

January 2008 Newsletter

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OSU Research Study: Company Officer Plays Critical Role in FD Safety Culture

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2007 On-Duty Deaths, the Details

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Changing the Path

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Time to Change

If the strategy and tactics you depend on with your lives are as safe as you think they are, why then do so many traumatic fatalities continue at incidents where the same tactics were used? A data analysis of 444 structural firefighter fatalities, occurring over a sixteen year time span and provided by the US Fire Data Center, uncovered one major underlying explanation for the trend. It was revealed that the safety offered by an Offensive Strategy,

also known as a quick and aggressive interior attack, applied mostly to certain types of structures but not all of them.

Camaraderie Under Fire: A Remembrance of the Worcester Tragedy

It was December 3, 1999 when an abandoned cavernous warehouse was set afire by two homeless people who "lived" in the hulking structure. This was the Worcester Cold and Storage Warehouse that was located in the City of Worcester, Massachusetts. The scene of this fire was to become one of fiery collapse, death, heartache, heroism, and camaraderie under the most extreme firefighting conditions.

FDSOA and National Firefighter Near-Miss Reporting System Partner to Offer CEUs

The Fire Department Safety Officers Association (FDSOA) and the National Firefighter Near-Miss Reporting System (NFFNMRS) have partnered in a program designed to provide practical applications of the Firefighter Life Safety Initiatives. The Second Firefighters Life Safety Summit, held in March of 2007, called for the practical application ("deliverables") of the Life Safety initiatives. This program, conducted by the FDSOA, in cooperation with the NFFNMRS and the International Association of Fire Chiefs, meets that goal. Specifically addressed are Initiatives 5 and 9.

WHO Study Links Night Shift Work, Firefighting to Cancer

A report released by the World Health Organization (WHO) concluded that working night shifts, as well as working as a firefighter or as a painter, could cause cancer.

Hospital Slates Fireman Class

Firefighting is one of the nation's most dangerous occupations. In an effort to help keep firefighters healthy and safe, Robert Wood Johnson University Hospital, Rahway, is presenting a firefighters' health and wellness program on Feb. 9 at the RWJ Rahway Fitness & Wellness Center in Scotch Plains.

Henry County Supports the 16 Firefighter Life Safety Initiatives

Every Henry County Fire Department station has a board prominently displayed in their station; we currently have 13 stations.

Texas and Region V

Scott Lyon was recently appointed as one of Iowa's State Advocates. The Firefighter Life Safety Program is pleased to welcome Scott aboard!

Here's Proof that Firefighters' Education Efforts Work

Shortly after my daughter and I sat down for lunch on Nov. 3, I smelled smoke. No one else noticed, but I was sure I could smell something burning or melting. I quickly ran down the stairs to our laundry room. I was unable to see any smoke or fire, but decided to check the refrigerator and washer and dryer just in case. It was then I noticed a faint wisp of smoke coming from the top of our dryer (it was stacked on the washing machine). I thought something inside was the cause, but when I opened the dryer door, all was normal. Then I noticed a small flame under the dryer on top of the washing machine. I yelled for my husband who came down and I showed him what I saw. While he got our fire extinguisher, I called 911.

Safety Gram

City of Fairfax Fire Department Requires Educator Education

The City of Fairfax Fire Department's Chief Tom Owens has mandated that all eighty members of the Department complete the National Fire Academy's Self-Study Course for Community Safety Educators (Q118). This mandate comes after the Washington-Metropolitan Council of Government's Fire Prevention Subcommittee recommended that all recruits throughout the region complete the course as part of their initial training. Fire Chief Tom Owens firmly believes in providing our community with the best services available with the highest trained personnel. The training must be completed by March 1, 2008.

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A New Year Resolution

Richard R. Anderson, Director
Firefighter Life Safety Initiatives Program

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We believe that a department that understands the intention of the 16 Firefighter Life Safety Initiatives and commits to actualization of them will improve the likelihood of this being a reality.

Here are some resolutions for you to personally consider:

Health and Wellness Resolution

I will:

- Eat Right
- Stay Fit
- Don't Smoke
- Wear all my PPE
- Keep my PPE clean

Expected Results:

- Physical and mental health is optimized
- Stress injuries don't occur
- Fatigue is minimized
- Performance is optimized
- Eliminate exposure to carcinogens

Responding and Returning Resolution

I will:

- Drive safe
- Buckle up
- Inspect and maintain equipment
- Revise response protocols
- Require driver competency

Expected Results:

- Preventable vehicle accidents don't occur
- Equipment failures that can be detected by inspections don't occur
- Firefighters are protected in event of an accident
- Unnecessary emergency responses are eliminated
- Accidents as a result of faulty equipment don't occur
- Accidents as a result of driver inexperience or lack of training don't occur

Fire Ground Resolution

I will:

- Know my job
- Know how fire behaves
- Know the built environment
- If I see something I will say something (report it to my company officer or superior)

Company Officers Competency Resolution

I will:

- Train, mentor, and manage my people
- Effectively evaluate risk
- Make good decisions
- Safely conduct realistic training
- Make every day a training day

Chief Officers Resolution

I will:

- Create an environment where an everyone goes home culture can prevail

Expected Results:

- Firefighters receive the necessary hands-on experience to develop their on-the-job skills and develop a practical understanding of fire behavior first hand.
- Firefighters perform more effectively on the fire ground
- Firefighters aren't injured or killed during training exercises
- Firefighters aren't injured or killed in structure fires

Fire Prevention and Protection Resolution

I will:

- Understand the fire protection systems in my jurisdiction
- Prevent fires
- Advocate building codes and automatic fire suppression
- Create Pre-Incident Plans for all types of occupied structures in the jurisdiction
- Advocate and participate in inspections during pre-incident planning
- Understand the benefits of passive and active fire protection to firefighter safety.
- Serve as grass root advocates for the installation of residential sprinkler systems

Expected Results:

- Firefighters are aware of hazards and risk of facilities and don't die as a result
- Building codes provide safer buildings reducing the risk
- Sprinklers prevent flashover and reduce risk to firefighters

Remember Safety is No Accident!

OSU Research Study: Company Officer Plays Critical Role in FD Safety Culture

OSU has completed a study funded by National Fallen Firefighters Foundation Firefighter Life Safety Initiatives Program through a DHS Fire Prevention and Safety Grant. The goal of the research, which has evolved over the past two years, was to find ways to reduce firefighter line of duty deaths and injuries. Toward this goal, the Phase I project established a list of "best practices" (called "good practices" in the United Kingdom) designed to minimize the line of duty death and injury (LODD/I).

The rationale for the first two phases of this project stems from the generally accepted belief that fire leadership and management can make a difference in reducing line of duty deaths and injuries (LODDs/Is). Strategic policymakers such as fire chiefs, deputy chiefs, and assistant chiefs established a safety management system that helps define the organizational safety culture within a fire and rescue department. At the operational level, district chiefs/battalion chiefs, along with safety officers, ensure that safety management systems are enforced as they manage incidents. Finally, at the tactical level the key role that the company officer plays as a leader and manager of safety is pivotal. They ensure "safety related behavior" by what they say ("buckle-up so we can roll") and by leading by example (wearing their personal protective equipment and self contained breathing apparatus). The research showed that the company officer plays the critical role in defining, on a day-to-day basis, the nature of the organizational safety culture in a fire department.

This report cautions that those who choose to embark on the effort to change the identity of their organization and to change the identity of the fire service will face a highly emotional and defensive response. They will have to rely on the same bravery and courage that they have demonstrated on the fireground in order to survive the challenges involved in a transformational change of identity in the fire service. However; the opportunity for making a significant improvement in the safety performance of the fire service is a tremendous reward and well worth the effort.

The report emphasizes that safety is not about how many firefighters are riding on the fire engine, it is about the values, beliefs and assumptions that firefighter make about what it means to be riding on the fire engine.

The report concludes that an optimal safety culture maximizes the effectiveness of available resources within the reasonable and acceptable limits of risk. The research suggests that the value and worth of the fire service should not be measured by the level of risk and danger to firefighters; however measured by value and performance.

As the culture of the fire service shifts from an identity based on risk to an identity based on safety, it is imperative to develop valid and reliable measures of performance to demonstrate the value and worth that the fire service has within our communities. Although this is separate issue, just like the issue of safety, the development of more comprehensive measures of performance has the potential to challenge the current identity of the fire service.

This report can be found at www.everyonegoeshome.com/news/osustudyP2.html. Please contact jmadden@everyonegoeshome.com for more information on the Firefighter life Safety Initiatives Program.

2007 On-Duty Deaths, the Details

» [Graphical Representations of 2007 On-Duty Deaths](#)

Firehouse.Com News

Last year was a deadly one for the nation's fire service.

Preliminary reports indicate 115 personnel died on duty in 2007 compared to 106 the previous year.

A [USFA historical overview](#) reveals that there were 115 LODDs also in 2005 and 119 in 2004. There also were 119 in 1989.

Heart attacks remain the leading killer. Stress and over exertion also were contributing factors in many deaths.

The 115 includes at least eight firefighters categorized by the USFA to be Hometown Heroes, according to statistics compiled by Mark Whitney, fire program specialist at the USFA.

Hometown Heroes are personnel who die of heart attacks or strokes. Until October, DOJ officials questioned whether their families should receive benefits as Congress had outlined.

During the annual NFFF memorial service in Emmitsburg, President Bush vowed to properly recognize those heroes for their sacrifice.

"That's the least we can do as we honor the families of those who have died in the line of service," Bush told those gathered.

Whitney said he will be reviewing documents and checking with each state to ascertain if there were any other on-duty deaths. "That number, 115, may change. These are provisional numbers right now. We are still looking at things."

The loss of [nine Charleston firefighters](#) in June marked the largest loss of life since the terrorists' attack on Sept. 11.

There were six other incidents that involved the deaths of more than one firefighter. They occurred in [Ghent, W.Va.](#), [Rhodes Town, N.C.](#), [Contra Costa, Cal.](#), [Noonday, Texas](#), [New York City](#) and [Boston](#).

In 2007, 59 volunteers and 49 career firefighters were killed. The victims also included three full-time and one contract wildland firefighter, two paid-on call and one industrial fireman.

Records also show 37 were killed on the fire scene; 24 responding; 20 on-duty; 13 after an incident; 11 training; 8 on scene, non-fire and 2 returning.

Two fire personnel lost their lives during suspicious fires.

The USFA criteria for line-of-duty deaths differs from those of The National Fallen Firefighters' Foundation and the National Fire Protection Association.

Still, it was a sad year for fire personnel, he said, adding that many organizations are promoting programs to stem the tide of injuries and deaths.

More than 200 fire service officials -- who brainstormed during the second National Firefighter Life Safety Summit in California -- said it's imperative for the fire culture to change. Without it, they said, firefighters will continue to be killed or injured.

Among their key recommendations in addition to promoting safety included adopt crew resource management, make no exceptions for fitness for duty rules, enforce seat belt compliance, create and participate in data programs, establish driving protocols and participate in Firefighter Near-Miss.

They also made suggestions about reducing risks, getting involved in code initiatives, purchasing safer apparatus and tools and making fire and life safety education a higher priority.

The NFFF took its Everyone Goes Home program on the road last spring. A motor coach -- wrapped with various fire-related pictures and the names of 3,147 fallen fire heroes -- visited cities and towns throughout the country.

Those aboard touted the importance of embracing the 16 Life Safety Initiatives. The goal of the Everyone Goes Home program is to reduce the number of firefighter deaths by 25 percent in five years, and 50 percent in 10.

The NFFF officials on the Whistle Stop Tour also promoted the "Courage to Stay Safe -- So Everyone Goes Home" course.

» [View the entire U.S. Fire Administration's annual report](#)



Changing the Path

By Chief Michael D. Chiaramonte CFO, MIFireE

This past Christmas I took on the wonderful and fulfilling job of preparing a four course dinner for family and guests. I have some experience in cooking but this undertaking took a great deal of planning. As many of you know, timing is extremely important when preparing such a meal. Everything has to come out at the right time and warm. As I was working on the project days before and pre-cooking some things ahead of time, I thought that this was just like most fire department projects, I had to develop an action plan and stick to it. This plan included a goal, a budget, an inventory of equipment, a list of supplies and an implementation schedule. I could not just get up on Christmas day and look around the house and decide on the spot then what I was going to do for the family Christmas dinner.

There are many similarities to planning a dinner like this and planning many projects in the fire service. The phrase "Everyone Goes Home" has been bantered around for a couple of years now in our service. Is this just an inspirational phrase? Do we as brothers and sisters in our profession have any way of controlling whether or not everyone goes home? Can we as individuals actually be a force in changing the culture of the fire service enough to make a significant impact in reducing the injury and line of duty death rate? Should we continue doing things as we have always done them?

The culture of the fire service has traditionally been reactive. Let's face it...that is the nature of our job. There is a fire and we go and put it out. There is an auto accident and we go to clean it up. There is a line of duty death or injury and we then investigate. The NIOSH Fatality Assessment and Control Evaluation (FACE) Project states:

"The National Institute for Occupational Safety and Health (NIOSH), Division of Safety Research(DSR), performs Fatality Assessment and Control Evaluation(FACE) investigations when a participating State reports an occupational fatality and requests technical assistance. The goal of these evaluations is to prevent fatal work injuries in the future by studying the working environment, the worker, the task the worker was performing, the tools the worker was using, the energy exchange resulting in fatal injury, and the role of management in controlling how these factors interact."

Is this not the time to start thinking about line of deaths and injuries? I guess it is better late than never. Should we wake up on the proverbial Christmas morning and then decide what we are going to prepare for family dinner, when most of the stores are closed? Do we need to have a line of duty death or injury before we decide to do some prevention? Do we need a NIOSH report to motivate us to prevent fatal work injuries? Do we need a NIOSH report to seriously look at our work environment and how we do our job? Do we need a NIOSH report to study the tools we use and the role management has in safety? If we do, we have just attended the funeral of one or more of our brothers or sisters or we just got back from the hospital where one or more of our brothers or sisters is seriously injured, but after all the culture of our organization is intrinsically reactive. This type of thinking **MUST STOP!**

Our reactive culture must be turned in a proactive safety culture. We must cultivate a safety culture and develop safety competencies. Very few worthwhile things come easy, they take work. Cultivating safety competencies and a safety culture is no exception. In order for us to do this successfully one needs to have their heart into it and be brave enough to have the courage to be safe before the accident happens.

The first step in developing these competencies and this culture is to start with a complete organizational review.

This review should be done by a committee composed of members from all levels of the department, from firefighters to chiefs. This committee must also seek an honest input from the entire department. This review must be candid and honest and many times it will be painful but the end result will be extremely rewarding. This review should assess the department's operations and policies and procedures with the goal of finding out if they are affective and most of all are they safe. This review may reveal a need to establish some new operational methodologies, as well as, new policies and procedures. There should be a strong alignment among the way things are done, and the people in the department, as well as, the department's unique culture and tradition. In order to conduct an affective organizational review the following steps should be followed:

Step 1 - is to establish the goals of such a review. It must be determined how this review is to be conducted. It is important to establish clear cut guidelines for the review.

Step 2 - is to determine how the data for review will be collected and what criteria will be used to measure the department. For example, is the department going to use the national accreditation model, the NFPA standards, the 16 Firefighter Life Safety Initiatives or a combination of any or all of these things? Is the department going to use another department or departments as a model?

Step 3 - is to decide what focus groups within the organization will be used to achieve the goals of the review. For example, will there be a fire operations focus group, an EMS focus group, and or an administrative focus group, etc?

Step 4 - is to see how the department compares to national benchmarks for similar size and type departments.

Step 5 - Using all the information gathered by the various methods employed by the review team, determine if the current structure, processes and operations of the department are affective and most importantly for this particular organizational review, safe.

Step 6 - Create a list of action items that are Specific, Measurable, Achievable and Time dimensional (SMART), that will assure that all aspects of the department will be safe and effective.

Step 7 - Begin an active program of implementation and education within the department based on the results of the study in order to assure buy in by all personnel realizing, at all times, that such changes may be slow.

The results of such an operational review may be a pro-active approach that develops a practical wellness and fitness program for the department.

A policy like the following may be developed as a result of a full department organizational review:

Title: Personal Protection, Apparatus Occupants

Purpose: To assure that all ABC Fire Department personnel are properly protected by personal protective equipment issued and worn by the personnel.

Procedures:

Protection for Apparatus Occupants

Safety of all personnel while operating or riding in department vehicles is an important concern of management and is regulated by OSHA 1926.60(b)(9) (49 CFR Part 571 Department of Transportation, Federal Motor Vehicle Safety Standards).

The driver shall not move the vehicle unless all personnel are properly protected.

The officer on the apparatus shall assure the crew is properly seated, belted and properly protected before allowing the vehicle to leave quarters, return to the station or otherwise move.

Seat Belts

All personnel driving or riding in department vehicles (or in personal vehicles on official department business) shall have their seat belts on and buckled whenever the vehicle is in motion.

Protective Gear

Helmets will be worn and secured by the strap by all personnel riding in the open areas (jump seats) of all apparatus.

More policies and procedures such as the one above are available at the following web site: <http://www.vcos.org> and click the on line resource button on the left.

The fire service must begin to reverse the horrible trend of loosing over one hundred firefighters a year in the line of duty and avoid unnecessary injuries. In additional, all fire departments throughout this country must do organizational reviews with an emphasis on safety.

Like any good meal, such as Christmas dinner, spontaneity and a reactive approach must be avoided and a good well followed purposeful plan must made. Remember, a good plan developed from a thorough organizational plan will help bring your department and the American fire service to the ultimate goal of "Everyone Goes Home."

This author wishes you a happy, healthy, blessed and most importantly a safe new year.

Time to Change

By William R. Mora

This article implements the National Fallen Firefighters Foundation Life Safety Initiative 9: Thoroughly Investigate All Firefighter Fatalities, Injuries, and Near Misses

If the strategy and tactics you depend on with your lives are as safe as you think they are, why then do so many traumatic fatalities continue at incidents where the same tactics were used? A data analysis of 444 structural firefighter fatalities, occurring over a sixteen year time span and provided by the US Fire Data Center, uncovered one major underlying explanation for the trend. It was revealed that the safety offered by an Offensive Strategy, also known as a quick and aggressive interior attack, applied mostly to certain types of structures but not all of them. This newly recognized class of extremely dangerous structures in which a quick and aggressive interior attack does not always work has been identified. However, due to the very difficult task of reaching every firefighter, the vast majority of officers and firefighters today are totally unaware of them. Since firefighters are unknowingly relying on strategy and tactics that are potentially unsafe if used at Enclosed Structure Fires, this issue represents a true fire service emergency in need of immediate attention. As the name implies, Enclosed Structures have an enclosed design that lack readily penetrable means of egress through windows or doors for ventilation and emergency evacuation. They include basements, high rise hallways and stairwells. These specific structures and spaces can also be of any type of construction, occupancy, size or age. They can also be occupied, unoccupied or vacant during a fire. Enclosed structures are extremely dangerous during a fire because they contain smoke and heat in a diminishing oxygen environment. This causes prolonged zero visibility conditions and extreme fire behavior to occur when air is introduced. This condition coupled with a firefighter's inability to quickly ventilate, to see and evacuate due to the structures' enclosed design, often causes exposure to life threatening hazards leading to firefighter disorientation and line of duty deaths.

Offensive Strategy Not Always Safe and Effective At Enclosed Structure Fires

Fatal Enclosed Structure Fires Linked to A Fast and Aggressive Interior Attack



As an interior attack was underway, one of two firefighters lost his life after conducting a primary search and falling through the fire weakened floor into the involved basement. This opened structure with a basement involved a residence.



After searching for the seat of the fire at this opened

The Offensive Strategy philosophy utilized by virtually every department in the nation, emphasizes that in order to create a safer environment and minimize loss at the scene of a structure fire, firefighters must quickly initiate ventilation and advance handlines into the structure from the unburned side, to locate, attack and extinguish the fire. As firefighters know, doing so will stop the fire from weakening the structure thereby reduce damage and danger to firefighters. This strategy also creates safer conditions for firefighters to quickly conduct a primary search, which is of course, the number one tactical priority. Study of this widely used strategy, has found, that in fact, an offensive strategy is relatively sound and in the vast majority of cases works well in opened structures. Opened structures are structures of small to moderate size, built on concrete slab foundations, having an adequate number of readily penetrable windows and doors for prompt ventilation and emergency evacuation. However, the analysis of 444 structural firefighter fatalities has confirmed earlier findings of the US Firefighter Disorientation Study 1979-2001, Mora 2003. The disorientation study found that in 100% of 17 cases examined, 23 firefighter fatalities, numerous injuries and narrow escapes were caused by disorientation following deteriorating conditions and aggressive interior attacks into enclosed structures. The more recent report, Analysis of Structural Firefighter Fatality Database, Mora 2007 arrived at a similar conclusion. The analysis showed that a fast and aggressive interior attack was not always safe and effective to use at the scene of enclosed structure fires. In fact, a fast attack resulted in a disproportionate number of deaths. Of the 444 firefighter fatalities taking place while on the scene of structure fires, 123 structure fires resulted in 176 traumatic firefighter fatalities during an aggressive interior attack. Of the 176 fatalities: 135 or 77% occurred in enclosed structure fires while 41 or 23% occurred in an opened structure fire. The analysis also determined that operations utilizing an aggressive interior attack resulted in greater multiple firefighter fatalities in enclosed structure fires than in opened structure fires. Of the 38 multiple firefighter fatality fires identified, 32 or 84% involved an enclosed structure while 6 or 16% involved an opened structure. The following photos provided by the National Institute for Occupational Safety and Health are only a few that serve as examples of past enclosed structure fires that have taken the lives of dedicated firefighters after aggressive interior attacks were initiated. Review the reports and learn to identify

structure with a basement, a firefighter failed to exit, dying of carbon monoxide inhalation and severe burns.



This opened structure with a basement involved an unoccupied residence. During an aggressive interior attack, an officer died of asphyxiation after becoming disoriented.



Heavy smoke was showing on arrival as firefighters initiated a fast interior attack. As conditions deteriorated, one firefighter failed to exit this enclosed structure involving a night club.



While searching for the seat of the fire, a firefighter died after becoming disoriented in zero visibility conditions.

these extremely dangerous types of structures so that safer and more calculating tactics can be implemented to avoid their associated risks.

The repeated fatal outcomes at enclosed structure fires both past and unfortunately those in the future will serve as proof that operational change is urgently needed in the fire service. The key to preventing these line-of-duty deaths is in knowing the type of structure most likely to kill firefighters and eliminating the risk by training and using technology, risk management statements which define the risk firefighters may take and by use of different strategy and tactics. It is achievable. Do not be the department who suffers the next enclosed structure fatality. Prevent it by studying the issue and by modifying your method of operation. Although significant adjustment in the way the job is performed does not happen very often in the fire service, the overwhelming mountain of documented evidence is telling us that now is definitely the time to change.

Related Articles:

- Strategy and Tactics for Large Enclosed Structures [Part 1](#) | [Part 2](#) | [Part 3](#) | [Part 4](#) (Firehouse.com MembersZone)
- [Enclosed Structure Disorientation](#) (Firehouse.com MembersZone)

Related Links:

- Enclosed Structure Standard Operating Guideline (SOG)
- [USFA Firefighter Fatalities Homepage](#) (Links of Interest)
- [United States Firefighter Disorientation Study 1979-2001](#)
- You can contact William at: capmora@aol.com

The unoccupied enclosed structure involved a mattress warehouse. At this structure, burglar bars covered the windows along the A side, the rear door was heavily secured with steel bars and the front door had a locked pull-down gate securing the structure. The B, C and D walls were constructed of solid brick and masonry.



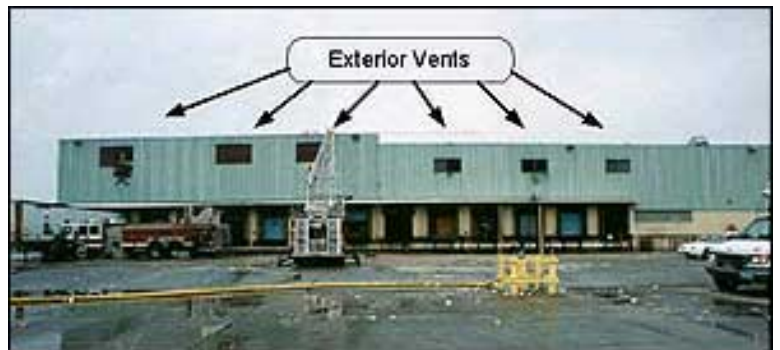
Two firefighters died while searching for the seat of the fire in this unoccupied enclosed commercial structure. This fire exposed firefighters to a backdraft, partial roof collapse and prolonged zero visibility. The B, C and D sides were of masonry block. As in many other large and fatal enclosed structure fires, the A side which enclosed the structure with commercial grade glass, contained the smoke to produce extremely dangerous prolonged zero visibility conditions.



One firefighter died at this unoccupied enclosed commercial structure fire after firefighters made an interior attack. The A side wall was of concrete block while the B, C and D sides were wood-framed covered with aluminum and sheet metal siding. All windows and doors were covered with burglar bars.



Two firefighters died of smoke inhalation after becoming disoriented in this vacant 2 story enclosed commercial structure. Windows were enclosed with Plexi-glass or sealed substantially with heavy wood boards. Both front doors were pad locked with a wrought iron gate while a metal gate secured the overhead door on the C- side trapping another firefighter. The B- side wall was of solid brick and masonry construction.



The first arriving officer lost his life 52 minutes after arrival. He became disoriented in zero visibility conditions during interior operations at this large enclosed structure paper warehouse fire.



Six firefighters died using offensive strategy and tactics at this six story enclosed structure involving a vacant cold storage warehouse. The sudden onset of and exposure to prolonged zero visibility conditions blinded the firefighters causing them to become disoriented.

Camaraderie Under Fire: A Remembrance of the Worcester Tragedy

It was December 3, 1999 when an abandoned cavernous warehouse was set afire by two homeless people who "lived" in the hulking structure. This was the Worcester Cold and Storage Warehouse that was located in the City of Worcester, Massachusetts. The scene of this fire was to become one of fiery collapse, death, heartache, heroism, and camaraderie under the most extreme firefighting conditions.

The homeless man made sexual advances to his girl friend and she had rebuffed his suggestions. He became angry and the two were arguing and throwing things. They were using candles for light and one of the lighted candles was knocked into a pile of debris that quickly ignited. The fire spread as the two squatters fled into the cold night air leaving the fire to grow into what would become one of the worst Line Of Duty (fire service) Deaths (LODD) in the history of the Worcester Fire Department.



Firefighters in many fire engines responded to the growing fire. More aid was called to the scene as it became obvious to the chief in charge that this was no routine fire-fight. Heavy smoke turned to visible flames as the fire ate through the nearly windowless ark of a structure. Inside were many firefighters straining to extinguish the flames. The interior was a maze of darkened rooms and corridors. Six floors of them! Debris was scattered everywhere adding to the difficulties of searching blindly to find the seat of the fire and being able to exit the building in a hurry if needed.

A number of Firefighters became disoriented in the smoke, heat and darkness. They radioed for help. Brother firefighters entered the burning building to try and rescue their now trapped comrades. Time after time these rugged firefighting veterans made dangerous and heroic attempts to find their colleagues. It was no use.

The fire had been eating away at the strength of the brick and wood edifice. It started to collapse. The fire chief in command ordered all firefighters to stop rescue attempts and to vacate the fire building. Six Worcester Firefighters would perish this night despite the Herculean efforts of a small army of firefighters. Recovery of their bodies would last for an arduous somber eight days and nights.

The call went out across the New England region for assistance to respond to Worcester. Many emergency and non-emergency personnel turned out to help. They came by the hundreds to stand with and work with their brother and sister firefighters until the difficult and honorable task of recovery was completed.

The City of Boston Fire Department immediately sent personnel and equipment to the tragic scene. I was one of the many that were sent. My role was one of the safety operational sector chiefs. Those of us that were assigned that task would check for safety issues, look for hazards and prevent any further injuries or deaths. Prior to our arrival at the warehouse fire tragedy, we were given a briefing that included specific instructions and alerted us

that the Worcester Firefighters were under severe emotional stress. We were told that tempers may be short and to use tact and to be sensitive to the raw emotions being experienced by the Worcester Firefighters.

It was the second night of the eight nights of recovery operations. The warehouse roof, floors and two exterior walls had fallen and were now huge piles of smoldering debris. The danger of additional structural collapse and of firefighters falling through burned out floors haunted us. The safety officers were kept busy and were vigilant. Injury or worse was at every step.

As I was surveying a section of the building I noticed that a Worcester Fire Lieutenant was standing in a very dangerous location. Debris was loosely dangling above him. I approached the man to warn him of the situation. He was a tall lean guy. Much taller than I. His face was black with soot and his eyes were red and swollen. He looked very tired and tense. I tried to warn him, as delicately as I could, that he was in a dangerous spot. What we were cautioned about prior to our arrival at this fire was about to happen. The Lieutenant became angry with me and got in my face. He didn't care what rank I was or that I was looking out for his safety. Angry emotion packed words were hurled at me. I tried to reason with him to no avail. A Worcester Chief Officer was standing nearby and saw and heard what was happening. He immediately positioned himself between the lieutenant and myself and defused what could have become an ugly situation. I explained the reason why I had tried to talk to his lieutenant and then I pointed upwards to the hanging debris. The chief understood, apologized to me and assured me that he'd talk to his lieutenant. We both knew and understood how tempers can flare under the unprecedented stressful circumstances that we were all caught up in.

Eight days had passed since the fire began. I had returned to the scene and was again assigned as a safety operational sector chief. The pile of smoldering debris that was once this old warehouse had been reduced in size and fully extinguished. Five of Worcester's Bravest had been recovered. One was still buried somewhere in the remaining mounds of twisted steel, burned wood and bricks. As I surveyed the scene I noticed the lieutenant that I had the earlier encounter with. He was searching some rubble. I inquired about him and was told that he had been at the scene from the fire's start and had refused to go home for eight days and nights.

The cold day turned into a very cold and windy December night as recovery operations continued for the last firefighter. Firefighter Paul Brotherton's body was located under one of the many mounds of bricks and charred wood. His precise and somber removal from the debris will be a picture in my mind's eye that I will never forget.

It was so cold and dark and quiet as Firefighter Brotherton's body was taken away in an ambulance. The sad task of recovery was finally over that night. The healing could begin. There was a large crowd of people standing quietly beyond the yellow safety tape that surrounded the ruins. Hundreds of firefighters formed two parallel lines leading from the destroyed building out to the crowd of onlookers. The Worcester Firefighters climbed down from the piles of debris and slowly walked between the two rows of firefighters who had come from other fire departments. As the Worcester Firefighters passed by us we saluted them, applauded them, shook their hands and some gave hugs. One by one they filed through the rows. A walk of honor and consolation.

I barely recognized the lieutenant whom I encountered days before. It was his height that caused me to look harder at him than at his brothers. His face was now gaunt, blackened and the eyes were red and sunken. We looked at each other. He recognized me and stopped walking. It was more like a slow shuffle. I shook his hand first. Then the lieutenant literally collapsed into my arms. We embraced each other as only firefighters can do at a time like this and he began to sob. Even through our heavy wet protective firefighter's gear he felt frail and unsteady. Tears stained our faces as we looked at each other. Unbelievably this exhausted weary fire lieutenant apologized to me. I was sort of...stunned. I told him that it was okay, gave him my condolences for his losses and hugged the man again. I watched him as he walked away shoulder to shoulder with his comrades.

I never saw the man again. I have thought of him from time to time when the memory of the Worcester Tragedy comes back to me or when I see the word "camaraderie."

Robert M. Winston
Boston District Fire Chief-Retired

P.S. This horrific fire had occurred at about the same time as Chanukah was being observed. Chanukah is a Jewish Holiday also called the Feast of Lights. It commemorates the victory of the Maccabees over the Syrians in 165 B.C. The Maccabees, under siege, were fighting for their lives at that time. Their lamp flames were fueled by oil. As their supplies were running out during this battle it was noticed that the lamp oil supplies would last only one more night. They prayed for a miracle to keep the lamp's flames burning. God answered their prayers and caused the lamps to burn for eight nights. The eight nights of Chanukah have since been celebrated for centuries.

The recovery of the six Worcester Firefighters lasted for eight days and nights. Near the top of one of the warehouse walls that was still standing was a piece of a wood beam. It had been smoldering and a flame had been flickering from the beam for days. Streams of water were occasionally directed at the flame in an attempt to extinguish it. Stubbornly the flame would not be put out.

It was that last night when Firefighter Brotherton's body was found that another miracle of sorts occurred. His body was recovered and with ceremony, it was brought down from the charred piles of what was once the warehouse and placed inside an ambulance. As that ambulance drove away I looked up at the spot where that flame had been burning for eight nights. It went out never to be seen again!

Robert M. Winston
Boston District Fire Chief, Retired

FDSOA and National Firefighter Near-Miss Reporting System Partner to Offer CEUs

The Fire Department Safety Officers Association (FDSOA) and the National Firefighter Near-Miss Reporting System (NFFNMRS) have partnered in a program designed to provide practical applications of the Firefighter Life Safety Initiatives. The Second Firefighters Life Safety Summit, held in March of 2007, called for the practical application ("deliverables") of the Life Safety initiatives. This program, conducted by the FDSOA, in cooperation with the NFFNMRS and the International Association of Fire Chiefs, meets that goal. Specifically addressed are Initiatives 5 and 9.

Life Safety Initiative 5: Develop and implement national standards for training, qualifications and certification (including regular recertification) that are equally applicable to all firefighters, based on the duties they are expected to perform.

Life Safety Initiative 9: Thoroughly investigate all firefighter fatalities, injuries and near misses.

FDSOA is an accredited certifying agency of the National Board on Fire Service Professional Qualifications, and administers tests that lead to certification as an Incident Safety Officer (ISO) and Health and Safety Officer (HSO). Once certified, recertification is required every five years through a system that includes earning continuing education units (CEUs).

The NFFNMRS operates a website (www.firefighternearmiss.com) that posts near miss reports and success story reports. The success stories report safe practices that averted incidents or a near-miss. A selected Report of The Week (ROTW) is published along with review questions related to this report. The questions involve relating existing policies and procedures (or lack thereof) from the readers department. The ROTW can be found on the Near-Miss website under the "resources" tab, or individuals can subscribe to the ROTW e-mail delivery by sending an e-mail to nearmiss@iafc.org and type "subscribe-FDSOA" in the subject line.

Beginning in January of 2008, the FDSOA will award two (2) CEUs for each ROTW set of review questions answered. Individuals who are certified through the FDSOA and wish to submit FFMRS ROTW review questions for CEUs should submit the completed questions, along with the first page of the ROTW (showing the report identification number). Reports should be submitted as completed (either by e-mail or U.S.P.S.) as completed. Do not submit reports at the time of recertification. Reports may be submitted (as completed) in batches of no more than 6 reports.

For additional details regarding this program or for information regarding certification as Incident Safety Officer or Health and Safety Officer, contact the FDSOA at www.fdsOA.org.

WHO Study Links Night Shift Work, Firefighting to Cancer

» [WHO Study Links Night Shift Work Firefighting to Cancer](#)

By Laura Walter

A report released by the World Health Organization (WHO) concluded that working night shifts, as well as working as a firefighter or as a painter, could cause cancer.

An international team of 24 scientists convened in Lyon, France, at the International Agency for Research on Cancer (IARC), a branch of WHO, to study the relationship between cancer and shift work and the firefighting and painting occupations.

The research team assessed animal experiments and epidemiologic studies to find that working the night shift for an extended period of time may increase the risk of breast and colon cancer in women and prostate cancer in men.

Dr. Erhard Haus of the HealthPartners Research Foundation chaired one of the study subgroups and explained that disruption to regular sleep rhythms may impede production of melatonin, a hormone believed to inhibit the cell damage that causes cancer.

Shift work that interferes with regular nighttime sleep disrupts circadian rhythms, our body's natural clock, Haus said. This impedes biologic function by suppressing the immune system, reducing melatonin production and may damage genes leading to the production of abnormal cells.

In recent years, several emerging studies have linked graveyard shift work with increased risk of cancer, but no definite conclusions have been made. The new WHO study conflicts with a recent epidemiological study of Swedish workers that argued other factors besides shift times may be responsible for increased cancer risk.

According to Health Partners Research Foundation, 15 to 20 percent of the U.S. and European working population are employed in shift-work jobs, particularly within the health care, communication, hospitality, leisure and transportation industries.

In addition to their findings in shift work, scientists classified the on-the-job chemical exposure painters experience in their work as carcinogenic. The researchers also determined that the occupational exposure for firefighters, who often work night shifts and are also exposed to chemicals, smoke and dust, was possibly carcinogenic.

Hospital Slates Fireman Class

Home News Tribune Online 01/7/08

CENTRAL JERSEY - Firefighting is one of the nation's most dangerous occupations. In an effort to help keep firefighters healthy and safe, Robert Wood Johnson University Hospital, Rahway, is presenting a firefighters' health and wellness program on Feb. 9 at the RWJ Rahway Fitness & Wellness Center in Scotch Plains.

The free course, which runs from 8:30 a.m. to 3:30 p.m., not only tackles on-the-job safety but also examines the risk of heart attack, which is a leading killer of firefighters.

The course includes topics such as cardiovascular risk factors and how to implement a cardiac wellness program in local fire departments.

Robert Wood Johnson University Hospital created such a program with the Cranford Fire Department. Open to volunteer and paid firefighters, the program offers cholesterol and blood glucose screening, as well as a presentation by Robert Wood Johnson dietitian Stephanie Madeira.

The program features Cranford firefighter Paul Schroeder, a health and safety instructor at Robert Wood Johnson University Hospital, Rahway; Nurse Kathy Conlon of the St. Barnabas Burn Center; and Cranford Fire Department Capt. Helge Nordveidt. All are fire and hazardous-material instructors.

Registration is available by calling (732) 499-6193. Seating is limited.

The fitness and wellness center is at 2120 Lamberts Mill Road, Scotch Plains.

Henry County Supports the 16 Firefighter Life Safety Initiatives

Submitted by Chief HC Sherwood, Battalion Chief - Henry County Fire Dept.

Every Henry County Fire Department station has a board prominently displayed in their station; we currently have 13 stations.

The boards consist of the HCFD logo along with the National Fallen Firefighters Foundation's Everyone Goes Home logo with the words "Everyone Goes Home." On the lower right half of the board is an area for our crews to place pictures of their loved ones, pictures of their hobbies, or just anything that reminds them to work safely so they can go home to those people or activities. On the lower left is an area to post safety messages. Either a one page safety message or a magazine article will fit in the binders.

Once the boards were placed in the stations and the idea was passed around we have started to see many pictures being placed on the boards. Each month the safety message is changed to keep them interested in the project.



Texas and Region V

» **Event Information:** [Southwest Fire and Rescue](#) (February 9 -14, 2008 - Galveston, TX)



Message from Scott Lyon

Scott Lyon was recently appointed as one of Iowa's State Advocates. The Firefighter Life Safety Program is pleased to welcome Scott aboard!

Message to all Advocates and the Firefighter Life Safety

Initiatives Program:

Thank you for the opportunity to become one of Iowa's advocates for the Everyone Goes Home Program. As fire service professionals we have the opportunity to spread the Firefighter safety message and achieve "buy-in" from our peers. By on-going and aggressive training we have the opportunity to make a difference and embrace a culture of safety.

My interest in the Everyone Goes Home and Courage to be Safe programs is simple- everyone from Firefighters to Chief Officers must take care of each other to ensure that our safety is of the greatest importance. Education and training is the key to ensuring that everyone indeed has the opportunity to return home safe.

I am currently assigned as a Deputy Chief- Training Division for the City of Clive Iowa and have held the positions of Paramedic, Firefighter, and Lieutenant. I have been privileged to have experience in both the career and volunteer fire service.

I look forward to working with all of you spreading the safety message.



The bus tour lives on...

This is a photo from the front cover of the 2008 training calendar provided by the Connecticut Fire Academy. Out of the hundreds of photos they could use on the cover, they chose the photo of the Whistle Stop tour bus visit in May. Hopefully this will continue to remind folks in Connecticut of the need to work, everyday, the prevent line of duty deaths.

Here's Proof that Firefighters' Education Efforts Work

By Jennifer Redmore

Shortly after my daughter and I sat down for lunch on Nov. 3, I smelled smoke. No one else noticed, but I was sure I could smell something burning or melting. I quickly ran down the stairs to our laundry room. I was unable to see any smoke or fire, but decided to check the refrigerator and washer and dryer just in case. It was then I noticed a faint wisp of smoke coming from the top of our dryer (it was stacked on the washing machine). I thought something inside was the cause, but when I opened the dryer door, all was normal. Then I noticed a small flame under the dryer on top of the washing machine. I yelled for my husband who came down and I showed him what I saw. While he got our fire extinguisher, I called 911.

The 911 operator was very calm and took my address and name. He instructed me to get everyone out of the house. By this time, the basement was filling up with smoke, despite my husband's efforts with two separate fire extinguishers. I yelled for my sons, ages 5 and 4, to get out of the house. They did and, without shoes or coats, headed to our "meeting spot." I then told my shoeless, coatless 23-month-old daughter to follow the big boys. She did and they waited for her in the driveway. I then ran in my room and scooped up our 7-week-old son and dragged our golden retriever out of the house with us. My husband was coughing from the smoke as he came upstairs, and we all went to our meeting spot.

Within minutes, we could all hear the sirens. We had never been so happy to hear sirens. The firefighters arrived and went right to work. Many of them were ready to go right in, while others were preparing the equipment in the event the fire was severe. At least four Binghamton police officers responded to shut down traffic so that the fire crews could do their work. The response was prompt, professional and impressive. The men from Company 1 and 2 were willing to do what needed to be done in order to keep our house from burning. Within a few long minutes, the first firefighters were able to extinguish the fire. Then a great many more checked every inch of our home, looking for fire hiding in the walls. Fortunately, there was only minor damage. But, most importantly, all of us were safe.

My family and I will always be grateful for all of those that responded that afternoon: our neighbors who offered us blankets, our friends who took our kids into their homes, and family members who helped us clean up. Even a retired chief who drove by with his wife stopped to make sure my family and I were alright. Our good friend EMS Office Captain J. C. Colling stopped by to check on things, and he stayed for hours reassuring and helping us. We are enormously thankful for the 911 dispatcher, the fire investigators and assistant chief, the paramedics and of course all of the fire fighters who worked so hard that afternoon.

But I think most of all we are grateful for any firefighter who has ever spent time in a class room talking with 3-, 4- and 5-year-olds about fire prevention and safety. It was during Fire Prevention Month that my sons insisted we practice our escape route and meet at our assembly point. We never would have done this without the teachers and the firefighters who visited the class rooms at St. Thomas Aquinas School. Words cannot describe how much my family and I appreciate what was done for us that day. My family and I have always said a prayer whenever we heard a siren -- now we pray even harder.

Thank you for all that you do each and every day.

SAFETY GRAM

Volume 8, Issue 12

December, 2007



MEASURE TWICE...

THINK.

PLAN.

ACT.

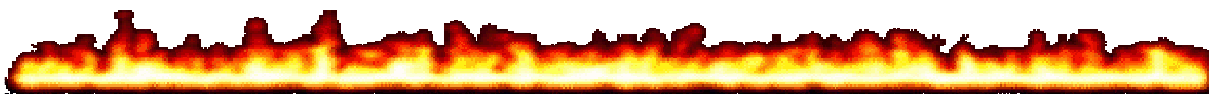


SAFETY GRAM

VOL 8, ISSUE 12 December, 2007

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CYANIDE – THE QUIET KILLER

Article By Janet Wilmoth, Command Post 09/14/2007

How often after a fire or response do you hear firefighters complain of headaches, dizziness or achiness? These symptoms are pretty typical after a long, strenuous physical activity, dehydration or lack of sleep. Recent research indicates, however, that these symptoms could indicate cyanide poisoning, which occurs in firefighters more often than recognized.

Early last year, 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. It was only through a series of coincidences that emergency-room physicians checked that last firefighter for cyanide poisoning.

After the diagnoses, Providence Deputy Asst. Chief Curtis Varone turned his attention to the dangers of cyanide poisoning. He said that quite a bit of research had been done about the effects of cyanide poisoning and possible impact on firefighters, but that research isn't reaching the mainstream fire service.

According to Varone, blood tests aren't done routinely for cyanide poisoning, and the nature of the chemical makes it difficult to detect. The half-life of toxic cyanide is one hour. If a firefighter is close to being toxic when he leaves the incident, within an hour his toxicity level has dropped by half. Another hour and it's half again. It leaves the blood quickly, but continues to cause harmful effects, Varone said.

A second problem with diagnosing cyanide poisoning is that only eight laboratories in the United States can process the proper blood tests. Rhode Island Hospital is one of those eight and it stocks cyanide antidote kits.

Varone has been tracking the link between firefighters and cyanide poisoning and its correlation with firefighter heart attacks. Cyanide affects the organs involved with respiration, the brain and the heart. Repeated exposure to cyanide can affect the heart, Varone said. "It would be possible for someone to show cardiac arrhythmia for up to two weeks after exposure." Varone says that we could be underestimating the risk that cyanide exposure causes heart attacks.

Awareness is the important first step to prevention, Varone said. "Wearing the [SCBA] packs goes back to staffing: how many trucks at the fire, how many crews are available so nobody has to take their packs off." Also using longer-duration bottles allow firefighters to be protected earlier and for longer.

Other Cyanide Information

- Hydrogen cyanide is produced by the incomplete combustion of natural fibers (such as wool and silk.)
- Due to different furnishings and construction materials, there are much higher levels of cyanide generated in today's fires.
- Synthetic polymers release large quantities of cyanide. These include plastics, melamine, polyurethane foam, polyester wadding, neoprene foam, nitriles and polyacrylonitriles, asphalt, nylon, rubber, pesticides, resins and fiberglass.
- Many of these synthetic materials ignite and burn two to three times hotter and faster than conventional materials, causing more fires to reach flashover quicker. Flashover is a high-temperature, low-oxygen condition, which promotes degradation of synthetics that release hydrogen cyanide and other toxic gases.
- Smoldering materials can release even higher levels of cyanide.
- Cyanide gas is essentially colorless and can be found outside the building and outside of visible smoke.
- Symptoms of cyanide poisoning are difficult to distinguish from CO exposure, cardiac problems, or fatigue from working hard at a fire.
- A number of experts now believe that many smoke inhalation victims could actually be suffering from cyanide poisoning.
- A National Institute of Standards and Technology (NIST) investigation of The Station nightclub fire in West Warwick, Rhode Island, shows cyanide more than likely played a role in the 100 deaths attributed to this fire.
- The most widely available treatment for cyanide poisoning in the U.S. is very nasty and contraindicated if suffering from CO poisoning or cardiac problems (in other words, not much help for us.) It also has too many side-effects to administer in the field.
- A treatment called hydroxocobalamin has been successfully used in France for several years and has revived a number of smoke inhalation victims.

- On Dec. 15, 2006, the Food and Drug Administration (FDA) approved Cyanokit® (containing the drug hydroxocobalamin, intravenous tubing and a sterile spike for reconstituting the drug product with saline) for the treatment of known or suspected cyanide poisoning. This treatment can be administered in the field. One dose costs over \$600.
- Cyanide is a potential terrorist weapon.

Identifying Cyanide Poisoning in Victims

Unfortunately, there is no widely available rapid-acting blood test to confirm cyanide poisoning in a patient on the scene of an accident or structure fire, the most common route of cyanide poisoning. Therefore, cyanide poisoning must be identified presumptively in order to initiate life-saving interventions in a timely manner. At the scene of a fire, cyanide poisoning should be suspected in any person exposed to smoke in a closed-space regardless of whether burns have been sustained. Soot in the mouth and around the nose, combined with an altered level of consciousness, also suggests a high probability of cyanide toxicity. Signs and symptoms of cyanide poisoning may vary depending on the source and route of exposure as well as the amount of cyanide within the exposure:

Early Signs of Exposure to Low Concentrations	Later Signs of Exposure to Moderate-High Concentrations
Rapid breathing Dizziness Weakness Nausea/vomiting Eye irritation Pink or red skin color Rapid heart rate Perspiration	Loss of consciousness Respiratory arrest Cardiac arrest Coma Seizures

Cyanide and Firefighter Heart Attacks

Excerpted from the [Report of the Investigation Committee into the Cyanide Poisonings of Providence Firefighters](#)

There are around 50 firefighter line of duty deaths each year from heart attacks. On average, 12 of those are actually on the fire scene. Another number we rarely hear is that approximately 200 to 300 firefighters suffer heart attacks at fire scenes every year and survive. How many of these fire-scene heart attacks remain non-fatal due to the outstanding ALS care provided by firefighters and paramedics at fire scenes, combined with outstanding treatment in our nation’s trauma centers? Very few professions operate with ALS units standing by when they work. Had 200 to 300 work-place heart attacks per year been

occurring among miners while they are mines, among commercial fisherman while they are at sea, or timber loggers while in the woods, a significant number of those heart attacks could be expected to be fatal due to the lag time of securing ALS care. This raises the question: is the fire service severely under-estimating the gravity of the risk of heart attack by focusing only on fatalities? Could the presence and outstanding ability of these on-scene ALS units be masking a problem that is much more serious than the currently cited statistic of fifty heart related firefighter fatalities per year would otherwise reflect? And what role does cyanide play in these heart attacks?

Cardiac abnormalities induced by cyanide are not limited to immediate on-scene affects, and may be causing some of the more than 800 to 900 heart attacks that firefighters sustain each year in the line of duty. Given the fact that cardiac abnormalities may not present immediately, many off-duty heart attacks (for which numbers do not exist) may also be related to cyanide exposures occurring at fires.

The long term effects of exposure to cyanide are not well understood nor studied. There is evidence which suggests that death from cyanide poisoning may occur up to eight days after the exposure. Because of cyanide's half-life, the connection is difficult to make. However, cyanide poisoning is known to cause cardiac abnormalities. NIOSH has recognized that electrocardiogram changes can be observed 2-3 weeks after a fire related cyanide exposure.

This issue is just starting receive recognition in the fire service and more study will certainly follow. In the meantime, minimize your exposures by wearing your SCBA (probably longer than might seem necessary), clean your bunkers after fires (even though they may not look dirty), and shower and change your clothes at the first opportunity. If you don't feel well during a fire or after, let someone know as soon as possible.

SAFETY INITIATIVES

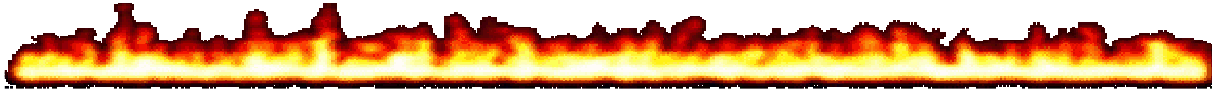
Every year in the United States, 100 firefighters die in the line of duty; one every 80 hours. In March 2004, over 200 fire service leaders gathered in Tampa, Florida to discuss ways to reduce these numbers. The Firefighter Life Safety Summit was hosted by the National Fallen Firefighter Foundation in cooperation with the United States Fire Administration. They established the objective of reducing firefighter fatalities by 25% in 5 years and 50% in 10 years. To support those milestones, the Summit produced 16 major initiatives intended as a blueprint for making changes to the fire service. These initiatives were first covered in the December 2004 Safety Gram. You can go to www.everyonegoeshome.org for more information. I will be running a series covering each of the initiatives and including some action items that were drafted by the Safety, Health and Survival Section of the Arizona Fire Chief's Association in support of the initiatives.

What do you think about the initiative and the suggested action items? How does it apply to our department? How does it apply to you? Any other ideas? Let me know what you think.

 *Develop and champion national standards for emergency response policies and procedures.*

Action Items

1. Each fire service organization and each State Fire Agency should work together to adopt a set of standard emergency response objectives that meet minimum standards and that serve as a model for Incident Command, Risk Management and Resource Deployment to enhance firefighter safety, ensure operational effectiveness and support Statewide and National Mutual Aid Systems.

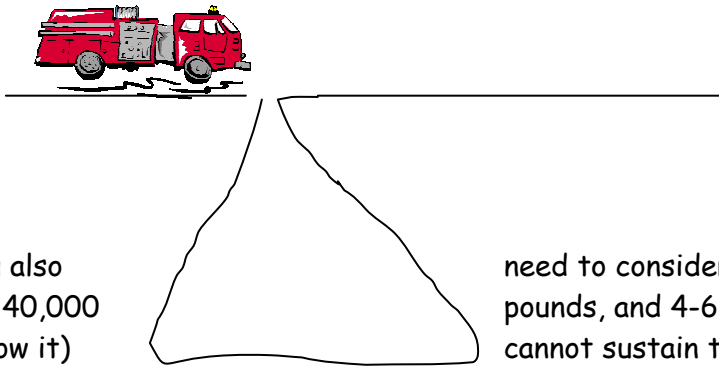


MIKE'S MINUTE

Washed out

By the time you read this, the heavy rains have probably subsided, and if something's going to happen to you, it probably already has. That being said, here are some gentle reminders of the dangers lurking in murky waters.

Roads (for the most part) are designed to be above water and attempting to continue on a flooded road should raise some "red flags". Even though it may seem solid when you begin driving on the flooded road, you have no idea what is taking place below the asphalt or concrete. Saturated ground becomes soft and susceptible to erosion or sink holes. That 12" hole in the pavement may blossom into an inverted cone as it travels downward.



You also
of) 40,000
below it)
previously

water and caution there is the word of the day.

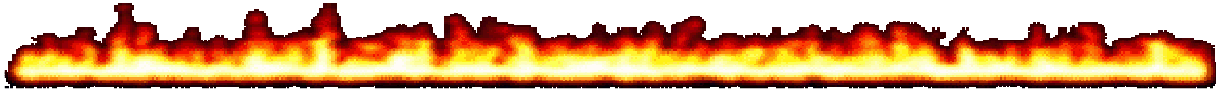
need to consider that your rig could weigh (in excess pounds, and 4-6 inches of pavement (with nothing cannot sustain that weight. Bridges that could hold your weight, may now be compromised by high

Not to mention the fact that the road may turn and next thing you know, you're spinning your wheels in a freshly plowed corn field.

Another thing to consider is the depth of the water that you're trying to get through. Conventional wisdom says that you can drive through water that's below your air intake. To be totally safe, don't let the water get above the center hub of the front wheel. There is NO room for error when it comes to sucking water into the air intake, and there is NO excuse for doing it. You've been warned.

The bottom line is...there needs to be a REALLY compelling reason to attempt deep water. Use your head.

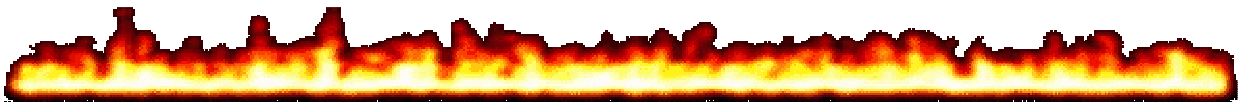
If you find something "in the last place you looked", why would you have kept looking?



THOUGHT FOR THE MONTH

"Modern firefighting is an art which requires a vast store of professional knowledge and skill. It is impracticable for an individual to attempt to acquire adequate knowledge and skill from experience alone, a major part must be acquired through systematic study and training."

Lloyd Layman, Firefighting Tactics, 1953



CLOSE CALLS FROM FIREFIGHTERNEARMISS.COM

Report Number: 07-0000971

Report Date: 06/22/2007 10:18

Synopsis

Firefighter sprayed in face while disconnecting Amkus tool

Event Description

While conducting a weekly apparatus check on the rescue squad, the member was removing an Amkus tool from a line to check another tool. The pressure in the system had been dumped at the pump, but not at the tool. When the quick connect couplings were disconnected, a stream of fluid ejected from the hose and hit the member in the face. This stream lasted for several seconds and covered the members head and shirt with fluid. The member immediately washed his face and hands and changed his clothes. Luckily, the system does not use hydraulic oil but mineral oil and no harm or injury resulted.

Lessons Learned

Training was conducted after the incident so that all personnel were familiar with the incident and what actions needed to be addressed. The crew was advised to activate the tool after dumping pressure at the pump. This will release any sustained pressure in the system. They were also instructed to look away from the couplings while they are being disconnected to protect against any spray that may eject from hose or tool. As this was during an apparatus check, eye protection was not required, but probably would have been good idea.

Demographics

Department type: Combination, Mostly paid

Job or rank: Captain

Department shift: 24 hours on - 72 hours off

Age: 34 - 42

Years of fire service experience: 21 - 23

Region: FEMA Region III

Service Area:

Event Information

Event type: On-duty activities: apparatus and station maintenance, meetings, tours, etc.

Event date and time: 05/08/2007 08:30

Hours into the shift: 0 - 4

Event participation: Witnessed event but not directly involved in the event

Weather at time of event: Clear and Dry

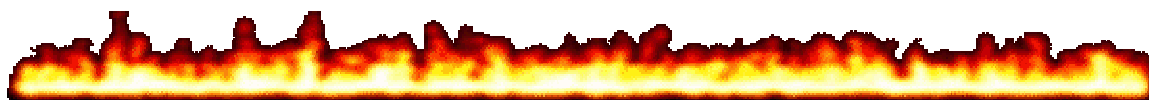
Do you think this will happen again? Uncertain

What were the contributing factors?

- Training Issue
- Equipment
- Human Error

What do you believe is the loss potential?

- Lost time injury
- Minor injury

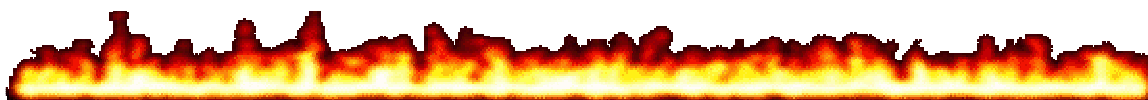


IT'S THE LAW

WAC 305 is the Safety Standards for Firefighters, the Washington State labor law that governs the way we do things. We are all familiar with WAC 305-05001(10&11). That is the 2 in, 2 out rule and it's exception. There are a lot more requirements that most of us aren't familiar with, so I'll be sharing some of the more obscure (though still important) rules which apply to us as firefighters. Consider how it might apply to what you do on a daily basis.

WAC 296-305-04001 Respiratory equipment protection

(3) Members using SCBA's shall operate in teams of two or more.



ACCIDENTS AND INCIDENTS

	Total	Exposures	At a fire	Training	PT	EMS lifting	Other
Total	7		1		2	2	2
Medical Evals	2				1		1
Time loss	2				1		1

11/3/07 at 14:45, a low back strain occurred while assisting a patient seated on the floor to a standing position by reaching out with both hands and pulling her up. Felt low back muscle spasm. No treatment, no time loss.

1/7/07 at 16:30, shoulder pain was experienced while doing bench presses. Felt a twang in shoulder and stopped activity. Medical treatment and time loss.

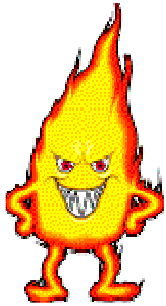
11/8/07 at 22:55, a shoulder strain occurred while lifting a patient in a tarp onto a gurney. Six people were carrying the patient at the time. No medical treatment, no time loss.

11/10/07 at 5:00, a knee strain occurred while hauling equipment during fire. Felt the knee tweak at the time and it tightened up later. It was dark out. No medical treatment, no time loss.

11/12/07 at 8:00, a back strain occurred while lifting a box of ropes from the floor. Felt a pop and dropped the box. No medical treatment or time loss.

11/16/07 at 6:30, experienced a muscle spasm in low back when bending over putting on bunker boots to go to alarm. Felt muscle spasm in low back. Medical treatment and time loss.

11/22/07 at 11:30, experience shoulder pain while performing dips on bars and felt pain. Had completed 4 sets previously. No medical evaluation or time loss.



HOT LINKS

<http://www.firetactics.com/default.htm>

[Firegeezer.com](http://www.firegeezer.com)

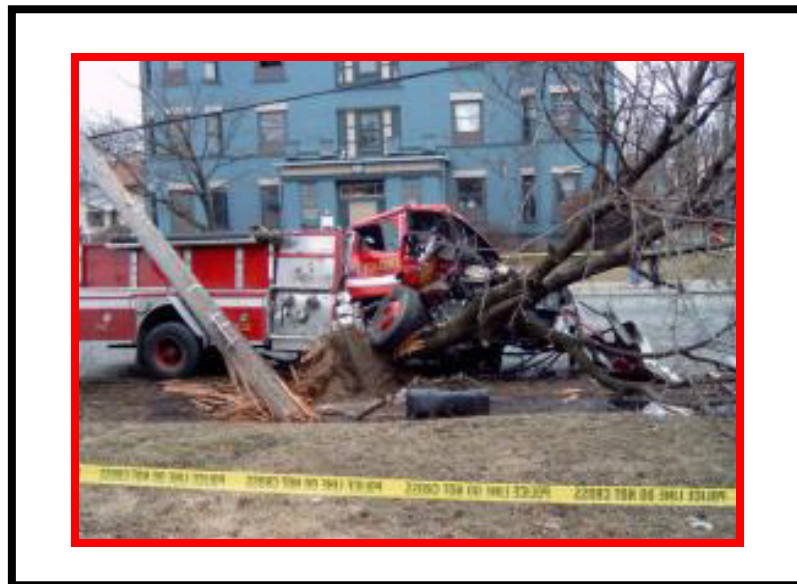
[Firefighter Cancer Support Network](http://www.firefightercancersupportnetwork.com)

[FirefighterCloseCalls.Com - Home of the Secret List](http://www.firefighterclosecalls.com)

[Chapter 296-305 WAC - The Washington State Legislature](http://www.wa.gov)

www.firefighternearmiss.com

www.everyonegoeshome.org



**Four firefighters injured.
Slow Down.
Wear your seatbelt.
SECURE EQUIPMENT IN THE CAB**

City of Fairfax Fire Department Requires Educator Education

The City of Fairfax Fire Department's Chief Tom Owens has mandated that all eighty members of the Department complete the National Fire Academy's Self-Study Course for Community Safety Educators (Q118). This mandate comes after the Washington-Metropolitan Council of Government's Fire Prevention Subcommittee recommended that all recruits throughout the region complete the course as part of their initial training. Fire Chief Tom Owens firmly believes in providing our community with the best services available with the highest trained personnel. The training must be completed by March 1, 2008.

Chief Owens should be commended for taking our original initiative a step further. No doubt in my mind that Shawn Dunstan of the City of Fairfax Fire Department. played a critical role in bringing this to his Chief's attention and selling him on taking the extra step! Again, our hats off to Chief Owens for proactively implementing a program that falls right in line with the "Everyone Goes Home" 16 Firefighter Life Safety Initiatives (it is initiative #14)!