

# NURSING HOME FIRE

Quincy, MA

January 16, 1985



# FIRE INVESTIGATIONS

NATIONAL FIRE PROTECTION ASSOCIATION

1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101 USA  
Telephone: 1-617-984-7263 E-mail: [investigations@nfpa.org](mailto:investigations@nfpa.org)

**Summary Investigative Report**

**Merrymount Nursing Home Fire  
Quincy, MA  
24 Patients Safely Evacuated  
January 16, 1985**

**Prepared by**

**NFPA's Fire Investigations  
and Applied Research Division**

All 24 patients of a Quincy, Massachusetts nursing home were safely evacuated as a concealed fire spread smoke throughout the structure. The nursing home staff and fire fighters utilized a dwelling located across the street to temporarily provide shelter to the patients from the sub-freezing temperatures until other accommodations could be found. The smoke actuated the fire alarm system which automatically notified the local fire department and alerted building occupants of the fire. These factors plus the actions of the staff and fire fighters in evacuating and relocating the patients are thought to have been responsible for preventing any fatalities in this incident.

The fire occurred on Wednesday, January 16, 1985, at the Merrymount Nursing Home. The building, a 2-story wood frame structure, was originally constructed as a large single-family dwelling in the 1920's but has been used as a nursing home for the past 20 years. Several key fire protection features had been added to the building during its use as a nursing home. A complete automatic sprinkler system provided protection on all levels of the building including the basement. Exit access corridors and the basement were furnished with smoke detectors connected to the building's fire alarm system. Also connected to the building's fire alarm system were the water flow alarm devices from the sprinkler system and combination rate-of-rise and fixed-temperature heat detectors that were provided in each patient room. Activation of any fire detection device automatically notified the fire department. A centrally located enclosed stairway and fire resistive floor/ceiling assemblies provided fire separation between floors.

On the evening of the fire, the two-person nursing staff on duty was working on the first floor when they noticed the smell of smoke. As soon as they began to search for its source, the fire alarm horns sounded throughout

the building. Smoke was soon discovered coming from a utility closet located just off the exit access corridor on the first floor. A further investigation revealed that smoke was also issuing from the wall cavities in the kitchen (the utility room and kitchen had a common wall). Assessing the magnitude of the fire to be severe, the staff decided to start evacuating the patients from the building. It was also at this point that a call was placed to the fire department by a member of the staff.

Because the ambulatory patients were located on the second floor, one staff member aroused and then led them from the building. The other staff member operating on the first floor shut doors to patients' rooms and assisted in the evacuation of patients from the second floor.

Although the fire alarm system had been sounding for several minutes, the staff reported that most of the patients still had to be aroused from sleep. Further, they mentioned that once awakened, the patients were slow in moving to the exits, prolonging their evacuation time.

It was estimated that 6 to 8 patients had been evacuated when the fire department arrived on the scene. Smoke conditions were now reported throughout the building and conditions were described as "quickly deteriorating." Additional alarms were requested by the officer-in-charge for manpower. Fire fighters immediately initiated suppression activities and assisted in the on-going evacuation. Fire department personnel carried approximately 12 non-ambulatory patients from the building during the search and rescue operation.

Once the patients were removed from the building, temporary refuge was provided at a neighbor's home until a more permanent shelter could be located. During the evacuation and relocation process, four patients were transported to an area hospital for treatment of smoke inhalation.

The Quincy Fire Department has determined that light weight wooden materials were ignited from the heat of a gas-fired commercial clothes dryer located in the basement of the building. Once these initial materials were ignited, the fire spread to the building's wooden structural members. A concealed fire resulted, which was able to spread horizontally in the concealed combustible space formed by floor joists, sub-floor and the finished basement ceiling and travel for several feet. Voids in the building's exterior frame wall allowed the fire to extend vertically to the first floor before fire fighters were able to suppress it. Because the fire was confined to the combustible space between the finished ceiling and the floor joist, the automatic sprinkler system did not activate; however, a smoke detector located in the basement did.

Fire damage to the building was limited to the combustible structural members immediately adjacent to the area of origin. Vertical channels, created by the construction method, allowed smoke to penetrate the upper floor levels.

Several key factors are thought to be responsible for the safe evacuation and successful outcome of this fire:

- (1) Automatic detection of the fire and notification of the fire department;
- (2) Decisive actions taken by staff to close patient room doors and initiate evacuation procedures; and
- (3) Quick actions of fire fighters in suppressing the concealed fire and in continuing to evacuate the remaining patients.

Occupants of this nursing home were quickly exposed to the fire's initial products of combustion. This is not unlike the experience found from fires in "small" nursing homes located in other older or converted structures.

Therefore, the need for Emergency Planning for nursing homes located in these structures is essential and planning for a total evacuation should be a part of this Disaster Planning Program.

Factors to consider in evacuating nursing homes include:

- 1) Planning for different staff levels: daytime vs evening vs weekend. A low staff-to-patient ratio means outside assistance will be required very quickly.
- 2) Determining in advance which patients will need total assistance, partial assistance, and no assistance.
- 3) Planning what to do after patients are lead or carried outdoors: day or night, warm or cold, clear or raining/snowing: arrange for a common meeting area to assure accurate patient count.
- 4) Contingency plans if relocation is necessary (temporary/long term; coordination with other facilites, the Red Cross, families of patients, etc.).
- 5) Continued communication. If no one is allowed back into the facility for a period of time, or communication equipment within the facility becomes inoperable, it must be possible to quickly establish an alternate means of communication.
- 6) Medical Records. Removal of medical records should be relatively simple. At minimum, current information should be carried out quickly.

Of further assistance, a descriptive guide on Health Care Emergency Preparedness is included as Appendix D in NFPA 99-1984, "Standard for Health Care Facilities". It should be reviewed to insure completeness of planning by each facility. For more information on the Standard, contact NFPA's Burton Klein, Health Care Fire Safety Specialist at (617) 770-3000, ext. 416.