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Issue: Smoke/Fire Detection—Proactive Approach to Life Safety

Protecting individuals from the health and safety hazards posed by fires and smoke is of critical importance. According to the National Fire Protection Association (NFPA), since the 1970s when smoke alarms became widely available to U.S. households, the home fire death rate has been reduced by half. States and localities now require the installation of smoke alarms/detectors in nearly all residential construction. Many of these same states are now focused on implementing similar requirements for fire suppression systems, namely automatic fire sprinklers. Implementing a proactive approach to fire system design—one that incorporates both smoke/fire detection systems and fire sprinkler/suppression systems—is necessary to provide the best possible protection.

Position:

NEMA supports life safety measures that advance a proactive approach to fire safety, including both smoke/fire detection and suppression systems. Automatic fire detection and alarm systems, when combined with suppression systems and other elements of a proactive fire protection plan, significantly reduce property damage, personal injuries, and loss of life from fire.

Importance:

In recent years, there has been increased focus on mandating the installation of fire sprinklers in homes and other residential occupancies. The 2009 edition of the *International Residential Code* requires the installation of automatic fire sprinkler systems in one- and two-family dwellings and townhouses. Several states have adopted or are considering adopting these requirements into their respective residential or building codes.

However, while fire sprinklers control the development and spread of fire and decrease property loss, they are only one side of the fire safety equation. Fire/smoke detection remains paramount to protecting and preserving human life. The U.S. Fire Administration and U.S. Consumer Product Safety Commission stress the importance of properly installed and maintained fire or smoke detection/alarm systems. These affordable, lifesaving devices can provide critical early warning for evacuation, automatically alert/summon fire department personnel, and reduce exposure to smoke inhalation, among other benefits.

The federal government, states, and municipalities must persist in their support for a proactive fire approach that continues to require and emphasize smoke and fire detection, even when suppression systems are installed. In general,

FIRE DETECTION + FIRE SUPPRESSION = FIRE SAFETY

This conclusion is supported by a literature research study conducted by James A. Milke, PhD, PE, *et al.*, for the University of Maryland. The study—*Performance of Smoke Detectors and Sprinklers in Residential and Health-Care Occupancies*—is available under the Research section of www.lifesafety.solutionsonline.com.

Contact: Jonathan Stewart, jonathan.stewart@nema.org, 703-841-3245

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