



CHIEF'S FILE CABINET

Ronny J. Coleman

IF IT AIN'T BROKE DON'T FIX IT

Last month I talked about acts and omissions being a potential liability for use in the fire service. This month I would like to continue that discussion as an element of firefighter safety. How does maintenance relate to firefighter safety? Well, let me ask you this question. Have you ever heard of the phrase “If it ain’t broke, don’t fix it”? There is a corollary to that phrase. If it is broken and you can’t use it now, you are it might as well not even be there. If it’s broke when you need it – it doesn’t exist.

When we install a fire protection system we have most likely given up something else that was in place before we installed the system. For example; How about the idea that if we put in sprinklers we reduce fire resistance requirements. What about the idea that if we put in sprinklers we increase distances for evacuation travel by occupants. Then the sprinklers don’t work. Whoops!

The whole idea of trade-offs is based upon the concept that what we put in must work, or the trade-off now becomes a liability. If we have a fire in a larger area, and the sprinklers don’t work – what do you think that is going to do for firefighter or occupant safety?

That is why we ought to consider maintenance a firefighter safety issue. We can’t just install systems and hope for the best. In a previous column in Sprinkler Age, I described a concept called “graceful degradation” that relates to this concept. What that term describes is the day to day minor and often insignificant things that begin to go wrong with a system. Taken as individual problems, they may not compromise the systems performance. But overtime, these minor problems can accumulate to the point where they will cause failure. And, when do you think they are likely to fail the most catastrophically? Right. Just when we have a fire. Graceful degradation is not to be taken for granted. The longer a system is allowed to experience lack of maintenance, the more the potential for failure occurs.

Let me give you another word for failure – malfunction. Little tiny details can lead up to a malfunction that can render an entire system useless. And, going back to the opening phase, there is no time to fix it.

A firefighter that is on the way into a burning structure is not going to have the time, the tools or the inclination to try and fix something that isn’t working. In addition, that same firefighter is now going to have to make up for the lack of whatever was given up to help compensate for the economics of the installation.

You might be wondering what kind of malfunctions I am referencing. My files have examples of turned off sprinklers, disconnected standpipes, fire alarm disconnects, cache room vandalism, blocked exits, fire



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wall breeches, etc, etc. The list goes on forever. Examples of having fire protection systems that have not been tested, validated and maintained is, unfortunately, creates a long and diverse list.

Could it happen to you? Could it happen to one of your crews? You tell me.

What do you know about the care and maintenance of every system that you have mandated to be put into place in your jurisdiction. Are they actively inspected on an annual basis? If you have an active and effective code enforcement program it is likely that you have caught those minor discrepancies, but if your program is intermittent or superficial, then possibilities of potential malfunctions begin to occur.

I have two suggestions for you to follow. The first of these is to start this process during initial plan check. In my opinion the time to set the criterion for maintenance is when you require it in the first place. The more complicated the installation, the more you should focus upon the game plan to assure its reliance in the future. Work closely with the building owners to give them the motivation to keep the system in functional order all of the time, not just when it comes time for the annual inspection.

As mentioned last month, make sure that any fire protection system that you have installed has an adequate record keeping system to keep track of all of the detail of the systems maintenance activity. This include, but not limited to the accurate review of when and where the system has been tested, certified and validated by third party organizations. The second is make absolutely sure that you fire suppression crews are up to date with what has been installed in your buildings and that fire suppression crews know exactly how to use the systems when they are activated. Their pre-plans should include contingencies that will be invoked if there is a system malfunction. These two actions are like two sides of the same coin. One does not assure reliability without the other. Failure to maintain any system increases its possibility of failure. Failure to use a system properly increases the possibility of failure too.

Have you ever noticed how excited people get when things don't go right? Well, if you want to see anybody get excited at the scene of a fire, then let something that the firefighters thought was going to be there to help them not work. A hydrant with no water can cause a major reaction. A standpipe that is damaged or threads destroyed can turn an offense into a defense in a heartbeat. A fire door blocked open – watch for fireworks on the fire-ground. Once things start to go wrong the usual direction for the whole operation is downhill.

To complicate things just a little more one of the problems is that many times the occupants of a building cannot, or will not pay attention to the systems to see if they are ready to perform. That is our job. The only recourse the occupants have is to blame the fire service if it doesn't work. Many building owners view maintenance as an overhead cost that they would just a soon dismiss as irrelevant. Tell that to the firefighter who is facing a fire without the tools to do the job. Maintenance is just as important to the firefighter as safety belts are on the way to the call.



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So, don't wait until it's broke to fix it – Make sure it's working all the time.

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