



**Northern Illinois
Fire Sprinkler
Advisory Board**

FireSprinklerAssoc.org

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Roselle Fire Department Demonstrates Lifesaving Value & Effectiveness of Fire Sprinklers in Home Fire Structure Burn

Orland Park, Ill. (March 15, 2013) — On Thursday, March 14, Roselle fire crews, with assistance from Bloomingdale Fire Protection District firefighters and the nonprofit Northern Illinois Fire Sprinkler Advisory Board (NIFSAB/NFSA), conducted an educational home fire sprinkler demonstration in a home acquired for structure burns for fire training. Simulated candle fires were set in two rooms of the home, which were similarly furnished with couches, chairs, desks and computer monitors. However, one room was equipped with a quick-response home fire sprinkler, while the other was unprotected.

In the room protected with a fire sprinkler, the extreme heat from the fire caused fire sprinkler activation in as little as 25 seconds, which subsequently extinguished the fire with minimal water, limiting extreme heat and toxic fumes. Fire damage was contained to the trash bin that the fire began in, a window drape and a small portion of drywall. Although the floor and furniture were slightly saturated with water, they remained unscathed by the fire, and could be salvaged with a wet vacuum.

In the unsprinklered room, the fire was started in the trash bin and spread to the window drape and to one of the couches, burning hotter, and churning out black smoke. Within minutes the temperatures reached over 1500°F and the room turned to flashover, the point at which everything in the room ignites in flames. The fire broke through the windows and licked the outdoor eaves of the house, climbing into the attic. After fire crews extinguished the unsprinklered fire with multiple hose lines, smoke continued to pour out of the room and throughout the rest of the house. The room was uninhabitable. The walls were completely charred by the fire and damaged by the force of the fire hoses, while the floor was waterlogged. What remained of the couches were skeleton frames and the computer monitor resembled molten plastic and glass.



**Post-Burn: Fire Sprinkler-
Protected Room**



Post-Burn: Flashover Room

“The differences between the two rooms were stunning and highlighted the need for developing life-safety features into homes and buildings through the installation of fire sprinklers, which safeguard both occupants and responding firefighters,” says Roselle Fire Chief Bob Tinucci, who is also director of the Illinois Fire Chiefs Association and chairman of the Illinois Fire Sprinkler Coalition. “As a firefighter, you never know what kind of fire situation you are walking into when you enter a home. Entering a home that has fire sprinklers eliminates a lot of the potential hazards of a structure fire.”

The life-safety aspect that fire sprinklers offer is why Fire Marshal Thomas Biscan and the Roselle Fire Department were able to convince Village of Roselle officials to update village codes in 2009 to require fire sprinklers in all new construction one- and two-family homes regardless of size, as well as existing homes that increase their square footage by 50 percent or greater. Those codes were also incorporated in the Roselle Fire Protection District. Roselle now has several dozen homes protected with fire sprinklers, whether supplied by the municipal water supply or a tank and pump system.

“Especially in today’s lightweight construction homes that fail faster in a fire, smoke detectors, which sometimes go unheard by residents, are simply not enough,” says Biscan. “Fire sprinklers add the ultimate life safety, allowing residents time to escape. They are equivalent to having a firefighter on duty 24/7 in a home. Also, it’s important for homeowners to realize that fire sprinklers do not all go off at once and cannot be set off by smoke from cigarettes or burnt toast like in movies. Since they are activated by heat, they operate independently over the source of a fire.”

The educational demonstration involved significant preliminary planning and permitting with the Building Department and Sheriff’s Office for Cook County and the Environmental Protection Agency, notifications to local residents, and was followed according to demonstration standards set forth by the National Fire Protection Association to ensure that safety was paramount.

“The demonstration in Roselle was a great example of how communities can make use of homes that are earmarked for demolition,” says Tom Lia, executive director of NIFSAB/NFSA. “Not only will the Roselle Fire Department be using the home for training and simulation, such as ventilation techniques and rescue scenarios, but they also were able to use the home for a public education demonstration about the effectiveness and importance of home fire sprinklers.”

The national nonprofit Home Fire Sprinkler Coalition videotaped the demonstration and will use the footage in its home fire sprinkler education outreach nationwide.

Visit www.ppacom.com/nifsab/2013/roselle-live-demo.html to download high-resolution photos from the demonstration.

About the Northern Illinois Fire Sprinkler Advisory Board

The Northern Illinois Fire Sprinkler Advisory Board (NIFSAB) is a Not-for-profit organization dedicated to promoting progressive legislation, raising public awareness, and educating code officials and governmental policy makers by demonstrating the proven performance of fire sprinklers in saving both lives and property. For more info, visit www.firesprinklerassoc.org.