



Douglas County Board of Commissioners

8700 Hospital Drive • Douglasville, GA 30134 • Telephone 770.920.7247 • Fax 770.920.7219

Purchasing Department

May 26, 2015

Re: INVITATION TO BID – TURN OUT GEAR
DOUGLAS COUNTY FIRE DEPARTMENT
Douglas County Board of Commissioners
Solicitation No. 15-010

Dear Ladies and Gentlemen,

This **Addendum No.1**, to Douglas County's Invitation to Bid for Turn Out Gear for the Douglas County Fire Department, is hereby issued to provide clarification to the Bid in the following particulars only, and is made a part of the Bid document.

- Several pages of the Bid Packet were not included in the original distributed document. Please see the attached document that contains the missing pages. We apologize for any inconvenience this may have caused.

Thank you for your attention to this Addendum No.1, and interest in Douglas County. Please acknowledge receipt of this addendum via, return fax, at 770.920.7219 and include this addendum and your acknowledgement in your bid/proposal package, not to be counted as a part of any page limit.

All other terms and conditions of the Bid remain the same.

Sincerely,

Bill C. Peacock

Director, Purchasing

ACKNOWLEDGEMENT

COMPANY: _____

SIGNATURE: _____

TITLE: _____ DATE: _____

We acknowledge receipt of your Addendum No. 1, Solicitation No 15-010.



Douglas County Fire/EMS Department
General Specifications
Protective Jacket and High-back trouser for structural firefighting

1. SCOPE Comply Exception

This specification details design and material criteria to afford protection to the upper and lower body excluding head, hands, and feet against adverse environmental effects during structural firefighting. All materials and construction will meet or exceed NFPA Standard #1971-2013 Revision for structural firefighter's protective clothing.

2. Outer Shell Material – Jacket & High-back trouser Comply Exception

The outer shell will be constructed of Millennia XT or industry equivalent with an approximate weight of 7.5oz per square yard in a rip-stop weave and shall have a super shellite finish. Color of garments to be determined by Douglas County Fire/EMS Department.

3. Moisture Barrier – Jacket & High-back trouser Comply Exception

The Steadair or industry equivalent moisture barrier shall be 5.0 oz. 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.

4. Sealed moisture barrier seams Comply Exception

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 seams by means of pressure exerted by rollers for that purpose.

5. Thermal Insulating Liner – Jacket & High-back trouser Comply Exception

The thermal liner shall be constructed of 7.2 oz. per square yard of Omni 2 or industry equivalent layer. A 7 1/2" x 9 1/2" pocket constructed of shell material shall be affixed to the inside of the jacket thermal liner on the left side by means of a lock stitch. A 10" x 5" shoulder pad shall be constructed of shell material shall be affixed to the shoulders of the thermal lining by means of a lock stitch. A 16" x 12 1/2" back pad constructed of shell material shall be affixed to the back thermal liner by means of a lock stitch. For extra protection a 10" x 10" knee pad constructed of shell material shall be affixed to the knee of the trouser lining by means of a lock stitch. The thermal liner shall be sewn to the moisture barrier as described under the moisture barrier section.

6. Method of Thermal Liner/Moisture Barrier attachment for jackets & High-back trousers Comply Exception

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 (5) snap fasteners appropriately spaced on each jacket facing and two (2) snap fasteners at each sleeve end.

The thermal liner and moisture barrier will be completely removable from the high-back trouser shells. A minimum of seven (7) 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 at least two (2) snap fasteners per leg.

7. Thermal Protective Performance **Comply** **Exception**

The assembled garment, consisting of an outer shell, moisture barrier, and thermal liner shall exhibit a thermal protective performance (TPP) rating of no less than 41.

8. Stitching **Comply** **Exception**

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 mid-seam. All outer shell structural seams and minor seams including but not limited to pockets, flaps, and material reinforcements, shall have a minimum of six (6) to eight (8) stitches per inch.

9. Stress Points **Comply** **Exception**

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

10. Jacket Construction

A. Body **Comply** **Exception**

The body of the shell shall be constructed of three (3) separate body panels consisting of two (2) front panels and one (1) 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.

B. Sleeves **Comply** **Exception**

The sleeves shall be of two (2) 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 ½" wide x 16" long.

C. Sleeve cuff reinforcements **Comply** **Exception**

The sleeve cuffs shall be reinforced with shell material. The cuff reinforcements shall be no less than 2" in width and folded in half, approximately one half inside and one half outside the sleeve end for greater strength and abrasion resistance.

D. Elbow reinforcements **Comply** **Exception**

Shell material reinforcement patch, approximately 5" wide and 7" 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.

E. Padded elbows **Comply** **Exception**

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.

F. Wristlets **Comply** **Exception**

There shall be knit wristlets of Kevlar and spandex, folded and doubled to give two-ply thickness of no less than 4" in length. The wristlets with reinforced Neoprene thumb holes shall be sewn to flame resistant Stedair 4000 or equivalent which in turn shall be sewn to the inside of the thermal liner. 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. Two (2) Nomex™ or leather snap 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.

G. Collar **Comply** **Exception**

The collar shall consist of four (4) layer construction and of two-piece design. The four (4) layers shall consist of two (2) layers of outer shell material with two (2) center piles 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" 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 fixed 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" 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 and to prevent moisture from entering at the neck line. The collar closure strap shall be constructed of two (2) plies of outer shell material with one (1) center ply of breathable moisture barrier material, and shall measure no less than 3 ½" wide by 15" long. The collar closure strap shall be secured in the closed and stowed position by flame resistant hook and pile (e.g. Velcro®) fastener tape. A 2" x 3" piece of fire resistant pile fastener tape shall be sewn vertically to the inside of the end of the closure strap. A corresponding piece of fire resistant hook fastener tape measuring 2" x 3" shall be sewn horizontally to the outside of the collar on the opposite side thereby providing a high degree of 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" piece of fire resistant 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.

H. Action Back **Comply** **Exception**

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 (2) 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" below the armhole. Maximum expansion of the pleats shall occur at the shoulder area.

I. Cargo Pockets **Comply** **Exception**

Each jacket will be equipped with two (2) combination pockets; one on the left and ones on the right side. The pockets shall be located at the bottom of the jacket near the storm flap and be stitched to the respective body panels. The pockets shall measure 9" wide by 8 ¾" high and both pockets shall be lined with Neoprene moisture barrier material. There shall be hand warmer pockets behind the bellow pockets. The pocket flaps shall be rectangular in shape constructed of two (2) layers of outer shell material, and one (1) layer of Neoprene moisture barrier material. The upper pocket corners and pocket flaps shall be reinforced with bartacks. A 2" x 2" flame resistant hook and pile fastener tape (e.g. Velcro®) shall be sewn to the pocket and flap. All pockets are lined with Neoprene.

J. Radio Pocket **Comply** **Exception**

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 (1) drainage eyelet at the bottom of the pocket. The pocket flap shall be constructed of two (2) layers of outer shell material and one (1) layer of Neoprene. Pocket flap measuring approximately 6 ½" in length with 2" x 3" flame resistant hook and pile fastener (e.g. Velcro®) closure. The pocket shall be constructed of one (1) layer of outer shell material and one (1) layer of Neoprene material measuring approximately 6 ¾" high and 3 ½" wide. A 2" by 2" 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 to be lined with Neoprene. Location of radio pocket to be determined by Douglas County Fire/EMS Department.

K. Jacket Front **Comply** **Exception**

The jacket shall incorporate separate Arafill or industry equivalent facings where there is no interruption in thermal or moisture protection in the front closure are. The facings shall measure 2 ¾" 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.

L. Storm Flap **Comply** **Exception**

A rectangular storm flap measuring 5" wide and 23" 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 (2) plies of outer shell material with one (1) ply of breathable moisture barrier material. The outside storm flap shall be double stitched to the right side body panel and shall be reinforced at the top and bottom bartacks.

M. Storm Flap and Jacket Front Closure System **Comply** **Exception**

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 (e.g. Velcro®). A 2" by 22 ½" piece of fire resistant hook and pile fastener tape (e.g. Velcro®) shall be installed along the leading edge of the storm flap on the underside. A corresponding 2" by 22 ½" piece of fire resistant hook and pile fastener tape (e.g. Velcro®) 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.

N. Hang up Loop **Comply** **Exception**

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.

O. Retro-reflective Fluorescent Trim **Comply** **Exception**

The retro-reflective fluorescent trim shall be yellow/lime Scotchlite™ or industry equivalent. Each jacket shall have an adequate amount of retro-reflective fluorescent trim affixed to the outside of the outer shell to meet the requirements of NFPA #1971 (2013 Edition). The trim shall be in the following widths:

- One (1) stripe of 3" wide trim around each sleeve below the elbow
- One (1) stripe of 3" wide trim around the bottom of the jacket within approximately 1" of the hem
- One (1) stripe of 3" wide stripe horizontally across the chest area approximately 3" below the armpit
- One (1) stripe of 3" wide stripe across the middle of the back
- The arms shall have one (1) strip between the shoulder and elbow
- The arms shall have one (1) strip between the elbow and wrist

P. Sizing **Comply** **Exception**

The jacket length shall measure from the juncture of the collar and back panels to the hem of the jacket and shall measure 32" long. The jacket shall be available in even size chest measurements of 2" 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.

Q. Rescue Drag Device (RDD) **Comply** **Exception**

A Yocco Rescue Drag Device or industry equivalent is designed to provide a quick deployment. The rescue drag device is located at the base of the collar with a protective flap over the opening through the reflective coat. Reflective trim is sewn over the flap.

11. High-back Trouser Construction

A. Body and High-back Bib

Comply Exception

The body of the shell (exclusive of back bib) shall be constructed of four (4) separate body panels consisting of two (2) front panels and two (2) back panels. The body panels shall be shaped so as to provide a tailored fit, thereby enhancing body movement, and 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" above the waist area of the high-back trousers.) The rear bib panel shall measure approximately 10" across the top and approximately 20" 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 (2) layers of outer shell material.

B. Suspender and Suspender Buttons

Comply Exception

Four (4) rust resistant suspender buttons shall be installed on the uppermost portion of the back bib panel and four (4) 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" wide non-elasticized cotton webbing, and shall be equipped with 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, two (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, a 2" wide elasticized webbing measuring approximately 9" 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 and is elasticized.

C. Waistband

Comply Exception

The waist area of the trousers shall be reinforced on the inside with a separate piece of outer shell material no less than 2" 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 hoop shall be riveted to the leading edge of the fly flap near the top. The snap hook shall engage the D-ring located in the fly flap.

D. Take-up Straps

Comply Exception

The trousers shall be equipped with two (2) 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 (1) on each side. Each take-up strap shall be comprised of two (2) subcomponent straps. The strap component shall be 1" wide and 5" 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 of the trousers. 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 of the trousers to tighten (this shall allow for approximately 2" of adjustment per strap, being 4" overall.)

E. External fly flap and internal fly flap

Comply

Exception

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 (1) piece of outer shell material, one (1) piece of moisture material, and one (1) piece of thermal material. The fly flap shall be stitched to the left front body panel beginning at the waist and extended down to a depth of approximately 11". The fly flap shall be approximately 7" wide at the top, tapering to approximately 2" in width at the crotch. A D-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 shall be constructed of one (1) piece of moisture material and one (1) piece of thermal material. Fly flap shall measure approximately 7" wide by 11" long and 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.

F. Trouser closure system

Comply

Exception

The interior primary positive locking closure shall be a zipper and snap. The internal fly flap closure shall consist of 2" wide by full length flame resistant hook and pile (e.g. Velcro®) fastener tape. The fire resistant pile portion shall be sewn to the inside of the leading edge of the external fly flap. The corresponding portion of fire resistant hook and pile (e.g. Velcro®) 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.

G. Expansion (Bellows) pockets

Comply

Exception

An expansion pocket, measuring approximately 2" deep by 9" wide by 10" high shall be constructed of one (1) layer of outer shell material and one (1) layer Neoprene moisture barrier material. The pocket shall be stitched to the side of the leg straddling the out-seam above the knee and positioned to provide accessibility. Two (2) 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 (2) layers of outer shell material, one (1) layer of Neoprene moisture barrier material and shall measure approximately 9 ½" wide by 4" wide. The pocket flaps shall be closed by means of flame resistant hook and pile (e.g. Velcro®) fastener tape and measuring 2" by 2". All pockets shall be lined with Neoprene.

H. Trouser cuff reinforcements

Comply

Exception

The cuff area of the trousers shall be reinforced with shell material. The cuff reinforcement shall not be less than 2" 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 (2) Nomex™ snap tabs (one (1) on each side), measuring approximately 4" 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 tap mounted snap fasteners shall secure the trouser thermal liner/moisture barrier to the outer shell.

I. Knee reinforcements

Comply

Exception

The knee area shall be reinforced with padded Ara-shield or industry equivalent. The knee reinforcements shall measure approximately 10" wide by 12" high with hook and loop on all four (4) sides. The pad will attach to the 10" x 12" frame work sewn to the knee of the pants.

K. Retro-reflective fluorescent trim

Comply **Exception**

The trousers shall have a stripe of retro-reflective fluorescent trim encircling each leg below the knee to comply with the requirements of NFPA #1971 (2013 Revision) in 3" lime-yellow/silver Scotchlite™

L. Sizing

Comply **Exception**

The trousers shall be available in even size measurements of two (2) inch increments and shall be available in a range of sizes from 26 to 70. The trouser inseam measurement shall be available in two (2) inch increments. (Generalized sizing, such as small, medium, large, etc. will not be considered acceptable.) Sizing specifically for women shall also be available.

12. Third party testing and listing program

Comply **Exception**

All components used in the construction of these garments will meet standard testing for compliance to the NFPA Station #1971 (2013 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.

13. Labels

Comply **Exception**

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

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

14. Exceptions to specifications

Comply **Exception**

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

15. Options

A. Department name patch (DCFD) in 3" letter sewn to a shell material patch by a zig-zag stitch. The patch is then sewn to the back of the coat.

Comply **Exception**

B. The coats shall have a hang down patch with each firefighter's name. Lettering must be attached by zig-zag stitch. The patch will be attached by means of hook and loop (e.g. Velcro®) and two (2) snaps on each end of the patch.

Comply **Exception**