GENERAL SPECIFICATIONS

SCOPE

This document specifies the design and materials used to manufacture coats and pants to be worn during STRUCTURAL FIREFIGHTING as covered by NFPA 1971. The protection offered by the garment covers the lower and upper section of the body excluding head, hands or feet. Garment sizing shall be done in accordance with NFPA 1500 and available for male and female firefighters. Generalized sizing such as small, medium, large, etc... shall be considered unacceptable. Best fit pattern for coat and pants shall be used. If there is any feature or process that the manufacturer feels should be added, the manufacturer has the permission to do so.

COMPLY _____ EXCEPTION _____

CERTIFICATION

The design, materials, workmanship, construction and performance shall meet or exceed all National Fire Protection Association (NFPA) requirements as specified in NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, 2018 edition. The manufacturer shall supply the Certificates of Compliance from Underwriters Laboratories showing compliance to the standard.

COMPLY _____ EXCEPTION _____

ISO 9001

The manufacturer shall be ISO 9001:2015 certified, thus assuring quality control procedures in the manufacturing of bunker gear. A copy of this certification shall be supplied.

COMPLY _____ EXCEPTION _____

EXCEPTION

Bidder shall clearly state in this document if he or she complies with the section requirements or takes an exception. Any section that is not clearly identified as compliant will be considered as an exception. All alternative proposals for each exception shall be described and listed on a separate document and attached to this bid. No exceptions to this paragraph shall be accepted.

COMPLY _____

THL RATING

The composite of outer shell, thermal barrier and moisture barrier shall meet or exceed the minimum THL requirement of the latest edition of NFPA 1971. Manufacturer shall state on his or her bid the THL value of the proposed composite.

THL: _____269.1_____

COMPLY _____ EXCEPTION _____

TPP RATING

The composite of outer shell, thermal barrier and moisture barrier shall meet or exceed the minimum TPP requirement of the latest edition of NFPA 1971. Manufacturer shall state on his or her bid the TPP value of the proposed composite.

TPP: _____39.2_____

COMPLY _____ EXCEPTION _____

LABELING

The coats and pants shall be labeled according to the applicable standards and regulations. A warning label shall be applied about use and protection of the garment. A human readable unique serial number shall be assigned to the coats and pants. The unique serial number shall also be translated into bar code so it can be read by care and maintenance facilities.

COMPLY _____ EXCEPTION _____

PACKAGING

The garments shall be individually put in a bag that protects them from external elements including UV RAYS on ALL sides before being placed in a transportation box. The individual bags shall have a label that includes the garment identification. The same label shall also be affixed to the transportation box for easier processing by the department.

COMPLY _____ EXCEPTION _____

OUTER SHELL

The outer shell color shall be black for all components.
The material for the outer shell shall be Armor AP made by Safety Components.

COMPLY _____ EXCEPTION _____

MOISTURE BARRIER

The moisture barrier material must be Stedair 4000, made by Stedfast.

COMPLY _____ EXCEPTION _____

THERMAL BARRIER

7.4 oz Glide Ice 2-Layer

Glide Ice 3.6 oz/yd^2 face cloth consisting of 60% DuPont™ Nomex® filament and 40% DuPont™ Nomex®/Lenzing FR spun yarns quilted to 2 layers of DuPont ™ Nomex® E89™ spunlace – 2.3 oz. Yd^2 and 1.5 oz/ yd^2.

COMPLY _____ EXCEPTION _____

HARDWARE

Snaps shall be prong type. Stitching of all long pieces of hook and loop shall be done with a triple row of lock stitching. Stitching of all short pieces of hook and loop shall be done with a single row of lock stitching around the edges with an "X" in the center. All hook and loop larger than one (1) inch shall have rounded corners.

COMPLY _____ EXCEPTION _____

COAT SPECIFICATIONS

LINER CONSTRUCTION

7.4 oz Glide Ice 2-Layer

Glide Ice 3.6 oz/yd^2 face cloth consisting of 60% DuPont™ Nomex® filament and 40% DuPont™ Nomex®/Lenzing FR spun yarns quilted to 2 layers of DuPont ™ Nomex® E89™ spunlace – 2.3 oz. Yd^2 and 1.5 oz/ yd^2.

The liner shall not use any form of Velcro or hook and loop system to attach to the outer shell. Zippers or snaps are acceptable. The liner pattern must match the same pattern as the outer shell.

COMPLY _____ EXCEPTION _____

COLLAR

The collar shall have a hanging loop made of the specified outer shell. The loop shall measure a half inch (1/2) wide and have a usable width of three (3) inches and shall be capable of holding the weight of the garment when completely soaked with water, without tearing away from the garment.

Collars of single height are not considered acceptable to this department.

COMPLY _____ EXCEPTION _____

SLEEVES

Coat designs with sleeve seams that come in contact with the coat body are not considered acceptable by this department.

COMPLY _____ EXCEPTION _____

ANGLED CUFFS

The sleeve cuffs shall be cut at an angle so that the top of the cuff is longer than the bottom to provide additional overlap of the cuff over the glove interface and provide additional protection while providing unrestricted range of motion.

Coat designs without angled cuffs are not considered acceptable by this department.

COMPLY _____ EXCEPTION _____

CUFF REINFORCEMENT

The sleeve cuffs shall be reinforced with black polymer coated aramid material. The reinforcement shall include a Nomex® cording to prevent stress points on the reinforcement material and reduce abrasion and repairs. The reinforcement material shall be sewn inside the outer shell to prevent thread abrasion and repairs. Reinforcement shall extend no less than 2" from the base of the cuff.

COMPLY _____ EXCEPTION _____

GLOVE INTERFACE

The interface shall be a long Nomex® knit wristlet with a thumb tab loop.

COMPLY _____ EXCEPTION _____

COAT CLOSURE SYSTEM

The positive closure system shall consist of a heavy-duty zipper. The positive closure shall be covered by an internal flap to prevent liquids and contaminants from entering the jacket. The closure shall be completed by an external storm flap extending from the bottom of the jacket to the top of the collar, to prevent any gaps in the throat area. The storm flap and throat closure shall be constructed of three (3) layers: two (2) layers of outer shell and one (1) layer of moisture barrier. The flap shall be fastened to the front of the jacket by means of four (4) hooks and D-Rings. The D-Rings shall be distributed evenly along the edge of the storm flap and attached with rivets. The Hooks shall be set on the left side panel of the coat to match the D-Rings from the storm flap.

The moisture barrier in storm flap shall be the SAME as the moisture barrier selected in the MOISTURE BARRIER section of this specification. Use of moisture barrier other than that specified in the MOISTURE BARRIER section are not considered acceptable by this department.

COMPLY _____ EXCEPTION _____

POCKETS

The coats shall be provided with two (2) semi-bellow pockets. Bottoms of the pockets shall be reinforced on the inside and outside with the same material outlined for cuff reinforcement. The reinforcement shall cover the bottom of the pocket and extend up the pocket on all sides by 2 inches. Both pockets must have “hand warmer” area integrated. The pocket cover flap shall have additional material (cylinder) added to the bottom edge for easy grip with gloved hand. The pocket shall also include tow drainage eyelets at the bottom.

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COMPLY _____ EXCEPTION _____

RADIO POCKET

The coat shall have a radio pocket. The pocket shall have at least one (1) drainage eyelet on the bottom. The pocket shall be located on the left breast of the coat.

COMPLY _____ EXCEPTION _____

REFLECTIVE TRIM PATTERN

The trim shall be ''HIGH VISIBILITY'' style; one (1) band around the lower portion of the jacket, one (1) band around the back and chest area below the armpit, two (2) vertical bands between the lower back trim and upper back trim, two (2) bands on each arms, one (1) above and one (1) below the elbow.

COMPLY _____ EXCEPTION _____

REFLECTIVE TRIM TYPE

An additional layer of neoprene shall be sewn to the thermal barrier under the arm reflective trim, to meet the Stored and Thermal Energy requirement.

The color of the trim shall be yellow and have the highest visibility rating.

COMPLY _____ EXCEPTION _____

OUTER SHELL REMOVABLE PATCH (4"X17")

A patch for lettering constructed of outer shell fabric shall be installed on the back portion of the jacket and secured to the lowest part of the back of the jacket with the use of snaps and/or Velcro/hook and loop. This patch shall measure approximately four (4) inches high by seventeen (17) inches wide. This patch shall be used for end users name to be placed on the patch with letters made of the same material outlined for reflective material in this spec.

COMPLY _____ EXCEPTION _____

Department name designation

On the back of the coat at the top shall be the letters (**E C F R)** oriented in the center, straight across the shoulders with no less than 3" lettering made of the same material outlined for reflective material in this spec.

COMPLY _____EXCEPTION _____

MICROPHONE / P.A.S.S. LOOP

A loop for a microphone or P.A.S.S. alarm shall be installed above the radio pocket. The loop shall be one (1) inch high and have an opening of approximately one inch and three quarters (1-3/4) of usable space and be made of the specified outer shell. The loop shall be bartacked at each end to the front of the jacket.

COMPLY _____ EXCEPTION _____

FLASHLIGHT HOLDER

The coat shall have an adjustable loop made of outer shell. The loop shall measure eleven (11) inches long and be attached to the outer shell with bartacks leaving an opening of approximately one inch and a half (1-1/2). The loop shall close onto itself with the use of hook and loop fastener. The coat shall also have a metal clip riveted above the loop. This will be located on the right chest of the coat.

COMPLY _____ EXCEPTION _____

PANT SPECIFICATIONS

REGULAR WAIST

The pant shall be of regular waist design. The circumference of the waist shall allow the wearer to pull his or her pants up without restriction. The front to the pant shall be graded with the waist size to provide appropriate overlap with the coat. The back to the pant shall be graded with the waist size to provide appropriate overlap with the coat.

COMPLY _____ EXCEPTION _____

OUTER SHELL CONSTRUCTION

The material for the outer shell shall be Armor AP made by Safety Components.

COMPLY _____ EXCEPTION _____

LINER CONSTRUCTION

7.4 oz Glide Ice 2-Layer

Glide Ice 3.6 oz/yd^2 face cloth consisting of 60% DuPont™ Nomex® filament and 40% DuPont™ Nomex®/Lenzing FR spun yarns quilted to 2 layers of DuPont ™ Nomex® E89™ spunlace – 2.3 oz. Yd^2 and 1.5 oz/ yd^2.

The liner shall not use any form of Velcro or hook and loop system to attach to the outer shell. Zippers or snaps are acceptable. The liner pattern must match the same pattern as the outer shell.

Two additional layers of thermal barrier shall be sewn in the knee area for increased CCHR protection.

COMPLY _____ EXCEPTION _____

PANT CLOSURE SYSTEM

The positive closure system shall consist of hook and loop style closure. The storm flap shall be held closed with clasp and D-ring. Belt and storm flap shall close on the same side.

The pant shall have a removable class I belt. The belt shall be passed through seven (7) belt loops fixed on the pants. The belt loops shall be made of outer shell and shall be installed at the waist area of the pants. Each belt loop shall have an opening large enough for a belt and shall be secured to the pant with lock stitching and bartacks on one end and snaps on the other end.

COMPLY _____ EXCEPTION _____

POCKETS

The pants shall be provided with two (2) bellow pockets with cover flaps. All four sides of the pockets shall be reinforced on the outside and inside with the same material outlined for cuff reinforcement. The reinforcement shall cover the bottom of the pocket and extend up the pocket on all sides by 5 inches. The pocket cover flap shall have additional material (cylinder) added to the bottom edge for easy grip with gloved hand. The pocket shall also include tow drainage eyelets at the bottom.

COMPLY _____ EXCEPTION _____

KNEE REINFORCEMENT / PADDING

The knee area shall be reinforced by a rectangular piece of black polymer coated aramid graded in length in proportion with the pant size and shall be double stitched to the outer shell. A padding made of three (3) layers of thermal barrier with one (1) layer of silicone shall be inserted between the polymer coated aramid knee reinforcement and the pant outer shell.

COMPLY _____ EXCEPTION _____

CUFF REINFORCEMENT

The pant cuffs shall be reinforced with black polymer coated aramid material. The reinforcement shall include a Nomex® cording to prevent stress points on the reinforcement material and reduce abrasion and repairs. The reinforcement material shall be sewn inside the outer shell to prevent thread abrasion and repairs. Reinforcement shall extend no less than 2” from the bottom of the pant leg.

COMPLY _____ EXCEPTION _____

REFLECTIVE TRIM PATTERN

The trim shall be ''NFPA'' style; one (1) band around the lower portion of each leg and one band vertically from waist down to the lower band on the outside of the leg.

COMPLY _____ EXCEPTION _____

REFLECTIVE TRIM TYPE

An additional layer of neoprene shall be sewn to the thermal barrier under the arm reflective trim, to meet the Stored and Thermal Energy requirement.

The color of the trim shall be yellow and have the highest visibility rating.

COMPLY _____ EXCEPTION _____

BELT LOOPS

The pant shall be equipped with a minimum of seven (7) belt loops made of outer shell and shall be installed equally spaced around the waist area of the pant. One (1) loop shall be centered on the back of the pant and shall have the ability to have an antisway strap for a radio harness attached to it. Each loop shall have an opening wide enough to fit a class I belt/ harness and shall be secured to the pant with lock stitching and bartacks on one end and snaps on the other enabling the user to open and close the loop.

COMPLY _____ EXCEPTION _____

SUSPENDERS

Shall be of the ergonomic weight distributing type and be adjustable.

COMPLY _____ EXCEPTION _____