



# ***CHIEF'S FILE CABINET***

***Ronny J. Coleman***

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## When Did That Happen

No one likes being caught flat-footed. No one likes to be embarrassed. Being out of the loop is considered to be a social faux pas of monumental proportions. In the case of the fire service being unaware is to be unprepared. And to be unprepared is to be vulnerable.

If any of the above has ever applied to you with respect to finding out about some aspects of your community's fire problem when you first find it on the fire-ground, then you need to keep on reading because we do have phenomena in the fire service that needs our attention. The phenomenon is the fact that fire departments are becoming increasingly less aware of the real world that they are being forced to respond into when an emergency occurs. You might respond negatively to that comment but I think I can prove it to you.

For example, how well versed is your operations division on dealing with structurally insulated panels (SIPs) when conducting ventilation operations? How much does your operational side of your department know about the new "unbreakable windows" when trying to perform horizontal ventilation? How well versed are your fire crews on the building technologies that are now approved by the various code groups?

In a world of rapid changes building technology is undergoing almost a revolution. The idea that buildings are put together like they were thirty years ago is as far away from reality as the cell phone on your waist is from the hand crank phone on the wall of your grandparents. The period of time between adaptation of a new technology and its implementation in our world has been compressed significantly over the last decade.

And, those of you who are in fire prevention bureaus are an important part of the linkage between those approval processes and their impact on the fire ground. More and more firemen are running into situations out in the field in which they are moderately surprised because "nobody told me about that". The degree to which that gap exists in any fire service organization is a safety issue for firefighters. We simply cannot allow materials to go into buildings that are approved by the building process and fail to keep our firefighters informed.

In an article earlier in Sprinkler Age I advised fire prevention people that they could become more knowledgeable in wood construction by visiting the American Forest & Paper Association website. I have also suggested that we need to raise a level of concern that fire departments should be paying very close attention to the building evaluation services reports and handing that information off to the operations folks. When a technology is approved in the code, it has the possibility of showing up on the fire ground sometime in the near future. We cannot afford to have the firefighters blindsided



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Granted, most people don't pay much attention to this because very few fires start in new construction. That is a meaningless statistic when you take into consideration that one failure to understand a building system could result in a loss of life of a single firefighter. It is not tolerable to say, "what caused that to happen" while we are on our way to the hospital or coroner with a firefighter. This of course raises even a bigger issue and that is the lack of comprehensive development of firefighter's knowledge in the field of building construction. It used to be that many of the individuals entering the fire profession came out of the building trades. That has constantly been changing over the last couple of decades for a variety of reasons. That is a topic for an entirely different column. What needs to be recognized is that it is important for firefighters to have a good solid understanding of building construction technology if they are going to attack a fire within a building.

The interface between a fire departments bureau and its training division should be strengthened with respect to this one issue if nothing else. I am not suggesting for example that this has to be done on a day to day basis but rather that it is linked to an information exchange process. I would strongly encourage for example operations divisions scheduling pre-fire planning trips out into areas where new construction is under way to engage in some early warning regarding these building technology adaptations. Waiting until a building is completely finished before you take a look at it is really inappropriate. A firefighter needs to take a look at that building when it is a skeleton. We should become much more sophisticated in our understanding of complete assemblies and the relationship to that assembly to essentially three major issues; ventilation, forcible entry and structural collapse.

The training division should be populating classrooms and training presentations with updated information on building construction at least on an annual basis. Recruit academies should encourage firefighters to know much more about building construction than merely how to operate the tools to start impacting construction during any one of our operational areas such as ventilation and forcible entry. Lastly, fire departments should be not just training firefighters regarding these issues but place some emphasis on the need for company officers and chief officers to be kept up to speed on changes in building technology. Granted these are not things that are part of the day-to-day dialogue in most fire departments. That is all the more reason why they are increasing in significance. The persons who are responsible to commit resources on the fire ground and in addition those who are responsible for the overall safety of firefighters need to become the resident experts on the load carrying capacity of buildings. Lacking knowledge in these areas is not only dangerous it is unprofessional.

This concept is not new to the fire service. In fact, it is a very fundamental element of the fire service going all the way back to the 1870's. Unfortunately our training divisions are becoming somewhat consumed by meeting minimum standards in medical fields – which meets our standing role in the field of emergency medicine. But that is no excuse for a fire department not being aware of what the potential is in the most hostile working environment that a firefighter faces – the working structural fire.



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But – what is a structure? You might say building, but what if it is underground. You might say constructed from wood, but what if it is made from straw bales? You might say dwelling, but what if it is both a home and business combined?

I would like to make the suggestion that it is time for the fire service to get back to a basic issue and that is how well prepared it is for the task of entering burning buildings. My suggestion is that fire prevention bureaus begin to conduct regular training sessions with operations personnel on building materials and construction techniques as part of the on-going training program in the fire house. This could include, but not be limited to about a 2 to 4 hour long training session each year on the changes that have occurred in the materials that are approved in the codes for use in the local area. The material could also include information on installation techniques as well.

Finding out that a process or material has been used to construct a building that does not respond to the conventional approach used by firefighters may not be life-threatening all of the time. In fact it could result in some humorous scenarios – but if it happens to cause one firefighter to become injured or loss their life because they were unaware, then it could have been avoided – and isn't that what prevention is all about?