

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
Ikebukuro Asahi Building	Complex (16) a	Mar 1, 1975	Fire-resistive structure, 7 stories above ground and 2 below	All, [Half] , Partial, Small 811 m ² (50%)	Fatalities 5
		Breakout at 02:28 (approx.) Detected at 02:45 Notified by emergency call Extinguished by 07:14	Semi-resistive structure, 2 stories above ground and 0 below Partially fire preventive		
1-12-11 Higashi-ikebukuro, Toshima-ku, TOKYO			Building area 350 m ² Total floor area 1,618 m ²		Injured 17 (2)

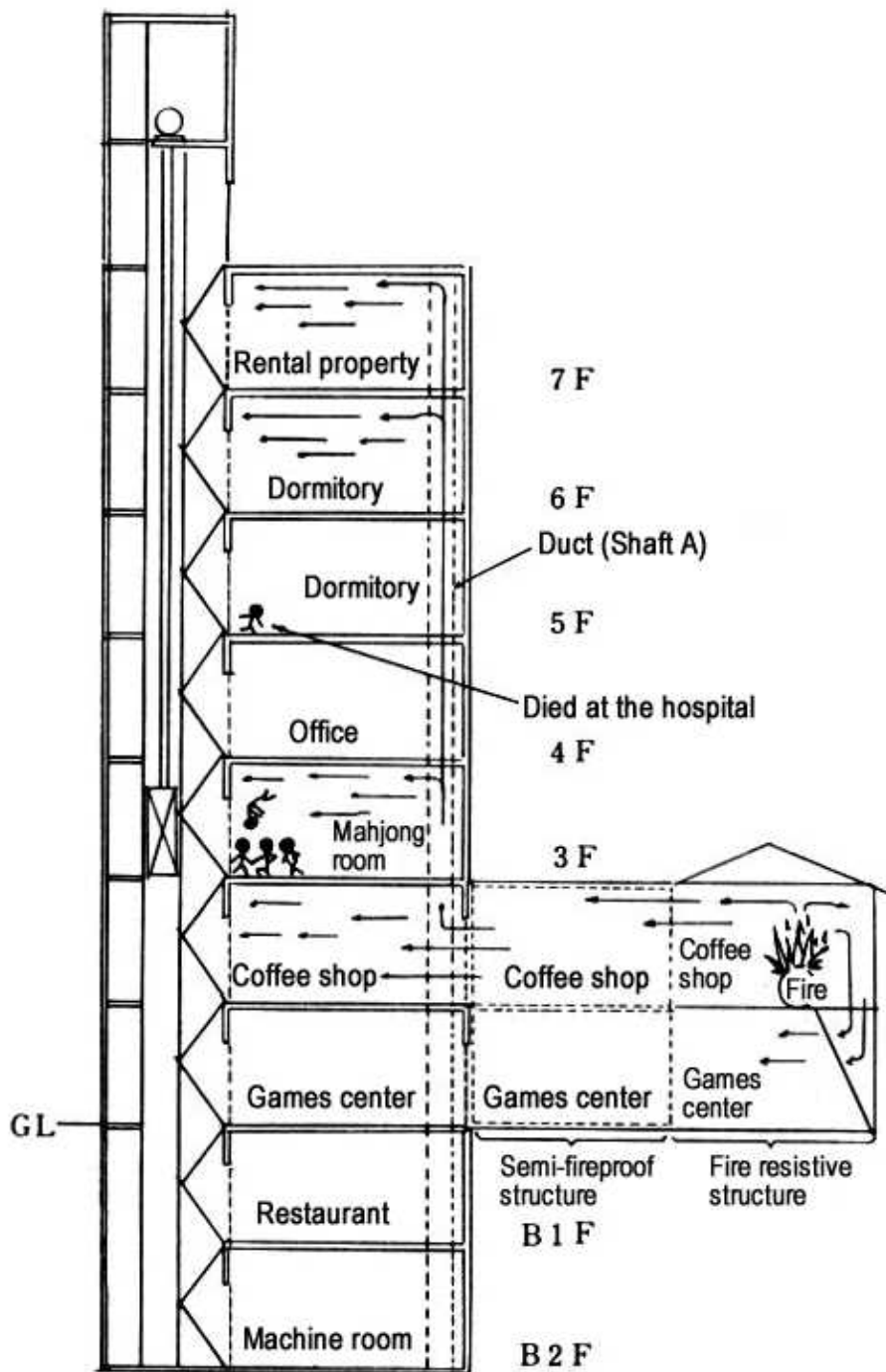
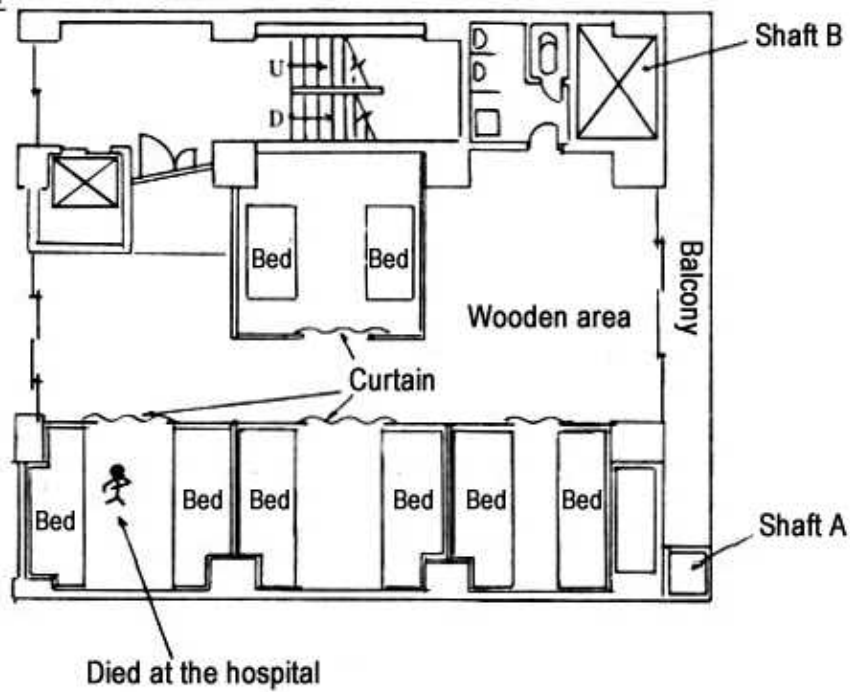
I. Summary of Fire Incident

(1) Summary	The fire emerged from the 2nd floor of the multi-tenant building that was comprised of 3 different structures (fire preventive, semi-fire resistive, and fire resistive), which are all connected to each other. The detection of the fire was delayed, and heavy smoke spread rapidly throughout the building because of an inactive fire alarm, faulty fire compartments, and burning interior finishes. Although the firefighters rescued 16 people, the pervasive smoke blocked the evacuation route and caused 5 fatalities.							
	(2) Conditions per Floor	Floor	Total area	Damaged area	Use (Purpose)	No. of persons	No. of fatalities	Fire escape equipment
		m ²	m ²		M= male F=female		Inside stairs	11 sets of indoor fire hydrants (1 each from floors B1 to B2, 2 each from 1st and 2nd, and 1 each from 3rd to 7th)
Roof		15.2					1 set from 2nd basement to 7th floors,	Water pipe connections (1 each from 3rd to 7th)
7		133.2	121	Rental property			1 set from 1st to 2nd floor	Guiding lights
6		133.2	121	Dormitory	2 (M1, F1)			Automatic fire detection system
5		133.2		Dormitory	9(M)	1(M)		Fire extinguishers
4		133.2		Office				Short circuit detector
3		133.2	121	Mah-jong room	11 (M10, F1)	4 (M3, F1)		
2		320.5	277	Coffee shop	1(M)			
1		350.4	171	Pachinko parlor				
B1		133.2		Restaurant				
B2	133.2		Machine room					
Total	1,618.5	811		26	5			
(3) Origin of Fire	(Floor, Room, Part, Combustibles, Habitable /Non-Habitable rooms, Present /Absent) <u>From the customer seating area of the coffee shop on the 2nd floor of the fire-preventive structure.</u>					(A) Cause of Fire	Presumably 1 of the employees had too much alcohol in the coffee shop after he closed the shop for the night. He decided to sleep on the chairs and was too intoxicated to go home. While he was asleep, his jacket that he was using as a blanket fell on an electrical heater that he did not turn off and caused the fire.	
	<ul style="list-style-type: none"> o The coffee shop was a part of the wood-frame structure, and the interior was made of wallpapered plasterboard wall and wallpapered plywood ceiling. o When the fire broke out, 1 employee was sleeping on customer seating inside the coffee shop. 							

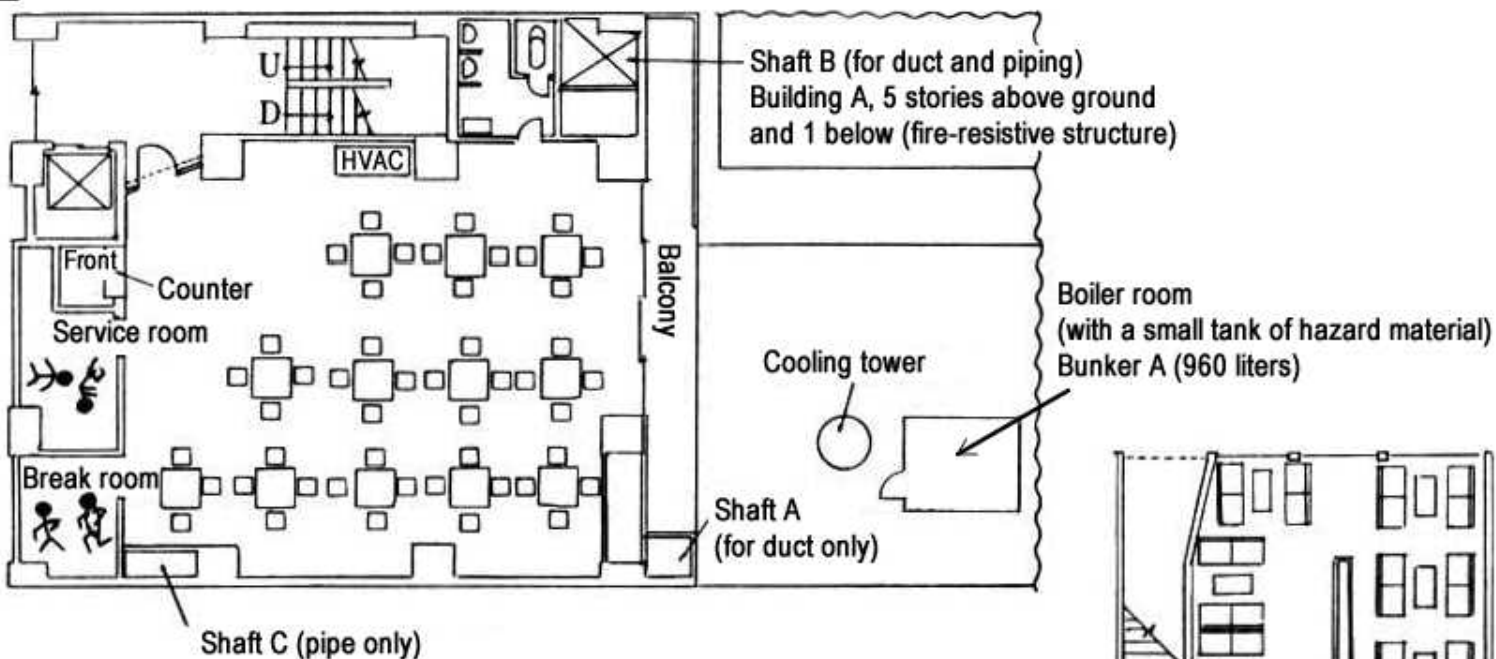
(5) Fire Propagation Path	(Location of Fire Source)	(Propagation from Source)	(Propagation of smoke to upper floors)						
	Seating area of the coffee shop on the 2nd floor of the fire-preventive structure	From the combustible interior wall and ceiling to the semi-fire-resistive structure and the fire-resistive structure	<ul style="list-style-type: none"> o From the wooden floor of the 2nd floor to the ceiling of the 1st floor. o From Shafts A and B. The thermal current and flame spread mainly through the opening of Shaft A to the upper floors. 						
<p>The fire that emerged from the seating area of the coffee shop on the 2nd floor ignited the walls and ceiling, spreading in all directions. After the fire had ignited the wooden floor, it spread to the ceiling of the 1st floor and then to the 1st floor of the fire-preventive structure. On the 2nd floor, the fire spread to the semi-fire resistive and fire-resistive structures. Through the clearance of Shaft A leading to the fire-resistive structure, the intense heat and flames ascended to the upper floors and propagated to the 3rd floor because the backside of the ceiling was not protected by a fire compartment system. (The outlet of Shaft B was mostly shielded by a louver on the 2nd floor.) According to the burned remains, Shaft B was the main propagation path to the 6th floor, whereas Shaft A was the path to the 7th floor where things closer to Shaft A were more burned.</p> <p>As for the 4th and 5th floors, since the openings of Shaft B were shielded, less thermal current traveled there and therefore damage was limited.</p>									
<p>○ Main Reasons for Propagation of the Fire</p> <ul style="list-style-type: none"> o The fire spread rapidly because the interior of the coffee shop was made of combustible materials and the fire shutter was left open between the fire-preventive structure and the semi-fire-resistive structures. o The opening of unused Duct A remained open, and therefore this opening became the propagation path to the upper floor. <p>○ Smoke Propagation Path</p> <p>After the fire emerged, the coffee shop was filled with heavy smoke. The smoke drifted to the stairwell through the fire door that the evacuees had left open. Then, together with the growing flames, the smoke propagated to the upper floors through the shaft that was not protected by a fire compartment system.</p>									
II. Summary of the Building									
(1) Built	<p>Construction, Completion, and Major Renovations (Completion: Fire-resistive structure) 1960 (Completion: Fire-preventive structure) 1950 (Expansion: Semi-fire-resistive structures) 1971</p>								
Fire Prevention Management	(2) Vertical Shafts		(3) Fire Prevention						
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Stairwells [X]</td> <td style="width: 50%;">Duct spaces [X]</td> </tr> <tr> <td>Elevators [X]</td> <td>Pipe shafts [X]</td> </tr> <tr> <td>Escalators []</td> <td>Other () []</td> </tr> </table>	Stairwells [X]	Duct spaces [X]	Elevators [X]	Pipe shafts [X]	Escalators []	Other () []	<ul style="list-style-type: none"> o A fire-prevention manager had been appointed and the fire defense plan submitted, but no fire drill had been carried out. o In general, the fire prevention management was poor. 	
	Stairwells [X]	Duct spaces [X]							
Elevators [X]	Pipe shafts [X]								
Escalators []	Other () []								
<ul style="list-style-type: none"> o There was no fire compartment for the stairwell. o There were 3 shafts: duct only, piping only, and duct and piping together. <p>* The pipe shaft was the only shaft that was protected by a fire compartment system. The other shafts had no fire compartments on the backside spaces above the ceilings.</p>									
(4) Fire Compartments		(5) Firefighting Equipment							
<p>In between the fire-preventive and semi-fire-resistive structures, there were fire shutters on the 1st and 2nd floors; however, these shutters were wide open when the fire broke out.</p> <p>* The side door next to the fire shutter had been removed on the 1st floor. There were obstacles such as vending machines right beneath the fire shutters on the 2nd floor.</p>		<p>The sound of the automatic fire detection system was inactive when the fire broke out.</p>							

(5) Evacuation	Means of Escape (No. of Persons)	Obstacles to Evacuation
	<ul style="list-style-type: none"> ◦ Stairs [X] (3) ◦ Elevators/Escalators [] () ◦ Escape equipment [] () ◦ Directly to ground from windows or openings [X] (3) ◦ Rescued [X] (16) ◦ Other () [] () 	<ul style="list-style-type: none"> ◦ No windows [X] (3rd and 7th floors) ◦ Barred openings [] ◦ Locked emergency doors (Exits) [] ◦ Alarm system [X] (Poorly controlled, Malfunctioned, Not installed) ◦ Power outage [] ◦ Other [X] (Heavy smoke)
<ul style="list-style-type: none"> ◦ From the 1st basement floor, 3 persons evacuated via the stairs as soon as they became aware of the fire. ◦ The coffee shop employee who was in the fire room became unconscious when he came to the 1st floor from the north stairs. He sustained severe injuries. ◦ On the 3rd floor, 11 persons who were playing mah-jong noticed smoke drifting from the ducts and balcony. Of these 11, 3 went to the balcony and climbed down the pipes and electrical cables to the ground. The firefighters rescued 1 person who went to the rooftop of an adjacent house from the window next to the elevator hall and 3 people were unconscious near the stairway. (4 fatalities) ◦ On the 5th floor, 9 persons heard the alarm from the electric leakage alarm, but the pervasive smoke obscured the escape route. So they broke a glass window on the north side of the floor and called for help. (1 person later died in hospital) ◦ Similar to the 5th floor, on the 6th floor, 2 persons were trapped by smoke and broke a glass window on the north side of the kitchen. Although 1 male was unconscious, they were all rescued by firefighters. 		
(6) Casualties	Healthy individuals 5 (Drunk persons) Individuals in need of assistance Infants Elderly Handicapped Patients/ill persons	Obstacles to Evacuation
		<ul style="list-style-type: none"> ◦ No windows [X] (3rd and 7th floors) ◦ Barred openings [] ◦ Locked emergency doors (Exits) [] ◦ Alarm system [X] (Poorly controlled, Malfunctioned, Not installed) ◦ Power outage [] ◦ Other [X] (Heavy smoke)
<ul style="list-style-type: none"> ◦ On the 3rd floor, 4 persons (3 males and 1 female) died. Probably, instead of finding a way out, they decided to wait for help in a small room where the smoke was relatively thin, but they became trapped. ◦ The 1 person who died on the 5th floor tried to escape with 8 others, but was trapped by the smoke. Although he was rescued by firefighters, he died in hospital. 		
IV. Issues and Lessons Learned		
<ol style="list-style-type: none"> 1. Despite the nature of the building where multiple tenants run their business with an unspecified number of people, the audio alarm of the automatic fire detection system was inactive on the control panel, and the control panel was located in the 2nd basement where no one monitors it. The building had never conducted a fire drill and was not much concerned with fire-prevention management. 2. There were many faulty or incomplete fire compartments, which were supposed to be applied on the evacuation stairs for each floor and the connecting portion between the fire-preventive and semi-fire-resistive structures. In addition, the portion of the unused HVAC shaft was not shielded, which became the propagation path for the fire to the upper floors. 3. There were high-voltage electrical power lines (6,000 V) on the main street side of the building, which interfered with the ladder truck's operation and caused a delay in rescue activities on the 5th floor. 4. The openings on the north side of the 3rd and 7th floors were blocked from both outside and inside by a bulletin board and interior materials, which created a windowless environment and made the evacuation incredibly difficult, especially on the 3rd floor. 5. Everybody should understand the dangers of smoke in a building fire and evacuation knowledge should be embraced as common knowledge. 		

5th floor



3rd floor



2nd floor

