

FIRE SPRINKLER TIMES

Northern Illinois Fire Sprinkler Advisory Board • February 2004



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See page 2 for answer.

High-Rise Fire Experience Underscores Need for Sprinklers

It usually surprises people to learn that they are in greater danger from fire at home than anywhere else, including hotels, offices and public buildings. In truth, residences have by far the greatest risk of fire death, with nearly 80% of fire fatalities occurring at home.

People who live in high-rise buildings without fire sprinkler systems are at greater risk of dying if there is a fire than their neighbors who live in sprinklered buildings. This is an important point because according to the National Fire Protection Association (NFPA), the risk of fire is higher in high-rise apartment buildings than other dwellings. "In 1999, 10.5% of apartment fires were in high-rise buildings, an unusually high percentage over the past decade and a half," NFPA's report states.

Fire sprinklers offer a tremendous life safety advantage wherever they're installed. Because eight out of 10 fire deaths occur at home, sprinklers are key in residential properties. Unfortunately, sprinklers are not currently required across the board today, so thousands of Chicago apartment residents and condo owners live in unprotected buildings. More than 800 Chicago high-rise buildings lack this century-old automatic fire protection technology because they were built prior to the City's code requirement for sprinklers in 1975.

An ordinance that is focused on protection of residential buildings falls short. According to the Chicago High-Rise Safety Commission, the rate of fire deaths in



More than 800 Chicago high-rise buildings do not have fire sprinklers. According to the Chicago High-Rise Safety Commission, the rate of fire deaths in Chicago's high-rise buildings was 3.5 times greater than the national average.

Chicago's high-rise buildings was approximately 3.5 times greater than the national average.

Sprinklering only commercial buildings is an insufficient effort because it leaves tens of thousands of Chicago high-rise residents exposed to greater fire risk. ■

The Benefits of Fire Sprinklers Far Outweigh the Costs

Most people agree you can't easily put a price tag on saving lives. But you can estimate the cost of providing a century-old, proven technology with a history of saving lives when fire strikes.

Automatic fire sprinkler systems, which have successfully been used to protect industrial and commercial properties for more than 100 years, bring the same life safety provisions to residential properties. According to the National Fire Protection Association (NFPA), nothing beats fire sprinklers. They have an impressive record over many years, one that savvy residents are now increasingly demanding for themselves.

At a cost of only \$1 a day, your building could be protected with automatic fire sprinkler systems that would provide you and your neighbors with the highest level of fire safety available, while at the same time protecting your treasured property and valuables. With more than 3,000 people dying from fire in this country every year, the widespread installation of fire sprinklers could save thousands of lives. Having fire sprinklers installed is like having your own firefighter on duty around the clock.

"For about a third of the cost of drinking a steaming cup of latte each morning, people can have the peace of mind of home fire protection 24/7," said Tom Lia, the executive director of the Northern Illinois Fire Sprinkler Advisory Board. Lia's group estimates the cost to install fire sprinklers at 6007 N. Sheridan Road to be \$33,975 per floor, or \$2.50 per square foot. If rolled into the cost of a mortgage loan at 8% interest over 20 years, the cost per apartment, per month is only \$31.50.

The building at 6007 N. Sheridan Road has its own sad history. In 1999, two residents on the 37th floor died in a fire caused by careless smoking. Without sprinklers, firefighters had to carry heavy equipment up 37 floors in order to connect their hoses to water supplies and fight the fire by hand.

Lia said it's also important to consider the insurance savings. When a high-rise building is retrofitted with fire sprinklers, the fire insurance savings can range from 20% to 60% for common areas. Condo owners and renters can save between 5% to 20% on their own policies.

Fire sprinklers, which are installed behind walls and ceilings, provide a network of water coverage that is "on" all the time. If fire breaks out, the intense heat of the flame triggers the fire sprinkler that is closest to the fire and it

immediately activates, spraying water on the flame. Only the sprinklers nearest the heat will activate. This quick response extinguishes the fire or fully suppresses it, and reduces the output of heat and poisonous smoke and gases, making a quick and safe escape for residents possible.

Smoke and fire damage are kept to a minimum with sprinklers and because the fire is put down so readily, water damage is limited as well. In contrast, when fire sprinklers aren't installed, the fire growth and spread goes unchecked. By the time the fire department arrives, fire and smoke damage are extensive and multiple hose streams are essential, resulting in ten times the water flow needed. Moreover, without fire sprinklers to protect the occupants of the building, lives are at stake.

"No one wants to think about fire happening in their own building, and people often don't think about it until confronted with a local tragedy that literally brings the issue home," Lia said. Chicago has recently endured several heartbreaking high-rise fires that have driven a surge in fire sprinkler interest. In the wake of needless deaths and injuries and with the cost to install sprinklers so affordable, residents of many high-rise buildings that lack the protection of sprinklers are rightly asking why.

Since 1975, new high-rise buildings in Chicago have been required to install fire sprinklers or fire "compartmentation," which is a technical term that means the building has built-in compartment design that limits the spread of fire. The drawback of compartmentation is that while others beyond the walls are protected in a fire, those within the room of fire origin may not be spared.

As a result, only three buildings constructed since the 1975 ordinance opted for the compartmentation alternative; the rest have installed fire sprinklers. The builders had good reason, explains Lia. "Installing sprinklers ensures that no one is 'written off' in a fire; all residents are protected equally," he said. ■

Fire Sprinkler Estimate

6007 N. Sheridan Road
\$33,975 per floor
\$2.50 per square foot

If rolled into the cost of a mortgage loan at 8% interest over 20 years, the cost per apartment, per month is only \$31.50.

Installing Fire Sprinklers Can Dramatically Decrease Insurance Costs

Following two fires at Lake Park Plaza, 3930 N. Pine Grove Ave., Chicago, IL:

- The insurance carrier dropped the policy;
- Insurance increased from \$40,000 to \$360,000 per year;
- If a fire sprinkler system is installed in the building, one insurance carrier said they would reduce the rate by \$75,000;
- Typically, the insurance costs will decrease between 20% and 60% in common areas;
- Condo owner's insurance for individual units will decrease between 5% and 20%.

If Only...

By Tom Lia, Executive Director,
Northern Illinois Fire Sprinkler
Advisory Board

October 17, 2003
69 W. Washington
Chicago, Illinois
5:00 p.m.
32nd Floor

Cook County Attorney Dick Devine and staffers finish wrapping up some county cases coming to trial the next day. As they prepare to leave the office, they hear the automatic voice alarm announce that the 11th, 12th and 14th floors need to be evacuated (this building does not have a 13th floor).

Abiding by their building evacuation plan as written in their emergency books and on the doors, they stay in their space on the (32nd floor). One of the attorneys looks down and sees a Chicago Fire Department engine in front of the building.

A few minutes later, they hear another voice alarm announce the "all clear." Attorney Devine and his staff take the elevator to the lobby to exit the building.

Seeing the fire lieutenant at the fire alarm command panel, Attorney Devine asked the lieutenant what happened. "There was a fire in a closet in the Secretary of State's storage room," the lieutenant reports. "It activated a fire sprinkler. We just confirmed that the fire was extinguished. We are replacing the sprinkler and called the Fire Prevention Bureau to follow up," the lieutenant added.

This could have been the scenario if the Cook County Administration building would have been protected with a fire sprinkler system. It would not have been a national media story. Instead it would have been a small story hidden in the back pages of the newspapers, reported somewhere in the middle of the TV newscasts, if it were reported at all.

If the Cook County building was protected with a fire sprinkler system last October, fire sprinklers would have prevented the fire and deadly smoke from spreading. There would have been no need to evacuate the building.



According to NIFSA, if the Cook County Administration Building would have been protected with a fire sprinkler system, one or two sprinklers would have prevented the fire and deadly smoke from spreading. Six people would not have lost their lives in the stairwell. The fire would have been a minor story in the newspapers or may not have been covered at all by the media.

Hundreds of people would not have been stuck in the stairwell. There would not have been the need for pressurized stairs or to worry about re-entry locks.

IF ONLY the fire sprinklers were installed during the renovation, which exceeded the 50% cost of purchase, six people would not have died.

IF ONLY the Life Safety Code provisions of the 2000 Edition of NFPA 101 were followed, fire sprinklers would have been installed and the real tragedy with displacement of the office space would not have occurred.

IF ONLY the building had fire sprinklers, the tragedy in the stairwells would not have happened.

This tragedy would not have happened as fire sprinklers take into account all human flaws including greed, corruption, ignorance, mistakes, and if proven, arson and criminality.

The tragedy would not have happened...

IF ONLY THE BUILDING HAD A FIRE SPRINKLER SYSTEM. ■

Where To Get More Information:

Northern Illinois Fire Sprinkler Advisory Board (NIFSAB)

62 Orland Square Drive, Suite 203
Orland Park, IL 60462
Toll-Free: 866-264-3722
Fax: 708-403-4771

www.firesprinklerassoc.org

*Use the form on the back page of this newsletter
to order available materials via mail or fax*

National Fire Protection Association

1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02169-7471
617-770-3000
Fax: 617-770-0700

www.NFPA.org

Hi-Rise Safety Information

National Fire Sprinkler Association

P.O. Box 1000
Patterson, NY 12563
845-878-4200, ext. 133
Fax: 845-878-4215

www.NFSA.org

National resources and information

United States Fire Administration

16825 South Seton Avenue
Emmitsburg, MD 21727
301-447-1000
Fax: 301-447-1052

www.usfa.fema.gov

America Burning Report

Office of the State Fire Marshal (OSFM)

100 West Randolph Street
Suite 11-800
Chicago, IL 60601
312-814-2693
Fax: 312-814-3459

www.state.il.us/osfm

Life Safety Code 101

Jurisdictions with High-Rise Retrofit Ordinances

- | | |
|----------------------|------------------------------------|
| Atlanta, GA | Maui, HI |
| Baltimore County, MD | Nebraska |
| Billings, MT | Nevada |
| Boulder, CO | New York, NY (pending) |
| Casper, WY | Oak Brook, IL |
| DeKalb County, GA | Ocean City, MD |
| Denver, CO | Philadelphia, PA |
| Florida | Phoenix, AZ |
| Fresno, CA | San Diego, CA |
| Greenburgh, NY | San Francisco, CA |
| Harrisburg, PA | San Jose, CA |
| Honolulu, HI | Scottsdale, AZ |
| Juneau, AK | St. Louis, MO (on owner change) |
| Los Angeles, CA | St. Paul, MN |
| Louisiana | Ventura, CA |
| Louisville, KY | |
| Massachusetts | |

The most effective fire loss prevention and reduction measure, with respect to both life and property, is the installation and maintenance of fire sprinklers.

2000 America Burning Re-commissioned Report
Federal Emergency Management Agency (FEMA)
U.S. Fire Administration (USFA)

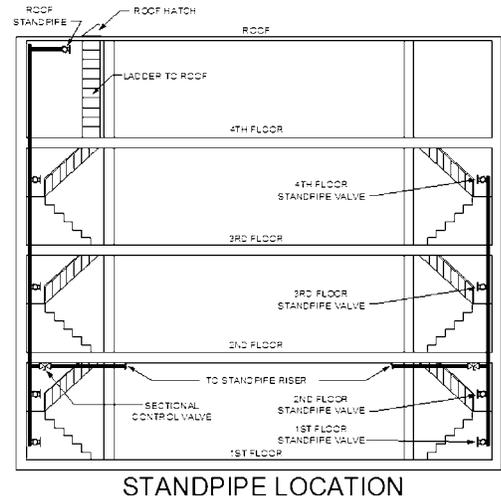
Chicago Residential High-Rise Fires

Often, fires and deaths in residential buildings get little media coverage. The following fatal fires occurred in Chicago high-rise buildings last year:

- | | |
|----------------------------------|---|
| South Beach Park Dr. (1) dead | 1255 Sandburg Ter., Sandburg Village (1) dead |
| 6700 S. Ogelsby (2) dead | 1161 N. Larabee (4) injuries |
| 7447 S. Shore Drive (1) dead | |

Why High-Rise Buildings Are Ready For Fire Sprinkler Systems

All of Chicago's high-rise buildings that do not have fire sprinklers already have the infrastructure in place. When retrofitting a high-rise building, the fire sprinkler system is connected to the standpipe system. That is how the system is being installed now at the Cook County Administration Building at 69 W. Washington. All high-rise buildings are equipped with a fire standpipe system and fire pump. The standpipe, usually found in the building stairwell, provides the water for firefighters hoses on each floor and for the fire sprinkler retrofit. ■



NIFSAB Offers... Free High-Rise Retrofit Cost Study and Presentations

NIFSAB has the resources to provide a free cost study of a high-rise building to help determine the feasibility of retrofitting the building with a fire sprinkler system. NIFSAB will arrange to have a qualified representative review the building's infrastructure and analyze the existing fire pump and standpipe system.

A NIFSAB representative is also available to meet with building owners or managers, condo associations or groups to provide information and answer questions about fire sprinkler systems.

For more information:

Contact Tom Lia
Executive Director, NIFSAB
708-403-4468 or
Toll-Free: 1-866-264-3722

NIFSAB is a non-profit organization composed of fire officials, contractors, building officials, suppliers, architects, engineers, and manufacturers. NIFSAB is dedicated to educating and informing the public and elected and appointed officials of the vital role that fire sprinklers play in fire protection. ■

Fire Sprinkler Facts:

The reduction in deaths and injuries associated with automatic fire suppression ranges from 60% in manufacturing occupancies to over 91% for hotels and motels.

Both smoke alarms and a fire sprinkler system reduce the risk of death in a fire by 82%.

When fire sprinklers are present, the chances of dying in a fire and the average property loss per fire are both cut by two-thirds compared to fire where sprinklers are not present. ■

Source: U.S. Experience with Sprinklers, NFPA, September 2001

Fire Sprinkler Myths:

Sprinkler Myth: "Sprinklers are Ugly"

Sprinklers are inconspicuous. Apartments, condos, offices and hotels can be retrofitted with fire sprinklers that are mounted flush with walls or ceilings.

Sprinkler Myth: "The Entire System Will Go Off"

Despite "sight gags" on TV sit-coms and Hollywood movies, cigarette smoke will not trigger sprinklers and the entire system does not activate. EACH SPRINKLER IS INDIVIDUALLY ACTIVATED. ONLY THE SPRINKLER CLOSEST TO THE FIRE ACTIVATES AND CONTROLS THE FIRE. ■

Advertising Campaign Sends Strong Message About High-Rise Fire Safety

The Northern Illinois Fire Sprinkler Advisory Board is using billboards, bus panels and radio and TV commercials to send a strong message to people who live and work in high-rise buildings.

The billboards, located at Grand and LaSalle and off the Kennedy Expressway, states that a “high-rise without fire sprinklers is not a place to live or work. Too often it’s a place to die.” It includes a photo of the Cook County Administration Building with smoke billowing out of the windows.

The bus panels are similar to the billboard except they encourage people who live in high-rise buildings to tell their building management they want fire sprinklers in their buildings.

Messages Can Be Heard on WBBM, WLS and WGN Radio Stations

A radio message running on WLS and WGN informs listeners that the rate of fire deaths in Chicago’s high-rise buildings was 3.5 times greater than the national average and that people who live in apartment buildings are at greatest risk. It also informs listeners that fire sprinklers control a fire in the room where a fire starts and often put the fire out before the fire department arrives.

People who listen to WBBM World News Round Up at 6 p.m. every night will hear testimonials from three people who share their experiences with high-rise fires. Maureen Marley who lives on the 14th floor of a high-rise on Chestnut talks about her frightening experience trapped in her apartment when a fire started in her neighbor’s apartment on the same floor. Because her building did not have fire sprinklers, her neighbor died and Maureen had to live in a hotel for nine months while her apartment was repaired.

Dennis Mushol who lives on the 18th floor of a high-rise shares his experience about two fires in his building. In the second fire, a resident from another floor died. As a board member of his building’s condo association, Mushol talks about how the building’s insurance increased by hundreds of thousands of dollars after the fires. He also learned that if they install fire sprinklers, the insurance would be reduced by 20% to 60%.

Ed Prendergast, who served as Fire Prevention Engineer with the Chicago Fire Department for thirty years, also shares his

experience. Prendergast believes that one of the most dangerous calls is a high-rise fire that does not have fire sprinklers. He tells listeners that it’s difficult to quickly and safely evacuate the buildings and that it’s difficult for firefighters to reach the upper floors. Prendergast says that because the highest fire ladder only extends eight floors, firefighters must use building stairs and elevators, carrying fire hose and other heavy equipment. He also says that no other system provides the protection that a fire sprinkler system can and reminds listeners that fire sprinklers save lives, protect property and protect firefighters.

High-Rise Fire Facts Appear on CLTV

Two 30-second spots appear on CLTV. The first features Maureen Marley who again talks about her experience during the Chestnut Street fire and photos of the damage. The second highlights the facts and data that support the need for fire sprinklers in Chicago’s high-rise apartment buildings.

All the spots will run through February until the Chicago City Council votes for an ordinance.

“Fire safety is a very serious issue. We want people to get the message, especially those who live in high-rise buildings,” said Tom Lia, NIFSAB Executive Director. “People who live in high-rise buildings without fire sprinklers need to understand that they are at greater risk of dying if there is a fire in their building.”

“It’s vital that Chicago passes a sprinkler ordinance that does include residential high-rise buildings,” Lia said. Citing the National Fire Protection Association’s “High-Rise Building Fires” Report (November, 2003), Lia said the record shows most high-rise building fires and associated losses occur in apartment buildings.

“If you look at the high-rise fires that occurred over the last few years here in



This billboard, located at Grand and LaSalle, sends a strong message to people who live and work in Chicago’s high-rise buildings.

Chicago, people died in residential high-rise fires,” he said. “Excluding residential buildings in the ordinance would be a deadly mistake.”

Lia said building owners and managers should understand that retrofitting a high-rise could result in significant insurance savings. According to Lia, when a building is retrofit, the insurance discounts can range from 20% to 60% in common areas. Occupants can also receive a 5% to 20% reduction in fire insurance rates.

According to the Chicago High-Rise Commission Report, the rate of fire deaths in Chicago’s high-rise buildings was approximately 3.5 times greater than the national average. Residential buildings are at greatest risk: 86% of all Chicago high-rise fires were in residential structures, and approximately 85% of those buildings did not have sprinklers.

“We hope people will hear our message and let their building managers and owners and elected officials know that they support Alderman Burke’s ordinance,” Lia said. “It’s important to retrofit all high-rise buildings, both commercial and residential, to protect occupants and firefighters.” ■



Northern Illinois Fire Sprinkler Advisory Board

www.firesprinklerassoc.org

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Orland Park, IL 60462

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Tinley Park, IL
Permit #77

For more information about fire sprinklers, contact Tom Lia, Northern Illinois Fire Sprinkler Advisory Board, 866-264-3722

You can also contact Tom via e-mail: sprinktoml@aol.com



Please print legibly in ink

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CITY STATE ZIP

PHONE FAX

E-MAIL

If you don't have access to a FAX, return form to:

Northern Illinois Fire Sprinkler Advisory Board

Mr. Tom Lia
62 Orland Square Drive, Suite 203
Orland Park, IL 60462

866-264-3722

SPRINKTOML@aol.com

NIFSAB INFORMATION & MATERIAL REQUEST

- The Chicago High-Rise Safety Commission Report
- High-Rise Fires in Chicago: 1994-2000
- City of Chicago Tri-Data Study on Chicago Fire Department, as is it pertains to high-rise retrofit
- New York High-Rise Study
- America Burning Recommissioned 2000* (FEMA/USFA)
- NFPA Life Safety Code 101 – 2000 Edition as adopted by the Office of the State Fire Marshal
- How A Fire Sprinkler Operates
- NFSA Fire Safety in High-Rise Buildings Brochure
- Please contact us to schedule a no-fee cost study of my high-rise building.

This form can be faxed to: **708-403-4771**