Coffee Break Training - Fire Protection Series

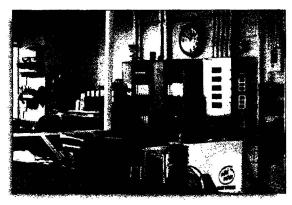
Fire Alarms and Detection: Signal Retransmission

No. FP-2015-25 June 23, 2015

Learning Objective: The student will be able to explain a fire alarm supervising station's responsibility to retransmit alarm signals.

Many commercial and multifamily residential fire alarm and detection systems are equipped with features to automatically summon the fire department in the event of an emergency. Often, this emergency signal is transmitted to an independent "supervising station" that is responsible for notifying the local fire department. (See Coffee Break Training FP-2010-35.)

A common misconception among fire service personnel is that the supervising station has a specific time limit from when it receives the emergency alarm to when it must call the fire department. That is not true.



Supervising stations are required to retransmit fire alarm signals without unreasonable delay.

According to National Fire Protection Association (NFPA) 72, National Fire Alarm and Signaling Code, 2013 edition, except as permitted for alarm preverification and single-family dwellings, "all fire alarm signals received by a supervising station shall be immediately retransmitted to the communications center." The Annex to NFPA 72 explains that "the term **immediately** in this context is intended to mean 'without unreasonable delay.' Routine handling should take a maximum of 90 seconds from receipt of an alarm signal."

Thus, the 90-second reference in the Annex is a recommendation, not a requirement.

There are many reasons for not specifying a specific retransmission time, but one obvious one is that the supervising station may not have adequate staff to retransmit all the alarms that it receives simultaneously within a short time frame. Imagine two people on duty in the supervising station when an electrical storm, tornado or other significant event affects a wide area and many — if not hundreds — of the emergency alarms are reported simultaneously. It may be impossible for that staff to report the alarms within a specific time frame.

Alarm signal preverification is a circumstance where the local fire department permits the protected premises to investigate the alarm before dispatching the fire department. There are very specific conditions outlined in NFPA 72 where this arrangement is permitted, and in those cases the supervising station likewise must **immediately** notify the fire service communications center that a fire alarm signal has been received and verification is in process.

For more information, consider enrolling in the National Fire Academy (NFA) course "Fire Inspection Principles" (R/N0220). Information and applications can be obtained at http://apps.usfa.fema.gov/nfacourses/catalog/details/47. The course is available at the NFA in Emmitsburg, Maryland, or through your state fire service training agency.