

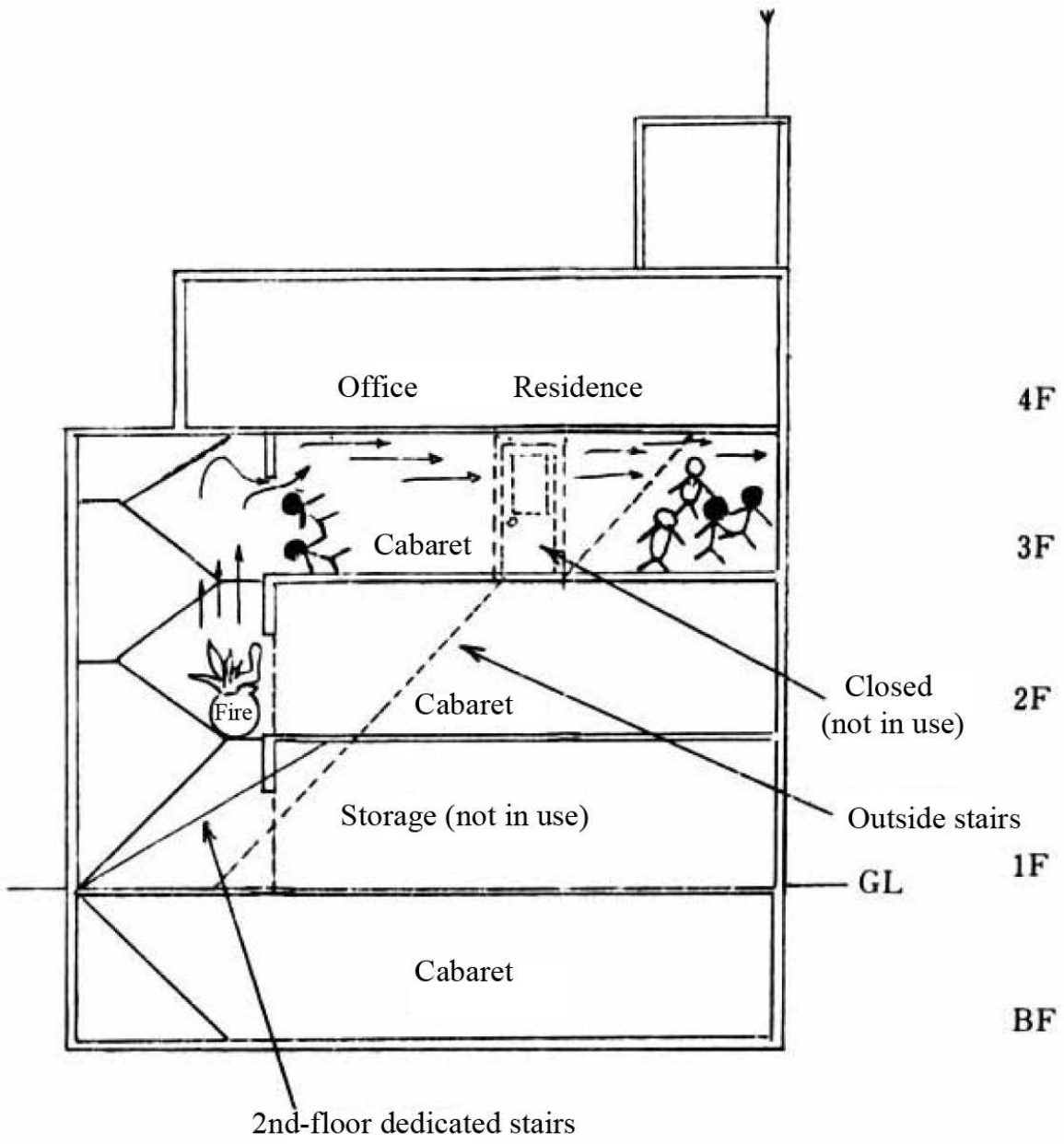
Building Name Address	Use (as per FSA Annexed Table 1)	Date and Time of Incident	Structure and Stories Area	Extent of Damage (Damaged Area/ Total Area)	No. of Casualties
<b>Kunimatsu Building</b>	Complex (16) a	Dec. 4, 1976	Fire resistive	All, Half, <b>Partial</b> , Small  75 m <sup>2</sup>  (15%)	Fatalities 6
		Breakout at 00:33 (approx) Detected at 00:36 Notified by emergency call Extinguished by 02:35	4 stories above ground and 1 below		
4-20-7 Kotobashi, Sumida-ku, TOKYO			Building area 105 m <sup>2</sup>		Injured 3 (1)
			Total floor area 513 m <sup>2</sup>		

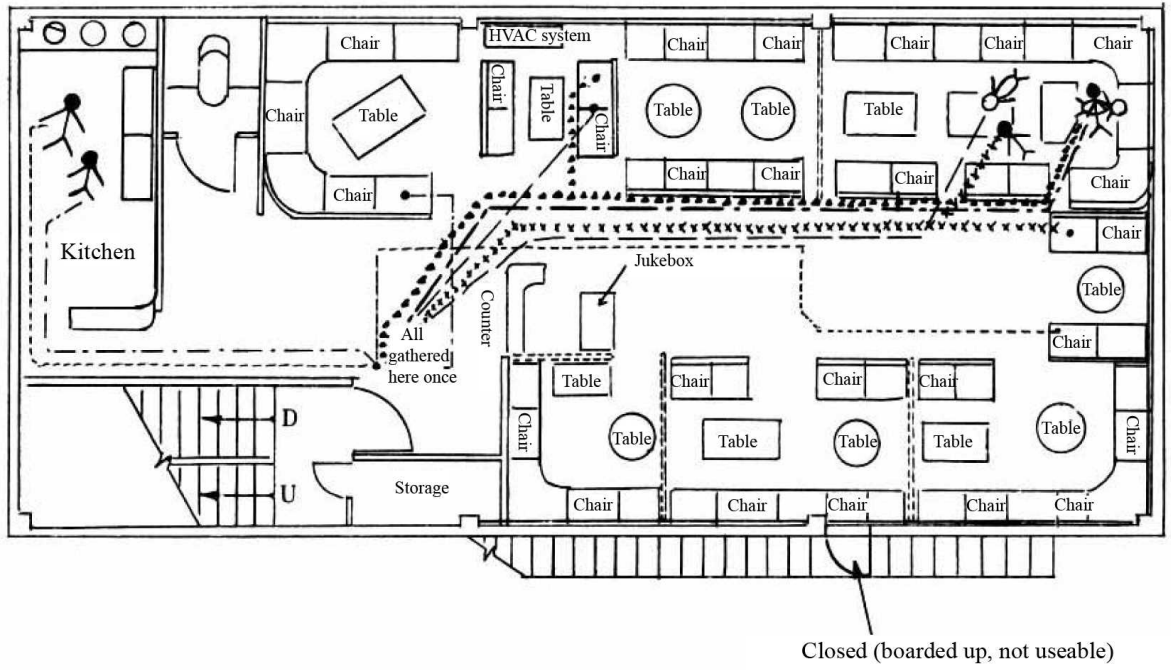
I. Summary of Fire Incident								
(1) Summary	<p>The fire emerged from the 2nd floor of a small but typical multi-tenant building. The extent of the damage was contained within a certain portion of the 3rd floor, but the only escape route was filled with noxious smoke and the 3rd floor was an enclosed area where all the windows and exits were closed off. As a result, this fire resulted in 6 fatalities.</p>							
	(2) Conditions per Floor	Floor r	Total area m <sup>2</sup>	Damaged area m <sup>2</sup>	Use (Purpose)	No. of persons	No. of fatalities	Fire escape equipment
4		93		Office, Residences	1		Inside stairs, 1 set from 1st to 4 <sup>th</sup> floors (dedicated stairs for 3rd and 4th floors)	9 sets of fire extinguishers
3		105	75	Hostess Bar ("Utamaro")	10	6 (4 males, 2 females)		
②		105		Hostess Bar ("Kinshicho London")	6		1 set from 1st to 2 <sup>nd</sup> floors (dedicated stairs for 2nd floor)	Automatic fire detection system on 2nd and 1st basement floors
1		105		Storage			Outside stairs, 1 set from 1st to 4th (exits on 3rd and 4th floors)	Guiding lights on 2nd and 1st basement floors
B1		105		Night club ("Cattin")	2			
Total		513	75			19	6	1 evacuation bridge
(3) Origin of Fire	(Floor, Room, Part, Combustibles, Habitable/Non-habitable rooms, Present/Absent)				(4) Cause of Fire	<u>Unknown</u>		
	<p><u>From the landing of the 2nd floor in the west stairwell that was exclusively used by businesses on the 3rd and 4th floors.</u></p> <ul style="list-style-type: none"> <li>○ There were no guests inside the building as it was after business hours.</li> <li>○ The walls up the 3rd floor of the west stairwell were finished with a non-flame-retardant interior material made of chemical fibers. The floor was covered by carpet.</li> </ul>					<p>There was no obvious fire source in the stairwell or any abnormality in the electrical system, so the investigators suspected a burning match, a discarded cigarette, or arson. However, due to lack of evidence, the cause of the fire is unknown.</p>		

<b>(5) Fire Propagation Path</b>	(Location of Fire Source)	(Propagation from Source)	(Propagation to Upper Floors)
	Landing of the 2nd floor in the west stairwell	Ignited the interior finishing materials in the stairwell wall and spread to the 3rd floor	Ignited the wooden door to the 3rd floor and the combustible walls inside the cabaret
	<p>The fire started in the west stairwell where the walls were finished with chemical fibers without any non-flame-retardant treatment. The stairwell and the hostess bar were partitioned by plywood to a certain extent and the entrance door to the 3rd floor was made of wood. When the fire emerged on the landing of the 2nd floor, these combustibles ignited and the fire spread inside the hostess bar on the 3rd floor.</p> <p>* The fire did not spread to the 4th floor through the stairwell because there was no combustible material up to the 4th floor and the interior walls were made of concrete.</p> <p>○ Main Reasons for Propagation of the Fire</p> <ul style="list-style-type: none"> <li>○ The fire spread to the upper floors because the stairwell interior walls were combustible.</li> <li>○ The fire penetrated into the hostess bar on the 3rd floor because the door was made of wood and the fire compartment was incomplete.</li> </ul> <p>○ Smoke Propagation Path</p> <p>The chemical fibers used on the stairwell walls produced heavy smoke. With the stairwell acting like a chimney, the smoke ascended rapidly and filled the 3rd and 4th floors.</p>		
<b>II. Summary of the Building</b>			
<b>(1) Built</b>	Construction, Completion, and Major Renovations (Completion) November 1966		
	<b>(2) Vertical Shafts</b>		<b>(3) Fire Prevention</b>
	Stairwells    [X]      Duct spaces    [   ] Elevators    [   ]      Pipe shafts    [   ] Escalators   [   ]      Other (   )    [   ]		<ul style="list-style-type: none"> <li>○ The tenants on the 1st basement and 2nd floors had their own fire-prevention manager, but the tenant on the 3rd floor ("Utamaro") had no fire fire-prevention manager or a fire defense plan. .</li> <li>○ No fire drills were undertaken.</li> </ul>
	<ul style="list-style-type: none"> <li>○ Because of the exclusive use of the west stairs by the 3rd and 4th floors, the entrance to the 2nd floor was closed off by the fire doors.</li> <li>○ On the west side of the building, there was an outside set of stairs made of metal, but the entrance to the 3rd floor was unusable because it was boarded up by a sheet of plywood and mirror.</li> <li>○ The interior finishing of the west stairwell walls was combustible.</li> </ul>		
<b>(4) Fire Compartments</b>		<b>(5) Firefighting Equipment</b>	
The door to the 3rd floor was made of wood and had no fire compartment system.		<ul style="list-style-type: none"> <li>○ The 2nd and 1st basement floors had an automatic fire detection system installed.</li> <li>○ (But) the control panel of the automatic fire detection system was in the office on the 4th floor, and the audio of the main and local alarms were inactive (off).</li> </ul>	

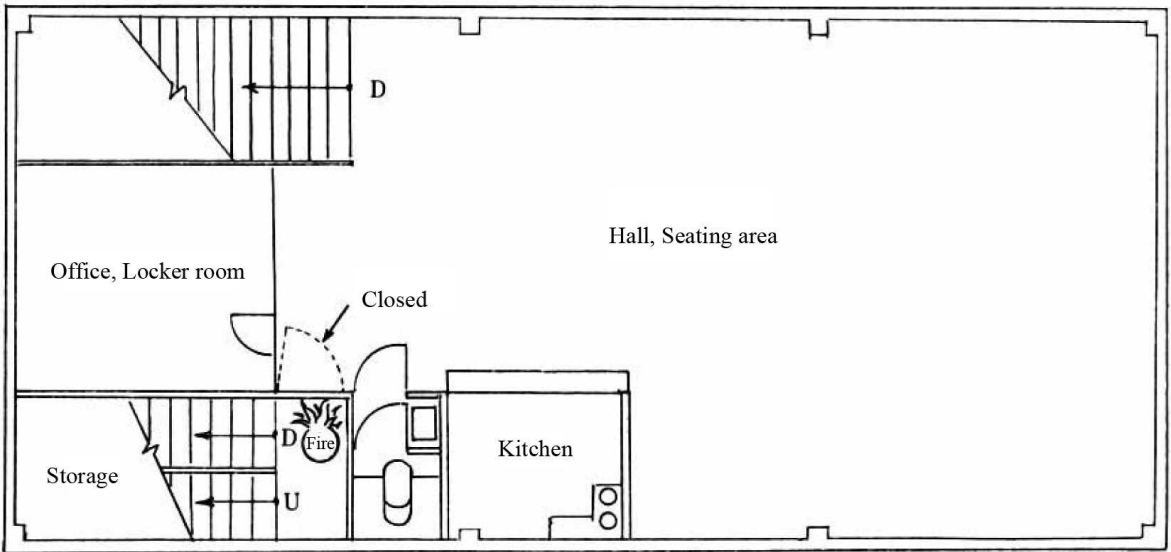
III. Actions Taken after the Fire was Detected				
(1) First Detected	<ul style="list-style-type: none"> <li>◦ <b>Detected by</b> ( Hostess of the cabaret on the 3rd floor )</li> <li>◦ <b>How and why</b> ( Smoke coming from the clearance of the entrance door )</li> <li>◦ <b>Action taken</b> ( Alerted the manager )</li> </ul>			
	<p>On the way back to her table, after the hostess of the <i>Utamaro</i> hostess bar on the 3rd floor made a personal phone call at the front counter, she saw smoke coming from the clearance of the entrance door. She notified the manager of the smoke. When the manager opened the door to the stairs, black smoke poured in rapidly.</p>			
(2) Emergency Call	<b>Emergency Call</b> Yes <input checked="" type="checkbox"/> (the night club manager on the 1st basement floor and the hostess bar manager on the 2nd floor (at the same time) ) No <input type="checkbox"/>	Time elapsed since the discovery ( 3 ) minutes		
(3) Initial Firefighting Activities	Successful <input type="checkbox"/> Failed <input checked="" type="checkbox"/>	<b>(Reasons or Conditions)</b>  <ul style="list-style-type: none"> <li>◦ On the 3rd floor, as soon as the bar manager of <i>Utamaro</i> became aware of the fire, he loudly shouted "Fire! Run, go to the 4th floor" and he picked up the dry-chemical extinguishers near the bathroom. From the door that he opened initially, he ran down the stairs to get closer to the origin of the fire, but he gave up trying to extinguish the fire because the smoke was too dense. When they exited the building, the nightclub manager and the bar employee brought out their fire extinguishers. So they grabbed one of the fire extinguishers and started extinguishing the fire in the stairwell. The other two also joined in and tried, but their efforts were ineffective.</li> </ul>		
	<table border="0"> <tr> <td style="vertical-align: top;"><b>Initiated</b></td> <td> <ul style="list-style-type: none"> <li>◦ Extinguished timing <input type="checkbox"/></li> <li>◦ Firefighting difficulties <input checked="" type="checkbox"/></li> <li>◦ Firefighting method <input type="checkbox"/></li> </ul> </td> </tr> <tr> <td style="vertical-align: top;">Not Initiated</td> <td> <ul style="list-style-type: none"> <li>◦ Extinguished timing <input type="checkbox"/></li> <li>◦ Firefighting difficulties <input type="checkbox"/></li> <li>◦ Firefighting method <input type="checkbox"/></li> <li>◦ Other <input type="checkbox"/></li> </ul> </td> </tr> </table>		<b>Initiated</b>	<ul style="list-style-type: none"> <li>◦ Extinguished timing <input type="checkbox"/></li> <li>◦ Firefighting difficulties <input checked="" type="checkbox"/></li> <li>◦ Firefighting method <input type="checkbox"/></li> </ul>
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(4) Summary of Firefighting Activities	<b>(Obstacles or Difficulties in Fire Control)</b>  Firefighters had a hard time entering the building because the fire floor was windowless as all the windows and exits were covered by mirrors, plywood, or furniture from inside.			

<b>(5) Evacuation</b>	Means of Escape (No. of Persons)	Obstacles to Evacuation
	<ul style="list-style-type: none"> <li>◦ Stairs [ X ] (12)</li> <li>◦ Elevators/Escalators [ ] ( )</li> <li>◦ Escape equipment [ ] ( )</li> <li>◦ Directly to ground from windows or openings [ X ] (1)</li> <li>◦ Rescued [ ] ( )</li> <li>◦ Other ( ) [ ] ( )</li> </ul>	<ul style="list-style-type: none"> <li>◦ No window [X]</li> <li>◦ Barred openings [ ]</li> <li>◦ Locked emergency doors (Exits) [ X ]</li> <li>◦ Alarm system [X] (<b>Poorly controlled</b>, Malfunctioned, <b>Not installed</b>)</li> <li>◦ Power outage [ ]</li> <li>◦ Other [X]</li> </ul>
	<ul style="list-style-type: none"> <li>◦ Some people were able to evacuate by themselves from the east-side exclusive stairs (2 male employees from the 1st basement floor, and 2 male employees and 4 hostesses from the 2nd floor).</li> <li>◦ On the 3rd floor, there were 10 persons in total (6 male employees, 1 male tax-accountant, and 3 hostesses). Because of the smoke, everybody at once gathered around the "exit door to the stairs". As soon as they opened the door, black smoke poured in, but they ran down the stairs through the black smoke to the ground all together. (4 males and 2 females were left behind and died)</li> <li>◦ On the 4th floor, 1 male was on night duty and he woke up because of the smoke. He could not go down the stairs because the stairwell was already filled with black smoke. When he opened the window on the east side, he was able to receive instructions from the firefighters who told him to go to the rooftop of the adjacent building, which he did.</li> </ul>	
<b>(6) Causalities</b>	Healthy individuals 6 (Drunk persons ) Individuals in need of assistance Infants Elderly Handicapped Patients/ill persons	Obstacles to Evacuation
		<ul style="list-style-type: none"> <li>◦ No window [X]</li> <li>◦ Barred openings [ ]</li> <li>◦ Locked emergency doors (Exits) [ X ]</li> <li>◦ Alarm system [X] (<b>Poorly controlled</b>, Malfunctioned, <b>Not installed</b>)</li> <li>◦ Power outage [ ]</li> <li>◦ Other [X]</li> </ul>
	<p>The 6 fatalities (4 male employees and 2 hostesses) were those who did not escape from <i>Utamaro</i> on the 3rd floor. They had all gathered around the exit door to the stairs with other people, but they were hesitant to escape through the heavy smoke, so they stayed behind and became unconscious around the table and kitchen. (They were rescued by firefighters, but died in hospital)</p>	
<b>IV. Issues and Lessons Learned</b>		
<ol style="list-style-type: none"> <li>1. The 3rd floor was windowless because all the windows on the 3rd floor were covered by mirrors, plywood, and wallpaper, including the exit to the outside stairs. Therefore, the only way to evacuate was via the stairs that were filled with flames and smoke and 6 people died.</li> <li>2. The chemical fibers used on the stairwell walls were not flame retardant and caused the fire to propagate inside the stairwell.</li> <li>3. The wooden door to the 3rd floor was not protected by an adequate fire compartment system and therefore it became the spread path to the 3rd floor.</li> <li>4. Fire detection was delayed because there was no automatic fire detection system in the west stairwell.</li> <li>5. <i>Utamaro</i> (hostess bar) on the 3rd floor failed to comply with the requirements for a fire-prevention manager, fire defense plan, and fire drill.</li> </ol>		





3rd Floor



2nd Floor

