PEACH COUNTY

GENERAL SPECIFICATIONS
PROTECTIVE JACKET AND HIGH BACK TROUSER
FOR STRUCTURAL FIRE FIGHTING

1. SCOPE

This specification details design and material criteria to afford protection to the upper and lower body , excluding head, hands, and feet, against advise environmental effects during structural fire fighting. All materials and construction will meet or exceed NFPA Standard #1971-2018 Revision for structural fire fighters protective clothing.

_____Comply _____Exception

2. OUTER SHELL MATERIAL - JACKET & HIGHBACK TROUSERS

The Outer Shell will be constructed of Pioneer with an approximate weight of 6.6 oz. per square yard in a rip stop weave, and shall have a super shelltite finish. Color of garments to be Khaki.

_____Comply _____Exception

3. MOISTURE BARRIER - JACKET AND HIGH BACK TROUSERS

The Stedair 3000 moisture barrier shall be 4.8 osy. per square yard. The moisture barrier shall be sewn to the thermal liner at the edges only and bound along the edges with a 2" flame retardant binding, secured with a lock stitch.

_____Comply _____Exception

4. SEALED MOISTURE BARRIER SEAMS

All moisture seams shall be sealed with a minimum 7/8 inch wide sealing tape. One side

of the tape shall be coated with a heat activated glue adhesive and the adhesive side of the tape shall be oriented toward the moisture barrier seams. The adhesive shall be activated by heat and the sealing tape shall be applied to the moisture barrier seems by means of pressure exerted by rollers for that purpose.

_____Comply _____Exception

5. THERMAL INSULATING LINER - JACKET AND HIGH BACK TROUSERS

The thermal liner shall be constructed of 7.3 oz. per square yard of Defender Brass. A 7 1/2 x 9 1/2 inch pocket constructed of self material shall be affixed to the inside of the jacket thermal liner on the left side by means of lock stitch. A 10 x 5 inch shoulder pad constructed of self material shall be affixed to the shoulders of the thermal lining by means of lock stitch. A 16 x 12 1/2 inch back pad constructed of self material shall be affixed to the back thermal liner by means of lock stitch. For extra protection a 10 x 10 inch knee pad constructed of self material and 2 layers of moisture shall be affixed to the knee of the trouser lining by means of lock stitch. The thermal liner shall be sewn to the moisture barrier as described under the moisture barrier section.

_____Comply _____Exception

6. METHOD OF THERMAL LINER/ MOISTURE BARRIER ATTACHMENT FOR JACKETS AND HIGH BACK TROUSERS

The thermal liner and moisture barrier will be completely removable from the jacket shell. A strip of flame retardant hook and pile (e.g. Velcro) fastener tape shall secure the thermal liner/ moisture barrier to the outer shell along the length of the neck line on the collar facing. The remainder of the thermal liner/ moisture barrier shall be secured with a minimum of five snap fasteners appropriately spaced on each jacket facing and two snap fasteners at each sleeve end.

The thermal liner and moisture barrier will be completely removable from the high back trouser shells. Seven snap fasteners shall be spaced along the waistband to secure the thermal liner/ moisture barrier to the shell. The legs of the thermal liner/ moisture barrier shall be secured by means of two snap fasteners per leg.

_____Comply _____Exception

7. THERMAL PROTECTIVE PERFORMANCE

The assembled garment, consisting of an outer shell, moisture barrier, and thermal liner shall exhibit a TPP (thermal protective performance) rating of no less than 40.

_____Comply _____Exception

8. STITCHING

The outer shell shall be assembled using stitch type #301 and #514. The thermal liners and moisture barriers shall be assembled using stitch type #401, #504, #514, and #516. Stitching in all major seams shall be continuous. There shall be no joined stitching in midseam. All outer shell structural seams, structural liner seams, and minor seams including but not limited to pockets, flaps, and material reinforcements, shall have a minimum of 6 to 8 stitches per inch.

_____Comply _____Exception

9. STRESS POINTS

All outer shell stress points of coat and pants, including top and bottom pocket corners, pocket flap corners, top and bottom storm flap/fly shall be reinforced using a 42 stitch minimum bartack.

_____Comply _____Exception

10. JACKET CONSTUCTION

a. BODY

The body of the shell shall be constructed of three separate body panels consisting of two front panels and one back panel. The body panels shall be shaped so as to provide a

tailored fit thereby enhancing body movement and shall be joined together by stitching with Nomex thread. Coat moisture barrier/thermal liner design shall be compatible with the outer shell so that the liner does not buckle, pull, or otherwise restrict body motion. The left and right fronts of the moisture barrier/thermal liner shall be attached to the facings at the front closure of the outer shell.

_____Comply _____Exception

b. SLEEVES

The sleeves shall be of two panel construction, contoured , and of set design. The outer and under sleeve panels shall be double stitched together with Nomex thread. The sleeves shall be contoured (curved) to follow the natural shape of the human arm unlike straight, tubular sleeve configurations. An underarm gusset shall be incorporated between the underside of the sleeve and the body of the jacket giving better fit and allowing for freedom of movement. The underarm gusset shall measure approximately 5 1/2 inches wide by 16 inches long.

_____Comply _____Exception

c. SLEEVE CUFF REINFORCEMENTS

The sleeve cuffs shall be reinforced with black Ara-Shield. The cuff reinforcements shall be no less than 2 inches in width and folded in half, approximately one half inside and one half outside the sleeve end for greater strength and abrasion resistance.

_____Comply _____Exception

d. ELBOW REINFORCEMENTS

A black Ara-Shield reinforcement patch, approximately 5 inches wide and 7 inches high will be stitched to the elbow area, centered over the seam that joins top and bottom sleeve. This will fully cover the seam at the elbow, thereby offering more protection against abrasion.

_____Comply _____Exception

e. PADDED ELBOWS

Padding for the elbows shall be accomplished with one layer of thermal barrier stitched to the elbow area of the top and under sleeves of the thermal liner.

_____Comply _____Exception

f. WRISTLETS

There shall be knit wristlets of Kevlar and spandex, folded and doubled to give two ply thickness of no less than 4 inches in length. The wristlets with thumb holes shall be sewn to flame resistant Stedair 4000, which in turn shall be sewn to the inside of the Thermal. This sleeve well configuration serves to prevent water and other hazardous elements from entering the sleeves when the arms are raised. The neoprene moisture barrier material shall also line the inside of the sleeve. Four Advance tabs will be sewn into the juncture of the sleeve well and wristlet. The tabs will be sewn equidistant from each other and shall be fitted with female snap fasteners to accommodate corresponding male snaps in the liner sleeves. This configuration will ensure there is no interruption in protection between the sleeve liner and wristlet.

_____Comply _____Exception

g. COLLAR

The collar shall consist of four layer construction and be of two piece design. The four layers shall consist of two layers of outer shell material, with two center plies of breathable moisture barrier material sandwiched between the outer shell layers. The moisture barrier material shall be sewn to the inside of the collar at the edges only, and shall extend down into the exterior extension panel. The multi-layered configuration shall provide protection from water and other hazardous elements. The collar shall be of two piece design with the left and right halves of all component materials joined together, thereby permitting the collar to retain its proper shape and roll. The collar shall be a uniform 3 inches high and graded to size. The leading edges of the collar shall extend up evenly from the leading edges of the jacket front body panels so that no gap occurs at the throat area. The collar shall be joined to the body panels on the outside by an extension

panel. The extension panel shall be constructed of outer shell material and lined on the inside with a layer of breathable moisture barrier material that extends down from the collar. A collar facing extension shall be affixed to the bottom of the collar on the inside. It shall serve to eliminate potential gaping between the collar and liner interface, while securing the liner to the neck area of the coat. The facing shall measure approximately 3 inches wide and run the length of the collar. A strip of flame resistant pile fastener tape(e.g. velcro) shall be sewn to the underside of the collar facing, and shall engage a corresponding piece of flame resistant hook fastener tape at the neck area of the liner.

The collar and facing shall have a piece of breathable moisture barrier sewn to the end of the collar to prevent moisture from entering at the neck line. The collar closure strap shall be constructed of two plies of outer shell material with one center ply of breathable moisture barrier material, and shall measure no less than 3 1/2 inches wide by 13 inches long. The collar closure strap shall be secured in the closed and stowed position flame resistant hook and pile (e.g. Velcro) fastener tape. A two inch by three inch piece of FR pile fastener tape shall be sewn vertically to the inside of the end of the closure strap. A corresponding piece of FR hook fastener tape measuring 2 x 3 inches shall be sewn horizontally to the outside of the collar on the opposite side, thereby providing a high degree of collar strap adjustment when wearing a breathing apparatus mask. In order to provide a means of storage for the closure strap when not in use, a 2 x 3 inch piece of FR hook fastener tape shall be sewn to the collar immediately in front of the closure strap. An NFPA compliant fabric hanger loop shall be sewn to the inside of the coat at the neckline.

_____Comply _____Exception

h. ACTION BACK

The jackets shall include inverted pleats to afford enhanced mobility and freedom of movement in addition to that provided by the underarm gussets. The outer shell shall have two inverted pleats (one on each side) installed at the juncture of the front and back body panels. The inverted pleats shall begin in the back of each shoulder and extend down the sides of the jacket to approximately 2 inches below the armhole. Maximum expansion of the pleats shall occur at the shoulder area.

_____Comply _____Exception

i. CARGO POCKETS

Each jacket will be equipped with two combination pockets; one on the left and one on the right side. The pockets shall be located at the bottom of the jacket near the stormflap and be stitched to the respective body panels. The pockets shall measure 9 inches wide by 8 3/4 inches high and both pockets shall be lined with neoprene moisture barrier material. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material, and one layer of neoprene moisture barrier material. The upper pocket corners and pocket flaps shall be reinforced with bartacks. A 2 x 2 inch flame resistant hook and pile fastener tape shall be sewn to the pocket and flap. All pockets are lined with Neoprene.

_____Comply _____Exception

j. RADIO POCKET

Each jacket shall have a pocket designed for the storage of a portable radio. This pocket shall be of box type construction, stitched to the coat, and shall have one drainage eyelet in the bottom of the pocket. The pocket flap shall be constructed of two layers of outer shell material and one layer of neoprene. Pocket flap measuring approximately 6 1/2 inches in length with 2 inch x 3 inch flame resistant hook and pile fastener tape (e.g. velcro) closure. The pocket shall be constructed of one layer of outer shell material and one layer of neoprene material measuring approximately 6 3/4 inches high and 3 1/2 inches wide. A 2 inch by 2 inch flame resistant hook and pile fastener tape (e.g. velcro) shall secure the pocket in a closed position. The upper pocket corners and pocket flaps shall be reinforced with bartacks. All pockets are lined with Neoprene.

_____Comply _____Exception

k. JACKET FRONT

The jacket shall incorporate separate Arafill facings were there is no interruption in thermal or moisture protection in the front closure are. The facings shall measure 2 3/4 inches wide, extend from collar to hem, and be sewn to the underside of the outer shell at the leading edges of the front body panels. The thermal liner and moisture barrier

assembly shall be attached to the jacket facing by means of snap fasteners.

_____Comply _____Exception

l. STORM FLAP

A rectangular storm flap measuring 5 inches wide and 23 inches long shall be centered over the left and right body panels to ensure there is no interruption in thermal or moisture protection in the front of the jacket. The outside storm flap shall be constructed of two plies of outer shell material with one ply of breathable moisture barrier material and one layer of thermal material. The outside storm flap shall be double stitched to the right side body panel and shall be reinforced at the top and bottom with bartacks.

_____Comply _____Exception

m. STORM FLAP AND JACKET FRONT CLOSURE SYSTEM

The jacket shall be closed by means of a steel 22" zipper, and flame resistant hook and pile (e.g. velcro) fastener tape on the storm flap. The storm flap shall close over the left jacket body panels and shall be secured with flame resistant hook and pile fastener tape. A 2 inch by 22 1/2 inch piece of Fr pile fastener tape shall be installed along the leading edge of the storm flap on the underside. A corresponding 2 inch by 22 1/2 inch piece of FR hook fastener tape shall be sewn to the front body panel and positioned to engage the pile fastener tape when the storm flap is closed over the front of the jacket.

_____Comply _____Exception

n. HANG UP LOOP

A hang up loop constructed of outer shell material shall be provided and attached to the interior collar area sandwiched between collar and facing. The installed loop shall be designed to provide long service and shall not separate from the coat when the coat is hung by the hanger loop for long periods of time.

_____Comply _____Exception

o. RETROREFLECTIVE FLOURESCENT TRIM

The retroreflective fluorescent trim shall be yellow/lime Scotchlite. Each jacket shall have an adequate amount of retroreflective fluorescent trim affixed to the outside of the outer shell to meet the requirements of NFPA #2007. The trim shall be in the following widths; one stripe of 3 inch wide trim around each sleeve below the elbow, a 3 inch wide stripe around the bottom of the jacket within approximately 1 inch of the hem, a 3 inch wide stripe horizontally across the chest area approximately 3 inches below the armpit, a 3 inch wide stripe across the middle of the back. All trim shall be attached with 4 rolls of stitching.

_____Comply _____Exception

p. SIZING

The jacket length shall measure from the juncture of the collar and back panels to the hem of the jacket and shall measure 32 inches long. The jacket shall be available in even size chest measurements of 2 inch increments, shall range from a small size of 34 to a large size of 70. (Generalized sizing, such as small, medium, large, etc., will not be considered acceptable; sizing specifically for women shall also be available.)

_____Comply _____Exception

q. RDD

Yocco Rescue Drag Device is designed to provide a quick deployment. The RDD is located at the base of the collar with a protective flap over the opening though the coat. Reflective trim is sewn over the flap.

11. HIGH BACK TROUSER CONSTRUCTION

a. BODY AND HIGH BACK BIB

The body of the shell (exclusive of back bib) shall be constructed of four separate body panels consisting of two front panels and two back panels. The body panels shall be shaped so as to provide a tailored fit, thereby enhancing body movement, and shall be joined together by triple stitching with Nomex thread. The back bib panel shall be stitched with Nomex thread to the rear body panel at the waist area. (The back bib panel shall not extend less than 6 inches above the waist area of the high back trousers.) The rear bib panel shall measure approximately 10 inches across the top and approximately 20 inches across the bottom (graded for size) where it will be stitched to the body panels. The sides of the rear bib panel shall slope forward on an angle. The rear bib panel shall be of a two layer construction consisting of two layers of outer shell material.

_____Comply _____Exception

b. SUSPENDER AND SUSPENDER BUTTONS

Four rust resistant suspender buttons shall be installed on the uppermost portion of the back bib panel and four suspender buttons shall be installed in the front of the trousers on the waistband. The main body of the suspenders shall be constructed of 2 inch wide non-elasticized cotton webbing, and shall be equipped non-slip stainless steel slide fasteners for adjustment. The non-elasticized sections of the suspenders shall run over each shoulder to a point approximately shoulder blade high on the back, and just above the waistline in the front. On the back, 2 acetal loops shall be stitched on the non-elasticized webbing, and shall extend to the top of the back bib panel. On the front, 2 inch wide elasticized webbing measuring approximately 9 inches long, shall be threaded through and folded over an acetal loop attached to the non-elasticized portion on each side, providing 4-way suspension on the front. This will provide flexibility for movement, since webbing slides through the loop.

_____Comply _____Exception

c. WAISTBAND

The waist area of the trousers shall be reinforced on the inside with a separate piece of outer shell material no less than 2 inches in width. The top edge of the waistband reinforcement shall be stitched to the outer shell at the top of the trousers. The lower edge of the waistband shall be unattached to the shell to accept the thermal liner and

moisture barrier. The top of the thermal liner and moisture barrier shall be secured to the underside of the waistband reinforcement so as to be sandwiched between the waistband reinforcement and outer shell to reduce the possibility of liner detachment while donning and to avoid pass through of snaps from the outer shell to the inner liner. An inward facing snap hook shall be riveted to the right front body panel in the waist area. A dee ring shall be riveted to the leading edge of the fly flap near the top. The snap hook shall engage the dee ring located in the fly flap.

_____Comply _____Exception

d. TAKE UP STRAPS

The trousers shall be equipped with two take up straps. The straps shall be constructed of double thickness outer shell material and be positioned in the waist area on the outside of the garment; one on each side. Each take-up strap shall be comprised of two subcomponent straps. The strap component shall be 1 inch wide and 5 inches long and shall be stitched and bar tacked to the trousers. The strap shall hold a nickel plated take up. The take up shall point toward the front . The strap component shall be inserted through the back of the take up, and back through the front of the take up. The take up strap pull tabs shall pull toward the back to tighten (this shall allow for approximately 2" of adjustment per strap, being 4" overall.)

_____Comply _____Exceptions

e. EXTERNAL FLY FLAP AND INTERNAL FLY FLAP

Both external fly flap and internal fly flap shall be constructed with moisture and thermal barrier for better protection of the groin area. The external fly flap shall be constructed of one piece of outer shell material, one piece of moisture material, and one piece of thermal material. The fly flap shall be stitched to the left front body panel beginning at the waist and extending down to a depth of approximately 11". The fly flap shall be approximately 7 inches wide at the top, tapering to approximately 2 inches in width at the crotch. A dee ring shall be riveted to the leading edge of the fly flap at the top and shall be positioned to engage the safety hook when the fly flap is in the closed position.

The internal fly flap constructed of one piece of moisture material and one piece of thermal material. Fly measuring approximately 7 inches wide by 11 inches long, shall be sewn to the leading edge of the right front body panel in the fly area. (The action of external fly flap overlapping the internal fly flap will ensure there is no interruption in

thermal or moisture protection.)

_____Comply _____Exception

f. TROUSERS CLOSURE SYSTEM

The exterior primary positive locking closure shall be an inward facing safety hook and dee ring. The safety hook shall be attached to the right front body panel in the waist area and shall engage the dee ring located on the leading edge of the external fly flap. The internal fly flap closure shall consist of 2 inch wide by full length flame resistant hook and pile (e.g. velcro) fastener tape. The FR pile portion shall be sewn to the inside of the leading edge of the external fly flap. The corresponding portion of FR hook fastener tape shall be sewn to the right front body panel positioned to engage the pile portion when the external fly flap is in the closed position.

_____Comply _____Exception

g. EXPANSION (BELLOWS) POCKETS

An expansion pocket, measuring approximately 2 inches deep by 9 inches wide by 10 inches high shall be constructed of one layer of outer shell material and one layer of neoprene moisture barrier material. The pocket shall be stitched to the side of the legstraddling the out seam above the knee and positioned to provide accessibility. Two rust resistant metal drain eyelets shall be installed on the underside of each expansion pocket to facilitate drainage of water. The pocket flap shall be rectangular in shape, constructed of two layers of outer shell material, one layer of neoprene moisture barrier material and shall measure approximately 9 1/2 inches by 4 inches wide. The pocket flaps shall be closed by means of flame resistant hook and pile (e.g. velcro) fastener tape and measuring 2 inches x 2inches. All pockets are lined with Neoprene.

_____Comply _____Exception

h. TROUSER CUFF REINFORCEMENTS

The cuff area of the trousers shall be reinforced with black Ara-Shield material. The cuff reinforcement shall not be less than 2 inches in width and folded in half, approximately

one half inside and one half outside the end of the leg. The cuff reinforcement shall be stitched to the outer shell. Two Nomex snap tabs (one on each side), measuring approximately 4 inches long shall be sewn to the inside of each leg of the outer shell. A female snap fastener half shall be installed at the end of each tab and shall align with the male snap fastener halves installed at the bottom of the trouser thermal liner/moisture barrier. The tab mounted snap fasteners shall secure the trouser thermal liner/moisture barrier to the outer shell.

_____Comply _____Exception

i. KNEE REINFORCEMENTS

The knee area shall be reinforced with black Ara-Shield material. The knee reinforcements shall measure approximately 10" wide by 12 inches high and shall be stitched to the outside of the outer shell.

_____Comply _____Exception

j. PADDING UNDER KNEE REINFORCEMENTS

Padding for the knee shall be accomplished with three layers of padding material sewn to the knee area of the trousers lining.

_____Comply _____Exception

k. RETROREFLECTIVE FLUORESCENT TRIM

The trousers shall have a stripe of retroreflective fluorescent trim encircling each leg below the knee to comply with the requirements of NFPA #1971-2007 Revision, in 3-inch lime-yellow/silver Scotchlite.

_____Comply _____Exception

l. SIZING

The trousers shall be available in even size measurements of two increments and shall be available in a range of sizes from 26 to 70. The trouser inseam measurement shall be available in two inch increments. (Generalized sizing, such as small, medium, large, etc. will not be considered acceptable. Sizing specifically for women shall also be available.

_____Comply _____Exception

12. THIRD PARTY TESTING AND LISTING PROGRAM

All components used in the construction of these garments will meet standard testing for compliance to the NFPA Standard #1971 (2018 Revision) by Underwriters Laboratory (UL). Underwriters Laboratories shall certify and list compliance to that standard. Such certification shall be denoted by the Underwriters Laboratories certification label.

_____Comply _____Exception

13. LABELS

Appropriate warning label(s) shall be permanently affixed to each garment. Additionally, the label(s) shall include the following information.

Underwriters Laboratories classified mark
Manufacturers' name
Manufacturers' address
Manufacturers garment identification number
Date of manufacture
Size
Fiber contents

_____Comply _____Exception

14. EXCEPTIONS TO SPECIFICATIONS

Any and all exceptions to the above specifications must be clearly stated for each heading. Use additional pages for exceptions, if necessary.

15. OPTIONS

1. Department name patch (PCFD) in 3 inch letter sewn to a self material patch by a zig-zag stitch. The patch is then sewn to the back of the coat.

2. A flashlight tab and strap shall be sewn to the right side of the chest of the coat.

3. Cairns 1044FS helmets with leather fronts.

4. Thorogood model 6003 non- insulated rubber boots.

5. Long Nomex hood.

6. Shelby 5228 gloves.

7.Hange down name patches with snaps and hook & loop.