

POLICIES AND PROCEDURES

STANDARD OPERATING PROCEDURES

Care and Maintenance of PPE

SECTION II 11.1 – 11.2

April 6, 2011

Approved by R. Dale Horne – Fire Chief

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11.1 Purpose:

- a. The Anderson City Fire Department, AFD, strives to create a workplace free from all recognized hazards and meet all applicable OSHA standards. Where ever possible, the AFD also strives to meet all ISO and NFPA recommendations.
- b. NFPA 1851 covers the Standard on Selection, Care, and Maintenance of Personnel Protective Equipment, PPE.

11.2 Procedure:

- a. Cleaning: AFD is responsible for providing the means to clean all elements of PPE. It is the responsibility of each member of the AFD to insure that their PPE stays clean and in a ready for use state. If PPE is soiled and needs to be washed, it can only be washed at headquarters I the machine provided, **DO NOT USE OTHER MACHINES!** Avoid over washing of PPE, only wash what is dirty, i.e. if you get mud on your pants then try using a brush and water hose to wash the mud off of the pants, if the pants need to be machine washed the wash just the outer shell of the pants instead of washing the entire set of PPE. Any member of the AFD can wash their gear while on duty provided they have a second set of PPE to wear while their first set is being washed and dried, avoid wearing wet PPE due to the increased risk of steam burns. If the AFD has not provided you with a second set of PPE, then you may use another member's gear provided they have given you permission and an officer has verified that the gear fits. In the event that gear can not be washed while on duty, then the member assigned the set of PPE must ask his/her replacement for the next shift to wash the PPE. If you do not have a relief person for the next shift then you may ask another firefighter.
 - i. Routine Cleaning: To be initiated by the person wearing the PPE, at the scene if at all possible. In the event of contamination or suspected contamination by bodily fluids follow DECON procedures first, and then follow up with cleaning procedures.
 1. Isolate elements to avoid cross contamination
 2. Brush off dry debris
 3. Gently rinse off other debris
 4. If necessary a soft bristle brush may be used to spot clean
 - a. Wear protective gloves and eye/splash protection
 - b. Water temperature is not to exceed 105° F

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- c. Mild unscented liquid detergent with ph between 6.0 and 10.5 or commercial pre-wash treatment, i.e. spray-n-wash
- d. Gently scrub with soft bristle brush
- e. Rinse thoroughly
5. Inspect after routine cleaning
 - a. Rewash if necessary
 - b. Or Submit for Advance Cleaning
 - c. If no further cleaning needed then return to use
6. Advance Cleaning: Is to be done only using the commercial front loading machines at headquarters. **DO NOT USE OTHER MACHINES!**
 - a. Insure all pockets are empty
 - b. Pre-treat heavily soiled or spotted areas
 - c. Load Machine per SLM recommendations
 - d. Water temperature is to be set on cold
 - e. Use mild unscented liquid detergent for front loading washing machines, ph between 6.0 and 10.5
 - f. Outer shell and gloves are washed separately from inner liner and flash hood. **Do Not Wash Suspenders.**
 - g. Make sure all closures are fastened
 - h. Inspect after washing and rewash if needed
 - i. Dry in Commercial Dryer. **Do Not Dry Gloves**
 - j. Do not put damp gear in closed locker, at head quarters; hang in location out of direct sunlight until fully dried.
 - k. Make sure that PPE is properly reassembled liner is not twisted and all snaps, Velcro, and zippers are properly closed. DRD is installed per labeled instructions. Replace all tools/equipment in pockets before putting PPE back into use.
7. Footwear: Can be routinely cleaned at scene using same procedures as above. Advance cleaning to be done in wash sink, do not machine wash or dry. Per Globes' recommendation their leather boots can/should be polished with regular shoe polish to protect leather from cracking.
 - ii. Decontamination (DECON): AFD has placed PPE DECON Kits on each of the front line apparatus (White bucket marked PPE decon). This kit includes bucket with lid and inside of bucket is soft bristled brush, bottle of concentrate, and

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instructions. Before DECON can start make sure universal precautions are followed and the procedures to these steps.

1. Isolate elements to be cleaned to prevent cross contamination
 2. Fill bucket with water to fill line, if possible use clean tap water, if not use water from booster tank, either way water temperature should not exceed 105° F
 3. Add concentrate (4 oz. of 3% H₂O₂) to water
 4. Mix solution with brush
 5. Gently scrub area to be deconed with brush
 6. Rinse thoroughly
 7. Inspect and repeat steps 5 & 6 if necessary
 8. Submit for advance cleaning
- iii. Inspections: It is the responsibility of each member of the AFD to inspect their PPE and report any concerns to their supervisor or uniform committee member. Furthermore, universal precautions shall be observed when inspecting, deconing, or cleaning contaminated PPE.
1. Routine Inspections: Individual members are to inspect their PPE after each use, after each cleaning, and at the start of a new work rotation. They are to inspect for
 - a. Soiling
 - b. Contamination
 - c. Physical Damage
 - d. Thermal Damage
 - e. Reflective Trim
 - f. Seam Integrity
 - g. Assembly of shell to liner
 - h. Proper installation of DRD
 - i. Boots: exposed or deformed steel toe, mid sole, or shank
 2. Advanced Inspections:
 - a. Coats and Pants: AFD personnel who have been properly trained will conduct an advanced inspection on each set of in service PPE at least annually. Addition advanced inspections may be conducted if necessitated by routine inspections. The person conducting the advanced inspection will be responsible for all

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documentation of findings. An advanced inspection includes all of the steps of a routine inspection plus these additional items

- i. System fit, want 1 ½ rolls of material in front of coat and overlap of 2” between coat and pants
 - ii. Material integrity, including wristlets (rip test)
 - iii. Label integrity
 - iv. Hook & Loop functionality (Velcro)
 - v. Liner attachment systems
 - vi. Closure system functionality
 - vii. Accessories
 - viii. Moisture barrier integrity
 1. Light evaluation of liner, see IV PPE Form 1
 2. Leakage evaluation, see IV PPE Form 2
 - b. Footwear: Will be conducted to the same standards as coat and pants. In addition to routine inspection the following will be inspected
 - i. Excessive tread wear
 - ii. Condition of lining
 - iii. Heel counter failure
 - iv. Loss of Water resistance
 - v. Accessories for compliance
3. Storage: All PPE is to be stored out of direct sunlight. The PPE of members not on duty is to be stored in their assigned locker and lights of locker area to be off when room is not in use. Members who are on duty can either keep their PPE inside the apparatus or if they wish to keep it outside the apparatus then make sure the PPE is placed out of sunlight or covered with a clothe or towel. PPE is not to be kept in the trunks of vehicles unless protected by bag or container. Any PPE not currently assigned will be stored behind Fort Knox. This gear is to be cleaned, dried, and folded before being placed into storage.