Fire Investigation Summary

Nursing Home

Hartford, CT

February 26, 2003

A fire that broke out in the early morning hours of Wednesday February 26, 2003 in a patient room at a nursing home in Hartford, CT resulted in sixteen fatalities and dozens of injuries. At the time of the fire there were 148 patients being cared for at the facility. The three alarm fire damaged several patients' rooms and a wing of the facility.

Fire fighters and the facility staff were faced with not only a growing fire but with heavy volumes of smoke and numerous non-ambulatory patients exposed to the smoke and heat.

When the fire was extinguished the initial death toll was ten patients. This number grew to sixteen in the days following the fire as 6 other victims died from injuries and smoke inhalation suffered during the fire.

Investigators determined that the fire was caused when a patient ignited bedding on her bed in the room of fire origin, with a lighter. Charges were not pursued against this patient as it was determined that she was not competent to stand trial.

National Fire Protection Association
Fire Investigations Department

A fire that broke out in the early morning hours of Wednesday February 26, 2003 in a patient room at a nursing home in Hartford, CT resulted in sixteen fatalities and dozens of injuries. At the time of the fire there were 148 patients being cared for at the facility. The three alarm fire damaged several patients' rooms and a wing of the facility.

A master box alarm notified the Hartford Fire Department of the fire at the complex at 2:40 a.m. A first alarm assignment responded to the scene and arrived within four minutes and found a fire in a patient room in one wing of the building with staff removing patients from that wing and other affected areas of the facility. A second alarm was struck for this fire at 2:48 a.m. and a third alarm at 2:58 a.m., bringing additional fire and EMS resources to the scene.

Fire fighters and the facility staff were faced with not only a growing fire but with heavy volumes of smoke and numerous non-ambulatory patients exposed to the smoke and heat. Dozens of ambulances responded to the scene to transport patients to hospitals and other facilities.

The fire was declared under control at 3:30 a.m.

When the fire was extinguished the initial death toll was ten patients. This number grew to sixteen in the days following the fire as 6 other victims died from injuries and smoke inhalation suffered during the fire.

Investigators determined that the fire was caused when a patient ignited bedding on her bed in the room of fire origin, with a lighter. Charges were not pursued against this patient as it was determined that she was not competent to stand trial.

The facility was licensed for operation and received its certificate of occupancy and commenced operation in 1970. The building is a single story structure with a partial basement that was configured with 4 wings.

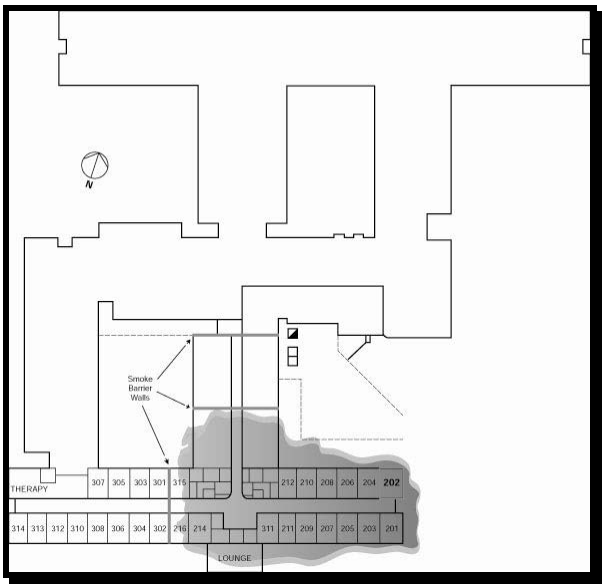

Figure 1- Facility Layout

While the designation of Type II (111) construction was given to the building, evidence suggests that a more appropriate classification may have been Type II (000). There did not appear to be any type of fire proofing on either the steel bar joists or the under side of the roof deck. While the use of non-combustible materials were indeed evident, the hourly ratings of these

members based on the analysis at the scene suggests that no protection was provided.

The NFPA investigation tried to locate rated ceiling assemblies (circa 1970) that may have provided 1-hour protection but could not locate any. However, based on the available evidence, the lack of a tested assembly appeared to have resulted in little or no difference in the outcome of the fire.

This subtle but potentially important detail is crucial since it can be a deciding factor when determining if this facility, even when defined as existing, would have required an automatic sprinkler system. Table 19.1.6.4 from NFPA 101 only permits Type II unprotected construction for single story facilities that are protected with sprinklers.

Figure 2 - Damage in Corridor

The Hartford fire shares common themes with other losses in nursing homes. One element that may have contributed to the outcome is the staff response. Only 5 of the 12 available staff responded to the fire area, initially. At one point, 3 of the 5 staff were involved in a rescue attempt of just one person from Room 202. Additional responding staff may have made a contribution to the efforts to rescue other residents or contain the fire effects by closing additional resident room doors.

Another factor to contemplate is the enforcement of a defined smoking policy. While some facilities are in essence “smoke free”, designated areas, even if outside, must be properly supervised. Operational procedures established by the facilities on the restriction and control of lighters and matches should also be considered.

Finally, lack of automatic sprinkler protection has been noted in previous nursing home fire losses. Given issues of staff training and response noted in this fire and other factors that may have impeded suppression of the fire and smoke spread, as well as rescue of occupants, this fire calls for careful reconsideration of the need for more widespread use of automatic sprinkler protection in nursing facilities.

The NFPA Technical Committee on Health Care Occupancies accepted a series of proposals that mandate the retroactive installation of automatic sprinklers in all existing nursing homes. This proposed change to the 2006 edition of NFPA 101 was voted on by the NFPA membership in June of 2005, and will go before the NFPA Standards Council for final action in July, 2005.

Fire Investigation Summary

Nursing Home
Hartford, CT

February 26, 2003

The National Fire Protection Association's Fire Investigations Department documents some of the most significant fires and incidents throughout the world. The objective of these investigations is to determine what lessons can be learned from these incidents. The information is then made available to the fire safety community to be used in developing future codes and standards. A complete listing of reports is available, either on request or can be viewed on our Web page.

NFPA Fire Investigations Department

1 Batterymarch Park
PO Box 9101
Quincy, MA 01269-9101 USA
1-617-984-7263 (tel)
1-617-984-7110 (fax)
investigations@nfpa.org
http://www.nfpa.org

Related reports published by the NFPA Fire Investigations Department include the following:

- **Nursing Home Fire – Norfolk, VA 10/5/89 (12 fatalities)**

A number of Fire Investigation reports (including this one) are available in electronic format on the NFPA web site. More information is available at: www.nfpa.org

Full printed copies of this report or any other Fire Investigation Report can be ordered by contacting NFPA's Charles S. Morgan Library.

1-617-984-7445 (tel)
1-617-984-7060 (fax)
library@nfpa.org