FORT MYERS SHORES FIRE PROTECTION AND RESCUE SERVICE DISTRICT (FMSFD)

STRATEGIC OPERATING GUIDELINES (SOG)

**SUBJECT: Post Incident Decontamination**

**Applies to: All Operations Personnel**

## S.O.G. # 23

**Approval Date: 12-19-2019**

**Effective Date: Immediately**

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**Fire Chief**

#### PURPOSE: The purpose of this SOG is to establish a safe and effective practice of removing toxic particulates from fire protective ensembles, firefighters’ skin, equipment, and vehicles after their exposure to the products of combustion. This guideline will aid in reducing firefighter exposures and subsequently have a positive short and long-term health impact.

**SCOPE:** This SOG shall apply to all fire personnel that made entry into an Immediately Dangerous to Life and Health (IDLH) environment and/or came in contact with any hazardous contaminate.

**RESPONSIBILITIES:**

1. **Fire Chief**
   1. May establish and promulgate such department orders, instructions, policies, procedures, rules and regulations that is deemed necessary for the efficient operation of the FMSFD, making sure they are consistent with the laws, regulations, or any other orders or instructions of the FMSFD Commissioners.
2. **Officers**
   1. Shall ensure all personnel within their chain of command comply with this guideline.
   2. Shall ensure personnel have adequate training to ensure compliance.
   3. Become familiar with and utilize this policy.
3. **Engineers, Firefighters, and Fire Investigators** 
   1. Pledge to protect themselves and their co-worker’s health and safety by adhering to this policy
   2. Ensure they train on this policy until they can’t get it wrong.
   3. Become familiar with and utilize this policy.

**GENERAL**

1. Definitions
   1. **Hot Zone:** Any area with high risk. Any area within the immediate perimeter of any fire or hazardous environment, which includes smoke or soot.
   2. **Warm Zone:** The area between the hot and cold zone. The area not in the immediate vicinity of any fire or products of combustion. Gross decontamination per this policy shall be located in the warm zone
   3. **Cold Zone:** Any area without risk. Any area outside of the hot and warm zones, ideally uphill and upwind. Rehabilitation Sector shall be located in the cold zone.
   4. **Decontamination (Emergency/Gross Decontamination):** to make safe by eliminating or reducing poisonous or otherwise harmful substances, such as smoke, soot, noxious chemicals, or radioactive materials.

**OVERVIEW:**

1. All members shall protect themselves and their co-worker’s health and safety by adhering to the following guidelines.
2. Decontamination may be necessary for exposed or contaminated civilians and/or emergency responders. There are two types of decontamination (emergency/gross decontamination and technical/secondary decontamination). The Incident Commander and/or the Safety Officer will dictate the type of decontamination that is required. Technical decontamination occurs when the hazmat team arrives on scene.
3. To provide a systematic decontamination process that will be utilized on all incidents where Personal Protective Equipment (PPE) is worn and exposed to hazardous contaminates. This shall include structure fires, brush fires, vehicle fires, fixed or mobile hydrocarbon storage tanks, and/or any training fires and/or any other emergency or non-emergency incident where members have been exposed to any hazardous contaminate.
4. All personnel should be aware that isolation or control zones still exist. It is very important to keep in mind that most harmful toxins are colorless odorless gases. Some of those toxins that continue to off gas will not be detected by our 4-gas monitor.

**PROCEDURE:**

1. Preparation:
   1. Personnel shall be ready at all times to implement these health improving and protective procedures. Personnel may find it beneficial to assemble and maintain a personal "Go-Bag" with a clean uniform that can be accessed after any incident where they've been exposed to harmful substances. Recommended items would include: Class D uniform or jumpsuit (where applicable), shorts, socks, clean footwear, “boonie” style hat, towel, sun protection, etc. The Driver Operator shall ensure that the apparatus tank water or any water used in the decon process is from a clean municipal (hydrant) water source and is not stagnant or contaminated water.
2. Set-up:
   1. Generally, Gross Decontamination should be setup by the first arriving suppression apparatus closest to the incident where products of combustion exist. It shall be the Driver Operators responsibility to establish and oversee the Gross Decontamination area and process. The Gross Decontamination area shall be designated by deploying an approved decon hose line and marking the location with a green safety cone. The decon hose line shall include a low flow “garden style” nozzle to not embed toxins into any fabrics. To facilitate Gross Decontamination of multiple personnel, additional decon hose lines from other suppression apparatus in proximity is encouraged.
3. Process:
   1. All combat personnel that were exposed to products of combustion shall perform Gross Decontamination prior to entering Rehab or leaving the scene. After exiting the Hot Zone, it is recommended that crews will remain on air when possible and report directly to the designated Decon Hose Line. While remaining on air when possible, personnel shall rinse off debris and products of combustion in a systematic and thorough manner from the collar-line down, being mindful of higher potential collection points like the armpit and groin areas. Personnel shall be careful to not saturate the inner lining of the PPE. The goal is to keep the PPE operationally dry on the interior but rinsed as clean as possible on the exterior. Soft bristle scrub brushes and department approved soap/cleaner may be used to facilitate a cleaner process. In all cases follow NFPA 1851 and the manufacturer’s recommendations when cleaning PPE.
   2. After rinsing the exterior portion of the PPE, personnel may go off air and begin to doff their PPE. All PPE, other than bunker pants and fire boots, shall be left in a prepared Drop Zone. The Drop Zone shall be located in the warm zone. The Drop Zone shall be remote and downwind of Rehab due to off gassing PPE. Next, personnel will use department approved wipes for a gross cleaning of their head, neck, face, hands and any other exposed areas as deemed necessary.
4. Reporting to Rehab
   1. If exposed personnel are to report to Rehab, they shall first go through the Gross Decontamination process. Once in Rehab, personnel shall lower their bunker pants to allow for rapid cooling and increase the distance between off gassing contaminated gear and their groin and respiratory system.
5. Reporting for an assignment
   1. There will be times that crews will be called from Rehab back into operations. Personnel shall report ready for assignment as requested. If any new assignment involves further exposure to products of combustion (i.e. Overhaul, Secondary Search, retrieving hose lines, etc.), the crew shall then go back through the Gross Decontamination process as stated above.
6. Release from the scene:
   1. To keep the cab of the apparatus as clean as possible and avoid transferring toxins and harmful products back to the fire house, it is extremely important to perform these Gross Decontamination processes prior to leaving the scene.
   2. Once released by command and prior to leaving the scene, it is recommended that bunker pants, bunker coats and bunker boots be bagged at the scene using district approved bags (at least 6 mil thicknesses). The bag opening will be twisted and taped closed, then “goose-necked” (folded over on itself and twisted and taped a second time). This procedure will prevent off gassing to occur into the apparatus cab or in the “Clean-Cab areas.
   3. All other equipment (helmets and helmet liners, SCBA packs and cylinders, tools, radio straps, etc...) will be thoroughly cleaned using water and any available department approved cleaner. Soft bristle scrub brushes should be used to facilitate a cleaner process. Radios shall be wiped with department approved wipes. Once the gear is cleaned it may then be loaded into the apparatus cab.
7. Hood swap exchange:
   1. All personnel shall switch their contaminated hood to a clean hood.

**DECONTAMINATION—POST FIRE—AT THE FIRE STATION**

1. Showering within the hour is expected of all crews. It is an expectation that all personnel exposed to the products of combustion, or any potentially harmful chemical (or biological) toxins, complete a full personal decontamination as soon as possible after the exposure.
2. The following steps shall be taken immediately upon arrival at the fire station (to include, but not limited to):
   1. Take a cold then hot “shower within the hour” of being exposed to any products of combustion.
   2. Perform a more thorough decontamination of equipment (radio, tools, fire hose, etc…) following NFPA 1851 and manufacturer’s recommendations.
   3. Back up gear will be utilized until frontline gear has been extracted.
   4. Perform a thorough decontamination of the apparatus cab.
   5. Return apparatus to a state of readiness.
   6. Wash all station attire in an approved washing machine.
   7. After full decontamination of all the equipment and apparatus another shower (hot) is recommended.
   8. All personnel that entered the IDLH environment and/or came into contact with the products of combustion should be added to the exposure tab in the NFIRS Fire report.

**POST DECONTAMINATION**

1. Ability to Respond - Cleaned PPE ensembles should be hung on a rack to improve drying times and allow for the continued off-gassing of the interior components. Fans should be used to facilitate this process when possible. A priority shall be placed on positioning PPE in such a way that it shall not hinder rapid turn-out times.
2. Maintaining Readiness - All personnel shall ensure there is a clean apparatus cab. The potential for secondary exposures during routine apparatus use is high and must be limited. To aide in reducing secondary exposures, apparatus cabs shall be cleaned and decontaminated on a regular basis.