**LIVINGSTON FIRE and RESCUE**

**STANDARD OPERATING GUIDELINE # 31**

**SUBJECT: Decontamination Procedures During and After a Fire**

**EFFECTIVE: November 1, 2018**

**PAGES: 3**

**1.0 PURPOSE**

 1.1 To provide personnel with a detailed guideline on how to remove products of combustion from their bunker gear and skin at a fire and how to reduce exposure to those products after a fire.

**2.0 OBJECTIVES**

 2.1 To define a procedure to do a gross decontamination on the fore ground

 2.2 To define procedures to remove potential carcinogens from the skin during rehabilitation, after a fire and at the station.

 2.3 To implement the best practices procedures as described by the “Lavender Ribbon Report” published by the International Association of Fire Chiefs Volunteer and Combination Section and the National Volunteer Fire Council.

 2.4 To define and implement a procedure for cleaning turnout gear after a call that reduces exposure to potential carcinogens.

 2.5 To implement an “Occupational Exposure Tracking Form” so that any potential exposure to products of combustion can be recorded for future reference.

**3.0 DEFINITIONS**

 3.1 **Carcinogen**: a substance capable of causing cancer in living tissue

 3.2 Product of combustion: are the end product when fuels, such as hydrocarbons, remain after the process of combustion. Thus, these are released and scattered into the atmosphere.

 3.3 **Combustion**: is referred to as an exothermic reaction involving an oxidant and a fuel along with heat production. Transformation of the chemical species is involved in this type of reaction.

 3.4 **Gross Decontamination**: The use of a hose stream at the fire ground to wash off particulates from bunker gear that may contain dangerous substances. This is not designed to thoroughly clean the gear or the firefighter.

 3.5 **Technical Decontamination:** An in-depth cleaning of all gear and equipment used on the fire ground that may have been exposed to the products of combustion. This cleaning is done after the event is completed, generally at the station.

 3.6 **IDLH Atmosphere**: an atmosphere that can cause exposure to airborne contaminants that is "likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment.

 **4.0 SCOPE**

4.1 This guideline applies to all regular and reserve members of the Livingston Fire and Rescue Department.

**5.0 RESPONSIBILITIES**

5.1 It is the responsibility of every member to read and comply with this

 guideline.

**6.0 PROCEDURE**

 6.1 Best Practice # 1: Full protective equipment (PPE) must be worn throughout the entire incident, including SCBA during salvage and overhaul.

 6.2 If the engineer is exposed to smoke while operating the engine, the engineer will wear either an SCBA or a N-95 particulate mask to prevent ingestion of particulates.

 6.3 Any firefighter on the fireground not involved in suppression activities and potentially exposed to smoke will wear an SCBA or a N-95 mask.

 6.4 Best Practice # 2: A second hood will be provided to all entry-certified personnel.

 6.5 At each bottle change the firefighter will put on a clean hood. If the firefighter uses more than two bottles, a hood will be provided by Command staff on scene.

 6.6 Best Practice # 3: Following exit from the IDLH, and while still on air, you should begin immediate gross decontamination of PPE using soap, water and a brush, if weather allows. PPE should then be placed into a sealed plastic bag and placed in an exterior compartment of the rig to keep the off-gassing PPE away from passengers and self.

 6.7 If necessary, Command staff will bring a second set of turnouts to the scene for the firefighters to ensure response capabilities for a second call.

 6.7 SCBA’s should be gross deconned and placed in an exterior storage compartment until technical decon can be completed.

 6.8 The storage compartments on the right side of the top of the engine can be used to transport the gear and SCBA’s as these compartments are empty.

 6.9 Best Practice # 4: After gross decon procedures as described above, and while still on scene, the exposed areas of the body (neck, face, arms and hands) should be wiped off immediately using wipes which must be carried on the apparatus. Use the wipes to remove as much soot as possible from head, neck, throat, jaw, underarms and hands immediately. A decontamination box with gloves, “Hero Wipes” and N-95 masks has been placed in the Engineer’s compartment.

 6.10 Best Practice # 5: Change your clothes and wash them after exposure to products of combustion or other contaminants. Do this as soon as possible and/or isolate in a trash bag until washing is available.

 6.11 Best Practice # 6: Shower as soon as possible after being exposed to products of combustion or other contaminants. “Shower within the hour”.

 6.12 Best Practice # 7: PPE, especially turnout pants, are prohibited in areas outside the apparatus floor (i.e. kitchen, sleeping area etc.) and never in your household.

 6.13 Best Practice # 8: Wipes, or soap and water, should be used to decontaminate and clean apparatus seats, SCBA and interior crew areas regularly especially after incidents where personnel were exposed to the products of combustion.

 6.14 Windows on the vehicle should be kept shut during fire operations to reduce the potential for contaminants to enter the crew area.

 6.15 Consider turning on the cab fan with the recirculate option closed to reduce entry of outside air into the crew area.

 6.16 Best Practice # 9: Get an annual physical, as early detection is the key to survival.

 6.17 The department will try to arrange for a firefighter specific physical for all members annually.

 6.18 Best Practice # 10: Tobacco products of any variety, including dip and e- cigarettes should never be used at any time on or off duty.

 6.19: The use of tobacco products in any county owned building (including the fire station) is prohibited.

 6.20 Best Practice # 11: Fully Document ALL fire or chemical exposures on incident reports and personnel exposure reports. (See attached form).

 6.21 Blank exposure report forms will be kept on the engine and at the station. The Officer in Charge will be responsible for ensuring that all members on the fire scene fill out the exposure form after the incident.

 6.22 All equipment used on the scene will be given a gross decon prior to being put back on the vehicle. This equipment will be get a technical decon at the station before being put back into service. This include hand tools, saws, ladders, SCBA’s TIC’s and any other tools that has been used.

 6.23 When preparing to clean bunker gear at the station and before opening the bag containing the contaminated bunker gear, put on a N-95 particulate mask and nitrile gloves and then remove gear. After placing gear in extractor, use wipes to clean any skin that may have been in contact with contaminated gear. Gloves, masks and wipes will be kept on top of the extractor for easy access.

 6.24 Leave contaminated gear in plastic bag until it is placed in the extractor. Do not leave gear on the floor so that it does not off-gas prior to washing.