

FIRE AT STOUFFER'S INN HARRISON, NEW YORK

A Preliminary Report

On December 4, 1980, a fire of incendiary origin occurred at approximately 10:20 am in the conference center at the Stouffer's Inn of Westchester, located in the town of Harrison, New York. The critical location of the fire in the exit access, the rapid fire development, and the lack of a second means of egress from the small meeting rooms were significant factors that contributed to the 26 fatalities and some 40 injured occupants. This fire did not reach the guest-room area of the hotel.

With the cooperation of the Westchester County District Attorney's Office, the NFPA is conducting an investigation of the fire under a Major Fire Investigation Agreement with the US Fire Administration and the National Bureau of Standards. This agreement, funded by all three organizations, provides for the investigation of technically significant fires by the NFPA Fire Investigations Department to document and analyze incident details and report the lessons learned for loss prevention purposes.

BACKGROUND

The Stouffer's Inn of Westchester consisted of a luxury 365-room hotel, recreation facilities, and conference facilities that were separated from the main guest-room building by a small ravine, but connected to it by a 137-foot enclosed ramp. The hotel complex had been in operation since 1977.

The conference building, where the fire occurred, was a three-story structure of 2-hour fire-resistive construction. Its exterior façade consisted of either glass lights (panels) in aluminum mullions or masonry walls with a brick veneer. Structural steel had 2-hour fire-rated protection with sprayed-on mineral-fiber insulation on beams and girders, concrete encasement of spandrel girders, and columns enclosed in gypsumboard assemblies. Floor and ceiling assemblies consisted of concrete slab on steel deck. The roof and ceiling assembly of the third floor consisted of concrete slab on steel deck or

Left: The conference facility from the southwest. The railings of the promenade deck and windows of the burned-out Commons area of the third floor are above the slanted, glassed-in area housing the indoor swimming pool.

NFPA

2-inch foam insulation on steel deck; both were covered by a composition roof.

The building contained the registration desk, restaurants, a coffee shop, pool, and offices. On the third floor, where the fire occurred, were meeting rooms, a ballroom that had been converted into additional meeting rooms by means of movable partitions at the time of the fire, and the banquet kitchen, with ancillary service areas. The "Commons," a 25-foot-by-95-foot area that functioned as a lobby for the adjoining ballroom and as an accessway for other meeting areas, was located on the north side of the building. Two doorways at either end of the Commons opened onto an outside promenade deck.

Interior finish on the third floor consisted of vinyl wall coverings on gypsum wallboard. The suspended ceiling

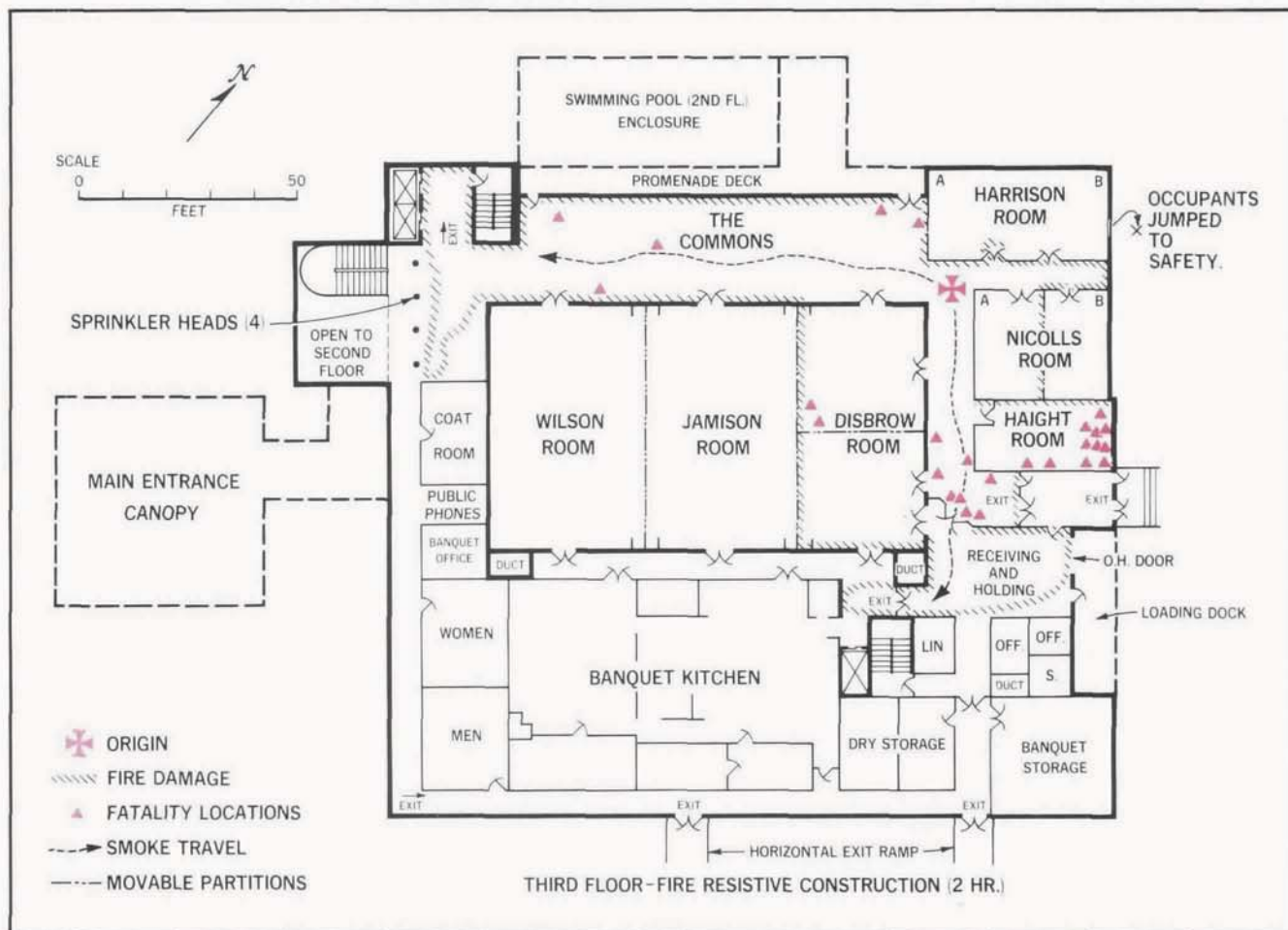
was of mineral-fiber tile. The floor covering consisted of carpeting with jute backing and a fiber underpad. The wall finish in the ballroom consisted of vinyl wall covering, painted wood molding, and plastic laminated panels on gypsum wallboard on fire-retardant treated plywood over steel stud.

The Commons area contained mixed furnishings that included sofas, two pianos, coffee tables, an artificial Christmas tree, and large evergreen Christmas wreaths. The north wall of the Commons consisted of glass in aluminum mullions, with curtains along its entire length.

Heating and air conditioning were provided by roof-mounted units. Each unit was equipped with ionization smoke detectors located in return-air and supply-air ducts. When activated, these detectors were designed to shut down the fans and send an alarm signal to an annunciator panel located in a PBX terminal room (for the phone system) that adjoined the registration desk on the second floor.

Manual fire alarm pull stations were distributed throughout the building in close proximity to each exit door. The fire alarm system, which was designed to sound evacuation signals upon activation of the manual

Floor plan of third floor.



pull stations, was local only and not directly connected to the fire department. Fire extinguishers (2½-gallon pressurized water-type) were also distributed throughout the building.

The open, monumental stairway between the lobby on the second floor and the Commons area on the third floor was provided with sprinkler protection. Four 165°, ½-inch pendant sprinkler heads were located in a straight line across the opening; they were connected to the building's domestic water supply.

THE FIRE

As determined by local investigators, the fire was of incendiary origin and involved flammable liquid on the carpet in the vicinity of the intersection of the Commons and the east corridor. It developed rapidly and extended into the Commons and the adjoining corridors, exposing those areas to heavy smoke and heat.

Reportedly, the occupants became aware of the fire as smoke began to seep into their meeting rooms, or when they heard the noise of other occupants in the corridors or the Commons area. The alarm bells apparently did not activate in the meeting-room areas. The detectors in the heating, ventilation, and air-conditioning (HVAC) system did activate an alarm signal on the annunciator panel in the PBX room. At 10:23 am, the fire department received a telephone call from the hotel operator, reporting the fire.

At 10:27 am, when fire department personnel arrived, the third-floor corridors, the Commons, and the Disbrow Room were already heavily involved in fire. The four sprinkler heads operated and stopped the horizontal travel of fire at the open lobby and monumental stairs. Fire fighters using handlines extinguished the fire approximately 45 minutes after their arrival. However, the rapid development of the fire, extreme heat, and heavy involvement of the rooms and corridors that fire fighters faced on their arrival prevented them from rescuing any of the victims.

The fire quickly extended to the Commons, the adjoining corridors, three meeting rooms, and two of the three partitioned meeting areas in the ballroom, causing severe damage to these areas. It also extended into the receiving and holding area through double doors that had been opened after the onset of the fire. Structural steel and masonry walls were damaged in the northeast corner of the ballroom.

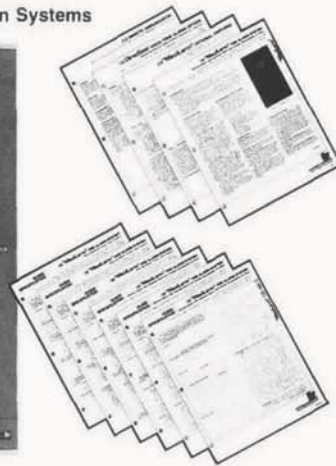
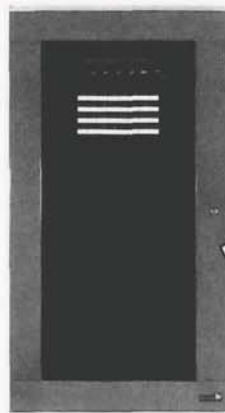
Nearly 100 people were attending meetings on the third floor at the time of the fire. All of the fatalities were occupants of the third-floor conference rooms who became trapped when the corridor outside their rooms became untenable. Unable to use the corridor as a means of egress, the 11 occupants of the Harrison Room broke a fixed (non-opening) window and jumped to the

ground approximately 15 feet below. All the occupants of this room survived, but sustained numerous injuries as a result of their falls.

Eleven of the 13 occupants in the Haight Room (which had a single exit door opening to the corridor, but no window) died in the room. The bodies of the other two occupants of the Haight Room were found in the adjacent corridor. An additional 11 victims who had been in the Disbrow and Wilson Rooms were found in the Commons and in the corridor outside the Disbrow Room. Two victims also died in the Disbrow Room. △



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