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In My Opinion...

Dean Says:

"First Sources" and Historical Information

Occasionally, someone voices a concern about some aspect of fire alarm systems. Many times the particular concern comes to light because of fire alarm system failures that result in serious property damage or even loss of life. Fortunately, with increased diligence on the part of the various stakeholders who have an interest in the operational integrity of fire alarm systems, such incidents occur only very rarely.

But, what should the stakeholders do when an issue about the proper operation of a fire alarm system does arise? Let me suggest two very specific steps that have proven successful in the past.

First of all, make certain that you have gone to "first sources" to gather all the facts that have led to the reported concern. Don't rely on secondhand information. Make an effort to check on the validity of investigative reporting that others may have done. Do they understand how a fire alarm system should function? Can they recognize the ambient conditions that may have influenced what happened? Do *they*, in fact, go to "first sources" as a part of

The Moore-Wilson SIGNALING REPORT

Volume 12, No. 5 Page 14

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their investigation?

Many times, I have investigated a system failure, or other untoward action, of a fire alarm system and discovered that every single conclusion that had surfaced before I arrived on the scene was based on somewhat misleading information. This was not done on purpose. In fact, most of the time the people involved had only the most sincere motives. But, because they did not pursue the investigation deeply enough to dig out those "first sources," they drew erroneous conclusions.

Secondly, make certain that you review the historical information related to the event. Has something similar happened in the past? If so, how was it mitigated? What was learned from the event? Most types of incidents have some historical root. By reviewing the history of failures, you have a much better chance of understanding what happened this time and how to mitigate the problem.

Let me offer an example. Some have expressed genuine concern over a perceived rise in false alarms. False alarms do occur. But, after making a few calculations based on historical "first source" information in my files, I sincerely doubt that *proportionally* we have any more of a false alarm problem than we had 30 years ago. In fact, *proportionally*—based on the tremendous increase in the total number of fire alarm systems installed—we likely have less false alarms than we did in 1980.

Past investigations have determined that false alarms have some very specific causes. So, in investigating each case where a false alarm has occurred, it becomes important for the investigator to determine what actually caused the false alarm. Only then, can the report of that incident have sufficient validity to aid others in creating the kind of statistical correlation that will help pinpoint exactly what action the stakeholders must take to mitigate the root cause of the problem.

No one wants to risk the lives of responding fire fighters during the unnecessary actuations of any fire alarm system. No fire fighter should suffer injury or death because a fire alarm system malfunctions.

The investigation of any false alarm must proceed all the way to the "first sources." And, the investigation must consider the historical information that will help determine the root cause of the incident. Historical information helps the investigator recognize the solutions that others have used to solve the particular problem in the past.

For example, to reduce false alarms, jurisdictions need to adopt NFPA 72 into statute and, then, rigorously and consistently enforce its requirements. Contractors need to become certified through the National Institute for Certification in Engineering Technologies (NICET) program or through the certification program of the International Municipal Signal Association (IMSA). Stakeholders must become schooled in the nuances of NFPA 72 and other related codes and standards.

Naturally, investigators must receive training in order to perform their investigations properly. Here again, the stakeholders can use their considerable resources and influence to see to the design and delivery of the kind of training that investigators need.

Can we solve every problem that relates to a fire alarm system? Yes, we can! It takes stakeholders willing to employ the sound investigative techniques of proceeding to "first sources" and drawing from the available historical information.