

SCOTTS VALLEY FIRE PROTECTION DISTRICT



STANDARD OPERATING PROCEDURES DATE APPROVED: APPROVED:	ARTICLE: II	SOP: 2127
	SECTION: 2100 SAFETY	
	SUBJECT: FIELD DECONTAMINATION OF PPE	
	2/3/2021	
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Purpose: To establish a best practice that minimizes exposure to toxic fireground contaminants and provides a preferred pathway toward personal and equipment decontamination.

Scope: Applies to all Scotts Valley Fire Protection District (SVFPD) personnel involved in firefighting operations.

Procedure:

Pre-Response – Preparation

- Place a change of clothing and station footwear on apparatus. A change of clothing placed on apparatus will eliminate fireground contaminated clothing from entering the passenger space of the apparatus.
- Ensure field decon kit contains wipes (preferably fire specific), soap, brushes and plastic bags.
 1. Ensure heavy duty garbage bags (preferably clear for ease of identification) are stored on apparatus for the purpose of isolating contaminated Personal Protective Equipment (PPE) and Self Contained Breathing Apparatus (SCBA).
 2. Ensure large red bio-bags are stored on apparatus for bio hazard contaminated clothing.
- Ensure that some form of backup PPE are available while primary PPE is being thoroughly decontaminated. Minimum would be a second hood and gloves, ideal would be a complete second set of PPE.

Fireground Considerations – Arrival

- When possible, stage uphill and upwind.
- Keep apparatus windows closed, and shut off air conditioning and heat to minimize airborne contaminants from entering the cab.
- Apparatus not involved in integral fireground operations should be shut off to reduce diesel exhaust on scene. The main battery should be shut off to prevent battery drainage.

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Fireground Considerations – Suppression Activities

- **An assumed hazard zone of 75 feet around a structure should be established when practical, on working fires.** Within the zone, it is highly recommended that all personnel utilize SCBA. The zone may be adjusted to accommodate actual working space around the incident and the envelope of smoke (the area surrounding the scene where airborne contaminants are present).
- When feasible, appoint an incident safety officer.
- Frequent crew rotation reduces exposure and should be considered when staffing levels allow.
- Water, foam, and time facilitate cooling which decreases airborne particulates and toxins. After the fire is under control, use water or foam to cool fire damaged material and structural components.
- Ventilate for 45 minutes post knock-down to dilute toxins and transport them away from the hazard zone. Gas powered fans may be used, but electric fans are preferred.
- When practical, the IC should consider establishing a Decon Group to establish a decon area and assist with decontamination.
- The decon area should ideally be located within the hazard zone and near rehab, its location should be announced to IC and everyone involved in suppression.
- Exit the structure on air, and if possible, remain on air until a gross decontamination of PPE has been performed.
- Gross decontaminate within the hazard zone; brush off solid particulate and/or wash down PPE and tools with soap and water before exiting the hazard zone. “Wet” decon is the preferred technique as studies show it to be 80% effective in removing contaminants as compared to 30% for “dry” decon.
- A ¾” hoseline fed from a clean water source should be used at low pressure to avoid embedding materials in PPE
- Personnel with the least remaining air should be decontaminated first.

Fireground Considerations – Overhaul

- Let fire-involved material cool. Wait 45 minutes before engaging in overhaul allowing airborne particulates to settle and off-gassing to decrease.

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- Continue to ventilate introducing clean air into the workspace.
- All overhaul activities must be performed on air.

Fireground Considerations – Rehabilitation (Rehab)

- Rehab should be located uphill, upwind, and outside of the hazard zone.
- All personnel must gross decontaminate before proceeding to rehab.
- Personnel who will likely be recycled to operations after Rehab **may** undergo "dry" decon wherein contaminants and debris are brushed off prior to going off air. However, dry decon is only 30% effective in removing contaminants
- Personnel who will likely be released soon or after Rehab will undergo "wet" decon wherein contaminants and debris are washed off prior to going off air. This distinction will mean Incident Commanders need to forecast future use or release of personnel/companies before directing them to Rehab.
- Turnout coats, helmets and hoods and gloves are to be doffed prior to entering the rehab corridor. Hoods should be removed overhead, not pulled down and "turtlenecked" to avoid contaminating the neck. Gloves should be doffed similar to medical gloves to avoid contaminating the hands.
- Wash hands, wrists, neck, and face with agency provided wipes or soap and cool water.

Post Response – Departure from the Scene

- When possible, first arriving companies involved in suppression activities should be released prior to others to start the decontamination process. Crews involved in initial attack are likely to be exposed to the most toxins.
- Place turnouts and contaminated PPE in a heavy duty, preferably clear bag and transport to the station. Do not place bagged PPE in the apparatus cab.
- Change out of contaminated clothing into clean clothing. All personnel should carry a second set of clean (station) PPE on the apparatus when possible.
- Consider personnel privacy/modesty when choosing a doffing site.
- Place bio hazard contaminated clothing in a red bio-bag and transport in a compartment outside of the cab.
- Clean SCBA and equipment on scene.

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- Place a garbage bag over cab-mounted SCBAs.
- Volunteer/Paid Call Firefighters should use similar precautions when transporting PPE in private vehicles.

Post Response – Back in Quarters

- Personnel involved in suppression activities need to shower with cool water followed by warm water and soap.
- Volunteer/Paid Call Fighters should shower at the station when feasible to minimize secondary contamination of their homes and vehicles.
- Perform a more thorough decontamination of equipment per SOP 2124. Be sure to wear PPE including nitrile gloves and a mask when handling contaminated equipment/PPE.
- All personnel shall ensure their assigned unit has a clean apparatus cab. The potential for secondary exposures during routine apparatus use is high and must be limited. To aid in reducing secondary exposures, apparatus cabs shall be cleaned and decontaminated on a regular basis.