# Pittsburg County, Oklahoma COUNTY PURCHASING OFFICE

Pittsburg County Court House McAlester, Oklahoma Phone: (918) 423-4934

# **INVITATION TO BID**

SIDE RELATING TO SUBMISSION OF THIS BID.				DELIVERY DATE Days after award of Purchase Order	
Item	Quantity	Unit of issue	DESCRIPTION	Unit Price	Total
			Pittsburg County wishes to advertise for the following for the McAlester Fire Department:  Six(6) or more sets of Bunker Gear  See Specifications Attached  PLEASE MARK CLEARLY ON FRONT OF SHIPPING ENVELOPE BID AND BID NUMBER		

# TERMS AND CONDITIONS

- Sealed bids will be opened in the Commissioner's Conference Room, Pittsburg County

  Courthouse, McAlester, Oklahoma, at the time and date shown on the invitation to bid form.
  - 2. Late bids will not be considered. Bids must be received in sealed envelopes (one to an envelope) with bid number and closing date written on the outside of the envelope.
  - 3. Unit prices will be guaranteed correct by the bidder.
  - 4. Firm prices will be F.O.B. destination.
  - 5. Purchases by Pittsburg County, Oklahoma, are not subject to state or federal taxes.
  - 6. This bid is submitted as a legal offer and any bid when accepted by the County constitutes a firm contract.
  - 7. Oklahoma laws require each bidder submitting a bid to a county for goods or services to furnish a notarized sworn statement of non-collusion. A form is supplied below.
  - 8. Bids will be firm until delivered.

(DATE)

AFFIDAVIT: I, the undersigned, of lawful age, being first duly sworn on oath say that he (she) is the agent authorized by the bidder to submit the above bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity; quality or price in the prospective contract or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract; that the bidder/contractor has not paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma (or other entity) any money or other thing of value, either directly or indirectly in the procuring of the award of a contract pursuant to this bid.

Subscribed ar	nd sworn before this	day		
of	20	(seal)		
		Firm:		
My comr	nission expires	Signed by:	Title:	
		(MANUAL SIGNATU	RE OF UNDERSIGNED)	
4		Address:	Phone:	
NOTARY	PUBLIC (CLERK OR JUDGE)			
		City:	State	-
			Zip	

NOTE: Other terms and conditions can be added at the discretion of the county officers.

# RESOLUTION#17-232/42 To Advertise

The Board of County Commissioners, Pittsburg County, met in regular session on Tuesday, January 17, 2017.

WHEREAS, Pittsburg County wishes to advertise for the following for McAlester Fire Department.:

# Six (6) or more sets of Bunker Gear

A bid package containing complete specifications and an "Invitation to Bid" are available at the Pittsburg County Clerk's Office, Pittsburg County Courthouse, 115 E. Carl Albert Parkway, Room 103, McAlester, Oklahoma 74501 or online at pittsburg.okcounties.org.

THEREFORE, each competitive bid submitted to the County must be accompanied with a n affidavit for filing with the competitive bid form, as required by 61 O.S. \$ 138.

Sealed bids must be received by the Pittsburg County Clerk by 5:00 P.M., Friday, January 27, 2017. Bids received after 5 P.M. Friday, January 27, 2017, will not be opened. Bids will be opened on January 30, 2017 at 10:00 a.m. in the Board of County Commissioners Conference Room, Pittsburg County Courthouse, 115 E. Carl Albert Parkway, McAlester, Oklahoma. Contract will be awarded to the lowest or best bidder. The Board of County Commissioners, Pittsburg County, reserves the right to reject any and all bids and re-advertise.

BOARD OF COUNTY COMMISSIONERS PITTSBURG COUNTY, OKLAHOMA

HAIRMAN

ATTEST:

PITT

MEMBER HOTEL

COUNTY CLERK

# **GENERAL SPECIFICATIONS** PROTECTIVE JACKET AND PANTS FOR STRUCTURAL FIRE FIGHTING

# 1/17/2017 McAlester Fire Department 607 Village BLVD. McAlester, OK 74501

# SCOPE

This specification details design and materials	criteria to affor	d protection to the u	pper and lower
body, excluding head, hands, feet, against ac	dverse environr	nental effects during	structural fire
fighting. All materials and construction will me			
structural fire fighters protective clothing.	75		W
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SIZING					
n order to in: vithout extra ollows:	sure that every mem bulk and without rest	ber of the department riction, Jackets and Par	can safely perform t nts shall be available	o the maximum of t in all sizes and dime	heir abilit
Pants: Gend Wais Body	t: Even size	elaxed and Regular No eans.	•	cut in the hips and t	highs, like
Insea	m: Even size	s			
	t: Even size Length: Mens 29" Womens Shape: Men's: St (i.e. jacke spedified. Women's	, 32", 35", 40" 26", 29" raight and Tapered No t sweep) and is recomn : Straight	te: The straight cut of	fers more fullness at	
ackets and F	⇒ 'ants available in only	one standard shape w	ill not be acceptable.		
		Comply	Exception		<u> </u>
UTER SHE	_L MATERIAL - JAC	KETS AND PANTS			

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The outer shell shall be constructed of TENCATE "MILLENIA™ XT", a 60/40 Para-aramid/PBO blend with an approximate weight of 7.5 oz. per square yard in a ripstop weave. The shell material must be treated with SSTTM (SUPER SHELLTITE) which is a durable water-repellent finish that also enhances abrasion resistance. Color of the garments shall be gold. Bids offering this shell material without the SST<sup>TM</sup> will not be considered.

# THERMAL INSULATING LINER - JACKET AND PANTS

The thermal liner shall be constructed of 7.6 oz. per square yard TENCATE "CALDURA® SL2i"; one layer of 1.5 oz. and one layer of 2.3 oz. per square yard Nomex® E-89™ spunlaced Nomex®/Kevlar® aramid blend, quilt stitched to a Kevlar® filament and FR rayon/para-aramid/nylon inherently wicking Caldura® face cloth. A 7 inch by 9 inch pocket, constructed of self material and lined with moisture barrier material, shall be affixed to the inside of the jacket thermal liner on the left side by means of a single needle stitch. The thermal liner shall be attached to the moisture barrier and bound together by bias-cut neoprene coated cotton/polyester around the perimeter. This provides superior abrasion resistance to the less expensive, less durable, "stitch and turn" method. Further mention of "Thermal Liner" in this specification shall refer to this section.

ComplyException
MOISTURE BARRIER - JACKETS AND PANTS
The moisture barrier material shall be W.L. GORE CROSSTECH® black moisture barrier - Type 2F, which is comprised of a CROSSTECH® membrane laminated to a 3.3 ounce per square yard Nomex® IIIA woven pajama check substrate. The CROSSTECH® membrane is an enhanced bicomponent membrane comprised of an expanded PTFE (polytetrafluoroethylene, for example Teflon®) matrix having a continuous hydrophilic (i.e. water-loving) and oleophobic (i.e. oil-hating) coating that is impregnated into the matrix. CROSSTECH® moisture barrier seams shall be sealed with GORE-SEAM® tape using a Series 6000 (or higher) GORE-SEAM™ sealing machine to afford comparable bacteriophage penetration resistance performance. Further mention of "Specified Moisture Barrier" in this specification shall refer to this section.
ComplyException
SEALED MOISTURE BARRIER SEAMS
All moisture barrier seams shall be sealed with a minimum 1 inch wide sealing tape. One side of the tape shall be coated with a heat activated glue adhesive. The adhesive side of the tape shall be oriented toward the moisture barrier seam. 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.
ComplyException

#### METHOD OF THERMAL LINER/MOISTURE BARRIER ATTACHMENT FOR JACKETS AND PANTS

The thermal liner and moisture barrier shall be completely removable from the jacket shell. A total of six snap fasteners shall secure the thermal liner/moisture barrier to the outer shell along the length of the neck line under the top most collar. The top most collar shall be turned under and finished such that the snaps on the collar will not be able to contact the wearers skin. Corresponding snaps shall be installed through a moisture barrier leader measuring an approximate height of 1.75 – 2 inches and shall not penetrate through to the outer shell on the backside of the collar. The remainder of the thermal liner/moisture barrier shall be secured with snap fasteners appropriately spaced on each jacket facing and Ara-Shield® snap fasteners at each sleeve end. One of the Ara-shield® snap tabs shall be a different color in the liner to correspond with color coded snap tabs for ease of matching the liner system to the outer shell after inspection or cleaning is completed.

The thermal liner and moisture ba shall be spaced along the wais liner/moisture barrier shall be sed Ara-shield® snap tabs on the she matching the liner system to the o and loop used to close the liner ac	tbandatoasecure the toured to the shell by multiple shall be color codecuter shell after inspecti	thermal liner to the she leans of Ara-Shield® sna I to corresponding snap	ell::The legs of the thermal up fasteners, 2 per leg. The tabs in the liner for ease of	
	Comply	Exception		
THERMAL PROTECTIVE PERFO	DRMANCE		ā	
The assembled garment, consisti (Thermal Protective Performance)			mal liner, shall exhibit a TPP	
	Comply	Exception		
STITCHING				
The outer shell shall be assemb moisture barriers shall be assem seams shall be continuous. Majhave a minimum of 8 to 10 stitch All seams shall be continuously st	bled using stitch type or A outer shell structu es per inch. All major	#301, #401, #504, #514 ural seams and major B	4, and #516. Stitching in all structural liner seams, shall	
	Comply	Exception		
JACKET CONSTRUC	TION			
BODY				
The body of the shell and AXTIO two front panels and one back parentancing body movement and souter shells shall not be acceptab	inel. The body panels shall be joined together	shall be shaped so as to	provide a tailored fit thereby	
	Comply	Exception		
AXTION® BACK				
The jacket outer shell shall include addition to that provided by the Aside) installed on either side of shoulder and extend vertically deshall occur at the shoulder area acconsidered, since they do not pro-	XTION® sleeves. The the back body panel. own the sides of the ja and taper toward the h	e outer shell shall have to The inverted pleats shacket to the hem. Maxing Jem. Pleats that do not be	wo inverted pleats (one each nall begin at the top of each num expansion of the pleats	
The moisture barrier and thermal in the shell provided by the AXTI of the SCBA straps and work t providing maximum expansion. integrity.	ON® back pleats. The ogether with the corre	e darts are positioned at esponding outer shell p	the shoulder blades, outside bleats in the AXTION® back,	
Some of William Section 6	Comply	Exception	to a contrabagament of the contrabagament and	M 2 - C

# LOGOS

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The garment brand shall be identified by means of red FR Nomex® thread embroidery on the top of the right collar denoting the manufacturer. There shall be a reflective label specific to the garment style, measuring 1inch wide by 4 inches long, installed on the left pocket flap.
ComplyException
DRAG RESCUE DEVICE (DRD)
A Firefighter Drag Rescue Device shall be installed in each jacket. The ends of a 1½ inch wide strap, constructed of black Kevlar® with a red Nomex® center stripe, will be sewn together to form a continuous loop. The strap will be installed in the jacket between the liner system and outer shell such that when properly installed will loop around each arm. The strap will be accessed through a portal between the shoulders on the upper back where it is secured in place by an FR strap. The DRD shall be removable for laundering. The access port will be covered by an outside flap of shell material, with beveled corners designed to fit between the shoulder straps of an SCBA. The flap will have a NFPA-compliant 3M Scotchlite™ reflective logo patch sewn to the outside to clearly identify the feature as the DRD (Drag Rescue Device). The DRD shall not extend beyond the outside flap. This device provides a quickly deployed means of rescuing a downed firefighter. Flimsy, rope-style DRD straps will not be considered.
ComplyException
LINER ACCESS OPENING (JACKET)
The liner system of the jacket shall incorporate an opening at each of the leading edges of the left and right front panels. This opening shall run a minimum of 12 inches along the perimeters for the purpose of inspecting the integrity of the jacket liner system. When installed into the outer shell the Liner Access Opening will be covered and protected by the overlap of the outer shell facing.
ComplyException
RETROREFLECTIVE FLUORESCENT TRIM
The retroreflective fluorescent trim shall be lime/yellow 3M Scotchlite™ Triple Trim (L/Y borders with silver
center). 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 1971 and OSHA.
The trim shall be in the following widths and shall be:  NYC style; 3 inch wide stripes - around the bottom of the jacket within approximately 1 inch of the hem, around the back and chest area approximately 3 inches below the armpit, around each sleeve below the elbow, around each sleeve above the elbow.
ComplyException
DEINEADAED TOM ATTAUMA

# REINFORCED TRIM STITCHING

All reflective trim is secured to the outer shell with Nomex® thread, using a locking chainstitch protected by our exclusive TrimTrax® system. Developed exclusively by Globe Manufacturing Co., LLC. this strip of 3/32-inch strong, durable, flame resistant black Kevlar® cording provides a bed for the stitching along each edge of the retroreflective fluorescent trim surface and affords extra protection for the thread from abrasion. TrimTrax® has been proven to be 5 to 7 times more durable than single or even double rows of stitching, the providing maintenance costs and providing more value and a longer service life. Two rows of

shall be securely sewn into a seam for a clean finished appearance.
ComplyException
SEWN ON RETROREFLECTIVE LETTERING
Each jacket shall have 3" lime/yellow 3M Scotchlite™ lettering on Row A reading: McAlester
ComplyException
LETTER PATCH
Hanging Letter Patch
The hanging letter patch shall be constructed of a double layer of outer shell material. The letter patch will attach to the rear inside hem of the jacket with a combination of snap fasteners and FR Velcro® hook & loop fastener tape and the Firefighter name in lime/yellow 3M Scotchlite lettering.
Comply Exception

stitching used to attach the trim in place of the TrimTrax® shall be considered an unacceptable alternative, since it has been proven that the two rows of stitching has insignificant impact on wear-life. All trim ends

# **COLLAR & FREE HANGING THROAT TAB**

The collar shall consist of a minimum four-layer construction and be of one-piece design. There shall be two layers of specified moisture barrier material sandwiched in between two layers of outer shell fabric (see Moisture Barrier section). The forward inside ply of moisture barrier shall be sewn to the inside of the collar along the edges only. The multi-layered configuration shall provide protection from water and other hazardous elements, while maintaining thermal protection. The collar shall be a minimum of 3 inches high and graded to chest 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 back layers of outer shell and moisture barrier shall be joined to the body panels with a minimum of two rows of stitching. The collar front layers of outer shell and moisture barrier fabric shall have a series of 6 snap fasteners spaced equidistant to minimize gaps on lower edge of the collar. The top most collar shall be turned under and finished such that the snaps on the collar will not be able to contact the wearer's skin. There shall be 6 corresponding snap fasteners on a moisture barrier leader, which is sewn to the thermal liner system to engage the snaps on the collar. The snaps on the thermal liner system leader will be installed such that they do not penetrate from the outer shell through to the inner layers. This moisture barrier leader on the thermal liner system shall be sandwiched between the underside of the top collar shell fabric and moisture barrier material and the bottom collar shell fabric and moisture barrier material so as to reduce the possibility of liner detachment while donning and doffing.

The throat tab shall be a scoop type design and constructed of two plies of outer shell material with two center plies of moisture barrier material. The throat tab shall measure not less than 3 inches wide at the center tapering to 2 inches at each end with a total length of approximately 9 inches. The throat tab will be attached to the right side of the collar by a 1 inch wide by 1 inch long piece of Nomex® twill webbing. The throat tab shall be secured in the closed and stowed position with FR Velcro® hook and loop fastener tape. The FR Velcro® hook and loop fastener tape shall be oriented to prevent exposure to the environment when the throat tab is in the closed position. Two 1½ inch by 3 inch pieces of FR Velcro® loop fastener tape shall be sewn vertically to the inside of each end of the throat tab. Corresponding pieces of FR Velcro® hook fastener tape measuring 1 inch by 3 inches shall be sewn horizontally to the leading outside edge of the collar on each side, for attachment and adjustment when in the closed position and wearing a breathing apparatus mask. In order to provide a means of storage for the throat tab when not in use, a 1 inch by 3 inch piece of FR Velcro® hook fastener tape shall be sewn horizontally to the inside of the throat tab immediately under the 1½ inch by 8 inch pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half-warmen and the pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half-warmen and the pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half-warmen and the pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half-warmen and the pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half-warmen and the pieces of FR Velcro® loop fastener tape.

for storage with the FR Velcro® loop fastener tape engaging the FR Velcro® hook fastener tape.
A hanger loop constructed of a double layer of outer shell material shall be sewn to the top of the collar at the center.
ComplyException
JACKET FRONT
The jacket shall incorporate separate facings to ensure there is no interruption in thermal or moisture protection in the front closure area. The facings shall measure approximately $2\%$ inches wide, extend from collar to hem, and be double stitched to the underside of the outer shell at the leading edges of the front body panels. A breathable moisture barrier material shall be sewn to the jacket facings and configured such that it is sandwiched between the jacket facing and the inside of the respective body panel. The breathable film side shall face inward to protect it. There shall be wicking barrier constructed of Crosstech® 2F moisture barrier material installed on the front closure system on the left and right side directly below the front facings to ensure continuous protection and overlap. The wicking barrier shall extend no more than a maximum of ¾" beyond the inner facing and false facing shall be unacceptable. The thermal liner and moisture barrier assembly shall be attached to the jacket facings by means of snap fasteners.
ComplyException
STORM FLAP
A rectangular storm flap measuring approximately 3 inches (6 inches for hook and dee inside/FR Velcro® outside closure; aka #7C) wide and a minimum of 23 inches long (based on a 32" jacket) 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 a center 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 with bartacks.
ComplyException
STORM FLAP AND JACKET FRONT CLOSURE SYSTEM
The jacket shall be closed by means of a 22 inch size #10 heavy duty high-temp smooth-gliding YKK Vislon® zipper on the jacket fronts and FR Velcro® fastener tape on the storm flap. The teeth of the zipper shall be mounted on black Nomex® tape and shall be sewn into the respective jacket facings. The storm flap shall close over the left and right jacket body panels and shall be secured with FR Velcro® fastener tape. A 1½ inch piece of FR Velcro® loop fastener tape shall be installed along the leading edge of the storm flap on the underside with four rows of stitching. A corresponding 1½ inch piece of FR Velcro® hook fastener tape shall be sewn with four rows of stitching to the front body panel and positioned to engage the loop fastener tape when the storm flap is closed over the front of the jacket.
ComplyException
CARGO/HANDWARMER EXPANSION (BELLOWS) POCKETS

Each jacket front body panel shall have a 2 inch deep by 8 inch wide by 8 inch high expansion pocket, double stitched to it and shall be located such that the bottom of the pockets are at the bottom of the jacket for full functionality when used with an SCBA. Retroreflective trim shall run over the bottom of the pockets so as not to interrupt the trim stripe. Two rust resistant metal drain eyelets shall be installed in the bottom of each expansion pocket to facilitate drainage of water. The expansion pocket shall be reinforced with a layer of

Kevlar® approximately 5 inches up on the inside of the pocket. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material and shall measure 3 inches deeper than the pocket expansion and ½ inch wider than the pocket. The upper pocket corners shall be reinforced with proven backtacks and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of FR Velcro® fastener tape. Two pieces of 1 ½ inch by 3 inch FR Velcro® hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of 1 ½ inch by 3 inch FR Velcro® loop fastener tape shall be installed horizontally on the outside of each pocket near the top (one piece on each end) and positioned to engage the hook fastener tape.

Additionally, a separate hand warmer pocket compartment will be provided <u>under</u> the expandable cargo pocket. This compartment will be accessed from the rear of the pocket and shall be lined with Nomex® Fleece for warmth and comfort. Shell material linings shall not be considered acceptable.

(32" or shorter length) Retroreflective trim shall run over the bottom of the pockets so as not to interrupt the trim stripe.

Comply	/ Exception

#### AXTION® SLEEVES

The sleeves shall be of two piece construction and contoured, having an upper and a lower sleeve. Both the under and upper sleeve shall be graded in proportion to the chest size. For unrestricted movement, on the underside of each sleeve there shall be two outward facing pleats located on the front and back portion of the sleeve on the shell and thermal liner. On the moisture barrier, the system will consist of two darts, rather than pleats, to allow added length in the under sleeve. The moisture barrier darts will be seam sealed to assure liquid resistance integrity.

The pleats shall expand in response to upper arm movement and shall fold in on themselves when the arms are at rest. This expansion shall allow for greater multi-directional mobility and flexibility in the shoulder and arm areas, with little restriction or jacket rise. Neither stove-pipe nor raglan-style sleeve designs will be considered acceptable.

#### SLEEVE CUFF REINFORCEMENTS

The sleeve cuffs shall be reinforced with a layer of black Dragonhide® material.

The cuff reinforcements shall not be less than 2 inch in width and folded in half, approximately one half inside and one half outside the sleeve end for greater strength and abrasion resistance. The cuff reinforcement shall be double stitched to the sleeve end; a single row of stitching shall be considered unacceptable. This independent cuff provides an additional layer of protection as compared to a turned and stitched cuff. Jackets finished with a turned and stitched cuff do not provide the same level of abrasion resistance and will be considered unacceptable.

Comply	Exception

# WRISTLETS / ELASTICIZED ADJUSTABLE SLEEVE WELLS

Each jacket shall be equipped with Nomex® hand and wrist guards (over the hand) not less than 7 inches in length and of double thickness. A separate thumbhole with an approximate diameter of 2 inches shall be recessed approximately 1 inch from the leading edge. Nomex® knit is constructed of 96% Nomex® and 4% Spandex for shape retention. The color of the wristlets shall be white.

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impermeable barrier material shall be sewn to the end of the liner sleeves. Flame resistant neoprene coated cotton/polyester impermeable barrier material shall be sewn to the inside of the sleeve shell approximately 5 inches from the sleeve end and extending toward the cuff forming the sleeve well. The neoprene sleeve well shall form an elasticized cuff end with an FR Velcro® tab providing a snug fit at the wrist and covering the knit wristlet. This sleeve well configuration serves to prevent water and other hazardous elements from entering the sleeves when the arms are raised. The neoprene barrier material shall also line the inside of the sleeve shell from the cuff to a point approximately 5 inches back, where it joins the sleeve well and is double stitched to the shell. Four Ara-shield® snap tabs will be sewn into the juncture of the sleeve well and wristlet. The tabs will be spaced equidistant from each other and shall be fitted with female snap fasteners to accommodate corresponding male snaps in the liner sleeves. One of the Ara-shield® snap tabs shall be a different color in the liner to correspond with color coded snap tabs for ease of matching the liner system to the outer shell after inspection or cleaning is completed. This configuration will ensure there is no interruption in protection between the sleeve liner and wristlet.

Comply	Exception

# LINER ELBOW THERMAL ENHANCEMENT

An additional layer of thermal liner material shall be sewn to the elbow area of the liner system for added protection at contact points and increased thermal insulation in this high compression area. The elbow thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only. Finished dimension shall be approximately 5 inches by 8 inches. All edges shall be finished by means of overedging. Raw or unfinished edges shall be considered unacceptable. Thermal scraps shall not be substituted for full-cut fabric padding.

Comply	Exception
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# LINER SHOULDER AND UPPER BACK THERMAL ENHANCEMENT

A minimum of one additional layer of thermal liner material shall be used to increase thermal insulation in the upper back, front and shoulder area of the liner system. This full-cut thermal enhancement layer shall drape over the top of each shoulder extending from the collar to the sleeve/shoulder seam, down the front approximately 5 inches from the juncture of the collar down the back to a depth of 7 inches to provide greater CCHR protection in this high compression area. The upper back, front and shoulder thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only. The thermal enhancement layer shall have finished edges by means of overedging. Raw or unfinished edges shall be considered unacceptable. Thermal scraps shall not be substituted for full-cut fabric padding. Smaller CCHR reinforcements shall not be considered acceptable since they provide far less area of coverage.

# SURVIVOR FLASHLIGHT HOLDER

Each jacket shall be equipped with a "Survivor" flashlight holder. An inward facing metal safety coat hook shall be triple riveted in a vertical position to the upper chest. The inward facing coat hook will accommodate the clip portion of the flashlight. Below the coat hook will be a strap constructed of outer shell material measuring approximately 2½ inches high and 9 inches wide, and will hold the barrel of the flashlight. The lower strap will be equipped with a 1½ inches y 1½ inches Velcro® closure at the front of the strap to facilitate

e to subject the	easy removal of the flashlight. There shall be approximately 3 inches between the upper coat hook and lower westrap. The "Survivor" flashlight holder shall be sewn to the jacket on the right chest.
	ComplyException
	COAT HOOK
	Each jacket shall be equipped with a Coat Snap. An inward facing coat hook shall be triple riveted in a vertical position to the Lower left front of the coat below the upper trim band
	ComplyException
	EMBROIDERED AMERICAN FLAG RIGHT SLEEVE
	Each jacket shall have a Nomex® embroidered American flag that measures approximately 2½ inches high by 3½ inches wide. Per Military protocol the field of stars shall be to the top right corner for installation on the right sleeve. Flags made of fabric other than Nomex® shall be considered unacceptable.
	ComplyException
	PANT CONSTRUCTION
	BODY
	The body of the shell 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 double stitching with Nomex® thread. The body panels and seam lengths shall be graded to size to assure accurate fit in a broad range of sizes.
	The front body panels will be wider than the rear body panels to provide more fullness over the knee area. This is accomplished by rolling the side leg seams (inside and outside) to the rear of the pant leg beginning at the knee. The slight taper will prevent premature wear of the side seams by pushing them back and away from the primary high abrasion areas encountered on the sides of the lower legs.
	ComplyException
	AXTION® SEAT
	The rise of the rear pant center back seam, including gusset if any, from the top back of the waistband to where it intersects the inside leg seams at the crotch shall exceed the rise at the front of the pant by 8 inches. The longer rear center back seam provides added length in the seat for mobility without restriction when stepping up, kneeling, or crawling and maintains proper alignment of the knee, without twisting, directly over the knee pads when kneeling and crawling.
	ComplyException
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# LINER ACCESS OPENING (PANT)

The thermal liner and moisture barrier layers of the pant liner system shall be constructed in such a way as to allow an access opening for interior inspection, service and replacement. The thermal liner and moisture barrier layers shall be stitched together for security and prevention of inadvertent use of one layer without the other. The liner system shall have a reinforcement of black Nomex® twill webbing sewn to the bottom of the fly opening. This reinforcement will serve to prevent the liner from tearing in that area from the constant donning and doffing of the pants.

The liner system of the pant shall incorporate an opening along the back of the waistline for ease in inspecting the inner layers and to facilitate performing the complete Liner Inspection. The thermal liner and moisture barrier shall be individually bound with a neoprene coated bias cut tape and joined together on each of the front panels, along the waistband from the front fly opening to side seam. The back of the liner system will be allowed to remain open with two snaps in the back to attach the moisture barrier layer to the thermal liner layer. As described previously, the pant thermal layer system snaps directly to the independent waistband by means of nine snap fasteners. There shall be no hook and loop used to close the liner access opening.

	Comply	Exception
RETROREFLECTIVE FLUORE	SCENT TRIM	
	f NFPA #1971 in 3 incl	cent trim encircling each leg below the knee to n lime/yellow 3M Scotchlite™ Triple Trim (L/Y above cuff.
	Comply	Exception

#### REINFORCED TRIM STITCHING

All reflective trim is secured to the outer shell with Nomex® thread, using a locking chainstitch protected by our exclusive TrimTrax® system. Developed exclusively by Globe Manufacturing Co., LLC. this strip of 3/32-inch strong, durable, flame resistant black Kevlar® cording provides a bed for the stitching along each edge of the retroreflective fluorescent trim surface and affords extra protection for the thread from abrasion. TrimTrax® has been proven to be 5 to 7 times more durable than single or even double rows of stitching, significantly reducing maintenance costs and providing more value and a longer service life. Two rows of stitching used to attach the trim in place of the TrimTrax® shall be considered an unacceptable alternative, since it has been proven that the two rows of stitching has insignificant impact on wear life. All trim ends shall be securely sewn into a seam for a clean finished appearance.

Comply	Exception

# **ELASTICIZED WAISTBAND**

The pant design facilitates the transfer of the weight of the pant to the hips instead of shoulders and suspenders. The two rear outer-shell body panels, beginning at the pant side seams, shall incorporate an elasticized waist insert, running from the side seam towards the back of the trouser for an approximate distance of 4 inches. The rear elasticized waist inserts shall be integral to the shell of the pant and the elasticized portions shall be covered by the outer shell fabric of the pant.

The waist area of the pants shall incorporate an independent stretch waistband on the inside with a separate piece of black aramid outer shell material, cut on the bias (diagonally), measuring not less than 2 inches in width. The top edge of the waistband reinforcement shall be double stitched to the outer shell eat the uppermost top of the pants. The lower edge of the waistband shall be finished with a serge stitch,

and unattached to the shell to accept the thermal liner and moisture barrier system. The top of the thermal-liner and moisture barrier shall be secured to the underside of the waistband reinforcement by means of nine snaps, spaced equidistant along the length of the waistband reinforcement. Inserting the liner system between the waistband reinforcement and outer shell serves to reduce the possibility of liner detachment while donning and doffing. The independent waistband construction affords greater comfort and fit than a turned and stitched method. Pants that do not include an independent waistband or are not cut on the bias, will not provide the same amount of stretch to the garment and shall be considered unacceptable.

Comply	Exception

# EXTERNAL / INTERNAL FLY FLAP

The pants will have a vertical outside fly flap constructed of two layers of outer shell material, with a layer of moisture barrier material sandwiched between. The fly flap shall be double stitched to the left front body panel and shall measure approximately 2 ¾ inches wide, with a length graded to size based on waist measurement and reinforced with backtacks at the base. An internal fly flap constructed of one layer of outer shell material, thermal liner and specified moisture barrier, measuring approximately 2 inches wide, with a length graded to size based on waist, shall be sewn to the leading edge of the right front body panel.

The underside of the outside fly flap shall have a 1½ inch wide piece of FR Velcro® loop fastener tape quadruple stitched full length along the shell material only; stitching shall not penetrate the moisture barrier insert between the two shell fabric layers to insure greater thermal protection and reduced water penetration. A corresponding strip of 1½ inch wide piece of FR Velcro® hook fastener tape shall be quadruple stitched to the outside right front body panel securing the fly in a closed position.

Comply	Exception

# **BELT**

Each pant shall include a 2 inch wide black aramid belt with a self locking hi-temp thermoplastic buckle serving as the exterior primary positive locking closure. Sizing adjustment shall be provided by means of the black belting which can be threaded through the male portion of the 2 inch thermoplastic buckle; this buckle shall also provide a quick-release mechanism for donning and doffing. The belt shall be attached to the two front body panels of the pant at the side seams and shall run through tunnels constructed of black 7½ osy aramid outer shell material, protecting the belt from damage. The tunnels will begin at the side seams and run to the front of the pant, terminating at the buckle closure system. A single belt loop constructed of a double layer of black 7½ osy aramid measuring approximately ½ inch by 3 inches shall be attached to the topside of the right side tunnel. The belt loop will be located approximately 2 inches from the tunnel opening for storage of the belt tab.

 Comply	Exception

# **AXTION® KNEE**

The outer shell of the pant legs shall be constructed with horizontal expansion pleats in the knee area with corresponding darts in the liner to provide added fullness for increased freedom of movement and maximum flexibility. The pleats shall be folded to open outwardly towards the side seams to insure no restriction of movement. The AXTION® knee will be installed proportionate to the pant inseam, in such a manner that it falls in an anatomically correct knee location.

The thermal liner shall be constructed with four pleats per leg in the front of the knee. Two will be located above the knee (one on each side) and two will be located below the knee (one on each side). On the moisture barrier, the system will consist of two darts, rather than pleats, to allow added length in the under knee. The darts in the liner provide a natural bend at the knee. The pleats and darts in the liner with the expansion panels in the outer shell to increase freedom of movement when we have the content of the knee.

kneeling, crawling, climbing stairs or ladders, etc. ComplyException
LINER KNEE THERMAL ENHANCEMENT
A minimum of one additional layer of specified thermal liner and one additional layer of moisture barrier material, measuring a minimum of 9 inches by 11 inches, will be sewn to the knee area of the liner system for added CCHR protection and increased thermal insulation in this high compression area. The knee thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only. The thermal enhancement layer shall have finished edges by means of overedging. Raw or unfinished edges shall be considered unacceptable. Thermal scraps shall not be substituted for full-cut fabric padding. Smaller CCHR reinforcements shall not be considered acceptable since they provide far less area of coverage.
ComplyException
KNEE REINFORCEMENTS
The knee area shall be reinforced with a layer of black Dragonhide® material.
The knee reinforcement shall be centered on the leg to insure proper coverage when bending, kneeling and crawling. The knee reinforcements shall measure 9 inches wide by 12 inches high and shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance. The knee reinforcement specified shall be removable without opening up any seams of the outer shell of the pant. Knee reinforcements of a smaller size do not provide the same protective coverage and shall be considered unacceptable.
ComplyException
PADDING UNDER KNEE REINFORCEMENTS
Padding for the knees shall be accomplished with one layer of <b>Silizone®</b> foam sewn to the liner, sandwiched between the thermal liner and moisture barrier.
ComplyException
EXPANSION (BELLOWS) POCKETS
An expansion pocket, measuring approximately 2 inches deep by 10 inches wide by 10 inches high shall be double stitched to the side of each leg straddling the outseam above the knee and positioned to provide accessibility. The lower half of each expansion pocket shall be reinforced with an additional layer of Kevlar® twill material on the inside. Two rust resistant metal drain eyelets shall be installed on the underside of each expansion pocket to facilitate drainage of water. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shall material and shall measure 3 inches deeper than the

be double stitched to the side of each leg straddling the outseam above the knee and positioned to provide accessibility. The lower half of each expansion pocket shall be reinforced with an additional layer of Kevlar® twill material on the inside. Two rust resistant metal drain eyelets shall be installed on the underside of each expansion pocket to facilitate drainage of water. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material and shall measure 3 inches deeper than the pocket expansion and ½ inch wider than the pocket. The upper pocket corners shall be reinforced with proven backtacks and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of FR Velcro® fastener tape. Two pieces of 1½ inch by 3 inch FR Velcro® hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of 1½ inch by 3 inch FR Velcro® loop fastener tape shall be installed horizontally on the outside of each pocket near the top (one piece on each end) and positioned to engage the hook fastener tape.

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POCKET DIVIDER
The left side expansion pocket shall be equipped with a vertical divider separating the pocket into two compartments. The divider will split the pocket 50/50.
ComplyException
PANT CUFF REINFORCEMENTS
The cuff area of the pants shall be reinforced with a layer of black Dragonhide® material
The cuff reinforcement shall not be less than 2 inch in width and folded in half, approximately one half inside and one half outside the end of the legs for greater strength and abrasion resistance. The cuff reinforcement shall be double stitched to the outer shell for a minimum of two rows of stitching. This independent cuff provides an additional layer of protection over a hemmed cuff. Pants that are turned and stitched at the cuff, as opposed to an independent cuff reinforcement, do not provide the same level of abrasion resistance and shall be considered unacceptable.
ComplyException
PADDED RIP-CORD SUSPENDERS & ATTACHMENT
On the inside waistband shall be attachments for the standard "H" style "Padded Rip-Cord" suspenders. There will be four attachments total $-2$ front, 2 back. The suspender attachments shall be constructed of a double layer of black aramid measuring approximately $\frac{1}{2}$ inch wide by 3-inches long. They shall be sewn in a horizontal position on the ends only to form a loop. The appearance will be much like a horizontal belt loop to capture the suspender ends.
A pair of "H" style "Padded Rip-Cord" suspenders shall be specially configured for use with the pants. The main body of the suspenders shall be constructed of 2 inch wide black webbing straps. The suspenders shall run over each shoulder to a point approximately shoulder blade high on the back, where they shall be joined by a 2 inch wide horizontal piece of webbing measuring approximately 8-inches long, forming the "H". This shall prevent the suspenders from slipping off the shoulders. The shoulder area of the suspenders will be padded for comfort by fully encasing the webbing with aramid batting and wrap-around black aramid.
The rear ends of the suspenders will be sewn to 2-inch wide elasticized webbing extensions measuring approximately 8-inches in length and terminating with thermoplastic loops. The forward ends of the suspender straps shall be equipped with specially configured black powder coat non-slip metal slides with teeth. Through the metal slides will be the 9 inch lengths of strap webbing "Rip-Cords" terminating with thermoplastic loops on each end. Pulling on the "Rip-Cords" shall allow for quick adjustment of the suspenders.
Threaded through and attached to the thermoplastic loops on the forward and rear ends of the suspender will be black aramid suspender attachments incorporating two snap fasteners. The aramid suspender attachments are to be threaded through the suspender attachment loops on the inside waistband of the pants. The aramid suspender attachments will then fold over and attach to themselves securing the suspender to the pants.
Comply

# REVERSE BOOT CUT

The outer shell pant leg cuffs wishorter than the front. The liner vat the front to keep the liner from chance of premature wear of the Pants that have "cut-outs" in the unacceptable.	will also have a reve m hanging below th cuffs and injuries d	rse boot cut at the rear of e shell. This construct ue to falls as a result of	of the cuff and a concave cut ion feature will minimize the f "walking" on the pant cuffs.
	Comply	Exception	
THIRD PARTY TESTING AND L	ISTING PROGRAM		
All components used in the cor Standard #1971 by Underwriter compliance to that standard. certification label.	s Laboratories (UL	). Underwriters Labor	atories shall certify and list
	Comply	Exception	
LABELS		8	
Appropriate warning label(s) shal include the following information.	I be permanently aff	ixed to each garment. A	Additionally, the label(s) shall
Compliance to NFPA Standard # Underwriters Laboratories classif Manufacturer's name Manufacturer's address Manufacturer's garment identificatories Date of manufacture Size	ied mark		
	Comply	Exception	
ISO CERTIFICATION / REGISTE	RATION		
The protective clothing manufact satisfactory level of quality. Ind checking either "Yes" or "No" in t	icate below whethe		
	Yes	No	
WARRANTY:			
The manufacturer shall warran workmanship for their serviceable			m defects in materials and
	Compl	yExceptio	'n

#### HOOK AND LOOP SUPPORT PROGRAM

Support program shall cover hook or loop tape that has begun to fray or otherwise degrade from normal wear. This program shall remain in effect for a period of five years from the original date of manufacture of the garment. This support program shall cover the repair or replacement, without charge, of any hook and/or loop on the garments produced by the manufacturer providing the garments are otherwise serviceable.

This support program does NOT cover damage from fire, heat, chemicals, misuse, accident or negligence. Failure to properly care for garments will serve to void this support program.

	Comply	Exception	
SIZING BY VENDOR:			
Both male and female sizing sample	es shall be available	ı.	
	Comply	Exception	

# BAR-CODE/RECORD KEEPING INTERFACE

A 1 dimensional barcode, in the interleaved 2 of 5 format shall be printed on the label of each separable layer of the garment.

This barcode shall represent the serial number of the garment. The manufacturer shall be able to provide a detailed list of each asset of a drop-shipped order, and shall include the following:

- Brand
- Order Number
- Serial Number
- Style Number
- Color
- Description
- Chest/Waist Size
- Jacket/pant Length
- Sleeve Length
- Date of Manufacture
- Mark-For Data

This information shall be able to be imported into the manufacturers web-based system designed to facilitate the organization and tracking of assests in accordance with the cleaning and inspection requirements of OSHA and NFPA 1851.

Comply	Exception

# PPE RECORD KEEPING

The manufacturer shall make available and no-charge, a password protected data based backed website that does not care whose brand of PPE assets are being recorded. The website shall have the functionality to allow the manufacturer to import all of the pertinent data into the department's account so that the initial data entry by fire department personnel is eliminated.

TREE IN AUG. SQUARE PORCE	The website shall allow for the department to use a barcode scanner, if desired, to scan the Interleaved 2 of start barcode found in the gear by going to the Search the Serial Number page in PPE record keeping program and scanning the asset's barcoded serial number.						
	0	Comply _	Exce	eption			
	EXCEPTIONS TO SPECIFICATIONS						
	Any and all exceptions to the above sadditional pages for exceptions, if necess		ust be c	learly stated	for each	heading.	Use
	COUNTRY OF ORIGIN						

Jackets and Pants shall be manufactured in the United States.