CHIEF'S FILE CABINET

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Bread and Butter

A phrase that is often used for the essentials of any occupation is referred to as the bread and butter of that job. The implication is that it's real basic; it's what is needed to sustain the activity and is clearly understood by most people.

But it should come as no shock to the American fire service that the bread and butter fire of the average fire department is a single-family, detached dwelling fire. Why can we say this? For the very simple reason that it is a fire that occurs the most frequently and is the one that raises the most concern with the majority of the constituency in a community. A fire in a home, especially at night, is both a life-threatening and firefighter-threatening environment.

Year end and year out we publish statistics about the way people die on fires and the single-family dwelling always ends up being the leading location for such consequences. It is where the majority of those individuals that the U.S. Fire Administration speaks of, i.e., the elderly and the young, and the firefighter who find themselves victimized by fire.

Yet, the residence is not the bread and butter of a fire prevention bureau. With very few exceptions, the vast majority of fire prevention bureaus have not been created to deal with this problem. They are focused upon commercial and industrial occupancies. Moreover, the fire codes that have been increasingly successful in reducing fire losses in other types of occupancies have been noticeably incapable of reducing the loss of life in the single-family dwelling to an irreducible minimum. It's not that we haven't tried. If we go back and take a look at what has happened over the last 40 years of fire protection technology, we've seen the emergence of a minimum of three separate programs that have all been named at reducing the loss of life in single-family dwellings; smoke detectors, exit drills in the home, and the residential fire sprinkler system.

Furthermore, there have been significant increases in the quality of building construction techniques used in single-family dwellings. What I'm referring to here is the creation of things like ground-fault detectors, elimination of flammable interiors, installation of residential fire sprinklers and in general, an improvement on building codes over the last few decades.

Interestingly enough, the single family dwelling has not remained a static fire problem either. For example, there is a significant increase in what we call a home today than what we called a home in 1955. According to the real estate industry, the size of the single family home has grown from an average of 950 square feet in that era to a current average of 2,300 square feet today. Some homes are in larger than some commercial enterprises in the neighborhood they are locate within.

To me the fact that the residential fire is considered the bread and butter of fire suppression and it is notably absent from the priorities of a fire prevention bureau sets us up for somewhat of a hypocritical situation. If the single-family dwelling is where the majority of the threat lies, then we should be focusing a significant amount of our fire prevention effort there. Ah ha! You're probably going to say to me that we really have devoted a lot of time and attention to that. And I would be willing to bet you that you would tell me a lot about the public education programs that have come to the forefront in the last few years to try to improve upon that condition.

And, I'm not going to argue with you either. What I am going to suggest, however, is that very few fire departments have an actual program that is aimed at the systematic assessment, improvement, and evaluation of the single-family dwelling fire within the construct of their overall fire prevention bureau. The residential problem tends to find itself categorized as public education – not fire prevention.

There's one very good reason why most fire departments are not into residential occupancies. It has to do with the mindset of the very community we're trying to protect. The average person thinks that their home is just the same as a king's castle – and they don't want you in there noising around inappropriately. In many respects, I understand that phenomena and agree in concept that we do not belong inside of a single-family dwelling as a mandatory code compliance entity. However, if we're able to get into those occupancies on a voluntary basis, there is actually no reason why the fire service shouldn't do everything it can to alter the perception of fire prevention in the home.

Recently I was having a conversation with a fire chief about how he classifies his inspection responsibilities in his community. He characterized them as being high-risk occupancies that must be inspected on a fairly frequent basis, moderate-risk occupancies that must be visited on a periodic basis to reduce deterioration to existing conditions, and his last category was called self-inspection occupancies. These were occupancies that were relatively minimal in risk and had the ability to actually find out everything that was wrong about them by conducting a self-inspection. The conversation with this chief was talking primarily about those occupancies that we customarily inspect.

However, there is nothing to prevent a fire department from believing that a single-family dwelling is a self-inspection occupancy. And we've tried to do that. Take a look at most of the public education programs with their home checklist, enticements to young children to go home and get their parents to come up to snuff, etc. I believe that we have made an effort to talk about this particular program, but there's something missing. The thing that I find missing in most single-family dwelling inspection programs is that there's no incentive for the average citizen to engage in fire safe practices unless they have a young child in their home.

As the readers of this column know, I'm always going back into the library to read up on how things used to be done to see if there is any correlation between the stories out of our past and the present set of

circumstances. Among the documents that I found in conducting such a search was a very simple document entitled "Conducting Dwelling Inspections." No doubt anybody reading that literature today would laugh at the style of uniform worn by the firefighter and the fire truck in the background is probably sitting in a museum somewhere. But contained within that document are a couple of very simple premises that still exist.

The main causes of fire in single-family dwellings are not complicated circumstances such as manufacturing processes. They tend to boil down to some fairly simple issues of housekeeping, misuse of electrical and heating appliances, and abuses of kitchen cooking scenarios. Reducing the probability of an event occurring from anyone of these four relatively easily determined factors reduces the probability of a fire occurring significantly.

I have also noted with interest that it seems like the proverbial "cigarette in a couch" type scenarios seems to be eroding about at the same rate that people are discontinuing the smoking habit.

Another observation is that it's very true that the single-family dwelling fire does seem to have a strong correlation with the economic considerations of a family unit. In short, rich people don't burn their houses down anywhere near as frequently as poor people do.

What I'm about to suggest is that we utilize all this information in a very commonsense approach to try to do something about improving the life safety of our citizens by having a program in place that focuses on changing community attitudes. And I'm not talking about a program that occurs only once. My suggestion is if we really want to alter the residential fire problem in most of our communities, it has to be something that has a certain amount of continuity and stability to it so that people grow accustomed to being exposed to a series of messages that are designed to give them to be their own inspector. In addition to that, what I'm going to suggest is that we don't devote a lot of time, effort, and energy to going out trying to convince people in a one-on-one face-to-face contact.

My observation is that the average residential inspection program takes an awful lot of gasoline and street time to accomplish. With our current demand for fire departments to be involved in emergency medical services coupled with the need to keep organizations highly trained and response ready, the old idea of going back knocking on doors in single-family dwellings to improve upon penetration of the fire prevention message, is almost as antique as the idea of suppressing those same fires using the bucket brigade.

It's time we put technology to work. Let me use one example. Perhaps some of you heard of reverse 9-1-1 systems. These are computer generated telephonic calling devices that have some of the connotations of the telemarketing approach. They take a series of telephone numbers and given a cue to do so, contact those telephone numbers, leave them with a message, and then hang up. The

difference between reverse 9-1-1 and telemarketing is that reverse 9-1-1 systems don't always call when you're having dinner. Furthermore, they are not asking you to do something, but rather the reverse 9-1-1 system is informing you of something.

Then there is another technology – the Internet. Many fire departments are starting to put up websites and tell their stories in a very graphic if not out-right humorous way. The utilization of Internet to distribute information is very cost effective. Furthermore, it is possible to develop mechanisms through a website to collect E-mail addresses so that you could do periodic updates and feedback to individuals.

Last but not least there is the availability of cable TV. Granted not every community has access to cable. Furthermore it is possible that not all cable systems provide public access to their local fire departments. Nonetheless there is a significant number of departments out there that do have access to cable television and could if they chose to do so to utilize that cable TV to distribute information on a frequent basis.

Utilizing these three ideas, what could a fire department do to begin to penetrate its residential fire problem? It could start off as something just as simple as taking the response districts from the fire department and dividing them up into demographic "chunks" that would allow the use of anyone of the previous technologies to provide the information on a frequent basis. Let me give you an example. Imagine if you had a fire department that protected around 12,000 people. Trying to reach all of those people at one time with a mailing and/or door-to-door campaign, runs up against all sorts of logistical problems. However, if you divide that community down into 12 districts of 1,000 people a piece, and utilized a reverse 9-1-1 machine to contact approximately 30 people per day with some form of reminder message about fire and life safety – or for that matter, emergency medical services accident prevention programs – the average citizen would only get one phone call a year but could add up to continue to move them in the direction of accepting responsibility for themselves.

With the wonder of computer technology, we can also go into our neighborhoods and look at them demographically. We can even program reverse 9-1-1 programs to put out specific messages in specific languages. In an anecdotal example of this, when working with the Wilson, North Carolina department on a GIS project, we once identified a specific neighborhood that was having a large number of kitchen fires. Once we identified the relationship between all of these kitchen fires, we also identified that the majority of the individuals in that neighborhood spoke a specific ethnic language. The public education materials were re-crafted putting the message into their language instead of being off the shelf. The result was, a year later a drastic reduction in kitchen fires.

I want to be a little careful about the E-mail suggestion because frankly that merges on being Spam. If people don't want to be contacted on issues, then I don't think they should be bothered either. I have my own feelings about receiving unsolicited E-mail. However, there is nothing to prevent even the

smallest of firefighting agencies from developing a website. And once that website has been developed, it is relatively easy to establish a mechanism whereby information could be downloaded and/or made available. Some of the more successful of these websites that I have witnessed have actually turned their fire department into somewhat of a "game." It encourages young children to get into the mood of examining the fire department and provides not just information, but an experience also.

There is a technology available that would allow what is called a "screen scroll" to go across the bottom of a cable television network in which specific messages can be added that run at the same time that another kind of program is going on. Frankly that technology is not cheap, but in some cases it's already available by the company and can be leveraged through cooperation.

Now that we've talked about this concept of creating self-inspections, it is probably time to turn to a very essential element of that and that is what kind of messages need to get out. A few years ago I saw a very interesting document that was referred to as the "Fire Prevention Calendar." It was a year-round analysis of what messages need to go out to people in a timely fashion to make sure that they were paying attention. For example, there were specific messages that were crafted for the holidays, such as Christmas and Halloween. There were also events that were based around seasonal changes of the year, such as barbeque fire safety in the summertime, and heating appliance safety in the wintertime. It doesn't take a quantum leap from that fire prevention calendar to reach the point for the use of any of the previous technologies to be used to constantly be providing that information into the sights or sounds that can penetrate the residential market.

There's only one reason this hasn't been done in the past. It has not been perceived as a high priority, nor are there any real studies to demonstrate that this would be effective in the long run. In the case of the former, there is clearly a trend in the fire service to become technologically more intense and to improve upon the channel of communication with our customers. In reviewing the inputs from another program – the IAFC's Fire Service Award for Excellence – every year there have been more and more contributions that are based upon the technology of distributing information to the public.

This is a magazine for people who are in the fire prevention field. I would suspect that people over in the operational side of the fire department are not spending much time worrying about the bread and butter of fire prevention – they are worried about the bread and butter of fire suppression for the single-family dwelling fire. If you're department is like a lot of others that I've worked with, and you walk down the hall and start talking to the ops guy about asking him for an additional 40 to 60 hours a week of his fire suppression personnel's time to increase the public education program, you're liable to be greeted with a rude answer. The truth is it's getting harder and harder to introduce really creative and innovative programs that tap the huge personnel resources that we currently use in the fire suppression forces of our departments.

That's why I'm writing this article in a sprinkler magazine. I'm advocating that you start developing your program by going after a technological solution instead of a redirection of existing resources.

You hear this term all the time of "think outside of the box." In this particular case, I'm suggesting that maybe we ought to stay in the box. That the box ought to be a toolbox. By using the tools of technology, it may be possible that you could begin to communicate with your customer base out there using their language, using their timeframes, and moreover, giving them the privacy they want and the outcome you desire.

Here's the downside to this debate. I've been told by individuals in the fire service that it may be devastating to the fire community if we eliminate the "bread and butter" fire. I have been told that it is conceivable that city councils will use that as a justification to eliminate their fire department. I would like to be a little more optimistic than that. I believe that if we continue to improve upon the fire and life safety quality of life for people in their homes that they will continue to rely on the fire service to meet other unforeseen circumstances that are not as easily eradicated through prevention. I do not believe it is a mistake that the fire service has gotten into the emergency medical business as rapidly as it has. After all, fire stations are the most equitably distributed, readily accessible public-owned facilities in the entire country. No other public entity is as neighborhood based as fire stations are.

If you've ever gone to the scene of a fatal fire, then you may understand that Benjamin Franklin's admonition that an ounce of prevention if worth a pound of cure truly rings loud and clear in the residential occupancy. In my experience, almost all of the fatalities that I have ever had to respond to were dead before we ever got out of the firehouse. Their smoke detector didn't work, or they didn't have one. They were notified and had no exit plan to get out of their house, or never got out of their bed. And, there was no technology in place to hold that fire in check until an engine company could arrive at the scene.

That is our challenge. Perhaps in a modern world we cannot totally eliminate all risks. But as the authority having jurisdiction, one of our challenges is to try to drive it to an irreducible minimum.