

# FIRE SPRINKLER TIMES

The Wisconsin Chapter of the NFSA

Winter 2003 Edition



The Wisconsin Chapter of  
**THE NATIONAL  
FIRE SPRINKLER  
ASSOCIATION, INC.**

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## Fire Sprinklers Offer Life-Safety and Economic Protection to Universities

According to the National Fire Protection Association (NFPA), there are more than 1,700 documented fires in campus housing every year. Many factors associated with the age and lifestyle of college students contribute to this fire problem.

The NFPA/USFA (U.S. Fire Administration) College Fire Safety Forum Final Report states that the number one cause of fires in dormitories is arson or suspected arson. Motives for juvenile arsons include peer pressure, a cry for help, and struggling with school pressures. All of these conditions can exist in a college situation where young people often encounter more pressure than they have ever experienced.

The second leading cause of college building fires is cooking, followed by smoking. Other hazards include alcohol consumption, candle and incense burning, halogen lighting use, disabled fire alarms and electrical overload.

According to the NFPA/USFA Forum Report, over 90% of the campus building fires reported to fire departments occurred in buildings where there were smoke alarms. Although those statistics indicated smoke alarms were present, they did not define if the alarms were operational at the time of the fire.

Ironically, only 27% of campus housing fires occurred in buildings that had fire sprinkler protection. While smoke alarms warn occupants

when there is smoke, only fire sprinklers can protect life and property because they control and often extinguish the flames before the fire department arrives on the scene. Each sprinkler is individually activated, so only the sprinkler closest to the fire releases water.

While life-safety is the primary benefit fire sprinklers offer, they also protect the institution from long-term economic impacts caused by fires including:

- Increased dropout rates caused by the trauma of fire;
- Increased tuition reimbursements because students were unable to complete their studies;
- Reduced enrollments due to negative image created by a fatal or serious fire. ■



*Students living in Notre Dame residence halls are now protected with fire sprinklers. The University's fire officials brought student life safety to the forefront of crisis prevention and retrofitted all the residence halls.*

While many universities consider fire sprinklers after a major fire, Northwestern is taking a proactive approach. Evanston Division Chief Alan Berkowsky, the city's fire marshal, works with the university's risk management team.

"Basically what we're trying to do is get ahead of the curve," Berkowsky said. "We're trying to

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## Northwestern and Notre Dame Make Fire Protection a High Priority

Northwestern University and the University of Notre Dame are two prestigious universities that recognize the importance of protecting their students.

Northwestern University, located in Evanston, has retrofitted 12 buildings with fire sprinkler systems. Over the next six years, the school plans to retrofit 34 dormitories. In all, the university will oversee work on 65 buildings including fraternities and sororities. The latter two organizations will pay for work in their own buildings.



## Parents and Students Need To Think About Campus Fire Safety

There are approximately 1,700 campus housing fires annually, according to the NFPA. This figure is skewed because not all fires are reported for a variety of reasons. Most likely, the school administration wants to keep this statistic hidden unless mitigation is absolutely necessary. A safer campus is more enticing than one that offers a challenge to what parents value most, their child.

Fires at North Carolina and Seton Hall lit the torch in creating legislation to install more elaborate early warning systems and automatic fire sprinklers. Local legislation mandated fire sprinkler protection in the aftermath of a Chapel Hill, NC fraternity house fire that took five students' lives on Mother's Day 1996. A New Jersey fire in January 2000 incited the entire state, much less the nation, to create statewide statutes for fire sprinkler installation in all student housing. Chapel Hill Fire Chief Dan Jones has stated, "Parents don't send their children off to college to die in a fire."

In July of this year, the State of Delaware adopted a law requiring automatic fire suppression in all student residential housing. Legislation in several other states, including Illinois and Wisconsin, has addressed the issue to a lesser degree.

Wisconsin adopted a requirement that all state high-rise dorms be retrofitted with fire sprinklers before 2005. New student housing is required to have fire sprinkler protection.

A movement in the next legislative session will propose the extension of retrofit provisions for private school campuses. Interested sponsors from state fire services and the sprinkler industry are working with legislators to introduce bills that will protect private campus housing, including fraternities and sororities.

The State of Illinois adopted NFPA 101 "Life Safety Code" in August 2001. It became effective January 1, 2002. Provisions require that all high-rise dorms be retrofitted with fixed fire protection such as fire sprinklers. The Office of the State Fire Marshal was instrumental in getting "101" passed but hasn't established a deadline yet to get all campuses to comply without penalty.

Chief Pat Kenny, Hinsdale Fire Department in Illinois, developed a CD that was sent to the parents of high school seniors. The package included fire prevention information that could help reduce fire risk. The program reinforced the message that if an alarm sounded, a safe evacuation should occur every time. His message stressed that fire sprinklers are installed for life-safety protection.

Parents and students need to be aware and think about campus fire safety. They need to ask if their housing is protected with fire sprinklers and know what measures to take to be safe, especially if their housing is not protected. Efforts like Chief Kenny's CD only help increase awareness. ■

## UW Campus Housing Fire Not Reported Correctly

By Dan Gengler

A story in the January issue of *Fire Protection Contractor* (FPC) magazine entitled "Sprinkler Failure at University of Wisconsin Dorm Fire" incorrectly reported a sprinkler failure at the University of Wisconsin-Madison's Witte Hall.

According to sources from the Madison Fire Department and Police Department, the dorm fire was never intense enough to activate the sprinkler system. After discovering flames, a student quickly used a fire

extinguisher that was in close proximity to the room of origin to put out the fire.

The reporter who covered this story failed to get all the facts and apparently did not understand how a fire sprinkler system works to protect life and property. Unfortunately, these types of reports can lead readers into losing confidence in sprinkler protection as opposed to understanding the basics of operation. ■

## Galbraith's Corner

By Jim Galbraith  
Chapter Director • (414) 764-1115

### Use Our Resources To Help Update Your Codes

Reflecting on my first six months as chapter director, I'm enjoying my work and meetings with members of the fire service and fire protection industry. I'm especially encouraged when I hear from a fire chief or inspector who expresses an interest in updating their codes.

In my role as chapter director, I can act as a liaison between the sprinkler industry and fire service, be a resource for fire service questions both technical and mechanical and attend state code meetings and local ordinance meetings.

After my 42-year career with the fire sprinkler industry, I'm especially excited about my role to help promote the life-and-property saving benefits of fire sprinklers through safety fairs, public relations and community events.

The NFSA Wisconsin Chapter provides many resources. They include:

- Consultation on local fire and building code changes;
- Consultation on fire sprinkler code review questions;
- Provide a listing of area fire and building code amendments;
- Directories of member contractors and vendors;
- Provide fire sprinkler training for fire officials to help them enforce the codes;
- Sponsor/coordinate basic and advanced fire sprinkler training classes;
- Provide liaison with NFSA Building/Engineers officials on technical code questions;
- Provide public education materials for fire and public officials.

Another resource for fire departments planning their fire prevention programs is our fire sprinkler demonstration trailer. It provides viewers a first-hand view of how a fire sprinkler activates and extinguishes a fire.

Please don't hesitate to call for more information. View our Member Directory at our website: [www.NFSAWI.org](http://www.NFSAWI.org). ■

# Northwestern and Notre Dame

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put the life-safety systems in before a tragedy occurs.”

Notre Dame, located in South Bend, Indiana, launched a retrofit program in 1979 by installing sprinkler systems during the renovation of old buildings and the construction of new ones. Following the deadly fire at a Seton Hall University residence hall in January 2000, Notre Dame fire officials brought student life safety to the forefront of crisis prevention.

Notre Dame has 27 residence halls housing 80% of the student population. At the time of the Seton Hall fire, only 12 Notre Dame halls had sprinkler systems. John Antonucci, Notre Dame fire operations chief, presented school officials with a plan mandating that the more than 750,000 remaining square feet of residence hall space be completely retrofitted within a seven-month timeframe.

Because plastic CPVC pipe was used to retrofit the buildings, torches and heavy equipment were not needed for the job. The contractor completed six buildings during the 2000 summer break, three buildings over winter break and the remaining six buildings during the 2001 summer break. More than 8,000 sprinkler heads were installed without displacing a single resident. Today, students, their belongings and the Notre Dame residents’ halls are all protected with fire sprinkler systems. ■

**Sources:**

Final Report, NFPA/USFA College Fire Safety Forum, September 24, 1999.

BlazeMaster Fire Sprinkler Systems Case Study, Noveon, Inc. April 2002.

New law would mandate sprinklers, *Evanston Review*, July 4, 2002.

# States Slow To Require Sprinkler Systems In Student Housing

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states and private institutions to balk at putting them in.

“Nobody is opposed to these things in the real world, but it’s a question of finance,” said Ed Comeau, a former fire investigator who started the Massachusetts-based Campus Fire-Watch five months before the Seton Hall blaze.

Donna Henson, who lost her 19-year-old son in a 1999 fraternity house fire, wishes the University of Missouri had placed a higher priority on fire safety.

Dominic Passantino’s death has turned Henson into an advocate for sprinklers. But her push for state and federal legislation mandating them in dormitories and frat houses has been futile so far.

“We sprinkle hotels and we sprinkle restaurants,” she said. “But where our children are sleeping at night, we do not sprinkle.”

After the Seton Hall fire, the New Jersey Legislature mandated that every public and private school in the state install sprinklers within four

years. It provided \$90 million in low or no-cost loans to pay for them.

Not only will the colleges and universities meet the deadline, but the development of less-expensive, vertical-spraying “sidewall” sprinklers has lowered the cost, Naylis said.

Still, he doesn’t foresee other states following New Jersey’s lead, and John Viniello, president of the National Fire Sprinkler Association, said only a handful of private colleges and universities – including Fordham and Notre Dame – have taken steps on their own.

Boston College spokesman Jack Dunn said his school decided to place sprinklers in all residence halls after a 2000 dormitory fire sent seven students to the hospital.

“I think a fire has a way of galvanizing a university to take appropriate steps,” Dunn said.

It was two separate University of North Carolina fraternity house fires – one that killed five students in 1996 – that inspired Sen. John Edwards to twice sponsor legislation calling for \$500 million in federal grants to provide U.S. colleges with sprinklers. The Senate did not act on the bills. A spokesman for Edwards said the legislation will be reintroduced in this congressional session.

Henson vowed to continue her efforts on behalf of fire safety, even if change is slow in coming.

“Anything I can do to prevent another parent from having to endure the heartache I’ve had to endure, I want to do,” she said. ■



*Over the next six years, Northwestern will retrofit 34 dormitories. In all, 65 buildings, including fraternities and sororities, will be retrofitted with fire sprinklers.*

## Scottsdale 15-Year Data Proves Home Fire Sprinklers Save Lives

**January 1, 1986:** passed ordinance requiring fire sprinklers installed according to NFPA 13-D in all single-family homes.

**January 1, 2001:** 51% of all single-family homes are protected with residential fire sprinklers:

- 37,652 do NOT have fire sprinklers;
- 39,258 DO have fire sprinklers.

**49 fires** in single-family homes with fire sprinklers:

- Over \$20 million potential loss;
- \$106,110 actual loss;
- \$2,166 average loss per sprinkler incident.

**13 Lives Saved!**



# Campus Housing Fire Facts

- There are 1,700 campus housing fires a year.
- The number one cause of fires in dormitories is arson or suspected arson, which accounts for 1/6 of the fires.
- The second leading cause of college building fires is cooking, while the third cause is smoking.
- Over 90% of the campus building fires reported to fire departments occurred in buildings where there were smoke alarms present. Only 27% had sprinklers.
- 25% of the college housing fires occurred in high-rise dormitory buildings.

College Fire Safety Forum. Final Report. NFPA/USFA College Fire Safety Forum. September 24, 1999.

# Campus Housing Fire Hazards

- Alcohol
- Smoking in rooms
- Candles/incense
- Halogen lights
- Disabled fire alarm
- Electrical overload

Visit [www.collegefiresafety.org](http://www.collegefiresafety.org) for case studies related to these hazards.

Where to find more information:

**CAMPUS Firewatch**  
[www.campus-firewatch.com](http://www.campus-firewatch.com)

**COLLEGE FIRE SAFETY**  
[www.collegefiresafety.org](http://www.collegefiresafety.org)

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## Introduction to Freshman Fire Safety

# Dormitory Fire Safety Should Be A Priority For Parents

by Meri-K Appy, NFPA Vice President of Public Education from the *NFPA Journal*, January/February 2002

Many parents are concerned about college fire safety, especially after hearing the frequent reports of fires in and around our nation's colleges and universities. Last summer, I experienced the distress of leaving my son, a college freshman, in an unsprinklered dormitory.

Kenyon College in Gambier, Ohio, is a wonderful institution where safety is a priority. Throughout the question- and-answer period for parents, speakers sought information and reassurance about the college's safety procedures, especially fire and life safety. Listening to these important questions, I mentally added two of my own: "Why hadn't we asked these questions before we agreed to send our children here?" and "What more could NFPA do to put these issues on the radar screen of all parents of college-bound students?"

By the end of the orientation, we were satisfied with our son's living situation, especially when we saw that he was living on the first floor of the dorm near the exit. Kenyon College can expect a lot of information about sprinklers along with our son's tuition payments in the years ahead.

Still, I worry about an uncontrolled fire at Kenyon or any college or university. NFPA's Senior Fire Investigator Bob Duval shares this concern.

"With fire safety we often learn from past tragedies. College fire safety is no different," he says. "We need to stress the importance of automatic sprinklers, fire drills, fire alarms, and building construction features in providing safety against fire in college housing."

I also learned from Ed Comeau, NFPA's former chief fire investigator and publisher of Campus Firewatch, that it isn't just a problem on college premises.

"Over the past two years, Campus Firewatch has encountered numerous off-campus fires in which students have been killed or injured," he says. "Unfortunately, students living off campus in apartments and houses often don't receive the fire safety education and training they need to save their lives and those of their roommates. This needs to change, and the parents of students attending these schools can be a force in seeing that it does." ■

# Sorority House Retrofits Sprinkler System Before Its Required

KAPA KAPA GAMA sorority house in Madison took a proactive approach and retrofitted a fire sprinkler system before its national organization made fire sprinklers a requirement.

According to Kirk Goretski, HJ Pertzborn Plumbing and Fire Protection, KAPA KAPA GAMA's house director contacted him because she knew fire sprinklers would eventually be required.

The three-story house has 28 bedrooms, a basement and attic. A maximum of 55 students can live in the house.

Goretski said they installed the system during the summer while students were out of the house. He installed an NFPA 13 system using steel in the storage areas of the house and NFPA 13R with plastic (CPVC) pipe in the living areas.

"The sprinkler contractor did a nice job," said Karen Carlsen, house director. "Especially when you consider the age and type of house."

Carlsen said they are the second sorority house in Madison to retrofit a fire sprinkler system. KAPA ALPHA BETA was the first last year.

"We were anticipating that national would require all the houses nationwide to be retrofitted by 2004," Carlsen said. "So, we went ahead and got the job done."

"The parents and students are very happy because most students lived in dorms that had fire sprinklers," Carlsen added. "I don't think it will be long before we see sorority and frat houses throughout the country with fire sprinklers." ■

# States Slow To Require Sprinkler Systems In Student Housing

By Steve Gieberich, Associated Press

SOUTH ORANGE, N.J., Jan. 17 – Three years after a residence hall fire at Seton Hall University took the lives of three students, experts say New Jersey remains the only state to require both private and public colleges to install sprinkler systems in on- and off-campus housing.

Since the Jan. 19, 2000, blaze that swept through the third floor of a Seton Hall dormitory, 38 other U.S. college students have died in fires.

Campus Fire-Watch, which compiles university-related fire statistics, said all but three of those fatalities occurred in privately owned off-campus housing or school-sanctioned fraternities.

Safety officials fear that only more student deaths will prompt lawmakers nationwide to pass legislation requiring sprinklers in residence halls and off-campus fraternities and sororities.

“What it unfortunately is going to take is a prepayment in suffering – either through deaths or numerous injuries,” said Jerry Naylis, a New Jersey Fire Safety Commission member who shepherded the sprinkler law through the New Jersey Legislature.

“In the fire service, that is primarily referred to as tombstone legislation,” he said.

Besides New Jersey, experts say only Pennsylvania has taken significant action on campus fire safety.

In Pennsylvania, sprinklers must be installed in on-campus residence halls at public colleges and universities by 2006. The state also allocated low interest loans for private schools to voluntarily install sprinklers.

Despite estimates that sprinklers reduce the death tolls in fires by two-thirds, officials say tight budgets have caused most

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# Endthoff Retires from NFSA, Available as Consultant

Gene Endthoff, CBO, retired as Director of National Codes for the NFSA, is now available as a consultant. While at the NFSA, Endthoff's primary responsibility was director of national construction code activities. He was editor of *Code of Corner*, *Code Watch* and developer of *Sprinkler Guide* with over 100 fire sprinkler code tradeoffs listed. Endthoff was also instructor for the Design Advantage Seminars. He is a member of BOCA, ICBO, IAPMO, IFCI, NFPA and the SBCC. ■



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**Endthoff Consultants**  
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# Fire Sprinklers Featured at Wisconsin State Fair

And the winner is ... a lucky resident from Greenfield who had the winning raffle ticket for the August 2002 Home Giveaway at the Wisconsin State Fair.

In addition to showcasing the home built by Turn-Key Homes of Waterford, the Giveaway provides an opportunity to showcase a residential fire sprinkler system.

According to Martin King, assistant chief, West Allis Fire Department,

because of the size of the house (2,800 sq. ft.) and because it was on display inside the Wisconsin Exposition Center, sprinklers were required by code.

“To the builder's credit, he had already made contact with U.S. Fire Protection to design and install the system,” King said. The West Allis Fire Department approved the plan with minor modifications and conducted their customary daily inspections during the course of the Fair. NFSA Wisconsin Chapter posted a sign adjacent to the home saying *SPRINKLERS SAVE LIVES*.

Leading the effort were King and Lt. James Zajdel also of the West Allis Fire

Department. U.S. Fire Protection donated the design and installation, including Jim Scipior who coordinated the project. Jeff

Kamholtz designed the system and Phil Janoska fitted the system.

“It was the West Allis Fire Department and U.S. Fire Protection who made this happen,” said Jim Galbraith, director, NFSA Wisconsin Chapter. “This was a great opportunity to

increase awareness among thousands of people. We were told record numbers attended the fair last year.”

While there was only one winner of the model home, future “winners” will include those consumers who take home fire protection a step further by installing a residential sprinkler system.

We anticipate that plans for the 2003 State Fair will again feature a model home with an automatic home sprinkler system. King added, “We'll wait and see. It sounds like we'll be doing it again next year. The project was very well received.” ■



# Fire Sprinklers Planned for Two New State Fair Buildings

As the State Fair grounds and grandstand take on their new look, two structures will be protected with fire sprinkler systems.

According to Martin King, assistant chief, West Allis Fire Department, fire sprinkler systems will be installed in the new Ag Village building and the press box located in the grandstand.

The two-story Ag Village building is made of heavy timber and will house the cattle barn. The sprinkler system includes 800 sprinklers. King said it's important to remember

that the fire sprinkler system will protect the building, the livestock and the people inside the building.

“Because this building will be protected with a sprinkler system, we don't have to worry about a fire spreading to other buildings,” King added. “Even more important, it will protect our firefighters.” ■



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For more information about fire sprinklers, contact Dan Gengler, National Fire Sprinkler Association, (262) 245-5255  
 You can also contact Dan via e-mail: [DanNFSA@aol.com](mailto:DanNFSA@aol.com)

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**PLEASE SEND ME THE FOLLOWING INFORMATION:**

- NFPA/USFA College Fire Safety Forum.** Final Report.
- Fire Safe Student Housing.** A Guide for Campus Housing Administrators (USFA).
- Fire Sprinkler Retrofit Guide.** Understanding Fire Sprinkler Installation Criteria for Retrofitting Fraternity and Sorority Houses (NFSA).
- Get Out and Stay Alive.** Information from USFA. Free kit available at USFA website: [www.usfa.fema.gov](http://www.usfa.fema.gov)
- Dorm Room Safety 101.** Underwriters Laboratories press release.
- College creates policy on fires.** *Salisbury Post* article following a student death and disconnected smoke alarm.

This form can be faxed to: **(262) 245-5258**