

## FIRE PROTECTION SYSTEM MONITORING

In most occupancies, the IFC requires monitoring of automatic sprinkler systems and fire alarm systems. Monitoring includes detecting and reporting alarm conditions and potential impairments, such as closed water supply valves or electrical faults, and is required to ensure a timely response by the fire department. Monitoring is not required for one- and two-family dwellings and townhouses with automatic sprinkler systems required by the IRC provisions. [\[Ref. 903.4, 907.6.6\]](#)

Automatic sprinkler system monitoring is electric supervision of valves that control the water supply to the system and water flow alarms or pressure switches that operate when a sprinkler is activated (Figure 8-12). Upon activation, these devices transmit a signal to a fire alarm control unit. The fire alarm control unit in turn transmits a signal by way of telephony, the Internet or through a wireless signal to a central or proprietary supervising station. A central supervising station is a third-party service that receives signals from fire and security systems, processes the signals and notifies the fire department and building owner of an alarm activation. A proprietary supervisory station is one owned by the property being protected, such as a campus police department. [\[Ref. 903.4.1\]](#)

With the exception of smoke alarms in one- and two-family dwellings and correctional and detention facilities (Group I-3 occupancies), all required fire alarm and detection systems required by the IFC must be electrically supervised. [\[Ref. 907.6.5\]](#)

At the time of initial installation and approval, the monitoring service should be reviewed and tested. Throughout the life of a building, the monitoring service could be provided by several different companies. The building owner can switch to a different company any time he or she desires, or the owner can simply cancel the contract with the monitoring agency. The IFC requires that the monitoring service be provided and maintained throughout the life of the building. When a business owner cancels the service provided by the supervising station, the monitoring service provider is required to notify the fire code official in writing. This provides notice to the fire code official and allows the inspector to follow up with the facility to ensure that monitoring service is continued through another provider. [\[Ref. 901.9\]](#)

### You Should Know

The intent of the IFC fire protection system requirements:

- Systems are designed and constructed in accordance with the applicable NFPA standards.
- Systems are designed to protect the hazards inside the building.
- Signals from most required automatic sprinkler and fire alarm systems are transmitted to a central monitoring station, which in turn notifies the fire department.
- Systems are inspected, tested and maintained in accordance with the IFC and the applicable NFPA standards. ●



**FIGURE 8-12** Electric supervision of an indicating floor control valve and water flow switch inside a high-rise building