# Fire Investigation Summary

# Harveys Lake, PA

## Board and Care Fire
## May 13, 1997

A tragic fire in a board and care facility housing elderly and mentally challenged residents killed 10 people. This fire is another in a line of fatal board and care fires investigated by the NFPA Fire Investigations Department.

**National Fire Protection Association**
**Fire Investigations Department**

On Tuesday, May 13, 1997, a fire occurred at a board and care facility in Harveys Lake, Pennsylvania. State fire investigators determined that the fire most likely started on a screened-in porch. Investigators determined that the fire was caused by disposal of smoking materials on the screened-in porch area of the building. The fire killed ten residents and injured three others. The building was heavily damaged by the fire, and the property loss was estimated at $270,000.

The facility was a two-story plus basement, wood-frame structure with several additions that had been made over time, which increased the size of the building. Fire protection features included a fire alarm system with smoke detectors and heat detectors, and fire extinguishers. Interior stairways were enclosed. Steel doors with self-closing devices protected openings to the stairways; however, the self-closing device on one of the stairway doors was deactivated. Wall and ceiling finishes were noncombustible. The facility was not equipped with an automatic sprinkler system.

The first floor contained three doors to the exterior at grade. One door was on the south side off of the screened-in porch to the exterior. The two other doors were on the west side of the building. One on the southwest corner was used as well as one from the kitchen on the northwest corner .

The second floor was accessible by two interior stairways on the west side of the building. The stairway on the southwest side led to a small foyer area that was accessible to the southwest door on the first floor. The stairway on the northwest side led to a small open area at the door on the northwest side at the kitchen. This door was not identified in the second floor evacuation plan. An exterior stair way on the north side of the building was accessible from the second floor by traveling through a bedroom.

The interior stairway identified for occupant egress in the evacuation plan was separated from the rest of the structure, however, the door- closer on the door at the bottom of the stairway was disabled and the door open at the time of the fire. The exterior stairway was only accessible by passing through a bedroom.

One staff member and 21 residents were in the building at the time of the fire. The 21 occupants of the building ranged in age from 58 to 99 with varying medical needs and mental capacities. State regulations do permit individuals identified as immobile to be housed in personal care homes.

Investigators were not able to determine the type and frequency of fire safety training that had been provided for residents and staff.

Investigators determined that the fire started on an exterior screened-in porch that was being used as a smoking area. Once ignited, the fire involved the combustible materials used in the construction of the porch, combustible exterior siding for the building, and combustible furnishings. Investigators believe that the fire broke large windows between the porch and the interior of the building allowing the fire to enter one bedroom and a living room.

According to investigators, the staff member was in the kitchen completing paperwork when the building alarm sounded. Based on previous false alarms, the staff member attempted to reset the building alarm system. When the alarm system did not reset, the staff member silenced the alarm trouble and the panel trouble indicators. It was at this time that the staff member was informed of a fire by a resident. After confirming the fire, the staff member returned to the kitchen and notified the rest of the residents by activating the drill switch on the alarm panel. The staff person then took action to assist in the evacuation of residents.

At approximately 9:10 p.m. a call was placed to the Harveys Lake Fire Department reporting a fire at the board and care facility. At 9:10 p.m., a telephone call was received at Back Mountain Control (Regional 911

answering point) from a neighbor whose house is located south of the building and through a thickly wooded area. She told the dispatcher that the board and care facility was fully involved. The Harveys Lake Fire Department was immediately dispatched with the fire chief responding directly from his home. During this time numerous 911 calls were received at Back Mountain Control.

Fire fighters began arriving on the scene about 3 minutes later and they found that the building was heavily involved in fire. Many residents had escaped by the time that fire fighters arrived, and they reported to fire fighters that others were still in the building. Despite the severity of the fire, which prevented fire fighters from entering many areas, fire fighters were able to rescue six residents. Four of the residents who had been rescued, later died in the hospital. After the fire was extinguished, the bodies of six residents were found in various locations throughout the building. Preliminary information indicated that all residents died of smoke inhalation.

Investigators did not specify the materials that were first ignited by the smoking materials. It is believed that combustible furnishings on the front porch were some of the initial fuels that contributed to the fire travel around the outside of the building. The fire grew quickly, spreading down the ceiling of the porch in each direction. The fire then broke through one of the windows between the interior of the building and the porch. Once in the interior of the building, the fire traveled through open doorways and the open door to the stairway, cutting off the primary exits from the building. The fire also traveled up through the walls to the second floor. Fire and products of combustion also continued to spread along the ceiling of the open living room on the first floor and into the open dining room. On the second floor, fire and products of combustion moved through the bedroom and out into the hall. Fire eventually broke through to the roof construction over the dining room and traveled throughout the combustible concealed space causing collapse of the roof structure over the dining area.

Based on the NFPA's investigation and analysis of this fire, the following factors were considered to have contributed significantly to the loss of life and property in this incident:

- Improper use or disposal of smoking materials
- Ineffective resident and staff action
- Inadequate means of egress
- Open fire doors in vertical fire separations
- Room doors with inadequate fire resistance ratings
- Lack of automatic door closing devices on individual room doors
- Lack of automatic sprinkler system

The Harveys Lake incident is the fourth since 1991 where the evacuation capabilities of the residents has had a direct impact on the number of casualties. The assumption that the individual’s have the abilities to independently process the degree of danger of a situation and act accordingly has also been identified as a factor in the following fires:

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| Colorado Springs, CO | 1991 | 9 fatalities |
| Broward County, FL | 1994 | 5 fatalities |
| Shelby County, TN | 1996 | 4 fatalities |
| Laurinburg, NC | 1996 | 8 fatalities |

All of the seven significant factors identified in this incident as contributing to the loss of life are issues that are addressed in NFPA documents. A change in any one of them could potentially have had the ability to reduce the number of deaths that occurred at this fire.

Within the past 15 years, NFPA has investigated 11 fires, which have caused the deaths of 83 people. The type of board and care facilities in which these deaths have occurred range from those that house elderly patients to those that house mentally challenged people. With the potential increase in the number of these facilities, it is more and more important that an adequate level of fire protection is provided to ensure protection of the people living in them and to avoid future tragedies.

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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. This 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 upon request or can be viewed on our web page.

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**Related reports available from NFPA include:**

- **Ste. Genevieve, Canada**
- **Laurinburg, NC**
- **Shelby County, TN**
- **Mississauga, Canada**
- **Broward County, FL**

**A full copy of this report is available through NFPA's Charles S. Morgan Library. To order this report, or any other NFPA Fire Investigations Report, please contact them at the following numbers:**

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