



# Coffee Break Training - Fire Protection Series

## Fire Alarms and Detection: Fire Alarm Signal Transmission

No. FP-2010-35 August 31, 2010

**Learning Objective:** The student shall be able to list the five accepted means of fire alarm signal transmission.

Fire alarm system reliability is enhanced when its signals are transmitted to a location where a qualified and competent person can interpret the signal and take action.

National Fire Protection Association (NFPA) 72<sup>®</sup>, National Fire Alarm and Signaling Code<sup>®</sup>, provides five options for signal supervision.

Local Alarm	Most commonly used, and does not employ offpremise monitoring. Someone in or near the building must investigate alarms and report it to the authorities.
Central Station Protective Signaling System	Uses companies that are in the business of receiving fire and supervisory alarms from one or more customers who may be located anywhere in the world. Unlike other receiving station services, central station services have very specific performance and listing requirements to ensure system integrity and minimize the risks of false alarms.
Auxiliary Protective Signaling System	Employs a direct means of communicating between the property and the fire department using a public fire alarm reporting system such as telegraph or radio alarm boxes. Normally, a building or facility has a “master box” that provides a direct, coded signal that identifies the specific address of the property when it operates.
Remote Station Protective Signaling System	Uses transmission to a fire service communications center or to the government agency that has responsibility for taking action to ensure a response upon receipt of a fire alarm signal. Alternate locations may be used if they have personnel on duty who are trained to receive the alarm and transmit it to the fire department. This may include law enforcement dispatch centers, utility (water/sewer/electric) control centers, or another municipal facility that has round-the-clock coverage.
Proprietary Protective Signaling System	Transmits signals to a facility that is owned and operated by trained personnel under common ownership. A college campus may send all of its buildings’ fire alarm signals to a security office where operators handle the alarms. A major retailer may use its own signal receiving station to accept alarms from all its stores around the world. The protected property may be either a contiguous property or noncontiguous under single ownership.



This fire alarm control panel is designed to transmit a signal to an offpremise reporting facility.

For additional information, refer to NFPA 72<sup>®</sup>, National Fire Alarm and Signaling Code<sup>®</sup>.



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