

Building Name Address	Use (as per FSA Annexed Table 1)	Date and Time of Incident	Structure and Stories Area	Extent of Damage (Damaged Area/ Total Area)	No. of Casualties
Kikufuji Hotel ----- 750 Yuhara Minakamimachi, Tonegun, GUNMA	Hotel (5) a	March 11, 1966	Fire resistant Partially wooden 3 stories above ground and 1 below ----- Building Area 3,732 m ² ----- Gross Floor Area 7,465 m ²	All, <u>Half</u> , Partial, Small 2,640 m ² (Spread to adj. building, 1650 m ²) (35%)	Fatalities 30
		Breakout at 03:40 (approx) Notified at 03:58 Notified by subscribed telephone Extinguished by 06:00			Injured 29 ()

I. Summary of Fire Incident

(1) Summary	This fatal fire occurred during Fire Prevention Week and 33 hotel guests were killed. A security guard accidentally knocked over a heater and the fire quickly spread and engulfed the building. Although the hotel had a complete set of firefighting equipment, none of equipment was effectively used and the evacuation was poorly handled.							
	FL	Gross Area m ²	Damaged Area m ²	Use (Purpose)	No. of persons	No. of fatalities	Fire escape equipment	Firefighting equipment
(2) Conditions per Floor	*Embroided building Hotel H (2-story wooden building, 3-story wooden building, all destroyed (total of 1,650 m ²))						1 set of inside stairs (B1 to 3rd floors)	8 sets of fire extinguishers
	Old building						1 set of exterior stairs (1st to 3rd floors)	1 set of indoor fire hydrants
		2-story wooden building, destroyed all	4 building 1240 m ²		130	0	Fixed ladders (2nd and 3rd floors)	Automatic fire detection system
		2-story wooden building, destroyed partially						
		1-story wooden building, destroyed all						
	New (fire-resistive) building (Skylight Garden)							
	3	405	1,400	Guest room, Bath house	43	16		2 sets of guide lights on the 1st floor
	2	405		Guest room, Bath house	40	14		
	1	689		Lobby, Front desk	Hotel staff (4)			
	B1	239		Banquethall				
Sub				87				
Total	7,645	2640		217	30			

(3) Origin of Fire	<p>(Floor, Room, Part, Combustibles, Habitable/Non-habitable Rooms, Present/Absent)</p> <p>The fire started in the security guard office.</p> <ul style="list-style-type: none"> ◦ The security guard office (5.5 m² approx.) consisted of a tile floor with one tatami mat on two sides, plywood walls and ceiling. There was a pile of combustibles including a cardboard box and newspapers present. ◦ A security guard was resting in the room. 	(4) Cause of Fire	<p>The security guard fell asleep while a kerosene heater was on, and he accidentally knocked it over, which caused the kerosene to ignite.</p>
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(5) Fire Propagation Path	<table><tr><th>(Location of Fire Source)</th><th>(Propagation from Source)</th><th>(Propagation to Adjacent Zones)</th><th>(Propagation to Upper Floors)</th><th>(Propagation to Adjacent Buildings)</th></tr><tr><td>From the security guard office on the 1st floor of the new building</td><td>From the kerosene of the stove to a cardboard box and old newspapers, and then to the walls and ceiling</td><td>From the door, window and openings on the ceiling to the lobby and the back pathway for employees</td><td>Ascended the stairwell from the lobby ceiling and then to the 2nd and 3rd floors</td><td>Spread to the other buildings of the Kikufuji Hotel because the fire shutters in between were left open and also to another hotel</td></tr></table>					(Location of Fire Source)	(Propagation from Source)	(Propagation to Adjacent Zones)	(Propagation to Upper Floors)	(Propagation to Adjacent Buildings)	From the security guard office on the 1st floor of the new building	From the kerosene of the stove to a cardboard box and old newspapers, and then to the walls and ceiling	From the door, window and openings on the ceiling to the lobby and the back pathway for employees	Ascended the stairwell from the lobby ceiling and then to the 2nd and 3rd floors	Spread to the other buildings of the Kikufuji Hotel because the fire shutters in between were left open and also to another hotel		
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	<p>The flames from the guard office spread in three directions: (1) via the window that was facing the front desk, (2) via small openings on the backside of the ceiling that was facing the main stairwell and (3) via the opening of the guard room to the back pathway for employees that was facing a stone wall. Via paths (1) and (2), the flames spread to the plywood ceiling in the lobby and ascended along the main stairwell where the fire shutters were all open on the 2nd and 3rd floors. Via path (3), the flames spread to the kitchen (wooden) from the pathway and merged with the flames from the lobby to consume the president’s office and the banquet hall, and eventually hotel H next door that was located next to the north-side of the stonewall.</p>																
	<p>○ Main Reasons for the Propagation of the Fire</p> <ul style="list-style-type: none">○ The fire spread easily because of large quantities of combustible material inside the room, including the floor which was covered by flammable carpet and a felt pad (highly combustible).○ The fire not only spread from the stairwell where the fire shutters remained open, but also from the openings in the firewalls and floors that were unprofessionally left unsealed after construction. <p>○ Smoke Propagation Path</p> <ul style="list-style-type: none">○ Smoke propagated horizontally with the help of the growing fire in the lobby area, and quickly ascended along the stairwell to fill rooms on the 2nd and 3rd floors through hallways that remained open.																
II. Summary of the Building																	
(1) Built	Construction, Completion and Major Renovations (Business Opened) ---- , (Completion) July 1964																
Fire Prevention Management	(2) Vertical Shafts		(3) Fire Prevention														
	<table><tr><td>Stairs</td><td>[X]</td><td>Duct Spaces</td><td>[X]</td></tr><tr><td>Elevators</td><td>[]</td><td>Pipe Shafts</td><td>[X]</td></tr><tr><td>Escalators</td><td>[]</td><td>Other(vaulted ceiling)</td><td>[X]</td></tr></table>		Stairs	[X]	Duct Spaces	[X]	Elevators	[]	Pipe Shafts	[X]	Escalators	[]	Other(vaulted ceiling)	[X]	<ul style="list-style-type: none">○ The hotel appointed and submitted an unqualified person as the fire-prevention manager.○ The hotel failed to create a fire defense plan or carry out a fire drill.○ There was only one night guard, 2 cooks and the owner present during off-business hours.		
	Stairs	[X]	Duct Spaces	[X]													
Elevators	[]	Pipe Shafts	[X]														
Escalators	[]	Other(vaulted ceiling)	[X]														
<p>○ All fire shutters on the inside stairs remained open.</p> <p>○ The contractors never sealed the holes on the pipe shaft after construction.</p> <p>○ The outside stairs and fire doors for the fixed ladders were locked.</p>																	
	(4) Fire Compartments		(5) Firefighting Equipment														
	The contractors failed to seal the drilled holes in the floors and on the walls after water pipe construction.		Despite having a full set of firefighting equipment, the only maintenance work carried out was the fire-prevention manager's patrol.														

III. Actions Taken after the Fire was Detected			
(1) First Detected	<ul style="list-style-type: none"> ◦ Detected by (Security guard on duty) ◦ How and why (Flames spread instantly) ◦ Action taken (Attempt to extinguish the fire and to notify someone) 		
	<p>When the security guard (age 39) awoke, the room was already in flames. He tried to extinguish the fire with his jacket, but this action had adverse effects and spread the fire further. His attempt to extinguish the fire failed due to the inadequately maintained fire extinguisher. After he activated the fire alarm (from the receiver on the front desk's back office) to alert those inside the building, he called the town hall, but no-one answered. Therefore, he rushed to the employee dormitory to wake other hotel staff members and alerted other hotels in the vicinity.</p>		
(2) Emergency Call	Emergency Call Yes [X] (a fishing park employee who was alerted by one of the hotel employees made a call) No []	Time elapsed since the discovery (18) minutes	
	<p>The hotel employee who was alerted by the night guard could not get to the phone inside building because the entrance was already in flames, so he asked an employee of the fish park next door to make a call. The fish park employee K confirmed the fire and called the town hall.</p>		
(3) Initial Firefighting Activities	Initiated Successful [] Failed [X] ◦ Extinguished time [] ◦ Firefighting difficulties [X] ◦ Firefighting method []	(Reasons or Conditions) Although security guard M used a fire extinguisher, the fire had already spread beyond control.	
	Not Initiated ◦ Extinguished time [] ◦ Firefighting difficulties [] ◦ Firefighting method [] ◦ Other []		
(4) Summary of Firefighting Activities	(Obstacles or Difficulties in Fire Control) ◦ Not available due to lack of information		

(5) Evacuation	Means of Escape (No. of Persons)		Obstacles to Evacuation	
	<ul style="list-style-type: none"> ◦ Stairs [] () ◦ Elevators/Escalators [] () ◦ Escape equipment [] () ◦ Directly to ground from windows or openings [X] () ◦ Rescued [] () ◦ Other () [X] () 		<ul style="list-style-type: none"> ◦ No windows [] ◦ Barred openings [] ◦ Locked emergency doors (Exits) [X] ◦ Alarm system [] (Poorly controlled, Malfunctioned, Not installed) ◦ Power outage [] ◦ Other () [] 	
Refer to the attachment				
(6) Casualties	Healthy individuals 26 (Drunken persons) Individuals in need of assistance 4 Infants Elderly Handicapped Patients/ill persons		Obstacles to Evacuation	
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Refer to the attachment				
IV. Issues and Lessons Learned				
<ol style="list-style-type: none"> 1. Although the hotel had adequate firefighting and evacuation equipment installed, none was utilized effectively. 2. The night guard started the fire and failed to extinguish it, which caused the fire to spread. He also failed to help hotel guests to evacuate. 3. Hotel guests were not familiar with the location of the emergency exits or how to unlock emergency doors. The hotel failed to provide emergency procedures to the guests. The guard activated the fire alarm; however, most of the guests had no idea what the alarm was for. 4. The hotel was less aware of fire prevention and failed to maintain fire-prevention measures. No fire drill was carried out. Only one security guard was on duty during off-business hours. 5. Although there were fire shutters on the stairwell and in between the wooden buildings, all remained open. Most of the drilled holes in the firewall and ceilings were never sealed after water pipe construction. 				

[Attachment] Evacuation and Causality

When the fire broke out, 213 guests (a large group of 208 and 5 individuals) were staying at the Kikufuji Hotel. A group of 83 guests was in the new building (the building on fire). After enjoying dinner and a hot spring bath, most were asleep by 1am. Only a few guests noticed the sound of the fire alarms that were located on each floor and most guests woke up because of the smoke that entered their rooms and the unusual sound outside their rooms.

1. Evacuation and casualties from the 2nd floor

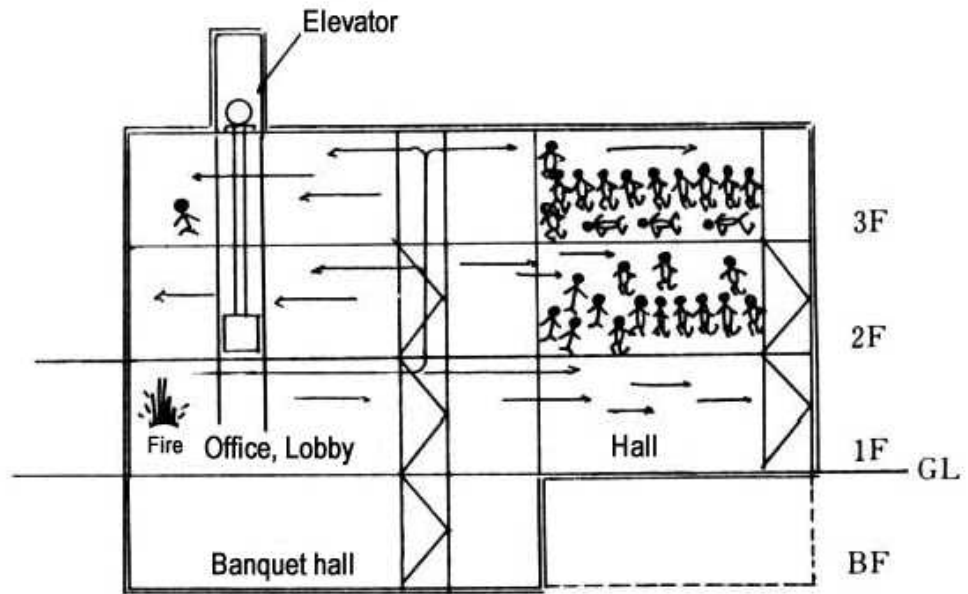
People who were staying in Rooms 205 to 208 called for help from the balcony (5m width) as soon as they found out about the fire. The hotel employees helped some of them to escape to the top of the stone wall near Hotel H and the rest jumped down onto futon mattresses. From this balcony, 24 people, including 2 with minor injuries, evacuated safely. On the other hand, guests who were staying in Rooms 201 to 203, which were above the stage, on the side of the street and 3 stories above the ground, were trapped by the flames emerging from a large window in the lobby. The hallway was already filled with flames and smoke; 10 guests from Rooms 202 to 203 were all found dead inside the rooms. As for 5 guests from Room 201, all reached the emergency exit: however, as no-one knew how to unlock the cylinder lock, 1 person was found dead near the exit and 2 people were found dead near the stairs. Of the 2 remaining persons, 1 was found dead inside the room and 1 called for help from the street-side window but fell into the flower garden. This person was badly injured but survived (in total, 14 people were killed).

2. Evacuation and casualties from the 3rd floor

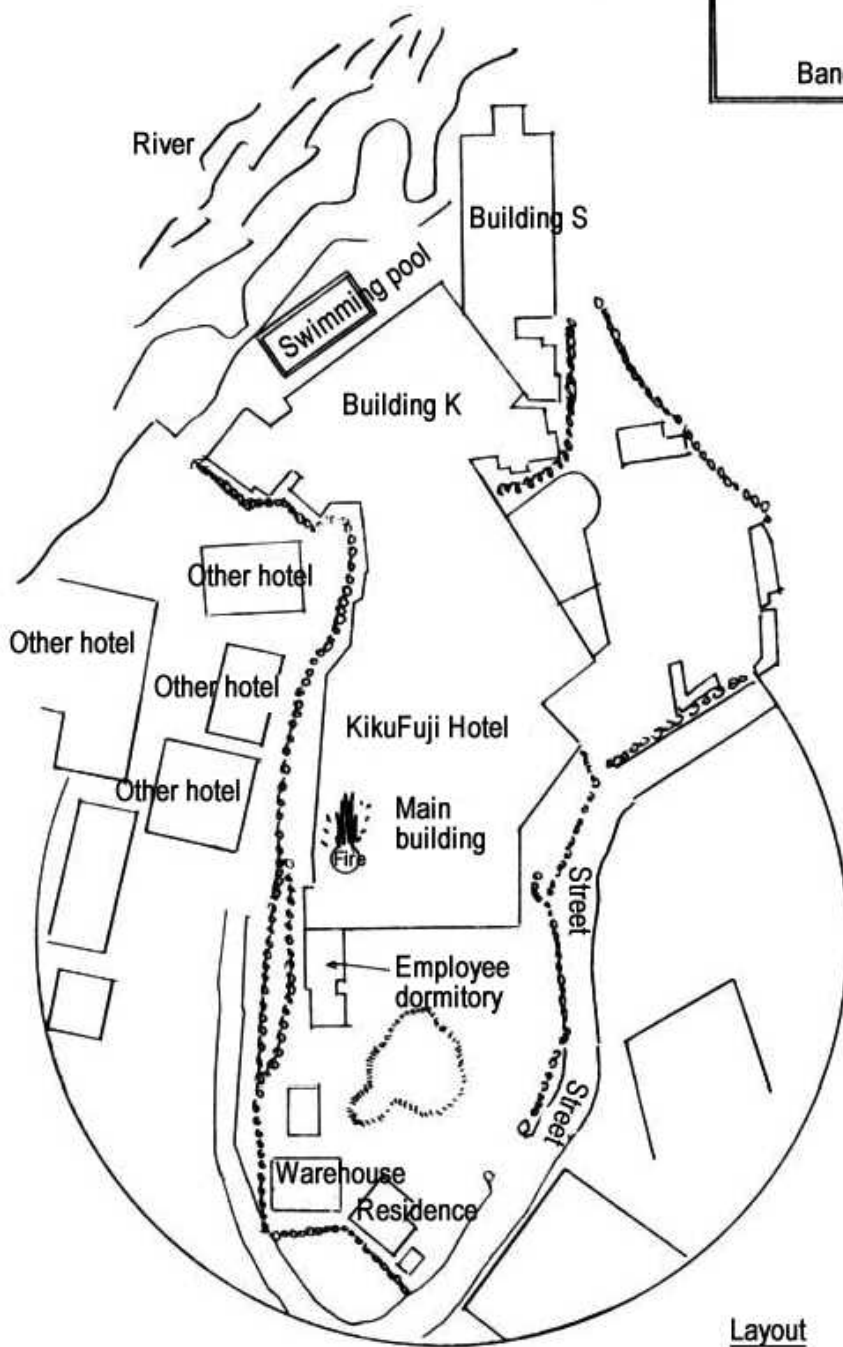
Similar to the 2nd floor, 28 guests in Rooms 305 to 307 could not enter the hallway, but they opened the windows and threw futon mattresses to the 2nd floor to jump down. During the evacuation, 1 guest died and the majority of guests sustained minor or serious injuries. Fifteen guests from Rooms 301 to 303, which is 4 stories above the ground, were trapped by the flames in the hallway and all were found dead in their rooms, except for 3 guests who were found dead in the bathroom. Most of the guests did not sustain burns to their body or clothing and some of them were still in bed (futon).

3. Other evacuees

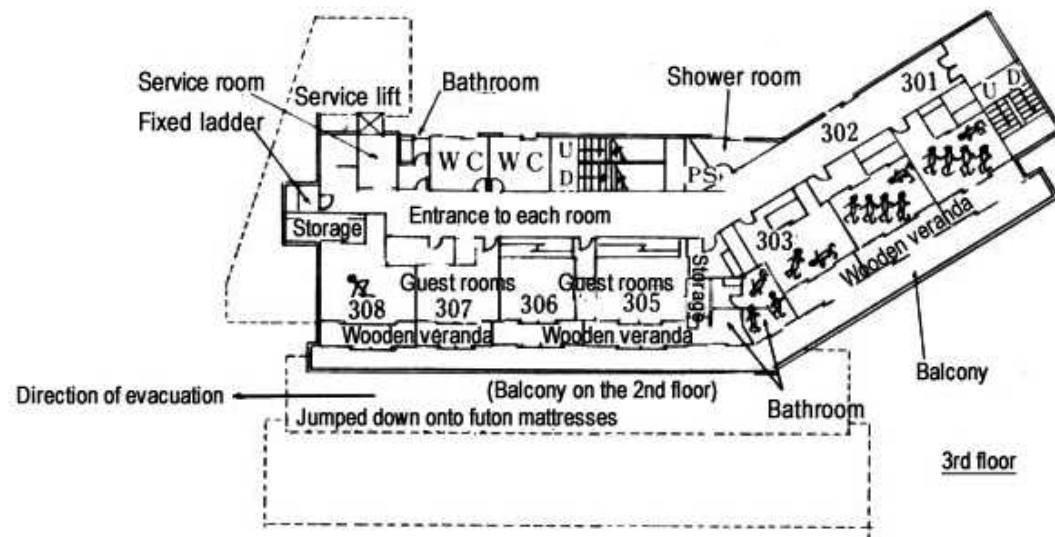
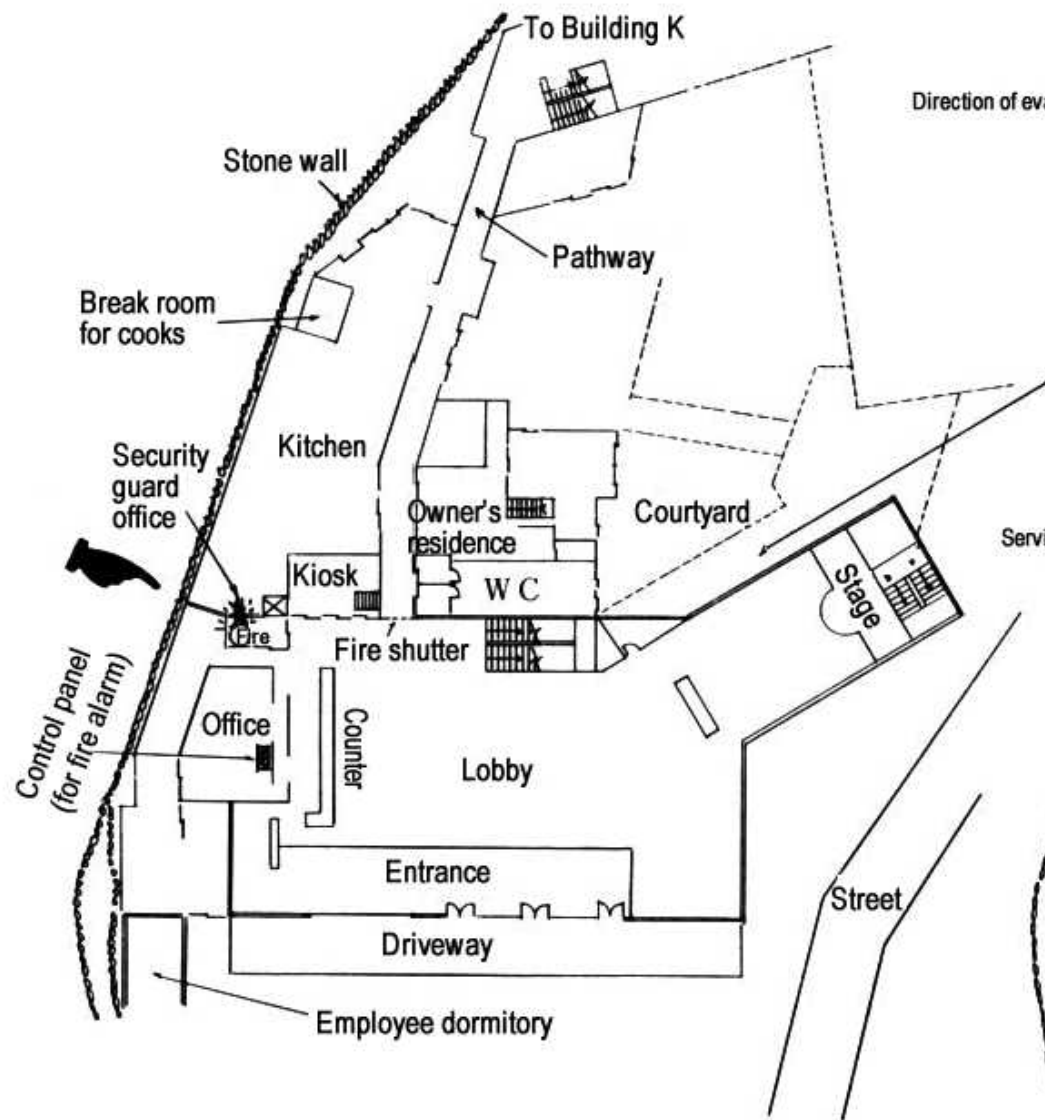
The hotel guests who were staying in Buildings K and S were awoken by the fire alarms sounding throughout the buildings, and firefighters and hotel employees helped them to evacuate safely via emergency exits.



(New Building)



Layout



Causalities

4 males, 10 females on the 2nd floor

1 males, 15 females on the 3rd floor

30 people in total

