



Fire Fighter Clothing: Firesafe™
Wildland Coverall System
Standards: NFPA 1977, 2005 Edition
Revision: No. 4.1 — 12 May 2006



MATERIALS AVAILABLE

7.5 oz. Nomex® IIIA; or 9.0 oz. INDURA®

DESIGN FEATURES

A. GENERAL

1. All stitches are made of *Nomex thread*.
2. All seams and stitching are *8 to 10 stitches per inch*.
3. All *major A seams* are double-stitched felled seam with a lock or chain stitch.
4. All *stress points* have a **42**-stitch bartack
5. There are *no raw edges* in any of the garments.
6. **Labels** sewn to the coverall indicate certifications to NFPA-1977, 2005 Edition standard and provide the following information: manufacturer's name, address, phone and fax numbers, and website address; garment model, style, and size; garment item, lot and tracking numbers; date (month and year) and place of manufacture; materials construction, relevant warnings, and cleaning instructions.
7. Coat and pants are each supplied with a *User's Information Guide* presented in a bi-lingual format. The Guide details pre-use information, hazards, performance, warranty, size/adjustment, garment conditions, inspection areas and frequency of inspections, donning and doffing, storage, retirement, decontamination, cleaning, and drying procedure. The Guide also includes areas for recording user identification and a grid for recording garment information as well as inspection, cleaning and service dates.

B. DESCRIPTION

1. **BODY.** The top portion of the coverall body (above the waistband) is comprised of one back and two front panels. Facing of the left and right front panels measures 2^{1/2}" wide (6.4 cm), and extends from the collar to the crotch area. Facing is single-stitched at the collar line, and double-stitched along its length with bartacking at the lower extreme. The bottom portion of the coverall body (below the waistband) is comprised of two front and two back panels. All panels in both portions are joined together by double-stitching with Nomex thread. The seam joining the top and bottom portions is covered by a waistband comprised of a layer of shell material.

Action Back (Deluxe coverall only). Allowing greater flexibility and maneuverability, the Action Back is comprised of two inverted pleats, one on each side, at the juncture of the front and back panels. The pleats begin at the back of each



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shoulder seam and extend vertically down the sides of the upper body of the coverall to the waistband. Maximum expansion of the pleats occurs at the shoulder area and tapers toward the waistband.

2. **WAIST.** A 2^{1/4}" wide (5.7 cm) band of shell material is sewn to the coverall body at the waist with a row of double-stitching at the top and bottom borders. Sewn inside the waistband at the side seams is a heavy-duty elastic band that spans the upper back panel of the coverall. The elastic band is inserted in a 1^{1/2}" wide (3.8 cm) channel in the waistband and secured by reinforced stitching at the seams.

Hang Loops (Deluxe coverall only). The front waistband includes two hang loops, one on either side of midline, that are made of two ply of shell material single-stitched together. Both hang loops are sewn and bartacked into the lower double-stitched border of the waistband.

3. **SLEEVES AND SLEEVE CUFFS.** The sleeves are set-in style and consist of a contoured, two-panel construction that allows the user optimal freedom of movement while wearing clothing underneath. The panels are double-stitched together, and each sleeve is double-stitched to the body of the coverall. Sleeve cuffs are reinforced with two-ply double-stitched shell material for increased durability. A closure tab sewn 1^{1/2}" (3.8 cm) from the cuff of each sleeve enables the user to adjust the sleeve opening. Each closure tab measures 2" x 1^{5/8}" (5.7 x 4.1 cm) and is comprised of two shell material layers single-stitched together and double-stitched to the rear panel of the sleeve. A patch of Velcro® pile sewn on the inside surface of the closure tab mates with a 4^{1/2} x 1^{1/2}" (11.4 x 3.8 cm) strip of Velcro hook that is sewn horizontally on the rear panel of the sleeve.

Elbow reinforcement (Deluxe coverall only). The elbow area of each sleeve is reinforced with an extra layer of shell material encasing a layer of Arafill® padding. Each elbow reinforcement measures 11" long (27.9 cm) with an upper width of 7" (17.8 cm) tapering to a lower width of 5" (2.7). The elbow reinforcement is double-stitched to the rear sleeve panel.

4. **COLLAR AND THROAT TAB.** The extra-wide collar measures 22 x 3^{1/2}" (55.9 x 8.9 cm) and is comprised of two layers of shell material. The two layers are joined and secured by a single top-stitch row. The lower side of the collar is sewn to the coverall with a single row of stitches and reinforced on the extremes.



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The throat tab with Velcro closures enables adjustment of the collar opening. The 8^{1/4}” x 3^{1/2}” (21 x 9.5 cm) throat tab, which is sewn to the external side of the left collar, is comprised of two layers of shell material secured by a single row of stitching and reinforced at the extreme. A 2^{1/2}” x 1^{1/2}” (6.4 x 3.8 cm) Velcro pile patch is sewn on the underside of the throat tab near the free edge. This pile patch is mated with a 4 x 1^{1/2}” (10.2 x 3.8 cm) strip of Velcro hook sewn horizontally to the external side of the right collar for adjustable closure. A second strip of Velcro hook measuring 2 x 1^{1/2}” (5.1 x 3.8 cm) is single-stitched over the attached end of the throat tab. The pile patch on the underside of the throat tab is mated with this Velcro hook on the left collar to stow the throat tab when the collar is open.

A large hang-up hook made of double thickness shell material is stitched into the inside seam of the suit joining the collar and back body panel. The two layers of shell material are single-stitched together. The hook measures 10” around by 1” (25.4 x 2.5 cm) wide.

5. **FRONT CLOSURE AND STORM FLAP.** Front closure of the coverall includes a heavy-duty brass zipper and a 27 x 1^{1/2}” (68.6 x 3.8 cm) storm flap comprised of two layers of shell material. The zipper is a double-slider style, which allows the user to unzip the coverall from either the top or bottom. The upper extreme of the zipper is attached slightly below the collar line and the lower extreme is attached and bartacked at the crotch area. The left side of the zipper is double-stitched to the left front panel facing at midline. The right side of the zipper is double-stitched into the right front panel facing. When the zipper is closed, the overlying storm flap protects the zipper closure from water and debris.

6. **POCKETS**

Rear Pockets. Two 6^{3/4}” x 6^{3/8}” (17.1 x 16.2 cm) patch-style pockets made of shell material are double-stitched to the back hip area, one on each side. The top edges of the pockets are also double-stitched, and the upper extremes are bartacked to the coverall for maximum resistance. Centered at the lower edge of each pocket is an aluminum eyelet for liquid drainage. The rectangular top flap on each pocket is made of double-layer shell material, and is double-stitched to the coverall with bartacking at the extremes. A 4 x 1^{1/2}” (10.2 x 3.8 cm) strip of Velcro hook is sewn horizontally to the underside of each flap; these strips mate with corresponding horizontal Velcro pile patches on the top edge of the pockets to secure flaps to the closed position.

Exterior Side Pockets. A large slash pocket made of double-layer shell material is sewn on both front sides of the coverall. The two layers of shell material are single-



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stitched together; the upper edge of each pocket is sewn into the waistband at the top and into the outer side seam at the bottom. The lower extreme of each pocket is bartacked to the outer seam for maximum resistance. Bordering the pocket at the outer edge is an opening in the seam approximately 7" long (17.8 cm) for easy access to pockets in the user's clothing. The leading edge of the pass-through opening is double-stitched, and includes a Velcro closure. A 4" x 3/4" (10.2 x 1.9 cm) strip of Velcro hook mates with a 4" x 1 1/2" (10.2 x 3.8 cm) patch of Velcro pile on the corresponding edge to close the opening.

Radio Pocket. The box-style radio pocket measures 9" x 3" x 2" (22.9 x 6.7 x 5.1 cm) and is sized for universal use. The pocket is double-stitched to the upper front left side of the coverall, and upper extremes are bartacked. The top edge of the pocket is also double stitched. One aluminum eyelet located on the bottom center of the pocket allows for water drainage. The pocket flap is constructed with two ply shell material, and is sewn with reinforced stitching to the coverall. The pocket flap is designed to accommodate antenna openings on both top sides. Adjustable closure is provided by a 3 1/8" x 1 1/2" (7.9 x 3.8 cm) strip of Velcro hook sewn vertically on the underside of the flap with a corresponding 2 1/2" x 1 1/2" (6.4 x 3.8 cm) Velcro pile patch sewn horizontally on the upper extreme of the pocket.

Bellow cargo pockets (Deluxe coverall only). Two side-mounted bellows-style cargo pockets made of shell material are double-stitched to the lower portion of the coverall and centered across the outside seam. The pockets are bartacked at the upper extremes. Each pocket measures 7 1/2" square x 2" (21.6 cm² x 5.1 cm) and includes two aluminum eyelets at the bottom edges for liquid drainage. The rectangular top flap on each pocket is made of double-layer shell material, and is double-stitched and bartacked to the coverall. Two 2" x 1 1/2" (5.1 x 3.8 cm) strips of Velcro hook are sewn vertically to the underside of each flap; these strips mate with corresponding horizontal Velcro pile strips on the top edge of the pockets to secure flaps in the closed position.

Breast pocket (Deluxe coveralls only). A 6 1/2" x 5 1/2" (16.5 x 14.0 cm) breast pocket is sewn on the front right chest area of the coverall.

7. UTILITY LOOPS.

Right front utility loop (Standard coverall only). Sewn and bartacked to the upper right chest area of the coverall is a two-ply shell material utility loop with a detachable stainless-steel clip. Attached to the clip by way of a stainless-steel



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mechanism is a large Velcro utility loop for quick access to gloves or light equipment.

Left front utility loop (Deluxe coverall only). A two-ply shell material utility loop is sewn and bartacked to the upper left chest area above the radio pocket.

8. **KNEE REINFORCEMENT.** Knee reinforcements on the Standard coverall are large leather patches. The patches measure approximately 10" square (25.4 cm) and are double-stitched to the outer shell material in the knee area. The Deluxe coverall includes quilted knee pads comprised of an extra layer of shell material encasing a layer of Arafill® padding. Each quilted knee pad measures 17" x 8^{3/4}" (43.2 x 22.2 cm) and is double-stitched to the coverall leg body.
9. **PANT CUFF REINFORCEMENT AND ADJUSTMENT.** Pant cuffs are reinforced with a double-ply shell material and are double-stitched for greater durability. Adjustable 4 x 1^{3/4}" (10.2 x 4.5 cm) Velcro closure tabs at the bottom of the cuff allow cuff adjustment and a tight seal around boots. The closure tabs are made of double-ply shell material and are double-stitched to the rear leg panel near the inside seam. Velcro pile on the underside of the tab mates to a 7 x 1^{1/2}" (17.8 x 3.8 cm) strip of Velcro hook that is single-stitched horizontally on the rear leg panel.

Zipper closure (Deluxe coverall only). A heavy-duty vertical zipper at the cuff allows for easy access to boots and facilitates stepping in and out of the coverall. The zipper measures approximately 9" (22.9 cm) and is sewn into the outside seam of each coverall leg.
10. **EMBLEM.** A leather Chieftain® crest is sewn on the upper right chest area.
11. **RETROREFLECTIVE TRIMS.** A 2" wide (5.1 cm) 3M™ Scotchlite™ retro reflective band is sewn to the upper back across the shoulder area, around each sleeve between the cuff and elbow, and around each pant leg between the cuff and knee reinforcement. Each reflective band includes two 5/8" wide (1.6 cm) lime-yellow outside channels and one 3/4" wide (1.9 cm) silver inside channel.

NOTE: Measurements cited are based on a Standard coverall sized Large. These measurements may vary slightly for coveralls in alternate sizes. Measurements as expressed are length x width (x depth).



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