon as possible after use.
- d) Once a sharps container becomes full, the container is to be closed/sealed and taken to a medical facility for disposal. A new sharps container is to be placed back into service.

V. The Franklin County Department of Public Safety shall provide the following cleaning and disinfecting supplies:

1. Disposable Gloves
2. Disposable Gowns
3. Eye Protection
4. Disposable Masks
5. Disinfectant
6. Bio- Waste Bags

W. Areas that are used for the purpose of cleaning or disinfecting medical equipment and supplies shall be physically separate from the area used for food preparation, cleaning of food and cooking utensils, personal hygiene, sleeping and living areas.

X. During any process of cleaning or disinfecting, gloves shall be worn. Additional barrier protection shall be worn proportionate to the magnitude of the cleaning task.

Y. During any process of cleaning or disinfecting, personnel shall not eat, drink, smoke/smokeless tobacco, vape, chew, apply cosmetics or lip balm, or handle contact lenses.

Z. Medical Equipment and Supplies cleaning and Disinfecting:

1. Any piece of reusable medical equipment or supply that has become soiled or contaminated shall be placed into a bio-waste bag when use is complete. This equipment shall remain in the bio-waste bag until such time that it is to be cleaned and disinfected.
2. Metal and electronic equipment shall be cleaned and disinfected in accordance with the manufacturer's recommendations.
3. Disinfectant shall be used for the general maintenance and cleaning of the interior surfaces of the ambulance and the exterior equipment boxes that may have been handled with gloved hands.

AA. Uniforms cleaning and disinfecting:

1. Uniforms/Street clothing shall not be considered as appropriate barrier protection.
2. Spot Cleaning:
  - a) If a small area of the station uniform becomes contaminated, spot cleaning of the garment is appropriate. The spot cleaning procedure is as follows:
    - (1) Squirt pre-cleaner onto the garment
    - (2) Gently rub fabric together
    - (3) Rinse with cool water
3. Laundering:
  - a) Uniforms that have been grossly contaminated with bodily fluids shall be removed as soon as possible and placed into a bio-waste bag until such time that it can be laundered at the departments laundering center.
  - b) Grossly contaminated uniforms shall not be taken home to be cleaned.
  - c) Contaminated uniforms shall be laundered as follows:
    - (1) Wash contaminated clothing separately
    - (2) Wash in hot water with water setting at highest level
    - (3) Wash garments using  $\frac{1}{2}$  cup oxygenated bleach, such as liquid Clorox 2, and one cup liquid detergent such as liquid Tide.
    - (4) The washing machine should be programmed for normal cycle using a second rinse.
    - (5) DO NOT use chlorine bleach on station uniforms.

BB. Protective Clothing (Turnout Gear)

Cleaning and Disinfecting:

1. Turnout Gear shall not be considered as appropriate barrier protection.
2. Spot Cleaning: If a small area of the protective clothing becomes contaminated, spot cleaning of the garment is appropriate. The spot cleaning procedure for protective clothing is the same as for uniforms.

Gross Contamination:

3. Laundering of Protective Clothing:
  - a) Protective clothing that has been grossly contaminated with bodily fluids

shall be handled as follows:

b) Remove the garment as soon as possible

(1) Rinse the garment to remove the majority of the contaminated material

(2) Allow to air dry

(3) Follow the manufacturer's guidelines for cleaning

(4) Notify an officer or an SMT member in order to obtain replacement gear.

CC. The Franklin County Department of Public Safety shall provide training to all members regarding the administration, safety, and benefits of the Hepatitis-B Vaccine.

DD. After the above training, the agency licensed by OEMS shall make available to the member the Hepatitis-B Vaccine. The vaccine shall be offered at no cost to the member.

EE. If the member has previously received vaccination against Hepatitis-B, and the anti-body testing reveals that the employee is immune, or if the vaccine is contraindicated for medical reasons, the vaccine will not be made available.

FF. If the member declines the Hepatitis-B vaccine the Refusal Form shall be filled out completely.

GG. If the member initially declines the Hepatitis-B, but at a later date decides to accept the vaccination, the agency licensed by OEMS shall make the vaccination available at no cost.

HH. If the U.S Public Health Service ever recommends a routine booster dose of the Hepatitis B vaccine, such doses shall be offered at no cost.

II. If during a routine physical or blood work an HBV titer shows you are not immune a booster shall be offered at no cost to the employee.

JJ. An exposure translates into contact with an infectious agent, such as blood or bodily fluids that have the potential to contain blood in it, through inhalation, percutaneous inoculation, or contact with an open wound, non-intact skin, or mucous membrane.  
**PLEASE NOTE THAT CONTACT OF BLOOD OR BODY FLUIDS ONTO INTACT SKIN DOES NOT SIGNIFY AN EXPOSURE.**

**KK. POST EXPOSURE ACTIONS AND NOTIFICATIONS:**

1. Wash the exposed area well with soap and water and approved cleaner. In the event of mucous membrane exposure, such as blood in eyes, flush the eyes with water as soon as possible.
2. Upon arriving at the accepting medical facility, report the exposure to the physician responsible for the source individual's care. Ensure that their personnel complete the appropriate post-exposure documentation at the receiving medical

facility.

3. Document the exposure in the ESO patient care report under the personnel tab within 12 hours.
4. The Operations Captain on duty shall be notified immediately after arriving at the receiving facility or upon returning to the station.
5. If a volunteer has an exposure, they must also notify the administrative assistant at the public safety administration office within 3 days of the incident. **The volunteer must also complete an injury report.**
6. If a career employee has an exposure, they must notify Human Resources within 24 hours of the incident **and call the exposure in to the nurse's hotline.** If the exposure occurs on a weekend the report shall be made the first day County Administration is open.

LL. The Franklin County Department of Public Safety shall ensure that:

1. The exposed member is sent to the approved physician as soon as feasible so that baseline examinations can be performed and/or baseline blood samples drawn.
2. The results of the source individual's test are communicated to the exposed individual.
3. Any post-exposure prophylaxis, treatment or counseling shall be provided to the exposed member as indicated, at no cost to the member.

MM. The Franklin County Department of Public Safety shall provide annual training to all members, concerning communicable diseases. This training shall include, but not limited to the following topics:

1. Any changes in policy or procedure that effect occupational exposure.
2. Explanation of OSHA regulations and other related material.
3. Explanation of modes of transmission and symptoms of communicable diseases.
4. Explanation of use and limitations of barrier protection devices and preventive practices.
5. Information on types, basis of proper selection, proper use, location, removal, handling, decontamination, and disposal of personal protection equipment.
6. All information regarding Hepatitis-B vaccines.
7. Explanation of the procedure to follow if an exposure incident occurs.
8. Information regarding the post-exposure evaluation.
9. Information and explanation concerning hazardous communication and labeling.

NN. This training shall be provided at no cost to personnel.

OO. The licensed OEMS agency shall submit to the counties training officer, the following information regarding the above training, once completed:

1. Dates of training sessions
2. Summary of the training session
3. Name of person(s) conducting the training

4. Name of personnel attending the training

PP. The Franklin County Department of Public Safety shall ensure that the above training records are maintained for a period of not less than 3 years from the date the training was provided.

QQ. The Franklin County Department of Public Safety shall ensure that the following personal and medical information is established and maintained for each member:

1. Name and social security number of the member
2. A copy of the members Hepatitis-B vaccination status, including dates of inoculation
3. Records of all results of examinations, medical testing and follow-up procedures as required for post exposure incidents, as well as copies of the physician's written opinion regarding the exposure.

## **II. Exposure Control Plan – Suppression**

To recognize contamination hazards, implement precautionary measures at both incident scenes and in training, then properly document, reduce, and minimize all risks of exposure.

### **A. Policy**

Personnel shall initiate the following precautionary measures to reduce the risks of exposure when confronted with occupational respiratory health hazards and environmental or biological contamination.

The Incident Commander shall ensure staff on incident scenes are aware of possible exposures to contaminants when recognized and decontamination is completed prior to leaving the scene. If the exposure is to a hazardous materials (HazMat) product, the local Virginia Department of Emergency Management Hazardous Material Officer shall be notified.

### **B. Personal Protective Equipment Decontamination**

The Incident Commander is to ensure precautionary measures are taken to reduce secondary exposure risk from structural firefighting Personal Protective Equipment (PPE).

1. The Incident Commander shall determine if there is a need to decontaminate PPE.
2. Personnel assigned to “grossly decontamination (gross decon)” procedures shall wear structural PPE, utilize Self-Contained Breathing Apparatus (SCBA) or safety glasses and an N95 respirator mask.
3. If needed, crews should be directed to gross decon prior to reporting to the Medical Unit or leaving the incident scene.

Gross decon supplies include:

- a. Bucket.

- b. Soap – mix concentrate with water recommended by the PPE manufacturer.
- c. Two soft bristle scrub brushes – one rectangular head for dry material removal and one square head for wet and mild scrubbing.
- d. Garden hose and nozzle.

If exiting the IDLH to exchange an SCBA cylinder for immediate reassignment, the gross decon is delayed until assigned to report to Rehabilitation (Rehab) in preparation of release from the event.

### **C. Gross Decon Procedures**

Prior to reporting to the Medical Unit or Rehab, PPE and SCBA shall be gross deconned with a scrub brush, soap, water, and a garden hose.

Employees with vibra-alert activation are the first to complete the process. Firefighters exiting the IDLH remain on air until gross decon of PPE is completed.

If present, heavy contaminants (blown-in insulation) are removed with the dry brush.

PPE is rinsed with a garden hose, scrubbed with soap solution, and rinsed again. PPE decon shall include:

- Helmet
- Facepiece
- Coat
- Pants
- Boots
- Hoods
- Gloves
- SCBA and cylinder

Upon completion of gross decon, remove helmet, and pull hood over mask prior to going off-air, then report to Rehab. Prior to entering rehab doff remaining PPE.

Contaminated PPE shall be placed in six (mm) bags with full name, fire station, and transported to the nearest PPE extractor for further decontamination.

### **D. After Incident**

1. Employee Hygiene – Shower within the hour. Personnel should shower at a station utilizing soap and hot water within one hour of exiting the IDLH.
2. Uniforms worn under the PPE in the IDLH should immediately be laundered according to the Exposure Control Plan upon return to the fire station. Fire Station uniforms shall not be taken home for laundering.
3. Apparatus Cleaning - Follow the apparatus manufacturer's recommendation to clean cab interior and upholstery upon return to the fire station. 1. Vacuum loose dirt or particles. 2. Prepare cleaning solution. 3. Scrub seat and affected area with wet upholstery brush. 4. Wipe with clean cloth to remove residual moisture and/or dirt. 5. Allow to air dry.

## E. Exposure Documentation

A. IDLH and other HazMat exposures shall be documented in the ESO NFIRS report under the unit reports tab.

- Click on the unit
- Click on the personnel tab
- Select the provider
- Complete the PPE and exposure field.

The screenshot shows the ESO NFIRS software interface. The top navigation bar includes tabs for BASIC, UNIT REPORTS (highlighted in yellow), FIRE, CAPACITY, EMS, HAZMAT, INVESTIGATION, and INVESTIGATION. The main window shows a unit report for 'Jennings, Rena - 50656'. Step 1: 'Click Unit Reports' is highlighted on the UNIT REPORTS tab. Step 2: 'Click the Unit' is highlighted on the 'Edit Unit Report' screen. Step 3: 'Click or Scroll to "Personnel"' is highlighted on the 'Personnel' tab. Step 4: 'Click the Person' is highlighted on the 'Select Personnel' screen. Step 5: 'Complete the Exposure and Decontamination report' is highlighted on the 'Exposure and Decontamination' dialog box. The dialog box contains fields for 'Fire Products Exposed To' (Smoke, Heat), 'PPE Worn During Exposure' (Coat, Pant, Boots, Hood, Mask, Firefighting Gloves, Structure, Firefighting Helmet, SCBA), and various status indicators (Yes/No buttons for PPE Malfunction, Barrier Breach, and Black Soot Around Nose/Mouth, and a checkbox for Decontamination Procedures Completed).