

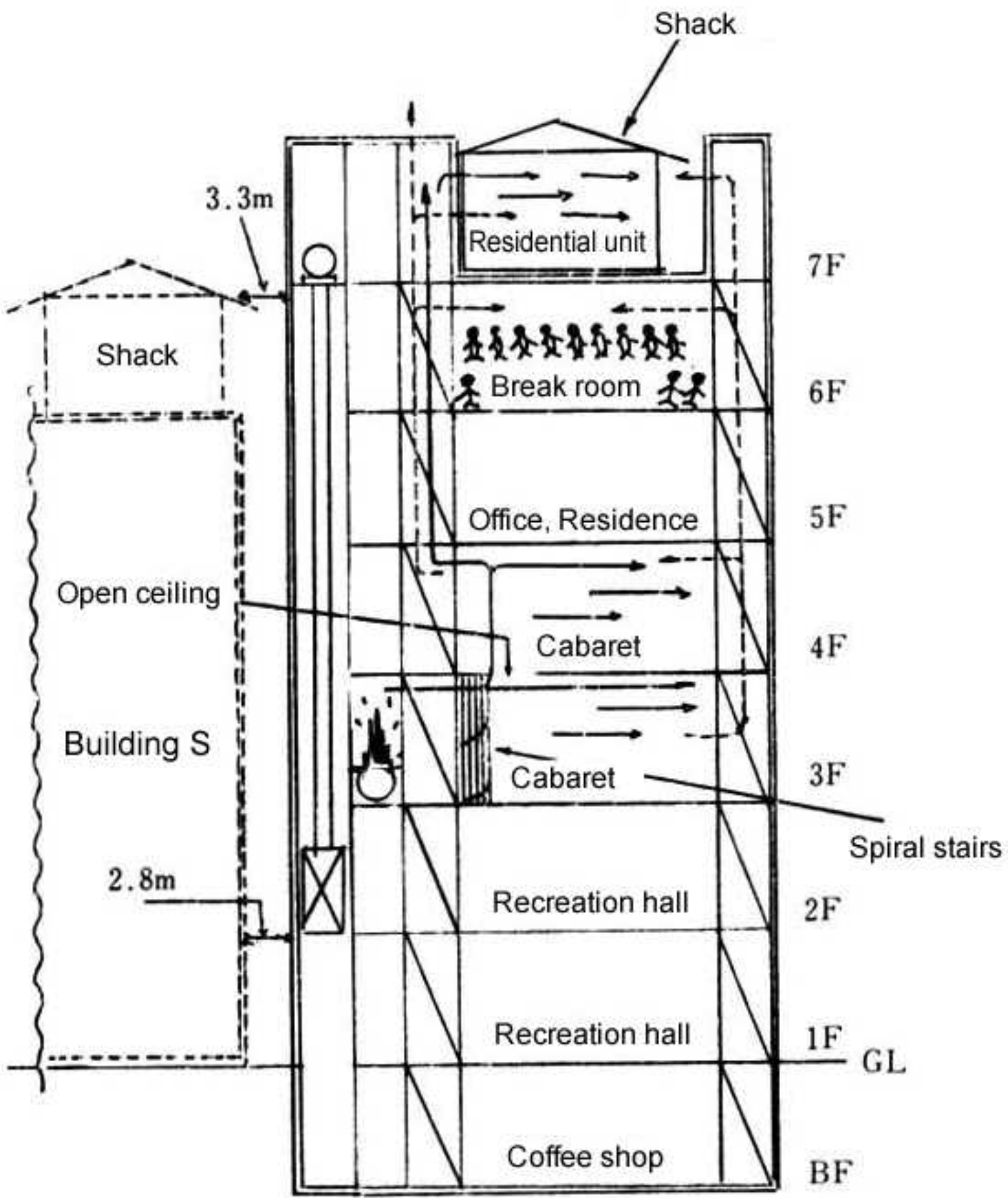
Building Name Address	Use (per FSA Annexed Table 1)	Date and Time of Incident	Structure and Stories Area	Extent of Damage (Damaged Area/ Total Area)	No. of Casualties
<b>Kanei Building</b>	Complex (16) a	Jan 9, 1966	Fire resistant 6 stories above ground and 1 below	All, <b>Half</b> , Partial, Small	Fatalities 12
		Breakout at 0:58 (approx) Notified at 1:03 Notified by emergency call Extinguished by 4:38			
2-1 Ekimae-Honcho, Kawasaki, KANAGAWA					

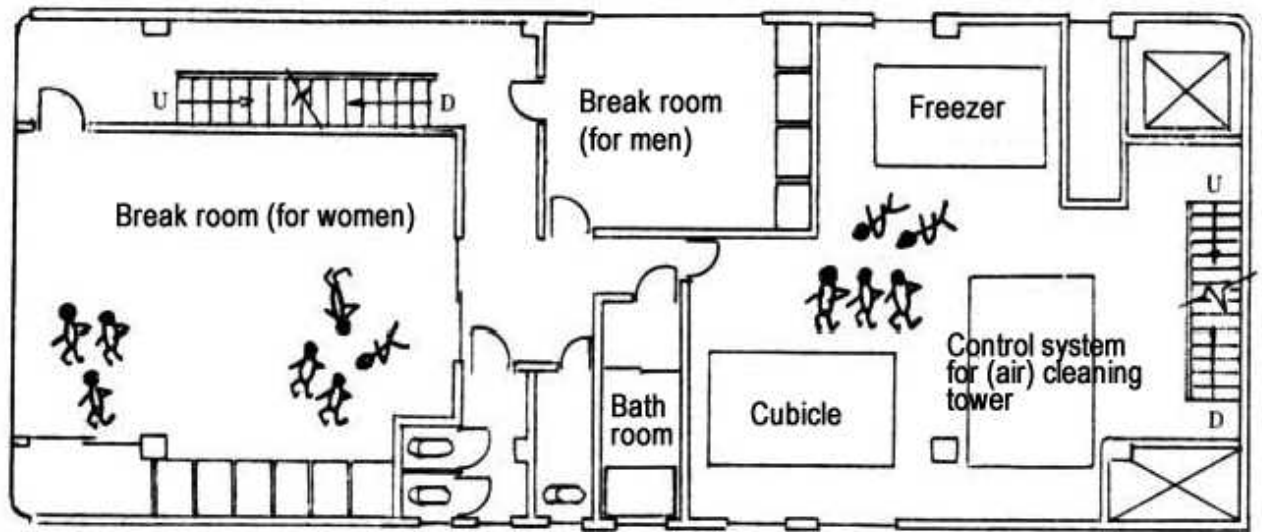
I. Summary of Fire Incident								
<b>(1) Summary</b>	On January 9, a fire emerged from the locker room on the 3rd floor of the Kanei Building. Because of an inadequate fire compartment system and ineffective initial fire control, 12 people who were on the upper floors died of carbon monoxide poisoning and many others were injured. This fire incident attracted nationwide attention because similar slim multi-tenanted buildings were very popular throughout Japan and this relatively small fire resulted in many casualties.							
	<b>(2) Conditions per Floor</b>	FL	Gross area m <sup>2</sup>	Damaged area m <sup>2</sup>	Use (Purpose)	No. of persons	No. of fatalities	Fire escape equipment
PH		84.36 18.58	84.36	Company apartment Machine room	4		2 sets of inside through stairs (1st to PH floors)	Fire extinguishers  Indoor fire hydrants
6		202.41	25.11	Company apartment Machine room	11	12	1 escape chute (5th floor)	Automatic fire detection system  Guide lights
5		202.41	202.41	Apartment, Office, Storage	5			
4		177.21	177.21	Cabaret	17		2 sets of rope ladders (PH floor)	
3		202.41	202.41					
2		202.41		Bowling alleys				
1		200.99		Pachinko parlor				
B1		192.27		Coffee shop, Storage				
Total		1,398.69 (1,483.05)	691.5		37	12		
<b>(3) Origin of Fire</b>	(Floor, Room, Part, Combustibles, Habitable/Non-habitable Rooms, Present/Absent)				<b>(4) Cause of Fire</b>	<u>Cause of the fire is unknown.</u>		
	<u>The fire emerged from near a wooden locker in the women's locker room on the 3rd floor.</u> <ul style="list-style-type: none"> <li>◦ Wooden locker (40 cm x 40 cm)</li> <li>◦ Wallpapered plywood for the partition walls of the locker room</li> <li>◦ Combustible interior finishing</li> <li>◦ No-one was on the 3rd floor including the locker room when the fire broke out.</li> </ul>					There is no solid evidence of what caused the fire. Assumingly, one of the hosts stored her clothes with burning cigarette ash in them or forgot about a lit cigarette that she put in the corner of the locker and closed the locker door.		

<b>(5) Fire Propagation Path</b>	<div style="display: flex; justify-content: space-around; text-align: center;"> <div>(Location of Fire Source)</div> <div>(Propagation from Source)</div> <div>(Propagation to Adj. Zones)</div> <div>(Propagation to Upper Floors)</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; width: 20%;">From a locker on the locker room of the 3rd floor</div> <div style="border: 1px solid black; padding: 5px; width: 20%;">To the clothes inside the locker and other combustible materials (interior trim)</div> <div style="border: 1px solid black; padding: 5px; width: 20%;">To the wooden partition walls of the locker room</div> <div style="border: 1px solid black; padding: 5px; width: 20%;">To the vaulted ceiling and stairwell</div> </div>			
	<p>The fire that emerged from the wooden locker of the women's locker room on the 3rd floor spread fast because of the presence of combustible materials (clothes and interior trims) and spread to the wallpapered wooden partition wall. The fire propagated to the vaulted ceiling (4th floor) above the table area of the cabaret and from the stairwell to the rooftop.</p> <p>○ Main Reasons for the Propagation of the Fire The fire spread easily because the partition wall was made of wood and it was next to the vaulted ceiling that had no fireproof treatment.</p> <p>○ Smoke Propagation Path The smoke propagated to the upper floor through the vaulted ceiling of the cabaret, and all the way up rapidly from the 3rd floor through the street-side stairwell, which did not have any fire compartment. The doors on the stairs did not have a self-closing system, so each room was at once filled with the smoke.</p>			
<b>II. Summary of the Building</b>				
<b>(1) Built</b>	Construction, Completion and Major Renovations (Construction Permit) March 9, 1960, (Completion) April 1961			
<b>Fire Prevention Management</b>	<b>(2) Vertical Shafts</b>		<b>(3) Fire Prevention</b>	
	Stairs <input checked="" type="checkbox"/>	Duct Spaces <input type="checkbox"/>	<ul style="list-style-type: none"> <li>○ The fire prevention manager for the entire building was the general manager of the cabaret that occupied the 3rd and 4th floors.</li> <li>○ No fire prevention seminar or training was carried out.</li> </ul>	
	Elevators <input checked="" type="checkbox"/>	Pipe Shafts <input type="checkbox"/>		
	Escalators <input type="checkbox"/>	Other(vaulted ceiling) <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>○ There was a vaulted ceiling on the 3rd floor.</li> <li>○ There were two inside through stairs and most of the compartment doors were not equipped with a self-closing system.</li> </ul>	
<b>(4) Fire Compartments</b>		<b>(5) Firefighting Equipment</b>		
At the time of the completion inspection, there were fire-resistive partition walls on the stairway of the 3rd floor, but these walls were removed at some point; therefore, the fire resistive walls were not present when the fire broke out.		<ul style="list-style-type: none"> <li>○ The building was required to have fire escape equipment on the 3rd and 4th floors, but the cabaret's windows were closed off by plywood. So instead, the building maintained escape chutes in the office of the 5th floor. However, this office door was locked after business hours.</li> <li>○ No battery (reserve power) for the fire alarm system</li> </ul>		

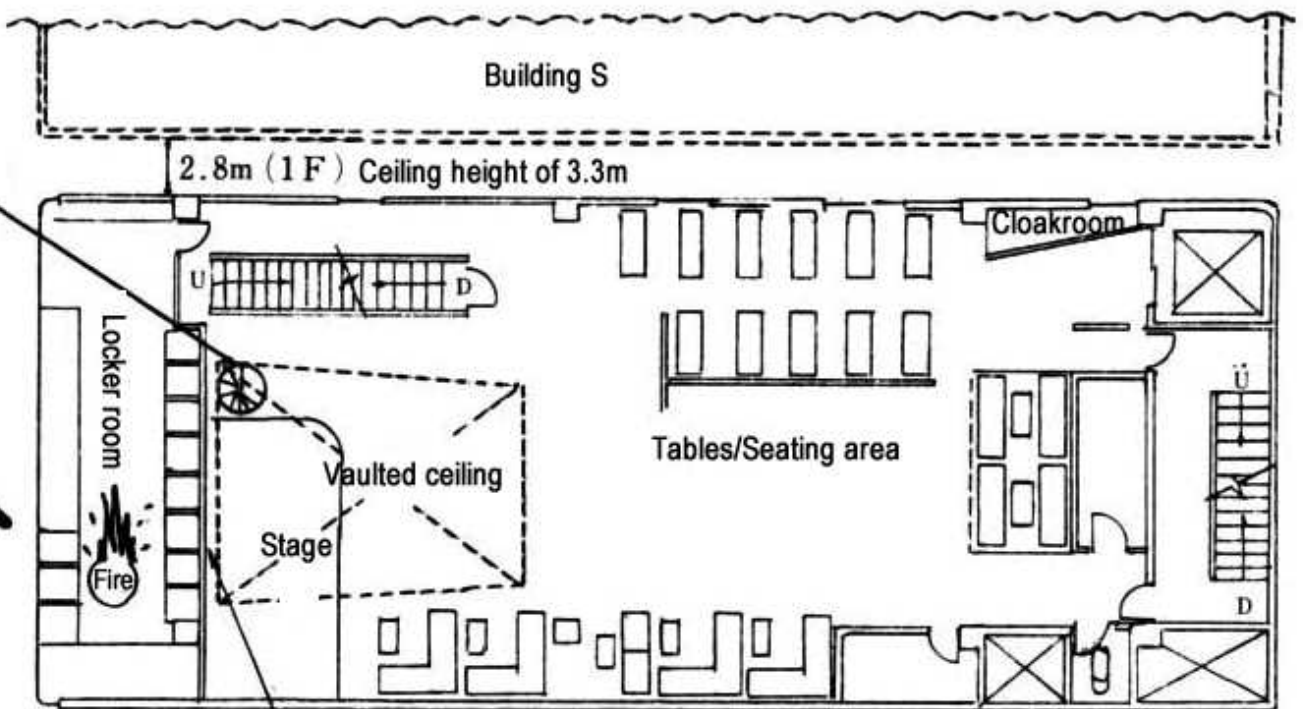
III. Actions Taken after the Fire was Detected									
<b>(1) First Detected</b>	<ul style="list-style-type: none"> <li>◦ <b>Detected by</b> ( Male staff of the cabaret business )</li> <li>◦ <b>How and why</b> ( White smoke coming up from the vaulted ceiling )</li> <li>◦ <b>Action taken</b> ( Alerted other staff )</li> </ul>								
	<p>After holding a New Year's party 17 of the cabaret staff were chatting at a table. Male staff member O (age 22) noticed white smoke coming up from the 3rd floor and alerted other staff members. Male staff and a few others went to the 3rd floor and saw smoke coming out of the women's locker room behind the stage area. They opened the door and confirmed the ceiling (3.3m height) was on fire.</p>								
<b>(2) Emergency Call</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 20%;"><b>Emergency Call</b></td> <td style="width: 40%;">Yes [ X ] ( Wife of the building owner )</td> <td style="width: 40%;">Time elapsed since the discovery ( 5 ) minutes</td> </tr> <tr> <td></td> <td>No [ ]</td> <td></td> </tr> </table>	<b>Emergency Call</b>	Yes [ X ] ( Wife of the building owner )	Time elapsed since the discovery ( 5 ) minutes		No [ ]			
	<b>Emergency Call</b>	Yes [ X ] ( Wife of the building owner )	Time elapsed since the discovery ( 5 ) minutes						
	No [ ]								
	<p>The wife and the oldest son who resided on the 5th floor heard a loud sound glass crashing from the lower floors. The son ran down and confirmed the fire on the 4th floor and ran back to his mother to alert her. Once alerted, she made a 119 call from her phone.</p>								
<b>(3) Initial Firefighting Activities</b>	<table border="0" style="width: 100%;"> <tr> <td style="width: 20%;"></td> <td style="width: 30%;">Successful [ ] Failed [ X ]</td> <td style="width: 50%;"><b>(Reasons or Conditions)</b></td> </tr> <tr> <td><b>Initiated</b></td> <td> <ul style="list-style-type: none"> <li>◦ Extinguished time [ X ]</li> <li>◦ Firefighting difficulties [ ]</li> <li>◦ Firefighting method [ X ]</li> </ul> </td> <td rowspan="2"> <p>The cabaret staff tried to extinguish the fire by throwing beer bottles and using fire extinguishers. Some of them extended the hose from the indoor fire hydrant near the stairway; however, the hose was disconnected. They eventually reconnected it but unfortunately, the hose was not long enough. In the meantime, the fire broke through the wooden walls of the locker room and spread to the upper floors from the vaulted ceiling, and also brought heavy smoke and heat. Eventually the staff gave up and evacuated the building.</p> </td> </tr> <tr> <td>Not Initiated</td> <td> <ul style="list-style-type: none"> <li>◦ Extinguished time [ ]</li> <li>◦ Firefighting difficulties [ ]</li> <li>◦ Firefighting method [ ]</li> <li>◦ Other [ ]</li> </ul> </td> </tr> </table>		Successful [ ] Failed [ X ]	<b>(Reasons or Conditions)</b>	<b>Initiated</b>	<ul style="list-style-type: none"> <li>◦ Extinguished time [ X ]</li> <li>◦ Firefighting difficulties [ ]</li> <li>◦ Firefighting method [ X ]</li> </ul>	<p>The cabaret staff tried to extinguish the fire by throwing beer bottles and using fire extinguishers. Some of them extended the hose from the indoor fire hydrant near the stairway; however, the hose was disconnected. They eventually reconnected it but unfortunately, the hose was not long enough. In the meantime, the fire broke through the wooden walls of the locker room and spread to the upper floors from the vaulted ceiling, and also brought heavy smoke and heat. Eventually the staff gave up and evacuated the building.</p>	Not Initiated	<ul style="list-style-type: none"> <li>◦ Extinguished time [ ]</li> <li>◦ Firefighting difficulties [ ]</li> <li>◦ Firefighting method [ ]</li> <li>◦ Other [ ]</li> </ul>
		Successful [ ] Failed [ X ]	<b>(Reasons or Conditions)</b>						
<b>Initiated</b>	<ul style="list-style-type: none"> <li>◦ Extinguished time [ X ]</li> <li>◦ Firefighting difficulties [ ]</li> <li>◦ Firefighting method [ X ]</li> </ul>	<p>The cabaret staff tried to extinguish the fire by throwing beer bottles and using fire extinguishers. Some of them extended the hose from the indoor fire hydrant near the stairway; however, the hose was disconnected. They eventually reconnected it but unfortunately, the hose was not long enough. In the meantime, the fire broke through the wooden walls of the locker room and spread to the upper floors from the vaulted ceiling, and also brought heavy smoke and heat. Eventually the staff gave up and evacuated the building.</p>							
Not Initiated	<ul style="list-style-type: none"> <li>◦ Extinguished time [ ]</li> <li>◦ Firefighting difficulties [ ]</li> <li>◦ Firefighting method [ ]</li> <li>◦ Other [ ]</li> </ul>								
<b>(4) Summary of Firefighting Activities</b>	<p><b>(Obstacles or Difficulties in Fire Control)</b></p> <ul style="list-style-type: none"> <li>◦ When firefighters arrived, it was already difficult for them to reach the 4th and higher floors due to heavy smoke and strong heat.</li> <li>◦ They extended the ladder truck to prevent the fire from spreading to the 5th floor and to rescue people; however, the maximum extendable length of the ladder was 17 m which reached only the roof of the 4th floor and therefore, they struggled to get to the 5th and 6th floors and to spray preventive water on the 5th floor.</li> </ul>								

<b>(5) Evacuation</b>	Means of Escape (No. of Persons)		Obstacles to Evacuation
	<ul style="list-style-type: none"> <li>◦ Stairs [ X ] ( 18 )</li> <li>◦ Elevators/Escalators [ ] ( )</li> <li>◦ Escape equipment [ ] ( )</li> <li>◦ Directly to the ground from windows or openings [ ] ( )</li> <li>◦ Rescued [ X ] ( 7 )</li> <li>◦ Other [ ] ( )</li> </ul>		<ul style="list-style-type: none"> <li>◦ No windows [ ]</li> <li>◦ Barred openings [ ]</li> <li>◦ Locked emergency doors (Exits) [ ]</li> <li>◦ Alarm System [ ] (Poorly controlled, Malfunctioned, Not installed)</li> <li>◦ Power outage [ ]</li> <li>◦ Other [ ]</li> </ul>
<ul style="list-style-type: none"> <li>◦ All the cabaret staff on the 4th floor evacuated via the stairs after giving up initial attempts to extinguish the fire.</li> <li>◦ The oldest son alerted another staff member H (age 22) who was watching TV in the break room on the 6th floor. H ran down the street-side stairs, but heavy smoke on the 5th floor blocked his way, so he ran down different stairs where there was less smoke and evacuated the building.</li> <li>◦ The oldest son, 2 of his brothers and 4 people who were inside a shack on the rooftop called for help from the rooftop and firefighters threw them a rescue rope from an adjacent building. The oldest son tied the rope on a metal net and, they escaped one by one via the rope to the rooftop of the adjacent building.</li> </ul>			
<b>(6) Casualties</b>	Healthy individuals 12 (Drunk persons )	Obstacles to Evacuation	
	Individuals in need of assistance Infants Elderly Handicapped Patients/ill persons	<ul style="list-style-type: none"> <li>◦ No windows [ ]</li> <li>◦ Barred openings [ ]</li> <li>◦ Locked emergency doors (Exits) [ ]</li> <li>◦ Alarm System [ ] (Poorly controlled, Malfunctioned, Not installed)</li> <li>◦ Power outage [ ]</li> <li>◦ Other [ ]</li> </ul>	
<p>A dozen bodies were found on the 6th floor where no trace of the flame was found except in the stairway area. The bodies and clothing were all intact. Some were holding a handbag or hairbrush and it seemed as if they were preparing to evacuate. Probably they fell unconscious suddenly due to carbon monoxide poisoning.</p>			
<b>IV. Issues and Lessons Learned</b>			
<ol style="list-style-type: none"> <li>1. The building had an automatic fire detection system, which did not function because the receiver switch was turned off when the recreation hall was closed for the day.</li> <li>2. Although each tenant (B1, 1st, 2nd and 3/4th floor) of the Kanei Building had a general manger, the fire-prevention manager was the general manager of the cabaret. They failed to communicate with each other regarding fire prevention and to provide training to each employee to raise awareness. In fact, none of the cabaret staff who noticed and tried to extinguish the fire had made a 119 call or alerted people on the 5th and 6th floors. In addition, they irresponsibly told the firefighters that "everybody" had evacuated the building but people were still inside. Due to their reporting that the building was empty, the rescue operation to enter the building was put on hold, which ultimately led to losing the chance for entry.</li> <li>3. Terms such as "fire-resistive" structure and "fire-proof" made people believe that the building was safe and evacuation could be delayed.</li> <li>4. Two stairwells on the building became the smoke propagation path because there were no fire compartments.</li> <li>5. The shack on the rooftop was an obstacle to the evacuation and caught on fire easily from flames coming up from the stairwell.</li> </ol>			





6th floor



3rd floor

Wallpapered plywood