LEON COUNTY E.M.S.

Standard Operating Guideline

Title:	Protective Clothing Policy
Effective:	September 1, 2007
Reviewed:	June 2009, December 2012
Revisions:	2
Pages:	10

I. PURPOSE:

In an effort to safeguard employees from injury, it is the intent of the County to provide employees with protective clothing and equipment that is appropriate for the various activities and services being preformed. Further guidance on the use of personal protective equipment for protection from bloodborne pathogens can be found in the personal protective equipment standard operating guideline.

II. GUIDELINE:

Protective clothing shall be approved by the EMS Chief. No other protective apparel shall be permitted. Employees shall utilize and wear their protective clothing and safety gear as prescribed by this standard operating guideline.

Use of protective clothing and safety gear as defined and prescribed within this standard operating guideline shall be considered mandatory during emergency operations and/or whenever the chance or risk of personal injury may exist. Employees are directly responsible for their personal safety and shall utilize proper protective clothing in accordance with this guideline and the manufactures recommendations.

DANGER

Wearing any elements of your protective clothing and equipment may increase your risk of heat stress which may cause injury or illness. At the first sign of heat stress, immediately move out of the risk area. When in a safe location, doff the personal protective clothing and equipment and seek medical treatment if necessary.

Personnel engaged in emergency operations that pose a potential threat to their safety shall utilize protective clothing and equipment. It is impossible to outline every instance where protective clothing and equipment should be utilized. This standard operating

guideline presents instances where the equipment shall be utilized; however there may be more instances where the use of the protective clothing and equipment is appropriate. Personnel must use good judgment identifying other instances where protective clothing and equipment should be utilized.

Personal protective clothing and equipment may not be modified, changed or altered in any manner by the employee. This includes adding decals, labels, pins, stickers, patches, painting or otherwise changing the look of the equipment.

Personal protective clothing and equipment should not be stored in direct light as ultraviolet rays will cause degradation of the materials and the safety value.

Personal protective clothing and equipment shall be inspected by the wearer prior to the start of each shift and following each use to determine the condition and to assure readiness of the equipment. Every six months; the employee shall certify on a standardized form that their gear has been inspected and cleaned in accordance with this standard. It is the responsibility of the field operations supervisors to assure that inspections and cleaning of personal protective clothing and equipment is occurring as outlined in this standard operating guideline. Deficiencies found during the inspection process will be immediately reported to the field operations supervisor so that proper corrective action can occur. Employees shall not repair nor attempt to repair personal protective clothing and equipment. The County will arrange for repairs to be made by a qualified vendor to assure the continued reliability of the protective qualities of the equipment.

Personal protective clothing and equipment shall be stored in the gear bags provided. This equipment shall NOT be stored in direct sunlight, when wet or moist, or in abrasive environments or in contact with sharp objects. All protective equipment shall be clean and dry before storage.

Personal protective clothing and equipment shall be retired at such a time as when determined during the inspection process that the gear is damaged and unrepairable.

Head Protection

- Employees are provided with helmets that will provide head protection when properly used. Helmets are equipped with a faceshield designed for impact and penetration resistance and earlaps for protection of the neck and ears. Faceshields, earlaps and the chinstrap are not to be removed from the helmet; as this voids the safety certification.

- The use of an approved safety hat is required in those areas or operations wherein there are hazards of bumping one’s head, having it struck or having harmful materials fall/spill on the head.

- Personnel are required to wear their approved safety hat when exposed to an area or operation where such equipment is necessary to protect the employee from recognized hazards.

- The following are examples of when head protection shall be utilized; this list is not all inclusive and personnel need to use appropriate judgment when faced with situations not listed below:

    - Vehicle crashes where disentanglement and extrication is necessary
    - Construction, industrial and other sites that are designated as "HARD HAT AREAS" or similar wording that indicates head protection is required.
    - In areas where there is a possible danger of impact from falling or flying objects or striking fixed objects such as when work is being done overhead that may result in an object falling. This includes during severe storms when tree branches are at a higher risk of falling.
    - Operations in areas of potential civil unrest

- Head protection shall not be worn in instances where no hazards are present; such as medical calls where no apparent dangerous situation exists.

- Markings – in an effort to standardize the appearance of the helmets and assure compliance with appropriate safety standards; only the markings and decals provided by the County shall be allowed to be placed on the helmets. These markings, including the reflective bars, shall not be removed by the employee. Each helmet shall be marked as follows:

    - Leon County EMS reflective emblem on the helmet front
    - Reflective certification crescent on each side of the helmet
    - Rank crescent inside the certification crescent, when appropriate

- Ratchet and chinstrap adjustment:
    - Open the headband by turning the ratchet knob counter-clockwise
    - Place the helmet on your head. While holding the helmet down on your head, push the ratchet knob inward and turn clockwise (it adjusts in 1/8" increments) until it is snug and comfortable
    - Fasten the chinstrap and adjust to a snug fit

- Eye protection – Faceshield
    - Remove protective covering from lens
    - To raise or lower the faceshield, loosen the knobs on both sides of the faceshield brackets.

- Adjust the faceshield and tighten the knobs

- Cleaning
  - Helmets must be kept clean and free from contaminants. Helmets shall be cleaned every six months and after each use where it has been soiled or exposed to blood or body fluids, tars, fuels, resins, paints, acids, by-products of combustion or other hazardous materials.

  - If contaminated and when possible, flush the protective equipment with water at the scene or as soon as possible after emergency operations are complete.

  - Never use a helmet that is wet from use or cleaning. Allow parts to dry before use.

  - Faceshield
    - Use mild cleaning agents such as ethyl alcohol or a mild detergent and water and a soft sponge or cloth. Never use abrasives, solvents paint removers, acetone, paint or lacquer thinner, or any chlorinated organic solvents.

    - Removal of light scratching and stains can be achieved through the use of jeweler's polish.

  - Helmet Shell
    - Helmets should be hand washed in a sink using water that is between 105 and 110F
    - Do NOT machine wash helmets – helmets should always be hand washed
    - Protective gloves should be used to avoid contact of the wash water with the skin
    - Remove faceshield before cleaning
    - Use mild household detergent or ethyl alcohol and water
    - Do NOT use other materials such as strong (industrial strength) detergents, solvents, petroleum products. These will damage the shell and faceshield and reduce the protective capability of the helmet.
    - Forced ventilation air drying is recommended; this can be achieved by using a fan. Drying can also be achieved by hanging the helmet in a shaded area and allowing it to air dry.
    - Do NOT machine dry helmets

- Inspection
  - Inspect the helmet, including all accessories after each use for impact, thermal and use damage. Never use a damaged helmet. If there is any damage, remove the helmet from service immediately and repair or replace the damaged component before using the helmet.
  - Helmets that have been exposed to excessive heat, taken an impact or sustained damage shall be taken to the shift operations supervisor for further inspection.
  - Helmet shall be inspected for overall cleanliness. If dirty, it shall be immediately cleaned.
  - Helmet Shell – replace if any of these conditions exist
    - Cracks longer than one inch
    - Any size crack that is completely through the shell material
    - Soft spots equal to or large than thumb pad. Smaller soft spots require further inspection by a supervisor.
  - Edge trim
    - Reattach if separated but intact
    - Replace if broken or aluminum core is exposed
  - Reflective trim – replace if any of these conditions exist
    - Charred
    - Partially detached
    - Non-reflective
    - Missing
  - Faceshield and Hardware – replace if any of these conditions exist
    - Blistered, bubbled, cracked or charred faceshield
    - Missing E-ring
    - Shaft not intact
  - Breakaway tabs – replace if any of these conditions exist
    - Missing, bent or damaged tabs
  - Chinstrap – Replace if any of these conditions exist
    - Frayed, missing or broken parts
    - Missing, cut frayed or broken stitching
    - Clogged or worn-out Velcro
    - Brittle, broken or missing quick release button
    - Loose postmans slide
  - Suspension Straps
    - Ensure straps lie flat and pass between alignment guides
    - Replace if any of these conditions exist
      - Missing, cut or broken stitching
      - Tears or abrasions on straps
      - Brittleness
      - Discoloration
  - Earlap – Replace if any of these conditions exist

        - Missing, cut or broken stitching
        - Nomex layer discolored, charred, or perforated
        - Flannel liner torn or seared
    - Headband – replace if any of these conditions exist
        - Brittle, torn, cracked or broken
        - Holes
        - Able to open ratchet by tugging on legs

Hand Protection

- Work gloves shall be provided for use when an employee is working in an area where they are exposed to injury to the hands or fingers from material, machinery, heat, chemicals, sharp objects or other hazards.

- The gloves provided do not provide protection from bloodborne pathogens and as such gloves for protection from bloodborne pathogens shall be worn under these work gloves.

- The following are examples of when hand protection shall be utilized; this list is not all inclusive and personnel need to use appropriate judgment when faced with situations not listed below:
    - Vehicle crashes where broken glass is present
    - Vehicle crashes where disentanglement and extrication is necessary
    - In any situation where injury to the hand or fingers is probable

- Work hand protection shall not be worn in instances where no hazards are present; such as medical calls where no apparent dangerous situation exists.

- Cleaning
    - Wash with warm water and mild detergent
    - Allow to air dry; do NOT machine dry

- Inspection
    - Check for cleanliness
    - Replace if any of these conditions exist:
        - Stiff or rigid
        - Stitching worn or rotten
        - Glove insulation is worn through
        - Leather split
        - Holes or tears
        - Improper fit
        - Not issued or approved by the County

Protective Jackets

- The protective jackets supplied may be worn for general purposes under the guidelines of the appearance and uniform standard operating guideline. This standard operating guideline only outlines when the jacket must be worn for protective purposes.

- The jacket meets protective standards for emergency medical services and liquid-borne pathogens. The shell is made of the fire retardant material NOMEX. However this garment may burn and melt if exposed to high heat or flames. It has not been required to meet a flammable performance requirement and it is not designed nor intended to be used for firefighting activities. While this jacket is resistant to penetration from liquid-borne pathogens, due to a Crosstech fabric liner, no protective garment can provide absolute protection. The Crosstech liner also provides penetration resistance against NFPA "common chemicals" such as battery acid (37% sulfuric), gasoline (Ref. Fuel C), hydraulic fluid, aqueous film-forming foam (AFFF) and swimming pool chlorine solution.

- The garment should not be punctured in any manner; doing so compromises the protective qualities of the jacket. Pins, patches or any other emblems or insignias shall **NOT** be placed on the jacket by the employee.

- The following are examples of when protective jackets shall be utilized; this list is not all inclusive and personnel need to use appropriate judgment when faced with situations not listed below:

    - Vehicle crashes where disentanglement and extrication is necessary
    - In areas where there is a possible danger of fire, falling or flying objects, or contact with sharp objects.
    - During emergency operations where there is a large amount of blood or other potentially infectious materials.

- Cleaning
    - Machine wash in warm water (less than 130F) with all closures fastened.
    - Wash separately from other garments in the machine located in logistics
    - The outer shell should be washed separately from the fleece liner
    - Use detergent such as liquid Tide or Cheer
    - Dry by hanging in shaded area or by using forced ventilation air drying; this can be achieved by using a fan
    - Do NOT machine dry
    - Do NOT dry clean
    - Do NOT use chlorine bleach
    - Do NOT spray with a high velocity power washer

- Inspection
    - Check the integrity of all major seams on the outer shell. This shall be done by pulling on the seams in a way comparable to the stress put on a seam when the garment is worn. If repair is necessary, the county will make all necessary arrangements. Repair should not be done by the employee.

    - Inspect all hardware such as snaps, zippers, suspender buttons, etc. Do this by gently pulling on buttons and rivets to make sure they are secure, opening and closing snaps. Any loose or missing hardware should be replaced.

    - Inspect all hooks and loops (Velcro) to assure cleanliness and that stitching is intact.

    - Check reflective trim for broken thread and stitching, rips and badly soiled areas and for cracks with water vapor and debris under the coating. Check reflectivity by testing the trim in a darkened area with a flashlight. Sections of trim that has lost its reflectivity and where stitching has broken or frayed should be repaired. Repairs should not be done by the employee.

    - Look for worn and abraded areas. If these areas exist, the garment should be taken to a field operations supervisor for corrective action.

    - Inspect the liner checking for wear and tear. Check the seams for failure or separation.

Protective Pants

- The pants meet protective standards for emergency medical services and liquid-borne pathogens. The shell is made of the fire retardant material NOMEX. However this garment may burn and melt if exposed to high heat or flames. It has not been required to meet a flammable performance requirement and it is not designed nor intended to be used for firefighting activities. While the pants are resistant to penetration from liquid-borne pathogens, due to a Crosstech fabric liner, no protective garment can provide absolute protection. The Crosstech liner also provides penetration resistance against NFPA “common chemicals” such as battery acid (37% sulfuric), gasoline (Ref. Fuel C), hydraulic fluid, aqueous film-forming foam (AFFF) and swimming pool chlorine solution.

- The garment should not be punctured in any manner; doing so compromises the protective qualities of the jacket. Pins, patches or any other emblems or insignias shall **NOT** be placed on the jacket by the employee.

- The following are examples of when protective pants shall be utilized; this list is not all inclusive and personnel need to use appropriate judgment when faced with situations not listed below:

    - Vehicle crashes where severe disentanglement and extrication is necessary
    - In areas where there is a possible danger of fire, falling or flying objects, or contact with sharp objects.
    - During emergency operations where there is a large amount of blood or other potentially infectious materials.

- Cleaning
    - Machine wash in warm water (less than 130F) with all closures fastened.
    - Wash separately from other garments in the machine located in logistics
    - The outer shell should be washed separately from the fleece liner
    - Use detergent such as liquid Tide or Cheer
    - Dry by hanging in shaded area or by using forced ventilation air drying; this can be achieved by using a fan
    - Do NOT machine dry
    - Do NOT dry clean
    - Do NOT use chlorine bleach
    - Do NOT spray with a high velocity power washer

- Inspection
    - Check the integrity of all major seams on the outer shell. This shall be done by pulling on the seams in a way comparable to the stress put on a seam when the garment is worn. If repair is necessary, the county will make all necessary arrangements. Repair should not be done by the employee.

    - Inspect all hardware such as snaps, zippers, suspender buttons, etc. Do this by gently pulling on buttons and rivets to make sure they are secure, opening and closing snaps. Any loose or missing hardware should be replaced.

    - Inspect all hooks and loops (Velcro) to assure cleanliness and that stitching is intact.

    - Check reflective trim for broken thread and stitching, rips and badly soiled areas and for cracks with water vapor and debris under the coating. Check reflectivity by testing the trim in a darkened area with a flashlight. Sections of trim that has lost its reflectivity and where stitching has broken

or frayed should be repaired. Repairs should not be done by the employee.

- Look for worn and abraded areas. If these areas exist, the garment should be taken to a field operations supervisor for corrective action.

- Inspect the liner checking for wear and tear. Check the seams for failure or separation.

Protective Footwear

- The footwear provided is designed to provide limited thermal and physical protection of the feet and ankles.

- Cleaning
  - Use a light bristled brush to remove all dirt from the boots before cleaning with mild soap and water and a damp cloth. Do not use solvents or other cleaners, as they may adversely affect the protective properties of the footwear.

- Inspection
  - Look carefully for cleanliness, excessive tread wear, tears, cracks, holes, leakage, missing stitches, soft spots or any physical damage. Report any damage.