

FIRE FIGHTER SAFETY AND THE CHICAGO FIRE DEPARTMENT (PART 3)

By Richard Schulte

Cook County Administration Building

Just before 5 pm on Friday, October 17, 2003, a relatively small fire occurred on the 12th floor of the 37 story Cook County Administration Building in the heart of downtown Chicago. (At the time of the fire, the building was not protected by a sprinkler system. Subsequent to the fire, the building was retrofitted with a sprinkler system.) Although the fire never spread beyond the tenant space in which it originated, the Chicago Fire Department was unable to bring the fire under control using an interior attack. The fire was eventually extinguished using master streams applied from the exterior of the building.

Despite the fact that office buildings are among the safest buildings that we build, because the occupants are awake and are familiar with their surroundings, six civilians died in the fire. All six civilians who died perished in the exit stair enclosure which contained the standpipe riser being utilized by fire fighters to attack the fire.

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Rather than escorting building occupants using the stair to safety when they reached the 12th floor, fire fighters instructed occupants using the stairs to go back up and utilize the other stair in the building to evacuate. Since the stair doors were locked from the stair side (for building security reasons), the occupants using this stair after fire fighters arrived were trapped in the stair as the upper levels of the stair enclosure filled with both heat and smoke when fire fighters entered the fire floor with hose lines (which allowed combustion products to enter the stair and rise to the highest level).

Sofa Super Store Building

On the evening of June 18, 2007, just a little before 7 pm, a motorist noticed a trash fire near the loading dock of the Sofa Super Store in Charleston, South Carolina. At 7:08 pm, a store employee used the 911 system to notify the fire department of the fire and the Charleston Fire Department responded. When fire fighters arrived at the building, the fire had already established itself in the loading dock and was growing quickly. Fire fighters first applied water from the tank on an engine to try to “knock down” the fire while a permanent water supply was established, but these efforts failed and the fire continued to grow in size and spread within the building.

While operations at the loading dock were on-going, fire fighters entered the showroom of the store and began to apply hose streams to the fire from the opposite side of the fire. Initially, these hose streams were also supplied from the tank of an engine. With water supply problems, establishing a permanent water supply at the building was delayed. At around 7:30 pm, fire fighter distress calls began to be heard over the radios. By that time, the show room of the building had filled with smoke. At roughly 7:35, the show windows of the store were broken to vent smoke from the building in order to improve visibility. It appears that about 1 minute after the windows were broken that flashover occurred in the showroom. At around 7:50 pm, a portion of the showroom roof collapsed. There were fire fighters lost in the smoke in the showroom, but nobody at the scene new exactly how many. After rescue and recovery operations were completed, it was determined that a total of nine fire fighters had died in what started as a trash fire outside the building.

Sing Way Laundry Building

Around 7 am on December 22, 2010, the Chicago Fire Department responded to a nuisance fire in an abandoned building which had previously housed a laundry. The building was a single story in height with a basement. A portion of the roof construction was supported on wood trusses.

In 2007, the Chicago Building Department had issued notice of numerous code violations, including a citations on the load-bearing capacity of the roof construction. Given that the building owners’ business had failed, the building owners did not address the code violations and instead had “boarded up” the building.

According to news sources, there were 4 fire fighters in the building and fire fighters on the roof of building when the roof of the building collapsed. Two fire fighters sustained fatal injuries and 17 other fire fighters were injured less seriously.

The official explanation as to why fire fighters were in the building is that it was reported that homeless people were using the building as shelter against freezing temperatures. No explanation was provided as to why fire fighters were on the roof of the abandoned building. (It is extremely rare for homeless people to take shelter from freezing temperature on snow-covered roofs in Chicago in the winter.)

Mini-Summit on Structural Firefighting Baltimore, Maryland

On July 27, 2005, a group of 50 people convened for what was referred to as a “Mini-Summit on Structural Firefighting”. This meeting was sponsored by the National Fallen Firefighter Foundation and a report was issued on the meeting. The following are excerpts from that report:

“The specific focus of this session was directed toward structural firefighting operations.”

“The balance between staffing requirements and the scope of operations that can be preformed safely and effectively is a critical issue.”

“Firefighters risk death or serious injury when they attempt to conduct offensive operations in situations that call for defensive strategy. The system should define acceptable strategic and tactical behaviors in structural firefighting, including measurable benchmarks and a national code of conduct.”

“The participants observed that actual firefighting operations, in too many cases, are conducted with inadequate organization, supervision and self-discipline. The perceived urgency of the situation often results in firefighters disregarding basic principles and procedures and operating in a reckless and unstructured manner.”

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*“The group recommended the adoption of laws, similar to C-45 in Canada, that provide for **criminal penalties** when death or injury results from an employer’s or supervisor’s failure to implement and enforce reasonable standards of safety.”*

“The accountability issue was emphasized by calling for the elimination of all exemptions from health and safety regulations that apply to emergency services. The group recommended the adoption of laws, similar to C-45 in Canada, that provide for criminal penalties when death or injury results from an employer’s or supervisor’s failure to implement and enforce reasonable standards of safety.”

“The mini-summit participants noted that the increasingly diverse mission of the fire service has resulted in a greatly expanded scope of training, with reduced emphasis on the basics of structural firefighting. At the same time, the decreasing frequency of structure fires has resulted in a reduction in the practical experience factor. Structural firefighting continues to present the highest risk of injury and death to firefighters.”

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“The existing fire service culture has been identified as a barrier to implementing improved safety attitudes and practices. The group participants noted that the culture of the organization is defined at the top and the attitudes and values demonstrated by the Fire Chief, over a period of time, become the attitudes and values of the fire department. The leadership to change the culture of the organization must start at the top. When firefighter safety and health issues are emphasized by the fire chief, they will become important throughout the fire department.”

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“In many cases the individuals who are expected to be responsible for the implementation of health and safety policies and procedures have never been provided with the necessary information.”

“All training exercises must be conducted with strict adherence to safety policies and practices.”

“Health and wellness issues must be incorporated into training programs, including requirements for medical examinations and fitness evaluations before participating in strenuous activities.”

“The number of firefighters who lack of modern protective ensembles or have to rely on clothing and equipment that is worn out, poorly maintained or improperly fitted was identified as a major concern.”

“Fire departments with limited funds often overlook or defer maintenance and inspections [of their protective ensembles] and the existing standards are often not enforced.”

“The high level of protection [provided by their protective ensembles] from commonly encountered hazards results in limited sensory feedback to warn the user of dangerous situations.”

“The discussion noted that expensive and highly complex systems often fail to provide the reliable fireground communications that are essential for firefighter safety.”

“There is a lack of standards for the treatment of existing unsafe buildings. The impact and importance of retroactive requirements is poorly understood.”

“There is a lack of political will to support the overall fire prevention mission in many communities.”

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“The group also noted that fire departments often lack important knowledge of their building inventories, as well as the details of individual properties.

More effort should be directed toward identifying hazards and developing pre-incident plans.”

“The overall fire prevention effort often suffers from a lack of resources and commitment. Fire departments should direct more effort toward training their personnel to perform code enforcement and public education activities.”

Discussion

The fires at the Cook County Administration Building, the Sofa Super Store Building and the Sing Way Laundry Building are all different building types, but the one thing the fires at these building do share in common is less than competent work by paid professional fire fighters. I am well aware that the fire service abhors criticism, even when criticism is due, but often times criticism leads to improved performance. Given the fire services status, seldom does it encounter criticism, but here goes.

The Chicago Fire Department's work at the Cook County Administration Building was far from professional. If the fire department's first priority is life safety, how could a fire in a high rise office building have resulted in six fatalities? According to the National Fire Protection Association (NFPA), the average number of Americans who die in fires in all of the office buildings in the United States annually, both high rise and low rise buildings, is one.

If the Chicago Fire Department (CFD) had occupant life safety as its number one priority, there is no way that there should have been even one fatality at the Cook County Administration Building. It would seem that the only way that six fatalities could have occurred in this fire was that the department totally neglected its primary duty to the citizens of the City of Chicago. The performance of the CFD at the Cook County Administration Building was certainly embarrassing, although it is unlikely that most citizens of the city understood the extent of the failure of the fire department.

Although the loss of six civilians in a fire in an office building is embarrassing enough, just as embarrassing, if not more, is the failure of fire fighters to be able to control a fire in a small tenant space utilizing the building standpipe system. Of course, it would be understandable if there were problems with the standpipe system, but that was not the case. Fortunately, the fire occurred on the 12th floor of the building and streams could be applied on the fire from the building exterior. What would have happened if the fire had occurred on the 25th floor of the building?

Based upon the Chicago Fire Department's performance at the Cook County Administration Building fire, it can only be said that the CFD is a mediocre fire department at best. This criticism does not mean that the fire fighters in the department do not work hard, but it is an indication that the leadership of the Department is lacking. The officers in charge of the Fire Department failed to prepare the team adequately for a fire in an unsprinklered high rise building. Perhaps this is understandable given the fact that unsprinklered high rise office buildings are such a rarity these days, but when Mike Ditka failed to adequately field a competitive team on Sunday afternoons, Ditka got fired. If fans of the Chicago Bears can expect a winning team on Sunday afternoons, the citizens of Chicago have every right to expect that the fire department also perform like professionals. If you claim to be a professional, you had better play or work like a professional and when you don't, every citizen in Chicago should be made aware of it. Covering up mediocre work only encourages more mediocre work.

The fire at the Sofa Super Store in Charleston, South Carolina was perhaps the ultimate in unprofessionalism from professional fire fighters, although one could argue that the loss of six civilians in an office building fire gives the response to the Sofa Super Store a good run for its money. Both the fires at the Cook County Administration Building and the Sofa Super Store should have been studied by every fire department in the United States.

Perhaps if the fires at the Cook County Administration Building and the Sofa Super Store had been attended to by volunteer fire departments, the results of these fires could be justified. The fires at these two buildings should serve as a warning that, unless fire fighters stay on top of their game, similar fire fighting disasters can occur.

And now to the Sing Way Laundry Building fire. The loss of two fire fighters to a nuisance fire in an abandoned building that had been cited for a structurally deficient roof can only be considered to be another fire fighting disaster. Short of an explosion or a life saving effort, there is simply no excuse for what happened on December 22, 2010.

It is interesting to note that many in the fire service feel that the failure to observe safe practices on the fire ground should carry criminal penalties. In the private sector, businesses are expected to comply with OSHA regulations and are fined for violations of these regulations. Why should fire departments be exempted from compliance with safety standards and regulations? The discussion of fire fighter safety is not a new concept. After the well-documented fire at the Sofa Super Stores, every fire department should have taken a hard look in the mirror.

Lastly, the point regarding the leadership of the chief of the department made in the structural fire fighting summit needs to be taken to heart. A brief look at the bio of CFD Fire Commissioner Robert Hoff indicates that the commissioner is a practitioner of the “hero culture”. There, of course, is nothing wrong with that, except when it comes to putting Chief Hoff at the head of the department. While Chief Hoff has a well-rounded background in the fire department operations, it appears that the one weakness in his resume is the fire prevention aspects of the job. In my mind, the real heroes in any fire department are the men and women who work in the fire prevention bureau (and also in the building department).

It is the personnel who work enforcing the building code and the fire code who are primarily responsible for the 50+ percent decrease in the number of structure fires which has occurred in the United States since 1977. It is the building inspection personnel who are also primarily responsible for the 50+ percent decrease in the number of fire fatalities which has occurred in the United States since 1977.

An acquaintance of mine, Chief Tom Linkowski, the fire marshal for the Evanston Fire Department in the late 1980's and early 1990's used to say: “*You hear that? [Silence] That's the sound of fire prevention working.*” The ultimate in fire fighter safety is no fires, not that I ever expect to get there, at least in my life time.

If you are a fire fighter and you're interested in fire fighter safety, go say thank you to the fire marshal and the staff at the fire prevention bureau. After that, go to the building department and thank the building official, the plan reviewers and the building inspectors for all the work that they do to keep fire fighters safe.

If the Cook County Administration Building had been protected by a sprinkler system before the fire, rather than after the fire, 6 civilians would not have died in that fire. If the Sofa Super Store had been protected by a sprinkler system, the trash fire outside the building would have been stopped cold before it spread to engulf the loading dock.

Of course, sprinkler protection provided in the Sing Way Laundry Building would not likely haven't prevented the fire from spreading in that building. It is likely that a sprinkler system protecting that building would have been out of service. As Rolf Jensen said back in the early 1970's, "Sprinklers are not a panacea" and that's where the recommendations contained in **NIOSH 2005-132**, *Preventing Injuries and Deaths of Fire Fighters due to Truss System Failures*, and **NIOSH 2010-153**, *Preventing Deaths and Injuries of Fire Fighters using Risk Management Principles at Structure Fires*, come into play. If you haven't acquainted yourself already with these two NIOSH Alerts, they are available at no charge on the internet.

If you're in the fire service, there is no excuse for not being familiar with these two **NIOSH Alerts**. If the officers at the Sing Way Laundry fire had heeded the recommendations contained in these two NIOSH Alerts, there would not have been two funerals held for CFD fire fighters last week.

To quote Forrest Gump, "*Stupid is as stupid does.*" It's high time for the Chicago Fire Department to stop being "*stuck on stupid*".

Copies of **NIOSH 2005-132** and **NIOSH 2010-153** should be in every fire house in the City of Chicago. For that matter, in every fire station in the country. (And in Fire Commissioner Hoff's office too.)

Of course, members of the Chicago Fire Department are not likely to appreciate being lectured. Sometimes you need a kick in the rear to point you in the right direction. Don't believe it?-ask Coach Ditka.

"Iron Mike" wouldn't hesitate to let you know you messed up bad on Sunday afternoon and the fire fighters at the Cook County Administration Building and at the Sing Way Laundry messed up bad. You'll get over being dressed down in public in a few days and then maybe we won't have to go to your funeral. It's for your own good, so take it as constructive criticism. (You can thank me later.) Remember, if the coach doesn't yell at you, it means he doesn't care about you.

Regards-

Coach Schulte

Editor's Note: Richard Schulte is a 1976 graduate of the fire protection and safety engineering program at the Illinois Institute of Technology (IIT) in Chicago. Schulte worked as the fire protection engineer for the San Jose (California) Fire Department from 1980-1982. Schulte was named as one of ENR's "Top 25 Newsmakers of 2004" by Engineering News-Record for his work on critiquing the National Institute of Standards and Technology (NIST) investigation into the collapse of the World Trade Center towers on 9/11.

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