

# Memorandum



CITY OF DALLAS

DATE August 24, 2018

TO Honorable Mayor and Members of the City Council

SUBJECT **Jerry Lambert's Commentary – The City's plan to purchase a second set of Firefighter gear**

Although Mr. Lambert's commentary was directed to Jim McDade, President of the Dallas Firefighters Association, I must point out the inaccuracies in his comments and provide you with correct information regarding this important decision.

Fundamentally, Mr. Lambert questions the validity of the claim that Dallas firefighters are suffering from occupational cancers. Secondly, he has asked, "What problem will this purchase solve for the taxpayers?" Moreover, finally, he asserts that the second set of gear will be ineffective unless the "firefighters also revert to professionally known operational- personal-behaviors [sic] that are professionally acknowledged to effect [sic] the intended prevention." In response, I offer the following brief on behalf of the Dallas Fire-Rescue Department (DFR):

- Occupational cancers in firefighters are well-recognized by governmental organizations, and the medical community continues to find evidence of a causal association between firefighting and cancer.
- The National Institute for Occupational Safety and Health (NIOSH) provides an excellent starting point to explore the research: <https://www.cdc.gov/niosh/firefighters/health.html>
- Texas Government Code 607.055 presumes that a firefighter or emergency medical technician who has cancer may have developed it because of their occupational exposure to heat, smoke, radiation, or to a known or suspected carcinogen (as defined by the International Agency for Research on Cancer).
- The most tangible benefit to the "taxpayers" will be a reduction in out-of-service time for companies and a faster "return to service" (and availability for emergency calls) following any incident where firefighters were exposed to contaminants (hazardous materials, bodily fluids, toxic products of combustion).
- The Texas Commission on Fire Protection requires Dallas Fire-Rescue to comply with the **National Fire Protection Association 1851 Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles**.
- This standard requires that firefighter "gear" cleaning should be initiated at the emergency scene. This is one kind of "routine" cleaning.
- If on-scene cleaning does not remove soiling and contamination, the standard requires that the gear undergo "advanced cleaning" prior to reuse. Advanced cleaning requires machine washing. With only one set of equipment, firefighters who need advanced cleaning must go out-of-service and either 1) wash gear in an extractor or 2) travel to the department's Clothing and Supply unit to be fitted for loaner gear while their own set is sent out for professional cleaning. Both options

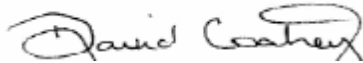
delay a return to service that is solved by providing a second set of gear for each member.

- Finally, some pollutants require immediate containment, cleaning or retirement of the gear. In these cases, firefighters must go out of service to obtain replacement gear.
- Indeed, it seems that if one fire company (four firefighters) is out-of-service following contamination, that perhaps the impact of service delivery to the City may be minimal. However, incidents where this kind of contamination occurs are most often structure fires, where several companies have responded, (a one-alarm fire has eight or more companies, involving approximately twenty-six firefighters)
- When several companies are out-of-service for an extended period of time, there is an impact in service delivery for the City of Dallas.
- Many times, Mr. Lambert referred to practices that firefighters can employ to reduce their exposure to carcinogens. He inaccurately stated that DFR firefighters do not perform these preventative measures. Furthermore, he wrote that DFR does not have policies in place to require them and does not outwardly support these safety behaviors.
- DFR has a policy that clearly defines firefighters' roles and responsibilities related to the selection, care, and maintenance of firefighting gear. It explicitly states that the policy formalizes procedures that will improve the safety of our members, specifically by reducing their exposure to fire ground contaminants.
- Each engine company has been provided with special equipment designed to clean firefighting gear, equipment, and the interiors (cabs) of fire apparatus. Firefighters are using this equipment both at emergency scenes and at their respective fire stations. Firefighters have been taught how to decontaminate each other using an approved soap and water solution and then to use body wipes to clean their skin, especially their faces and hands, before entering Rehab (where they rest, rehydrate, and are medically evaluated).
- All DFR members can view training on how to reduce their exposure to contaminants on DFR's internal website and they have received instructions on how to comply with the policy. These practices and safe habits are reinforced in the DFR Recruit Academy as well.
- DFR officers enforce and support these safety behaviors and the policies provide a system of "checks and balances" to ensure that DFR members' gear is routinely evaluated for cleanliness and whether it needs renovation.
- It is worth noting that DFR supports the use of exposure reduction measures to such an extent that current DFR policy requires that members shower once they return to the station. Each of the steps mentioned above are important components of DFR's exposure reduction program.
- The "intangibles" for the citizens, the City, and the firefighters are:
  1. Clean gear = reduced exposure to the public during encounters with DFR
  2. Clean gear = reduced exposure for firefighters
  3. Clean gear = reduced cost of firefighter occupational cancer (lost work time, reduction in productivity, backfill, Workers Compensation benefits and possibly personal medical costs, pain and suffering for family, loved ones, and co-workers)

#### 4. Clean gear = compliance with state regulations

DFR recognizes the threat that cancer poses to our members and has been aggressive at establishing policy and changing practices. The focus is to reduce the chances that another one of our DFR family will have to fight the terrible disease. Purchasing a second set of gear most clearly helps DFR to make certain that firefighters have access to a clean set of personal protective clothing to change into without increasing out-of-service time; this immediately reduces their exposure to carcinogens, pollutants, other toxins and makes them accessible for the next emergency call.

Please contact me if you have any questions or require further clarification.



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Dallas Fire-Rescue Department

c: Larry Casto, City Attorney  
Craig D. Kinton, City Auditor  
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Preston Robinson, Administrative Judge  
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# MANUAL OF PROCEDURES

## 327.00 PERSONAL PROTECTION ENSEMBLE – SELECTION, CARE, AND MAINTENANCE

DALLAS FIRE-RESCUE

Effective: 06/04/2018  
Revised: 06/04/2018

### 327.0 PERSONAL PROTECTION ENSEMBLE – SELECTION, CARE, AND MAINTENANCE

#### A. Purpose

1. To establish policies that comply with the current edition of NFPA 1851 for the selection, care, and maintenance of Protective Ensembles for Structural Fire Fighting.
2. To establish a program for structural firefighting ensembles designed to reduce the health risks associated with poorly maintained, contaminated, or damaged protective ensembles.
3. To protect the health and wellness of firefighters and the public by reducing their routine exposure to heat, carcinogens, and other toxins.

#### B. Definitions

1. **Preliminary Exposure Reduction** – the light cleaning of ensembles or ensemble elements performed at or near the emergency scene, or as soon as possible by the end user.
2. **Verified Independent Service Provider (ISP)** – an independent service provider verified by a third-party certification organization to conduct any one or a combination of advanced inspections, advanced cleaning, basic repair, or advanced repair service.
3. **Citro Squeeze** – An NFPA 1851 compliant, DFR supplied, cleaner/technical detergent for the safe cleaning of oil, soot, grease, and other hydrocarbon contaminants from all types off PPE apparel. It is extremely important to follow the manufacturer instructions regarding mixture ratios and amounts to be used. Too strong of a mixture will damage PPE fibers and reflective fibers, thus providing less protection to the firefighter.
4. **NFPA 1851** – the standard on the Selection, Care, and Maintenance of protective ensembles. This standard has been adopted by the Texas Commission on Fire Protection (TCFP) into the Texas Government Code as state law.
5. **True Haz-Mat Situation** – any exposure to chemicals, biological agents, and radiological particulate hazards; exposure to a substance that when released is capable of creating harm to people, the environment and/or property



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### C. Background

1. Special clothing items and equipment provide our members a higher degree of protection from heat and chemical exposure during firefighting and other hazardous operations.
2. However, multiple studies have demonstrated credible evidence for statistically higher rates of cancer in firefighters, compared to the general American population. Routine exposure to carcinogens at incident scenes is thought to be the cause of these alarmingly higher rates.
3. In addition to the dangers posed by carcinogen exposure, firefighters are at risk for developing health problems because of repeated exposures to many other toxins that are ingested, inhaled, and absorbed at incidents.
4. Protective clothing contaminated with soot, blood, or other body fluids pose hazards to those that come in contact with it:
  - a. Toxins are trapped in the soot, that is then trapped within the fibers of the protective clothing; thus, contact with the clothing puts members at risk.
  - b. Clothing contaminated with blood or other body fluids presents a risk of spreading disease.
5. Protective clothing that is soiled or dirty loses its protective qualities, consequently putting our members at risk:
  - a. Dirty PPE reflects less radiant heat and absorbs more heat when saturated with hydrocarbons.
    - 1) It is more likely to ignite, causing severe burns, even though the material is normally flame resistant.
    - 2) It is also more likely to conduct electricity.

### D. Policy

1. DFR members are only approved to wear department issued PPE, unless approved by the Fire Chief or his/her designee. In the past, members could purchase and wear certain elements, provided they were NFPA approved, without department approval. **This is no longer allowed.**
2. Members are NOT allowed to purchase a PPE element on their own to replace a lost, stolen, or damaged item. DFR has procedures to follow for these situations (*MOP 804.00*).
3. All PPE items must be sent in for their yearly inspection. This includes: helmet, both hoods, coat, trouser, gloves, and boots

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4. Members are NOT allowed to make repairs to any element of the protective ensemble. Members are NOT allowed to take any element to an outside agency for repair. This is in direct violation of NFPA 1851 and could place DFR's members at risk for injury.
5. The Personal Protective Ensemble is NOT to be worn, placed, or stored in the living areas of the fire station.
6. Station footwear and uniform pants or shorts should be worn on all calls that do not require the wearing of PPE.
7. Diesel exhaust systems shall be used at all times. If not operable, it must be reported and repaired. The International Agency Research on Cancer (IARC) has categorized diesel exhaust as a "definite carcinogen," placing it in its highest category.
8. Members who are actively involved in fighting a car, dumpster, or structure fire, and/or overhauling duties, will wash their hood when they return to the station. They will use their second hood while their primary hood is drying.
9. "Double hooding" (the wearing of 2 hoods) is NOT allowed by DFR members while actively engaging in firefighting operations. When double hooding, the member's facepiece becomes the weakest link and will likely fail before burns are sustained. **Any member found to be "double hooding" will be subject to disciplinary action.**
10. Each shift, officers and acting officers must ensure that the apparatus "rider list" and NFIRS entries are accurate. These two means of documentation are the best ways to track a member's exposure to fireground contaminants.
11. The Personal Protective Ensemble will be washed and inspected by a verified ISP at least once per year, to satisfy minimum requirements.
  - a. In addition to annual inspection and cleaning, there are occasions where cleaning and/or exposure reduction procedures are required, and in such cases, members will follow the procedures that are outlined here.
  - b. Every member issued PPE is ultimately responsible for the condition of their ensemble.

### E. Procedures

1. Fire Fighting Clothing and Equipment
  - a. Personal Protective Ensemble (PPE) refers to the entire personal protective ensemble and includes firefighting boots, turnout pants, turnout coat, gloves, hood, and helmet.

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b. During normal business hours, the Warehouse Manager or PPE Captain will facilitate gear exchange. After hours and on weekends, the Shift Safety Battalion Chief (832) will facilitate gear exchange.

c. Transportation:

- 1) When traveling to and from work locations (i.e. swing or hire back) PPE should be in a gear or plastic bag, and when possible, **NOT** in the passenger compartment.
- 2) ERB and other DFR members who operate vehicles equipped with pick-up truck beds or trunks shall ensure that their PPE is **NOT** kept in the passenger compartment (i.e. Investigators, EMS Supervisors, Battalion and Deputy Chiefs, etc.).
- 3) If PPE is contaminated and Preliminary Exposure Reduction measures were not done on scene, PPE will be stored in a plastic bag during transportation back to the station and exposure reduction procedures performed at the station.

d. Storage

- 1) When possible, doors to PPE storage areas should be kept closed to reduce contamination from diesel exhaust.
- 2) The Personal Protective Ensemble shall be stored outside of station living quarters and so that is protected from:
  - a) Ultraviolet light degradation, especially from sunlight; this is a prime cause of protective clothing failure.
  - b) Water and damp conditions; wet or moist PPE can invite bacteria and/or mildew growth, which can lead to skin irritations, rashes, or more serious medical problems.
  - c) Extreme temperatures (below -25F or above 180F); this will accelerate the deterioration of PPE.
  - d) Abrasion and contact with sharp objects; this can cause damage to the PPE.
  - e) Contact with hydraulic fluids, solvents, hydrocarbons, smoke, and other contaminants; this can cause material degradation and damage to the thermal protective fibers.

2. Member Responsibilities

- a. Wear SCBA and Personal Protective Ensemble throughout all active and post-fire environments as directed by the IC. All members should be aware that

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personnel may become overheated and exhausted while wearing PPE. Incident Commanders should give orders for personnel to remove PPE during rest periods, especially if members are eating or drinking in a designated Rehab area.

- b. All members should use decontamination wipes, while on scene, to clean exposed skin / areas prone to absorption (head, face, neck, arms, and armpits).
    - 1) Decontamination wipes can be ordered on Station Supply Order Form using the IDS drop-down "Forms" menu.
  - c. All members MUST shower upon returning to the station following exposure to an IDLH environment. Company officers will notify 660 requesting the need to go out-of-service for decontamination. Officers will ensure that companies return to service within 30 minutes unless their Battalion Chief has approved an exception.
  - d. Clothing worn under PPE should be removed immediately upon return to station and laundered using the station's washer and dryer.
3. NFPA Standard 1851 "Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles" was incorporated into law by the state of Texas in 2001. The Texas Commission on Fire Protection (TCFP) monitors and enforces DFR's compliance with this standard. DFR will satisfy all of the requirements of NFPA 1851 that relate to the following:
- a. Record keeping
  - b. Selection
  - c. Inspection
  - d. Cleaning and Decontamination
  - e. Repair
  - f. Testing
  - g. Issue and Storage
  - h. Retirement and Disposition
  - i. Procedures for events involving firefighter injury or death

### F. Record Keeping

1. The warehouse manager or his/her designee will maintain records of the following information for each protective ensemble:
  - a. Person to whom the PPE was issued
  - b. Date and condition when issued



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- c. Manufacturer and model/design
- d. Manufacturer's identification number, lot and serial number
- e. Manufactured date – month and year
- f. Date/s and findings of advanced inspections
- g. Date/s and findings of advanced cleaning or decontamination
- h. Reason for advanced cleaning or decontamination and who performed the services
- i. Date/s of repair, who performed repair, and a description of repair done
- j. Date of retirement
- k. Date and method of disposal

### G. Selection

1. In advance of selecting and purchasing structural firefighting ensembles, Dallas Fire-Rescue will conduct a risk assessment. A risk assessment shall be performed before the purchase of a complete ensemble of protective clothing per NFPA 1851. This assessment will focus on the potential hazards encountered by structural fire fighters based on the following:
  - a. Types of duties performed
  - b. Frequency use of ensembles
  - c. Organization's experiences
  - d. Incident Operations
  - e. Geographic location and climate
  - f. Specific physical area of operation
  - g. Likelihood of response to CBRN terrorism incidents
2. Dallas Fire-Rescue will ensure the protective structural firefighting ensembles under consideration are certified, compliant, and meet the minimum standards in the most current version of NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting.
3. Inspection
  - a. All PPE should be thoroughly cleaned prior to inspection.
  - b. Any member receiving new or replacement PPE shall inspect for:
    - 1) Physical damage, such as, rips, tears, cuts
    - 2) Damaged or missing hardware and closure systems
    - 3) Damaged or missing reflective trim
    - 4) Loss of seam integrity and broken or missing stitches

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- 5) Physical damage to shell of the helmet (cracks or dents), physical damage to the ear covers (rips and tears) and damaged or missing reflective trim

c. PPE will be evaluated based on its:

- 1) Date of manufacture
- 2) Cleanliness
- 3) Signs of heat damage
- 4) Signs of abrasion, fabric or material damage
- 5) Thread or seam damage
- 6) Discoloration
- 7) Dye loss
- 8) Reflective trim damage

d. Criteria

- 1) PPE items 10 years old from the date of manufacture or items without a legible manufacture date tag will be removed from service immediately.
- 2) Burned or melted portions of reflective trim exceeding one-fifth of the total area of the item (coat or pants) must be repaired.
- 3) Torn or loose reflective trim material on the coat or pants must be repaired.
- 4) Coats and pants with discoloration and brittleness, or tears, burn holes, acid holes, the build-up of tar, oil, or other substances, must be repaired or replaced.
- 5) Fasteners such as snaps, Velcro closures, zippers, hooks, and rings not working as designed must be repaired or replaced.
- 6) Torn burned, and punctured moisture barriers and liners must be repaired or replaced.
- 7) Hoods with holes shall be replaced.
- 8) Boots with holes and/or punctures shall be replaced.
- 9) Any PPE item that has a build-up of a foreign material that cannot be removed shall be replaced.
- 10) Helmets (and parts of the helmet) that are distorted, cracked, punctured, or bubbled because of heat exposure will be replaced.
- 11) Helmet straps and impact crowns burned, melted or worn through will be replaced.

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- 12) Face shields and goggles that are cracked, melted, burned, or discolored will be replaced.
- 13) Gloves that have holes will be replaced.
  - a) Gloves with liners that are separated or detached will be replaced.
- 14) Any PPE item that has been exposed to hazardous materials and cannot be decontaminated will be replaced.
- 15) Any PPE item that has been modified and is not in compliance with TCFP and/or DFR standards will be repaired or replaced.

#### 4. Inspection Responsibilities

- a. In all cases, the officer with PPE inspection responsibilities may contact the PPR Captain for assistance.
- b. Deputy Chiefs
  - 1) Deputy Chiefs shall inspect all PPE belonging to members in their Division on a routine basis, at least one time per year during the annual station inspection, and also whenever he/she has concerns that a member's PPE may not meet the DFR and/or TCFP's standard for PPE.
- c. Battalion Chiefs
  - 1) Battalion Chiefs shall inspect all PPE belonging to members on their shift twice per year; they shall also inspect any member's PPE when he/she has concerns the PPE may not meet DFR and/or TCFP's standard for PPE.
  - 2) PPE Inspection – Exception Report (Form 132PC/ER)
    - a) Following each inspection, battalion chiefs will generate an electronic exception report for all members who need to replace or repair their PPE and send to their Deputy; the Deputy will forward it to the Warehouse Manager and the PPE Captain for filing.
- d. Station Officers
  - 1) Station officers shall inspect all PPE belonging to members on their shift at least once per month, on the first day their shift works, each month.
    - a) PPE Inspection - Form 132-PC
      - i. Will be completed by the station officer or acting officer on the first day, each month, that his/her shift works.
      - ii. The 132PC will be sent electronically to the Battalion Chief (BC) by the third shift of each month.

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iii. Upon receipt, the BC will forward the 132PC to the PPE Captain via e-mail.

- 2) Station officers will ensure deficiencies found are corrected immediately.
- 3) Station officers will not allow members to wear PPE that is altered, damaged, or in need of repair.
  - a) Following each monthly inspection, station officers will generate an electronic exception report (Form 132PC/ER) for all members who need to replace or repair their PPE and send to their Deputy Chief through channels; the Deputy will forward it to the Warehouse Manager and the PPE Captain for filing.
- 4) Station officers will ensure members under their command comply with all procedures outlined in this section. **Officers will be held accountable for the condition of all PPE on their shift.**

### e. Individual Members

- 1) Individual members are responsible for the following requirements as outlined in NFPA 1851:
  - a) Individual members will inspect their PPE after each use, after exposure to an event that may result in damage, and as warranted.
  - b) Individual members will ensure their PPE is cleaned at least annually, and any time it becomes soiled or contaminated.
- 2) Individual members will turn in all deficient items for repair or replacement by Clothing and Supply.
- 3) Individual members will ensure their PPE is stored properly and maintained in accordance with this policy.

f. The Fire Chief, Assistant Chiefs, Deputy Chiefs, and members assigned to staff positions, Training, EMS, Communications and FPEI:

- 1) Will have their PPE inspected by 832 at least once per year and this will be documented using the PPE Inspection Form 132-PC.
- 2) Will have their PPE advanced cleaning and inspection at least annually by DFR's verified independent service provider.

### 5. Preliminary Exposure Reduction and Cleaning

- a. Following exposure to soot, dirt, smoke, perspiration, and/or hydrocarbons, members will:
  - 1) Initiate Preliminary Exposure Reduction measures while still on scene and immediately after exiting the structure or contaminated area. Most



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carcinogens are water soluble. This simple process can eliminate 70%-75% of carcinogens from the gear. The IC will be responsible for initiating the exposure reduction process.

### a) One Alarm Fires

- i. Driver Engineer(s), not on the first engine or truck at 1-alarm fires, will be responsible for setting up the Preliminary Exposure Reduction area. This area should be placed away from the fire, so as to not continue exposure to contaminants. A traffic cone will mark the area.
- ii. The Driver Engineer will place a 2 ½" to ¾" reducer on one of the discharges, attach a 50 ft. section of garden hose with nozzle, a soft bristle brush, and bucket filled with Citro Squeeze and water next to the cone. The line should be flushed to ensure no foam is in the line. If clear water cannot be obtained, use another apparatus or hydrant.
- iii. Idle pressure is all that is needed (open the discharge valve just enough to fill the line).
- iv. Personnel needing to enter the Exposure Reduction Area will assist each other with the process.
- v. Ideally, while wearing PPE and SCBA (breathing "on air") being worn, begin brushing, not scrubbing, with the soft bristle brush and detergent, brushing downward from top to bottom on both the front side and back side, to include the SCBA. This is a light scrubbing to brush off loose debris. Scrubbing too hard will damage the fibers of the outer shell, thus reducing protection.
- vi. Rinse at low pressure from top to bottom. Pressure should be kept low so that the contaminants do not penetrate the gear.
- vii. Once PPE has been removed, utilize the decontamination wipes to remove soot from head, neck, jaw, throat, arms, armpits, hands etc. Utilization of the wipes can remove 50% of contaminants from the skin. Most, if not all, of the remaining 50% is removed when members "shower within the hour."

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- viii. Preliminary Exposure Reduction MUST take place prior to entering the Rehab Area. The Rehab Officer will be responsible for ensuring compliance prior to members entering Rehab. Any issues will be reported directly to the IC.
  - b) 2 Alarm and greater:
    - i. The Preliminary Exposure Reduction process will be set up according to the IC's orders.
    - c) At the station:
      - i. Don EMS gloves when inspecting PPE for damage and soil level.
      - ii. If the PPE needs to be washed and/or professionally inspected, follow the appropriate procedures listed in this policy.
  - 2) Following exposure to blood and/or body fluids, members will:
    - a) Using universal precautions, remove PPE.
    - b) Isolate and bag the PPE.
    - c) If the blood and/or body fluid meets the following criteria, wash the PPE in a DFR Extractor or request Advanced Cleaning and Inspection (using the methods listed in this policy):
      - i. Has not penetrated the outer shell to the liner.
      - ii. Has not yet dried.
  - b. Cleaning PPE at the station
    - 1) When washing, DO NOT mix flame resistant (shell and gloves) with non-flame resistant items (hood and liners).
    - 2) When washing, DO NOT mix station wear with PPE items.
    - 3) Utility sink or bucket washing:
      - a) Utility sink washing is adequate for general cleaning after exposure to soot, dirt, smoke, perspiration, and light hydrocarbons.
        - i. When washing, water temperatures should not exceed 105 degrees Fahrenheit. Water should be hot, but not too hot to tolerate when you submerge bare hands into the water.
        - ii. Protective gloves and eye/face splash protection shall be worn.
        - iii. Do not overload the sink.

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- iv. Separate the liners from the shells.
  - v. Use only Citro Squeeze cleaning agent for the detergent.
  - vi. Elements shall be gently scrubbed with a soft bristle brush, while wearing nitrile (medical) gloves.
  - vii. Drain the water.
  - viii. Refill the sink and agitate using a gloved hand or stir stick (broom or mop handle labeled for this use only).
  - ix. Drain the water and lightly wring the garment(s).
  - x. Rinse and wring at least twice, then remove PPE from sink.
  - xi. Inspect the PPE and, where necessary, rewash, or submit for advanced cleaning
  - xii. Hang PPE separately in a well-ventilated area.
    - DO NOT machine dry.
    - DO NOT hand in direct sunlight.
  - xiii. Wash the sink thoroughly, using hot water.
- 4) Helmet
- a) The **only** cleaner to be utilized for cleaning the helmet is the approved Citro Squeeze detergent supplied by the department. This is the same solution used in the extractors (see label for appropriate mixture)
  - b) Do not use other materials such as detergents, solvents, petroleum products, etc. These will damage the shell and face shield, and reduce the protective capability of the helmet.
  - c) If the helmet will not come clean, arrange for an advanced cleaning.
  - d) If it is necessary to totally immerse the helmet, the impact cap shall be separated from the helmet shell. Each element component shall be washed and dried separately before assembling.
  - e) Helmets shall not be machine dried using equipment that produces mechanical action from tumbling or agitation.
  - f) When cleaning, scrub gently using a soft bristle brush and rinse thoroughly
- 5) Station (residential) washer and dryer use:
- a) In addition to the utility sink and wash buckets, station washers and dryers can be used to wash and dry protective hoods.

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- b) To reduce the concern about contamination, members should run a dummy load (soap and water only, no clothes, towels, other items) following each load that contained a protective hood.
- c) Do not use station washers and dryers for bunker coats, pants, or any liners.
- d) Citro Squeeze cleaner and/or laundry detergent can be used to wash protective hoods in station washers.

### 6) Extractor Washing:

- a) Use to remove heavy dirt, soot, and other contaminants.
- b) Follow posted instructions.
- c) Air dry PPE in an area with good ventilation and away from direct sunlight.

### 7) Advanced Cleaning and Inspection:

- a) Currently, DFR utilizes an ISP to perform advanced inspections and cleanings in compliance with NFPA 1851.
- b) Requests for Advanced Cleaning and Inspection service shall be directed to the Warehouse Manager, members will copy (cc) the PPE Captain.
  - i. Members can make this request at any time.
  - ii. Members shall confirm with the Warehouse Manager:
    - When and where their PPE will be picked up.
    - When and where it will be returned
    - Who is responsible for dropping off and picking up their PPE.
  - iii. When the circumstances of an incident make it likely that several fire companies will need this type of non-routine ("unscheduled") cleaning service, the Warehouse Manager will create a schedule to allow all members to have their PPE cleaned within a two-week period after the incident.
- c) Members are scheduled annually by the Warehouse Manager for advanced cleaning and inspection of their PPE.
- d) Failure to participate in the required annual inspection and cleaning will result in discipline.
  - i. Members will turn in their PPE on the day their station/shift is assigned



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ii. If a member misses his/her scheduled cleaning day, he/she will participate on the assigned make-up day.

• If a member fails to participate in the required annual advanced cleaning and inspection by the end of their station/shift's assigned make-up day, he/she will receive a Letter of Counseling. Additional violations will result in progressive discipline. The annual advanced cleaning is in compliance with NFPA 1851.

### 8) Washing Footwear and SCBA Facepieces:

- a) Carefully inspect for damaged rubber (parts, soles, seals) and missing or loose components.
- b) Using the utility sink, rinse items in cool water.
- c) Add Citro Squeeze cleaner and scrub gently.
- d) Thoroughly rinse and allow to air dry completely.

### 9) Contamination Involving Hazardous Materials

- a) The Hazardous Materials Response team will be consulted for the purpose of determining whether firefighters and their PPE have been exposed to contaminants that would be classified as a "True Hazmat situation" or not. Haz-Mat shall utilize all available resources, in order to identify the chemical or agent the firefighters were exposed to.
- b) Utilizing all available resources, if a determination cannot be made, the incident will be deemed a "True Haz-Mat situation."

### 10) True Haz-Mat Situation Cleaning Procedures

- a) Use the appropriate level of protection, isolate and the PPE. The Haz-Mat officer will determine the level of protection appropriate for handling the PPE.
- b) The Haz-Mat officer shall tag packaged PPE so as to identify the hazard. Then, the Haz-Mat officer will contact the PPE Captain or Warehouse Manager to arrange for gear exchange during normal business hours. After hours, 832 will be contacted.

### 6. Repairs

- a. Only the contracted ISP is allowed to perform repair work on any protective ensemble. These repairs shall be requested through an advanced cleaning request.

## STANDARD OPERATING PROCEDURES

- b. No member is allowed to make repairs to any element of protective ensemble. Members are NOT allowed to take any element to an outside agency for repair. This is in direct violation of NFPA 1851.
- 7. Testing
  - a. At the advanced cleaning/inspection, the ISP will perform test in accordance with NFPA 1851, to include:
    - 1) Leakage
    - 2) Light evaluation
    - 3) Water Penetration
- 8. Retirement, Disposition, and Special Incident Procedures
  - a. Retired structural firefighting PPE shall be destroyed or disposed of in a manner ensuring that they will not be used in any firefighting or emergency activities, including live fire training.
  - b. When it is not cost effective to repair ensembles or ensemble elements, or when they are 10 years old from the date of manufacture, the ensemble will be retired and disposed of.
  - c. For PPE worn by firefighters who sustained a serious injury or died, the following procedures will be followed:
    - 1) Immediate removal from service and preservation of all PPE utilized by the injured or deceased firefighter.
    - 2) Custody of such PPE shall be maintained at a secure location with controlled, documented access.
    - 3) All PPE shall be nondestructively tagged and stored only in paper or cardboard containers to prevent further degradation or damage. Plastic or air tight containers shall not be used.
    - 4) Examination of the PPE shall be made by qualified members of the organization or by outside experts to determine the condition thereof.
  - d. Questions about PPE use and inspection should be directed to the PPE Captain.
  - e. The manufacturer's care and use instruction booklet is attached to each PPE item when it is issued and a copy can be requested from the PPE Captain and/or the Warehouse Manager / Clothing and Supply.

**NOTE: Revisions and Conflicts**

This MOP is subject to revisions as needed to ensure the maintenance of efficient, thorough, and proper operations within the Dallas Fire-Rescue Department.

