

# UNIT 4

## Professional Responsibility

ハイアット・リージェンシー連絡通路落下事故について

1981年に起きたミズーリ州カンザスシティにあるハイアット・リージェンシー・ホテルの事故は、アメリカ合衆国史上最悪の死傷者数を記録した構造上の欠陥による事故だったと言われています。どういう事故だったのか、次の英文から読み取ってみましょう。



CD-16

A unique aspect of the 40-story Hyatt Regency Hotel in Kansas City, Missouri was its lobby. The lobby was a multistory atrium with three steel, glass and concrete bridge walkways crossing over the lobby. These were located on the 2nd, 3rd and 4th floors and they were suspended from the ceiling by steel rods and beams. The 4th floor walkway was directly above the 2nd floor walkway. Each walkway was approximately 37 meters long and weighed approximately 29,000 kilograms.

On July 17th, 1981, there was a dance competition held on the main floor of the hotel lobby. About 2,000 people were in attendance and many of them went out onto the walkways above in order to view the competition below. Suddenly the 4th floor walkway fell onto the 2nd floor walkway and they both then fell down onto the crowd of people below. This resulted in 114 deaths and 216 injuries. At that time, it was the deadliest structural collapse in US history.

The subsequent investigation into the tragic disaster revealed a shocking lack of competence, not only in the original design of the walkways, but also in their actual construction. The investigators found that the original design for the suspension of the heavy walkways only reached 60 percent of the standard guidelines for safety.

However, during the construction of the walkways, the design was changed and these changes led to a safety margin of only 30 percent of what was needed for the

multistory

複数階にまたがる

atrium ビルの吹き抜け

walkway

連絡通路、空中通路

rod 棒

beam はり (建築用語)

a safety margin 安全域

walkways to be hung from the ceiling with safety. This negligence on the part of the designers as well as the engineers in charge of the construction resulted in the terrible loss of many lives.

The chief engineer and his project manager were found to be guilty of “indifference to professional duties” by a Missouri State judge. This demonstrates that engineers can be held responsible for their own incompetence as well as the poor performance of engineers who are supervised by them. Engineers have professional and legal responsibility for their work.

(340 words)

a Missouri State judge  
ミズーリ州の判事 (James  
B. Deutsch という人物)  
hold ~ responsible  
~を責任があると考え



ハイアット・リージェンシー・ホテル  
事故現場の様子

**A** 単語の日本語の意味を答えなさい。

- |                         |       |                        |       |
|-------------------------|-------|------------------------|-------|
| 1. aspect (l.1)         | _____ | 6. hang (l.28)         | _____ |
| 2. ceiling (l.6)        | _____ | 7. indifference (l.33) | _____ |
| 3. deadly (l.17)        | _____ | 8. demonstrate (l.34)  | _____ |
| 4. collapse (n.) (l.17) | _____ | 9. supervise (l.36)    | _____ |
| 5. subsequent (l.19)    | _____ | 10. legal (l.37)       | _____ |

**B** A-B と C-D が同じ関係になるよう D に適語を入れ、その意味を答えなさい。

A	B	C	D
1. weigh	weight	suspend	(            ) [            ]
2. terrible	terribly	approximate	(            ) [            ]
3. attendance	attend	competition	(            ) [            ]
4. structure	structural	competence	(            ) [            ]

**C** 設問に答えなさい。

1. 設問に対して、日本語で答えなさい。

● 連絡通路 (walkways) について

・何階部分にあったのか	
・どういう構造になっていたのか	
・どういう順番で崩落が起こったのか	

● 安全基準と比較してその連絡通路の強度は

・もともとの設計の段階	
・途中で変更になった後	

2. This demonstrates that engineers can be held responsible for their own incompetence as well as the poor performance of engineers who are supervised by them. (ll.34-37) を This と them の示している内容がわかるように日本語に訳しなさい。

D 本文の内容と一致しているものには T を、一致していないものには F を記入しなさい。

1. ( ) The hotel lobby was located above the three walkways.
2. ( ) The 2nd floor walkway was connected to the 3rd floor walkway.
3. ( ) Each walkway was about 37 meters long.
4. ( ) All the walkways together weighed 29,000 kilograms.
5. ( ) The original design for the suspension of the walkways was unsafe.
6. ( ) Changes in the walkway design made them safer.
7. ( ) During the construction, the design changes made the structures even less safe.
8. ( ) Engineers must make sure that their designs put safety first.

E ( ) に入る語を右の欄から選びなさい。

1. My office is ( ) on the second floor of this building.
2. The school is ( ) for the safety of the children during school hours.
3. The jury found him ( ) of fraud.
4. How could a father be so ( ) to his own children?

guilty  
responsible  
indifferent  
located

F 日本語に合うように与えられた語句を並べかえなさい。

as / as / been / Thailand / Malaysia / to / he / well / has

彼は、タイに加えてマレーシアにも行ったことがある。



CD-17-20

G CD を聞いて、それぞれの英文の後に続くものを a ~ c から選び記号で答えなさい。

1. The 2nd floor walkway \_\_\_\_\_ .
2. The two walkways collapsed \_\_\_\_\_ .
3. The original design for the suspension of the walkways \_\_\_\_\_ .
4. The chief engineer and the project manager \_\_\_\_\_ .

コラム

### “Professional Responsibility”

本文の最後に出てきた ‘professional responsibility’ という語に注目しましょう。全米プロフェッショナル・エンジニア協会 (NSPE) の倫理綱領には、エンジニアの責任に関して、「エンジニアは、公衆の安全、健康、福利を最優先する」と書かれています。「最優先」とありますように、‘Professional Engineer’ は公衆ないし社会に対して特別な責任があるわけです。その責任は、不特定多数の人々に対して影響を及ぼし得るという、技術の特性に由来するものであると言えるでしょう。この事例の場合、公衆に相当するのは、ホテルでダンスを踊っていた人々はもちろん、従業員や、その他広い意味でのそのホテルの利用者も含まれます。このような、公衆を優先する原則は、日本の大学・高専等における「工学倫理」(Engineering Ethics) ないし「技術者倫理」という科目においても重要な基本事項となっています。