

November 2008 Newsletter



Helping Everyone Get Home: Firefighter Near-Miss Reporting System

Imagine this scenario: Two firefighters in a fire department somewhere in America are doing the morning check on their pumper. As the driver squats down to check the air in the rear wheels, his partner opens the compartment over the driver's head to check out the inventory. The compartment door springs open and a Gated Wye falls out, hitting the floor with a thud just to the left of the surprised driver.

» **Also:** [Near-Miss System Receives 2,000th Report](#)

Hydrogen Cyanide - What Every Responder Needs to Know

Let me ask you a question. How often after a fire do you hear a firefighter complain of headaches, dizziness, or achiness? How often do you see a fellow firefighter stagger around incoherently after they leave the structure and not think twice about it? These symptoms are typical after a long, strenuous physical activity such as fighting a fire. Recent research indicates, however, that these symptoms could indicate cyanide poisoning which occurs in firefighters more often than previously recognized.

Federal Safety Vest Requirement Goes Into Effect on November 24

On November 24, 2008, a provision in the Manual on Uniform Traffic Control (MUTCD), administered by the Federal Highway Administration (FHWA), goes into effect requiring public safety officers, including volunteer firefighters and EMS personnel responding to an incident on the side of a federal aid highway, to wear a safety vest that meets the Performance Class II or III requirements of the American National Standards Institute/International Safety Equipment Association (ANSI/ISEA) 107-2004 publication.

Focus on Fire Safety: Holiday Fire Safety

With the onset of the holiday season, it is important to focus on fire safety and prevention. The celebration of the season brings with it increased usage of electric lights, decorations, candles, and the ever-popular Christmas tree, all of which can be potential fire hazards. Additionally, cooking fires increase during the holidays as families and friends gather to celebrate. By following general fire safety precautions, potential holiday fires, deaths, and injuries remain preventable.

NVFC Releases Updated Health and Wellness Guide

The National Volunteer Fire Council (NVFC), in partnership with the U.S. Fire Administration (USFA), has

released an updated edition of the [Health and Wellness Guide for the Volunteer Fire and Emergency Services](#). This valuable, free resource is available on the NVFC web site at www.nvfc.org.



INITIATIVE SPOTLIGHT

Spotlighting one of the 16 Firefighter Life Safety Initiatives each month

Initiative #9 - Thoroughly investigate all firefighter fatalities, injuries, and near misses.

More on Initiative #9:

- » [National Fire Fighter Near-Miss Reporting System](#)
- » [Firefighter Life Safety Initiatives Research Database](#)
- » [U.S. Fire Administration Statistics Page](#)

More Information: [16 Firefighter Life Safety Initiatives](#) | **Share a Resource:** editor@everyonegoeshome.com

Online TRAINING

Firefighter Near Miss Reports

» [Report of the Week](#)

firefighternearmiss.com



FEATURED Events

Courage to Be Safe(SM) Train-the-Trainer

Morris Co. Training Academy - Parsippany, NJ
November 21, 2008

Read More: » [About the Event](#)

Courage to Be Safe(SM) Train-the-Trainer

Cape May Co. Fire Academy - Cape May, NJ
November 22, 2008

Read More: » [About the Event](#)

Courage to Be Safe(SM) Train-the-Trainer

Edmond, OK
December 5, 2008

Read More: » [About the Event](#)



FIREFIGHTER LIFE SAFETY RESOURCE KIT VOLUME 3

NEW RESOURCES TO MAKE EVERY DAY A TRAINING DAY

GET YOUR COPY TODAY! CLICK HERE ◀



Do you have an suggestion for the newsletter? Tell us about it! Please send your comments, articles, or news about what your department is doing to keep firefighters safe to editor@everyonegoeshome.com.

Helping Everyone Get Home: Firefighter Near-Miss Reporting System

Submitted by John Tippet
Safety Battalion Chief
Montgomery County (MD) Fire and Rescue Service

Imagine this scenario: Two firefighters in a fire department somewhere in America are doing the morning check on their pumper. As the driver squats down to check the air in the rear wheels, his partner opens the compartment over the driver's head to check out the inventory. The compartment door springs open and a Gated Wye falls out, hitting the floor with a thud just to the left of the surprised driver.

"Hey Joe, sorry about that," says the partner.

"That would have ruined my day," Joe replies.

The lieutenant looks up from checking his SCBA and says, "Well, that was a near-miss. I'll talk to B Shift next time around." He goes back to adjusting his straps.

Two weeks later the same crew read an article about a small child who was killed when a piece of equipment fell from a responding engine in another part of the country. The three looked at each other and thought back to their experience in the engine room. The lieutenant realized that he never talked to B Shift, and the other two firefighters wondered if the crew of the responding engine company could have learned from what they had experienced weeks ago.

The answer to their question is "yes"; and one of the tools to get the word out is the website www.firefighternearmiss.com. This website is utilized by fire service professionals at all levels as a training and safety resource. Fire and emergency service personnel from across the country are logging on to the site to submit and read reports and to share information that might help a brother or sister in the service avoid a similar situation.

Since its launch in August 2005, www.firefighternearmiss.com has received and posted over 2,000 reports. These reports have come from firefighters and officers serving in fire department and EMS services. The reports are being used as learning tools and for training by firefighters and EMS personnel. As a special feature, there is even a Google search tool to help look for a specific topic. With this feature, you can enter a keyword to pull up reports in areas such as vehicle accidents, roof collapses, violent patients, and more. Feedback about the program has been very positive and the number of visitors has increased with each passing year.

Training materials and valuable information on subjects such as Crew Resources Management (CRM), Human Factors Analysis and Classification System (HFACS), or Equipment Reports, are located in the www.firefighternearmiss.com Resources Section. The Near-Miss Calendar, Grouped Reports, Equipment Reports, and CRM & HFACS PowerPoint presentations are just a few examples of training tools available through the Firefighter Near-Miss Resources page.

The heart of the Firefighter Near-Miss program is helping firefighters go home through information exchange. This has forged a strong partnership between Firefighter Near Miss and the National Fallen Firefighters

Foundation and *Everyone Goes Home*®. The program directly supports four of the [16 Firefighter Life Safety Initiatives](#) (1, 7, 8 & 9) and indirectly supports 2, 3 & 4 through its mission and vision.

The mission, focus and drive behind the development, launch and success of www.firefighternearmiss.com are in no small part due to the support of National Fallen Firefighters Foundation and the *Everyone Goes Home*® State Advocates. The more open fire and emergency services are to information sharing about near-misses, and what they learned from them, the closer they are to getting every firefighter home at the end of their shift. Visit the website today. Submit your near-miss. Start using the system as a means to further the knowledge, skills and experience of your colleagues and members. Sign up for the periodic training bulletin "Report of the Week" by e-mailing nearmiss@iafc.org and putting "Subscribe-NFN" in the subject line. Do your part to help everyone go home.

John Tippett is a battalion chief for the Montgomery County (MD) Fire and Rescue Service and a project manager for the International Association of Fire Chiefs. Tippett's 30-plus years of service include assignments in the Operations Division, the positions of Shift Deputy Safety Officer, Lead Instructor, Apparatus Specifications Committee co-chair, Safety Officer for Maryland Task Force 1 (FEMA USAR) and Task Force Leader for MD-TF1. His IAFC career includes: introducing Crew Resource Management to the Fire Service, Fire Prevention improvements in Native American Lands and the National Firefighter Near-Miss Reporting System.

Near-Miss System Receives 2,000th Report

Courtesy of [FireRescue1](#)

FAIRFAX, Va. - Safety proponents are hailing the 2,000th report received by the National Firefighter Near-Miss Reporting System as a milestone in changing fire service culture.

The reporting system, which receives reports of firefighter near misses and posts them in a searchable database on www.firefighternearmiss.com, achieved the total on October 14.

Fire service leaders are taking this milestone as an opportunity to recognize the Near-Miss Reporting System as a valuable resource for keeping firefighters safe.

"Although mistakes are inevitable, the key is to learn from them," said IAFC President Chief Larry Grorud. "The Firefighter Near-Miss System provides an excellent forum for individuals to share their experiences so we can all learn from them and be safer if faced with similar situations."

Ed Mann, Pennsylvania State Fire Commissioner, said, "The fact that we now have 2,000 near misses reported means many things to many people. In my eyes it means the fire service is talking and taking action regarding safety. This is a shift in our culture and will no doubt assist in obtaining the goal of reducing line of duty deaths."

The [2,000th report](#) is a particularly useful reminder of the system's goal of improving firefighter safety. In that report, crews demonstrated situational awareness and followed best practices to avoid injuries.

The author of that report, #08-511, writes, "Preparation and knowing how and where to position and what the created safety zones are leads to going home the next day. Even if you are tired or just woke up, train yourself to notice all you can and place yourself in the best spot for a good outcome."

FireRescue1 partnered with the National Firefighter Near-Miss Reporting System to redesign the site earlier this year to give users easier access to a number of key safety and training resources.

Hydrogen Cyanide - What Every Emergency Responder Needs to Know

**By Captain Rick Rochford
Jacksonville Fire Rescue Department**

Let me ask you a question. How often after a fire do you hear a firefighter complain of headaches, dizziness, or achiness? How often do you see a fellow firefighter stagger around incoherently after they leave the structure and not think twice about it? These symptoms are typical after a long, strenuous physical activity such as fighting a fire. Recent research indicates, however, that these symptoms could indicate cyanide poisoning which occurs in firefighters more often than previously recognized.

On February 20, 2003, a fire erupted at the Station Night Club in West Warrick, R.I., as the band Great White performed. Pyrotechnics on stage ignited the substandard sound proofing material. A total of 460 patrons were in attendance. One hundred people were killed and an additional 200 were injured. Investigative reports and testing from the National Institute of Standards and Technology (NIST) showed that upon ignition of the pyrotechnics the building was uninhabitable within 90 seconds due to the high concentrations of carbon monoxide and hydrogen cyanide.

In March of 2006, a firefighter in Providence, R.I., was diagnosed with cyanide poisoning after responding to a building fire. Over a period of 16 hours, seven more firefighters were diagnosed with cyanide poisoning, including one who suffered a heart attack while working the pump panel in the front of the residential structure. It was only through a series of coincidences that emergency room physicians checked that last firefighter for cyanide poisoning.

Incidents like the ones mentioned above are happening on a daily basis without any indication that these toxic substances are affecting firefighters. Annually, there are an estimated 20,000 residential structure fires that are caused by mattresses, pillows and bedding materials all of which are likely to contain synthetic materials that release hydrogen cyanide when they burn or smolder. When ignited, these same materials cause a fire to burn two to three times hotter and faster than natural products allowing fires to reach flashover much more quickly.

Cyanide has a half-life of one hour in the body which means that if a firefighter absorbs 100 mg/dl through the body it would take approximately eight hours for the toxic substance to metabolize out of their system. What happens if they respond to more fires during their shift or if the firefighter does not decontaminate after the fire? Where is this substance going to go? Is this substance going to continue to have harmful effects on their body?

The primary concerns regarding cyanide are its ability to cause fatal health issues and the inability or unavailability of assessing the problem. Research has shown that cyanide poisoning may occur up to eight days after exposure. The National Institute of Occupational Safety and Health (NIOSH) has recognized that electrocardiogram changes can be observed two to three weeks after a fire-related cyanide exposure. Collectively, this information raises grave concerns in light of the hundreds of firefighters that suffer heart attacks at fire scenes every year.

During a fire, cyanide poisoning affects a victim by cellular asphyxiation. As the victim inhales hydrogen cyanide it creates lactic acid within the tissues and muscles which inhibits the victim's ability to exit the structure on his or her own. As a result, the victim breathes in carbon monoxide and becomes unresponsive. Once found, they may

be treated medically for carbon monoxide instead of hydrogen cyanide poisoning. The medical treatment for carbon monoxide inhalation can revive the patient, however, without a cyanide antidote kit, the lasting effects of hydrogen cyanide poisoning can create enduring medical complications.

Cyanide is a toxin with the potential to cause rapid death. It is clear that the number of firefighters and patients affected by cyanide each year has been under-recognized and under-treated in this country. Familiarization with this byproduct of combustion must be addressed by the fire and medical communities, as well as the general public, to prevent unnecessary exposure to this toxic substance. Hospital physicians must be educated on the increased likelihood of firefighters presenting with cyanide induced cardiac events and must be aware that Carboxyhemoglobin and cyanide levels should be drawn as soon as possible given the short half-life of cyanide in the blood.

Present day firefighters are no longer fighting the combustible fires that their forefathers fought. They are fighting highly volatile chemical fires that are burning two to three times hotter due to the introduction of plastic and synthetic furnishings. They are fighting fires that have an increased chance of producing flashovers and extremely toxic levels of poisonous substances such as hydrogen cyanide and carbon monoxide.

In light of these facts, firefighters at all levels need to be re-educated about fire behavior. They need to learn how to predict and anticipate both the behavior of a fire and the type of smoke that it will generate. Firefighters also need to learn the proper protective equipment to be worn during the fire, after it is extinguished, and during salvage and investigation. Armed with this information, they can reduce job-related injuries and line-of-duty deaths.

Wouldn't it be nice, for a change, to have a once-yearly celebration at the National Fire Academy because there are no line-of-duty deaths?

Related:

» [Hydrogen Cyanide: New Generation Concerns Resulting in Firefighting Tactics and Medicine](#)

Federal Safety Vest Requirement Goes Into Effect on November 24

Courtesy of National Volunteer Fire Council

On November 24, 2008, a provision in the Manual on Uniform Traffic Control (MUTCD), administered by the Federal Highway Administration (FHWA), goes into effect requiring public safety officers, including volunteer firefighters and EMS personnel responding to an incident on the side of a federal aid highway, to wear a safety vest that meets the Performance Class II or III requirements of the American National Standards Institute/International Safety Equipment Association (ANSI/ISEA) 107-2004 publication.

Minimum requirements for ANSI/ISEA compliant garments include use of fluorescent yellow-green, orange-red, or red background material with 360-degree retroreflective visibility. Garments should be labeled as compliant with ANSI/ISEA 107-2004 or ANSI/ISEA 207-2006. Many volunteer agencies are already using these garments which have been on the market for several years.

Firefighters directly engaged in fire suppression should not wear safety vests as they could catch on fire and/or melt if exposed to flame. In July, the National Volunteer Fire Council (NVFC) submitted public comment to FHWA requesting that an allowance be made for firefighters exposed to fire or flame in accordance with National Fire Protection Standards.

The FHWA rule applies only to responses on federal aid highways, but the NVFC recommends that volunteer firefighters and EMS personnel responding to any roadside incident wear MUTCD-approved safety vests. While there is no federal funding set aside specifically to help local agencies purchase safety vests, there are several grant programs, including the Assistance to Firefighters Grant program, which offer funding that could be used by volunteer fire and EMS departments to purchase safety vests.

Related:

- » [International Safety Equipment Association](#)
- » [Emergency Responder Safety Institute](#)

Focus on Fire Safety: Holiday Fire Safety

Courtesy of the U.S. Fire Administration

With the onset of the holiday season, it is important to focus on fire safety and prevention. The celebration of the season brings with it increased usage of electric lights, decorations, candles, and the ever-popular Christmas tree, all of which can be potential fire hazards. Additionally, cooking fires increase during the holidays as families and friends gather to celebrate. By following general fire safety precautions, potential holiday fires, deaths, and injuries remain preventable.

Christmas Trees

What's a traditional Christmas morning scene without a beautifully decorated tree? If your household includes a natural tree in its festivities, take to heart the salesperson's suggestion - "Keep the tree watered."

Christmas trees account for hundreds of fires annually. Typically, shorts in electrical lights or open flames from candles, lighters or matches start tree fires. Well-watered trees are not a problem. A dry and neglected tree can be.

Selecting a Tree for the Holidays

Needles on fresh trees should be green and hard to pull back from the branches and the needles should not break if the tree has been freshly cut. The trunk should be sticky to the touch. Old trees can be identified by bouncing the tree trunk on the ground. If many needles fall off, the tree has been cut too long and, has probably dried out, and is a fire hazard.

Caring for Your Tree

Do not place your tree close to a heat source including a fireplace or heat vent. The heat will dry out the tree causing it to be more easily ignited by heat, flame or sparks. Be careful not to drop or flick cigarette ashes near a tree. Do not put your live tree up too early or leave it up for longer than two weeks. Keep the tree stand filled with water at all times.

Disposing of Your Tree

Never put tree branches or needles in a fireplace or wood-burning stove. When the tree becomes dry, discard it promptly. The best way to dispose of your tree is by taking it to a recycling center or having it hauled away by a community pick-up service.

Cooking

Thanksgiving Day fires in residential structures cause more property damage and claim more lives than residential structure fires on other days. The increase is troubling as it applies mostly to cooking fires in family homes. In 2005, cooking fires were involved in roughly 1,300 reported home structure fires on Thanksgiving - that's almost three times the daily average.

It is easy to get wrapped up in entertaining guests, but it is important to monitor meal preparations since most cooking fires start when cooking is left unattended.

Another of the recent culprits for the increase of cooking fires during holidays is the turkey fryer. Turkey fryers use a substantial quantity of cooking oil at high temperatures, and many units currently available for use pose a significant tipping danger. The use of turkey fryers by consumers can lead to devastating burns, other injuries and the destruction of property.

The following safe cooking tips can help to make your holiday dinner safe and enjoyable:

- Always use cooking equipment tested and approved by a recognized testing facility.
- Stay in the kitchen when you are frying, grilling or broiling food. If you leave the kitchen, even for a short time, turn off the stove.
- Keep anything that can catch fire - potholders, towels or curtains - away from your stovetop.
- Have a "kid-free zone" of at least 3 feet around the stove and areas where hot food or drink is prepared or carried.
- Wear short, close fitting or tightly rolled sleeves when cooking. Loose clothing can dangle onto stove burners and catch fire.
- Never use a wet oven mitt, as it presents a scald danger if the moisture in the mitt is heated.
- Always keep an oven mitt and lid nearby when you're cooking. If a small grease fire starts in a pan, put on an oven mitt and smother the flames by carefully sliding the lid over the pan. Turn off the burner. Don't remove the lid until it is completely cool.
- If there is an oven fire, turn off the heat and keep the door closed to prevent flames from burning you and your clothing. Have the oven serviced before you use it again.

Source: [NFPA](#)

Holiday Lights

Maintain Your Holiday Lights

Inspect holiday lights each year for frayed wires, bare spots, gaps in the insulation, broken or cracked sockets, and excessive kinking or wear before putting them up. Use only lighting listed by an approved testing laboratory.

Do Not Overload Electrical Outlets

Do not link more than three light strands unless the directions indicate it is safe. Connect strings of lights to an extension cord before plugging the cord into the outlet. Make sure to periodically check the wires - they should not be warm to the touch.

Do not leave holiday lights on unattended!

Holiday Decorations

Use Only Nonflammable Decorations

All decorations should be nonflammable or flame-retardant and placed away from heat vents.

Never Put Wrapping Paper in the Fireplace

Wrapping paper in the fireplace can result in a very large fire throwing off dangerous sparks and embers that may result in a chimney fire.

Artificial Christmas Trees

If you are using a metallic or artificial tree, make sure it is flame retardant.

Candle Care

Avoid Using Lit Candles

If you do use lit candles, make sure they are in stable holders and place them where they cannot be easily knocked down. Never leave the house with candles burning.

Never Put Lit Candles on a Tree

Do not go near a Christmas tree with an open flame - candles, lighters or matches.

NVFC Releases Updated Health and Wellness Guide

National Volunteer Fire Council

The National Volunteer Fire Council (NVFC), in partnership with the U.S. Fire Administration (USFA), has released an updated edition of the [*Health and Wellness Guide for the Volunteer Fire and Emergency Services*](#). This valuable, free resource is available on the NVFC web site at www.nvfc.org.

Health and wellness is an extremely important issue for the volunteer emergency services. The leading cause of all line-of-duty deaths for firefighters is heart attack, and the most common cause of injury is overexertion and strain.

The prevalence of cardiovascular illness and deaths and work-inhibiting strains and sprains among firefighters illustrates the need for a comprehensive health and wellness program in every department. Yet department leaders often struggle to implement a program due to a variety of reasons, including resistance or lack of motivation from members, the costs associated with implementing a program, and the lack of well-defined requirements.

The Health and Wellness Guide demonstrates ways to overcome these obstacles, and provides direction for developing and implementing a department program. It also highlights several existing health and wellness programs and how they have maintained their success over time. Originally released in 1992 and updated several times since then, the 2008 version includes new information and resources to help departments ensure the health and well-being of their members.

Related:

» **Report:** [*Health and Wellness Guide for the Volunteer Fire and Emergency Services*](#)