**Purpose:**

To identify requirements and establish procedures for dealing with post incident and post training decontamination of PPE.

**Scope:**

Fire Department members.

**Policy:**

All members shall conduct the appropriate post incident or post training decontamination process. Members shall be annually trained in the post decontamination process.

**Procedures:**

* When PPE has come into contact, or been exposed to contaminants on scene or during training, mitigation, containment and decontamination shall be carried out as required
* The Commander shall determine the level of contamination, mitigation, containment, and decontamination that is required
* The Commander assumes the responsibility of the Incident Safety Officer, until the Incident Safety Officer is appointed in the Command structure
* Any soiled bunker gear can be replaced with spare bunker gear, during, or after the incident if possible. Soiled PPE shall be properly packaged for washing
* All contaminated PPE **shall** be contained at the scene, then transported for decontamination by means that reduces further exposure to members
* Contaminated PPE and/or station wear is not to be transported in the crew compartment of fire apparatus, unless properly contained (plastic bags shall be carried on board each apparatus)
* Supervisors/Officers shall ensure that post incident/training mitigation and containment of contaminated PPE is completed while at the scene prior to mounting fire apparatus
* A decontamination hose line, in the warm zone of an incident, shall be set up to wet down all debris covered or contaminated members and PPE. The Pump/Engine closest to the front door shall be used for this operation. Members exiting the building are to stay on air and not remove any PPE until rinsed thoroughly
* Members providing decontamination on scene shall wear gloves, respiratory protection and/or PPE appropriate to the suspected hazard
* Members providing rehab or changing air cylinders shall wear PPE appropriate to the hazard
* Soiled or contaminated PPE shall be washed as soon as possible
* Spare PPE shall be made available and used as replacement gear until the member’s PPE is washed and dried

**Mitigation of Contaminated PPE**

* + Upon exiting the hot zone, do not remove any PPE including SCBA face piece. Remain **ON AIR**. This is to reduce exposure to airborne particulates
  + If directly returning to the hot zone after an air cylinder change, dry brush debris from helmet, face piece, and SCBA prior to change-out
  + If Members are heading to Rehab or being released, dry or wet mitigation shall occur prior to removal of any PPE
  + Dry mitigation shall begin by brushing debris from helmet, face piece, SCBA, bunker gear, gloves and boots prior to removal. Hands and face shall be washed prior to entering rehab for rest, rehydration and nourishment or being released. The designated apparatus has water, towels, and wipes available for this
  + Wet mitigation shall begin using a fine mist from the decontamination hose line to rinse debris from the helmet, face piece, SCBA, bunker gear, gloves and boots. Members performing mitigation shall wear gloves, eye protection, and suitable PPE for the suspected contaminates. Members may require protection against extreme environmental exposure
  + Upon returning to the Fire Hall, Members should shower to further reduce contaminants or upon returning to home they should shower as soon as possible
  + If members are returning to operations or training without dry or wet mitigation. Wipes shall be used on any exposed skin areas. This shall be completed by each individual. Members assisting with bottle exchanges etc. shall ensure that the correct PPE is worn and that they utilize wipes once the tasks are completed. Consideration to change out protective hoods shall be considered.
  + During cold temperatures, the Commander may choose to have members don disposable coveralls overtop of their contaminated PPE. This shall be completed with a rinse of boots, the removal of gloves and balaclava which shall be placed in a plastic bag and placed in the vehicle, use of wipes and N95 masks are required. This process shall be completed at the end of operations, when personnel are ready to return to the firehall. The wearing of the disposable coveralls and N95 shall remain on until members are back at the Fire Hall, where the mitigation of contaminated PPE shall be completed as above.

**Containment of Contaminated PPE**

* + All containment shall be done wearing medical gloves to reduce exposure
  + When members are to be released, containment of contaminated PPE begins with spraying and bagging of helmet, gloves, and/or boots if required. A chemical detoxifier formula that meets the current NFPA 1851 standard should be applied
  + Contaminated bunker gear shall be handled in the following manner:
    - Protective hoods shall be attached to bunker pants. Empty all pockets and close Velcro flaps
    - Remove bunker gear and place in a plastic bag and tie. If station wear or clothing is felt to be exposed to containments that too is to be removed and placed in a separate plastic bag. Names shall be indicated on each bag
    - The plastic bag shall be placed in a vehicle that reduces further exposure to the containments
    - Members may require privacy and protection against extreme environmental exposure. Members shall don their provided coveralls.
    - Contaminated SCBAs shall be sprayed and bagged prior to placement on fire apparatus.

**Soiled Bunker Gear Washing**

Empty all pockets and close Velcro flaps. Pull liners inside out, leaving attached to shells. Place in a plastic bag, tie and label

**Replacement Bunker Gear**

* + Following mitigation, containment and preliminary decontamination, **ALL** affected members are to obtain replacement bunker gear immediately if available
  + Members shall attempt to limit any out of service time to a minimum in dealing with the replacement bunker gear
* PPE should be cleaned and returned to service within two days of the operation or training event (spare gear is to be returned to storage at this time)

**Contaminated SCBA**

* + On scene, remove SCBA and using a fine mist, completely wet down, removing all excess debris. Place SCBA in plastic bag, seal with caution tape and secure in a location acceptable for transportation back to the fire hall. SCBA Bottles shall also be tagged and stored in a location acceptable for transportation back to the Fire Hall.
  + At the Fire Hall, don medical gloves, eye protection and appropriate N95 respirator. Remove SCBA from plastic bag
  + Remove cylinder from SCBA and inspect all parts for damage and excessive wear and tear. Install thread protector
  + Wash and rinse cylinder with brush, soap and water
  + Using a mild soap and water solution and soft brush, clean and rinse all SCBA straps and pads (**DO NOT SUBMERGE SCBA**)
  + Thoroughly clean face piece as per the Face Piece Cleaning and Maintenance
* If SCBA requires repair complete the appropriate documentation

***Note*** *– An SCBA that has experienced Air Supply Failure during use is not to be cleaned or altered in any way. Notify the Fire Chief’s Office who will initiate the "Incident Investigation". All other defective SCBA shall be thoroughly cleaned before being given or sent for repairs.*

**Cleaning of Firefighting Gloves** *Firefighting gloves are not machine washable.*

* + Gloves are to be fully sprayed to remove excess debris and placed in a plastic bag before leaving the scene
  + Don medical gloves and remove firefighting gloves from plastic bag
  + Inspect gloves for damage, rips, tears, excessive wear or contamination
  + Fill decon sink approximately one quarter way and using a mild soap and water solution, don firefighting gloves and briskly rub together, ensuring cleansing of all surfaces
  + Remove firefighting gloves and submerge in the solution, then thoroughly rinse gloves inside and out with clean water
  + **DO NOT WRING** – Squeeze excess water from gloves and place on drying rack where applicable. *Wringing of gloves will degrade performance in fire conditions*
* Relabel if needed

**Cleaning of Boots - Leather and Rubber**

* Boots are to be fully sprayed to remove excess debris before leaving the scene
* Don medical gloves. Inspect boots for damage – rips, tears, leaks, excessive tread wear, malfunctioning zippers, torn pull loops
* If anatomical tissue or bodily fluids are present, spray with 10:1 bleach solution prior to mounting fire apparatus
* Fill decontamination sink halfway with water and using a mild soap and water solution, briskly rub the exterior, interior and sole of the boot
* Thoroughly rinse entire boot with clean water and hang boots upside down to dry, ensuring water run-off does not create a slip hazard (stuffing newspaper loosely into boots will help them to dry; change paper as needed or use an approved boot dryer)

**Cleaning of Helmet and Helmet Liners**

* Don medical gloves. Remove ear flaps, front pad and rear pad from helmet
* Inspect for damage – cracks or deep scratches in shell; misaligned helmet liner; malfunctioning ratchet; worn flaps; cracked or distorted visor
* Fill decontamination sink one-quarter of the way with water and using a mild soap solution, briskly rub the exterior and interior of the helmet. Rinse thoroughly with clean water
* Submerge ear flaps and pads into water and hand wash using a mild soap solution. Rinse thoroughly with clean water
* Squeeze excess water, wrap in newsprint, changing often until dry

**Contaminated Station Wear / Personal Clothing (Including illicit substance exposure)**

* Obtain either clean clothing or coveralls to change into
* Carefully remove all head and body clothing and place it on the ground in front of you
* Standing, lower your pants and remove shoes from one foot at a time, stepping backwards from the clothing. Place clothing on the ground in front of you
* Carefully remove safety glasses and place on the ground in front of you
* While wearing Nitrile gloves, pinch the bridge of your nose, hold your breath, close your eyes and gently remove N95 mask. Place N95 on the ground in front of you
* Remove Nitrile gloves peeling away from the wrists towards fingertips. Place Nitrile gloves on the ground in front of you
* Step back from contaminated clothing and don coveralls or clean clothing
* The Fire Chief’s Office shall be contacted to report the exposure and request a decontamination mesh bag.
* Place all contaminated clothing into the decontamination mesh bag
* An Exposure Record shall be filled out promptly and sent to the Fire Chief’s Office and shall be part of the records management documentation
* Using the appropriate level of PPE for the suspected contaminant, place contaminated mesh bag in a plastic bag and seal. Label with the member’s name
* Clothing (where applicable) will be washed, dried and returned
* If clothing is heavily contaminated, it may be treated as biohazard waste, bagged, sealed and disposed of

*Wipes shall be considered at any time personnel feel they may have come in contact with contaminates.*

**RESPONSIBILITIES**

All Firefighters shall:

* Properly mitigate, contain, package and decontaminate their PPE and SCBA prior to mounting any fire apparatus
* Notify their Supervisor/Officer when their PPE requires cleaning and/or decontaminating
* Assist with the cleaning of contaminated PPE and SCBA

Supervisors/Officers shall:

* Ensure that firefighters assigned to their apparatus undergo mitigation, containment, and decontamination prior to mounting the apparatus.
* Notify Command if their apparatus and crew will be delayed returning to service due to soiled or contaminated PPE.
* Document members exposures properly and promptly.
* Ensure all member's PPE, SCBA, clothing and firefighting equipment is cleaned, replaced, or decontaminated prior to returning to service.
* Ensure that spare PPE is returned to storage in a timely fashion.

Fire Chief’s Office shall:

* Ensure crews are properly mitigated, contained and decontaminated prior to return to service
* Make arrangements for replacement PPE if required
* Ensure exposed personnel, PPE, clothing, equipment and reports are dealt with promptly and properly
* Ensure any investigation regarding exposure is completed through the JOHS Committee

**References:**

WorkSafe OH&S Reg [5.2](https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-05-chemical-and-biological-substances#SectionNumber:5.2) & [5.82](https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-05-chemical-and-biological-substances#SectionNumber:5.82), [31.4](https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation/part-31-firefighting#SectionNumber:31.4) NFPA 232, 1001, 1500, 1851, 1585

NFPA 1550 , Standard for Emergency Responder Health and Safety, 2024 edition

NFPA 1970,  Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel and Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, and Personal Alert Safety Systems (PASS),  2024 edition

NFPA 1585, Standard for Exposure and Contamination Control, 2024 edition