

TotalFireE-News!

FDIC Edition 2008

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-Fireman's Fund Heritage Grants for PPE: Total Fire Group/Morning Pride & Fireman's Fund: PARTNERS IN PROTECTING FIREFIGHTERS!

Fireman's Fund Insurance Company and Morning Pride have jointly announced a new nationwide agreement to provide turnout gear to local fire departments.

As part of the arrangement, Morning Pride will offer special pricing to Fireman's Fund for turnout gear it purchases through its Fireman's Fund Heritage program. This is the insurance company's national philanthropic initiative to provide equipment, training, and community education programs to local fire departments. Since 2004, Fireman's Fund has awarded more than \$17 million in grants to over 900 different departments. Danielle Cagan, Heritage program director at Fireman's Fund, said the agreement with Morning Pride will help maximize the reach of the grant program. "This will allow Fireman's Fund to nearly double the number of new sets of turnout gear we give fire departments," said Cagan. "Unfortunately, there are firefighters out there who do not have effective clothing to protect them and we're working to change that."

According to the U.S. Fire Administration, an estimated 66 percent of firefighters are wearing turnout gear that is at least 10 years old and in dire need of replacement. This is in spite of the fact that NFPA 1851 now requires that ALL 10-year-old structural PPE be retired and no longer used. Even worse, roughly 8 percent of departments do not even have enough clothing to equip all firefighters.

"This partnership enables us to satisfy our most basic objective - saving lives," said Mary Grilliot, chief operating officer of Morning Pride. "A firefighter's safety depends upon the protective ability of his or her turnout gear, and we're proud that this agreement will get more state-of-the-art clothing on the backs of more firefighters all across the country. Our valued dealer network will also be there to support the product at the time of the award and well into the future!"

Fire departments interested in learning more about the Fireman's Fund Heritage Grant program can visit www.firemansfund.com/heritage .

Morning Pride was established in 1921, and is a part of Total Fire Group. With more than 90 years experience, Total Fire Group has received over 160 U.S. and international patents for our advancements in firefighter protective clothing and we are ISO 9001:2000 registered. Our well-known investment in research and development has allowed us to develop products that offer real and significant safety and comfort advantages, leading to hundreds of major department field test

victories over the years.

About Fireman's Fund

Fireman's Fund Insurance Company is a premier property and casualty insurance company providing personal, commercial and specialty insurance products nationwide. Founded in 1863 with a mission to support firefighters, Fireman's Fund continues this mission today through the Fireman's Fund Heritage program. Fireman's Fund is a member of the Allianz Group (NYSE: AZ), one of the world's largest providers of insurance and other financial services. It is rated 'A+' by Standard & Poor's Ratings Services. For more information, visit www.firemansfund.com.

DON'T BE ME!

It is no secret that the Total Fire Group family is much more than just firefighter protective equipment manufacturers. A majority of our Marketing staff, starting with Bill Grilliot, our C.E.O., are active or retired firefighters and fire officers with decades of "hands on" experience. From rural areas to the largest city in the United States, our "family members" speak from decades of experience...and speak from the HEART, when it comes to our commitment to firefighter safety, health and survival.

Believing and living our COMMITMENT with all of our hearts and all of our actions, we strive to design the SAFEST firefighter protective clothing in North America. And with over 160 patents, along with so many failed attempts by our competition to re-produce cheap imitations of our superior products, our motivation to protect firefighters gets stronger, and more successful each and every day.

Amongst the many concerns related to protecting firefighters, the issues of FIREFIGHTER CANCER is continuing to rise...and we have written about it right here in TotalFireE-News. Not only have we written about it, but we have also dedicated our research personnel to work on developing PPE that will also help in minimizing the unnecessary exposures of fire fighting to the brave personnel who risk their lives daily. When at FDIC, be sure to stop by and learn about the PPE of the not-so-distant future: PROJECT HEROES, which amongst numerous incredible new features, should actually help manage the exposure firefighters have to deadly carcinogens.

Odds are, YOU KNOW a firefighter who has or has had cancer. We would now like to introduce you to another. Another, who very tragically, recently passed away.

The following are excerpts from a letter from the late Boston FD Lieutenant Bob Kilduff. Our thanks to Boston local 718 of the IAFF for sharing this very personal letter to ALL Fire- fighters:

My name is Bob Kilduff. I have been a firefighter for 34 years. Were it not for some help from above, marvelous medical people and dumb luck I would well be on my way to an early death due to occupational cancer. I am telling my story in the hope that another brother or sister Firefighter will not have to share my experience.

Like many of you reading this, I only went to the doctor when hurt. You know the drill: burns, cuts, smoke inhalation and the many orthopedic injuries that come part and parcel with our job. For reasons unknown the thoughts of retirement age prompted me in May of 2003 to get my first physical exam in 30 years. I felt the best I had in years and the test results bore this out. All was

well. The doc however advised that I have a colonoscopy due to my age. Not really thrilled, I acquiesced. The procedure was a piece of cake; however, the test revealed a large tumor in my colon which needed to be addressed. Twenty days later a section of my colon was removed. I had to undergo a 6 month chemotherapy program which could have been avoided with early detection. It now appears that my cancer is in remission and the doctors predict these procedures will help save my life.

The issue here is why go to the doctor and learn you're very sick when you can go to the doctor and keep from getting very sick. I have learned the hard way that you must act prudently if you want to see your grandkids grow, have a chance to retire, golf, fish, hunt, go to the track or whatever. If you don't have regular medical checkups your odds of enjoying a longer than normal life are greatly diminished. Early detection of cancer is paramount in successful treatment. This will allow you to do what you want to do and not what your doctor will allow you to do.

In 1990 a cancer presumption law was passed by the Legislature in Massachusetts. The reason it was signed into law was that it has been shown that firefighters have a serious problem with cancer. Numerous studies have pointed to the fact that there are over a dozen cancers that attack firefighters more often than the general population. Our exposure to the products of combustion and the resultant carcinogens are the reason and we must be more proactive in protecting ourselves through cancer screening. The Boston Fire Department's Medical Examiner Mike Hamrock deals with cancer and firefighters daily. From his observations, firefighter cancer screening should take place if there is a family history of cancer. For example, colon screening normally scheduled for a fifty year old should take place at age forty due to our higher incidence of the disease. Firefighter deaths due to occupational diseases are far more common than the number of line of duty deaths caused by other means and we must take them seriously.

I ask that you take a few minutes to examine your efforts to help yourself stay healthy. Think for a moment about my experiences over the last ten months and if necessary take the action necessary to help you avoid my fate. **Remember, DON'T BE ME.**
God Bless and stay safe-BK.....

Rest in peace, Lieutenant Kilduff.

Need more information re: Firefighter Cancer? Check out these sites:

<http://healthnews.uc.edu/news/?/3750/>

<http://dynamic.firehouse.com/broadcast/2006/12/22/firefighting-cancer/>

<http://dynamic.firehouse.com/broadcast/2007/01/29/100000-firefighters-are-not-wrong/>

www.FireFighterCancerSupport.org

-FATHER'S DAY PLANS? The Chief Ray Downey Commemorative Walk & Run

On Father's Day, Sunday, June 17, 2008, the family and friends of the late FDNY Deputy Chief Raymond M. Downey invite you to the 6th Annual Deputy Chief Ray Downey Father's Day Forever Running Memorial Run in Deer Park, Long Island, New York. Together, we can keep his memory and the memory of all those who lost their lives on September 11 alive. All proceeds from the race will benefit the organizations supported by the family of Ray Downey. For information on registering, go to <http://www.chiefraydowney.com>

About Deputy Chief Ray Downey

After serving with the U.S. Marine Corps in the Middle East, Chief Downey was appointed to the FDNY on April 7, 1962. Chief Downey's phenomenal 39-year career with the FDNY was built upon success after success and rescue after rescue. One of the most decorated men in the Department, Chief Downey received five individual medals for valor and 16 unit citations. Downey, commanding officer of the Special Operations Command (SOC), died in the line of duty while helping others escape from the fire and collapse scene of the World Trade Center on Tuesday, September 11, 2001.

One of our most UN-PROTECTED PARTS!

Ever wonder about that? What is one of our most UN-protected body parts when operating at a fire? Well, unfortunately, it is quite often our HANDS. When you think about it, so often the GLOVES are the least concern with many departments simply buying "whatever is cheapest" and leaving it at that. Furthermore, there is the issue of firefighters simply not WEARING their gloves. Like any part of your PPE ensemble, the gear does no good if it isn't worn!

Let's focus on gloves for a few moments. And to do that, we grabbed some excellent information from one of North America's leading experts on firefighter protective clothing: Mr. Jeff Stull. Here are some excerpts from various documents written by Jeff:

Of all the clothing items worn by firefighters for structural firefighting, perhaps the most misunderstood are gloves. Among garments, footwear and helmets, they are considered the commodity or a throwaway item of the protective ensemble and are often given little consideration in their purchase.

But hand protection during firefighting is of paramount importance. Burns and other injuries to the hand, though lessened over the years, still represent a significant proportion of all fireground injuries. Where there are complaints about the different elements of the protective ensemble, often gloves top the list. Complaints include them being too bulky or too restrictive on hand movements.

In some cases, departments even forego using products certified to the prevailing NFPA standard, relying on non-compliant gloves that are thinner and seemingly more comfortable to use. There are other instances where gloves have been represented as being compliant with the applicable NFPA 1971 standard and either the claims are not justified or their conformity is questionable. Certainly, the fire service industry can benefit from a better understanding for the selection and use of structural firefighting gloves.

Hand protection challenge

Protecting firefighters' hands from fireground hazards is actually a relatively difficult challenge; with the exception of the ears, the ratio of exposed surface area to volume of body mass is greater for the hands than any other part. This, combined with our reliance for working with our hands in a variety of tasks during firefighting, imposes tough tradeoffs for permitting hand function while providing insulation from heat and protection from physical hazards.

In contrast, protecting the other parts of the body — such as torso, arms, legs and feet — with other items of clothing is significantly easier. To gain good protection, hand function and hand comfort is often reduced. This challenge has focused the glove industry to be creative with its selection of materials and development of designs.

Material selection

Gloves use the same principles of layering materials as applied to garments. Structural firefighting gloves employ the same functional three-layer construction as turnout gear. For gloves, there is a shell, which may be either leather or textile. Inside the shell is a moisture barrier or barrier layer that may be separate or combined with a thermal lining.

All layers must work together to provide protection to the hands. However, in the selection of these layers there are tradeoffs that dictate the use of certain materials to limit the reduction of firefighter dexterity, grip, and tactility.

Shell materials tend to be leather, including cowhide, elk, pigskin, goat and other specialty leathers. These leathers have different characteristics in terms of their durability as well as their suppleness. The thickness of the leather is often dictated by the various performance requirements that are governed by the criteria in NFPA 1971, Standard on Protective Ensembles for Structural and Proximity Fire Fighting.

While thinner leathers may provide better hand mobility, the leather probably will not be rugged enough for fireground use, or simply not provide sufficient insulation. Typically, all leathers are specially tanned for flame resistance. Unfortunately, this has the net effect of stiffening the leather. Textile shells, principally Kevlar, are being used more and more, but require additional reinforcements to permit needed puncture resistance.

Gloves meeting NFPA 1971 require a continuous barrier throughout the construction of the glove to at least 2 inches past the wrist crease, where the hand joins the arm. The barrier keeps the interior of the gloves dry, but moreover provides integrity of the gloves from penetration by blood, many chemicals and other harmful liquids.

The barrier layer must remain intact during repeated use, and not separate from the glove interior. The most common barrier materials used in gloves are a form of Teflon known as Polytetrafluoroethylene (PTFE) or polyurethane. Any material and its seams that are used as glove barriers must not degrade from high heat exposures.

This requirement limits the types of materials that can be used in glove construction. Typically barrier materials don't flex or stretch as much as other materials used in glove design, so barrier layers are often designed as permanent inserts and have to be slightly oversized to permit hand insertion and adequate flexing. This oversizing of the insert can result in glove bulkiness.

For hand comfort, gloves are provided with a lining. The lining has the primary function of providing the necessary insulation for the gloves. Together with the other layers, it helps to provide overall insulation to the hand from radiant, convective or conductive heat exposures.

Generally, the overall thickness of the lining is established by the various insulation requirements in NFPA 1971. However, thicker linings mean more glove bulk and reduced dexterity. When a suitable shell material is used, it can be possible to combine the moisture barrier and thermal lining into a single layer. Two layer gloves may provide improved hand function and still provide adequate insulation.

For softness, stretch and ease of providing a three-dimensional shape, glove linings are constructed of knit materials. The most common of these are a flame-resistant modacrylic material. However, some other linings are used that include Kevlar/Nomex knit materials. Easily melting materials such as polyesters and nylons, while seemingly comfortable, are not appropriate as linings since these materials lack sufficient thermal stability and pose a melting/sticking hazard

to the hand during emergency fireground conditions. This is the same reason why similar materials are not used in turnout garments.

Gloves may either have a knit wristlet or gauntlet. Wristlets, generally made of Nomex, are close fitting to the wrist but some firefighters prefer gauntlets as wristlets can already be part of their turnout coat sleeves. For the most part, gauntlets are an extension of the three-layer glove material composite, but must be designed to be close fitting to the wrists.

Other materials are often used in glove construction. Reinforcements may be applied on the shell or as internal layers. In some cases, palm areas are reinforced — or a different shell material is used — to provide additional physical protection to the hands. Internal reinforcements in the form of additional layers may be incorporated to provide increased insulation in gloves areas, such as the back where higher heat exposures are expected.

Design considerations

As great an impact as the selection of materials might be for glove function, glove design cannot be overlooked. There are several different ways that gloves can be constructed that relate to the way the fingers and thumb are set in the glove pattern. Seam location is critical in affecting hand function because inappropriately placed seams can cause poor fit and hand function.

A classic problem in the design of gloves is the development of a means to retain the liner inside the shell. Typically, tabs or adhesive is applied at the finger tips. While this is an effective way to keep the lining in at each finger, it also creates bulk at the end of the finger tips, reducing tactility — the ability to feel shapes through the glove material by touch. Poor tactility can be a problem when firefighters must use radios and certain tools that require a certain sense of touch for proper operation.

Many gloves in the marketplace are essentially two-dimensional in their designs. This type of design can limit the functionality and fit of gloves as seams are created down the length of the fingers for joining the back and palm sides. Three-dimensional gloves, where side materials are used in finger construction, provide better fit and function, though are harder for glove manufacturers to make. Nevertheless, if the patterning of gloves results in a three-dimensional hand shape to begin with, then it makes sense that the glove will better conform to and move with the hand.

A key issue for both protection and comfort is the sizing. Gloves must fit correctly to provide proper levels of insulation as the trapped air inside the glove is a good insulator as well as conforming to the hand to allow good hand function. For example, when the bulk in glove fingers spreads the fingers apart, gripping ability is diminished.

Simple sizing schemes do not generally work to provide a full range of fit for firefighter populations. Manufacturers usually recommend firefighters assess their hand size by measuring wrist circumference and hand length, yet these two measures alone may not accommodate an adequate fit for some firefighters. As with footwear, it is preferred that gloves be offered in as many sizes as is practically possible. Some companies offer "cadet" sizing, which is a set of sizes with shorter fingers.

Final Issues

All gloves used by firefighters should conform to NFPA 1971. This standard sets the minimum requirements for gloves in terms of several important design and performance properties that define the lowest acceptable level of protection.

Even so, not all gloves meeting NFPA 1971 will be acceptable. It is important to know what materials the gloves are constructed of, the specific design features of gloves that will affect hand function and protection, and the available sizing of gloves to fit all members of the department.

Gloves are an essential part of the overall protective ensemble and must work with the selected coat to provide a good interface for overall firefighter thermal and liquid protection.

NOW that we HOPEFULLY have your attention...

BE SURE to visit us at FDIC and see FIRST HAND Our BEST, PROVEN and FULLY NFPA COMPLIANT 3D FIRE FIGHTING GLOVES available today:

The American Firewear/Total Fire Group SUPER GLOVE! Featuring a kangaroo leather palm that absorbs less water, our Super Glove has true 3D hand-shaped styling with staggered layer seaming. Its 3D construction is more ergonomically correct to your hand, helping to fight hand fatigue and reduce injuries while also making it easier for your hand to move in and out when wet. Digiroom™ High Grip Palm and Fingers deliver incredible durability, grip, and tactility with unprecedented thinness. The tough kangaroo leather outer shell and eversoft cowhide cuffs are lined with a Crosstech® Moisture Barrier for exceptional comfort and moisture wicking. Air Spacer™ Thermal Architecture traps air for thermal protection without traditional bulk. Despite its superior comfort level, this glove does not compromise on performance; the Super Glove is an NFPA 1971 compliant AMERICAN MADE Structural glove.

And, at FDIC, we will be introducing you to the NEWEST addition to our outstanding line of FIRE FIGHTING GLOVES...the NEW TriForce 3D!

Our latest 3D styling, made with less expensive materials, means that the TriForce 3D FIRE FIGHTING glove fits and feels better than 2D cowhide and 2D elk. The TriForce 3D will allow your department to experience the comfort of 3D gloves at a more economical price. It is a great stepping stone to ***the best*** glove on the market, **THE SUPER GLOVE**, in situations where changing to the most advanced fire fighting glove may take time. The TriForce 3D Fire Fighting Glove is an NFPA 1971 compliant AMERICAN MADE Structural glove.

We look forward to seeing you at FDIC next week! Be sure to come by and spend some time with us just inside the RCA DOME Booth # 6505. Amongst numerous NEW products and advances, ask for your FREE Firefighter Training Drills CD!

With Regards,

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