

HOSPITAL FIRE
Riverside, CA
November 28, 1986



FIRE INVESTIGATIONS

NATIONAL FIRE PROTECTION ASSOCIATION

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RIVERSIDE GEN. HOSPITAL
11/28/86



"Moving Mankind Toward Safety From Fire"

NATIONAL
FIRE PROTECTION
ASSOCIATION
INTERNATIONAL

Fact Sheet
Hospital Fire
Riverside, California
Five Deaths

On November 28, 1986, a fire in a patient's room at the Riverside General Hospital resulted in the death of five patients and gutted a patient's room. Because nurses did not close the door to the room of fire origin, the fire caused heavy smoke damage in corridors and in several other patient rooms. Smoke also spread horizontally and vertically into smoke zones which were adjacent to the area of fire origin.

The Riverside General Hospital was a large teaching hospital with 350 beds. The fire occurred in an acute care unit on the third floor of a four-story wing to the hospital. The wing, built in 1959, was a concrete structure with a wood roof. The acute care unit had approximately 40 patient beds and was divided into several smoke zones.

Noncombustible walls provided the separating between smoke zones and self-closing smoke doors protected the openings in the walls. Under normal conditions, magnetic door holders held these doors open. Smoke detectors and manual pull boxes were interlocked with the smoke doors and the alarm system.

Therefore, the activation of any initiating device would release the doors, operate alarm indication appliances, and send an alarm signal to the central control center, a constantly attended area, in the hospital. In addition to the alarm equipment, the facility had fire extinguishers and manual hose stations in corridors for occupant use.

According to hospital policy, all staff received firesafety training and reviewed the hospital's procedures for emergencies. Several emergency drills were performed each year and occasional false alarms provided opportunities for staff to perform the procedures that they had been taught.

Another hospital policy, regulated smoking on the premises. This policy permitted smoking in authorized areas but prohibited smoking in areas where combustible materials were stored and in areas where oxygen was in use. Patients were not allowed to smoke in bed and incompetent patients could not have smoking materials.

On the night of November 28, 1986, a patient in a third floor room was being administered oxygen as part of his treatment. Despite the hospital's "no smoking" policy, this individual decided to have a cigarette in his bed. Apparently, he attempted to shut-off his oxygen but did not stop the flow. When he placed his lit cigarette into an oxygen-enriched area, the fire erupted.

A nurse who was in an adjacent patient room heard screams and rushed to investigate. Finding the patient in flames, she called for help, entered the room, pulled the patient into the corridor, and extinguished his burning clothes with a blanket. She indicated that after she removed the patient, fire spread quickly through the room and large amounts of smoke began to enter the corridor. Apparently, the conditions deteriorated so rapidly that neither she nor other staff were able to attack the fire or close the door to the room of fire origin.

Nurses who heard the first nurse's cries for assistance responded to the emergency. Some closed patient room doors, one nurse pulled the manual pull box and another called the fire department. Several other staff members began to move patients to adjacent smoke zones on the third floor. However, deteriorating conditions forced all staff from the immediate fire area before they could complete the evacuation of the wing.

Upon receiving the alarm at 10:45:26 p.m., the City of Riverside Fire Department dispatched two engines, a truck, a squad, and a battalion chief. The arriving units found no exterior indications of fire. A guard brought the first attack crew to the third floor by way of a stairwell located at one end of the wing. Finding the glass window on the fire door glazed over and smoke stains on the stairway walls above the door, the officer of the crew decided not to enter the wing at this point.

Fire fighters entered the third floor through a central stairway and found a layer of light smoke at the ceiling of corridors next to the area of fire origin. The first fire fighters into the unit found that thick hot black smoke extended down to about two feet above the floor in the corridor.

No hospital staff were in the area of fire origin so fire fighters immediately began to search for and evacuate the remaining patients. Most victims were found in their rooms; however, at least one patient was found in a corridor.

Using hoseline from a hose cabinet and a "back-up" hoseline which had been carried into the fire scene, fire fighters attacked the fire in the patient room. Only materials in the patient room were burning so fire fighters quickly extinguished the fire.

The smoke continued to spread horizontally on the third floor and as a result, all the patients were evacuated from that floor. In addition, some smoke spread to the fourth floor through unprotected utility penetrations, and

other voids in the floor and wall assemblies. This resulted in evacuation of patients from areas on the fourth floor. In total, nearly 90 patients were moved from their rooms.

The patient who was intimate with ignition received second and third degree burns and later died of fire related causes. Four other patients who were in the unit where the fire occurred died and smoke inhalation was considered a contributory factor in their deaths. The exact room assignment for these patients and the position of their respective room doors was not known at the time this report was prepared.

Even though the fire was limited to materials in the room of origin, heavy heat and smoke damage occurred in five patient rooms, the nurses station, and all corridors in the area of fire origin. Damage to the structure has been estimated at \$70,000 and damage to contents had been estimated at \$150,000.