

# Fire Investigation Summary

## **Chapel Hill, NC**

**Fraternity House Fire  
May 12, 1996**

**Five occupants  
were killed and  
three others  
were injured.**



**National Fire  
Protection Association**

On Sunday, May 12, 1996, an accidental fire occurred at the Phi Gamma Delta fraternity house at the University of North Carolina. Five occupants were killed and three others were injured. The fire and smoke caused heavy damage throughout the building. The fire damage to the building and its contents was estimated at \$475,000.

The 70-year-old, three-story-plus-basement fraternity house was designed to be a fraternity house. It had masonry exterior walls and wood frame interior structural components. Nineteen of the building's bedrooms were located on the second and third floors. The first floor had several rooms and the president's suite, and the basement had an open area that contained a bar area, sitting area, and dining room. In addition, a chapter room, a kitchen, mechanical rooms, rest rooms and several storage rooms were in the basement. The basement's open area and chapter room as well as a small reading room on the first floor had combustible interior finishes. All other rooms in the building had noncombustible interior finishes. An open stairway in the center of the building connected the basement with all three floors above.

Single-station, battery-powered smoke detectors were installed near the central stairway in the basement and in the corridors on the second and third floors. Portable fire extinguishers were provided throughout the building. Doors to the sleeping rooms were solid, consisting of wood-based composite material. These doors did not have self-closing devices.

Local and state fire investigators determined that smoking materials most likely ignited combustible materials underneath an alcohol bar in the basement. The fire then spread to the combustible interior finishes and the furnishings in the basement's open area and chapter room. Fire and unburned products of combustion spread up the interior stairway and ignited fires on all levels above the basement.

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The total number of occupants in the building before the fire was not determined. Five occupants died during this fire. Four of these victims were found in bedrooms, and one victim was found in the doorway to the bedroom in which she had been sleeping. Three occupants were also injured while they evacuated the building.

Based upon its investigation of this fire, the NFPA has determined that the following factors significantly contributed to the

loss of life:

- The presence of combustible interior finish materials.
- The presence of an open central stairway.
- The lack of fire-rated construction separating the assembly areas from the residential areas of the building.
- The lack of building-wide fire detection and fire alarm systems.
- The lack of automatic sprinkler protection.
- The improper use or disposal of smoking materials.

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**T**he 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, and the subsequent reports that are prepared, 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 and to modify fire ground operations.

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