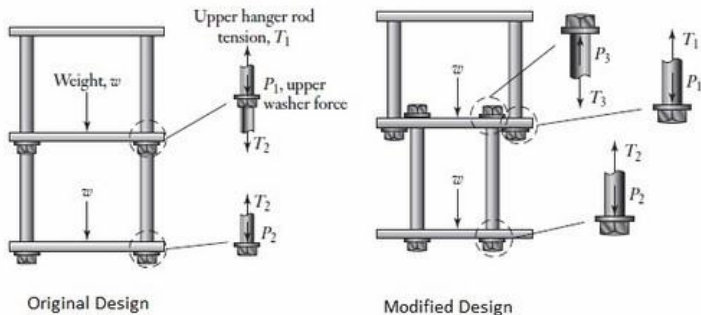


The Hyatt Regency Walkway Collapse (July 17, 1981)

Katie, Lucas, Riley and Ethan

The Key Issue-Weight


As partygoers crowded the skywalks of the newly completed Kansas City Hyatt Regency in 1981, disaster struck when the 2nd and 4th floor walkways collapsed, due to a poor design that only met 30% of the minimum load requirements. Because the design of the lower level walkway was supported from the top one, rather than one continuous rod going to the ceiling, the top walkway was supporting double the load even with no occupants, making it very weak, which led to collapse.




Ethical Issues of the Case

The ethical issues of the case were that the walkway suspension rods were not structurally sound. The manufacturers of the suspension rods decided that making the rods of the second floor walkway be connected to the fourth floor walkway, to make it easier to construct, rather than supporting both individually from the ceiling. This meant that the fourth floor walkway was supporting both the forces from itself and the second floor walkway, which caused them to collapse.

Another ethical issue that the engineers encountered was that during the construction of the walkways, they collapsed on a weekend. Since there were no injuries, the engineers let it slide by and the walkway design was not changed to meet the safety requirements.



Known Relevant Facts

- On three occasions the engineers requested funding to have a full-time project quality control representative on the job-site, but these funding requests were not approved.
 - The architect prepared the structural specifications, and the engineers reviewed them.
 - The cause of the failure was **a change made by the steel detailer to the suspension rods design** shown on the structural engineer Gillum's drawings to make the design cheaper and easier to fabricate and install.
 - Gillum's original design sized the suspension rods such that they were strong enough to support only 60% of the imposed load....based on code-allowable stresses.
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Unknown Relevant Facts

Why was the minimum load never calculated for the new design?

If the original design would have failed to meet the Kansas City Building Code, why was the design altered before that problem was addressed?



How might the situation have been different if the ethical issues were addressed earlier?

The Civil Engineer overseeing the project signed off on it without reviewing the drawings and noticing they had been changed, but if he had been held responsible to accurately do his job he would have found that the new walkways design would not hold enough load.

However, prior to the design change, the design still was not up to the code of the ASCE. Even if the Civil Engineer in charge saw the changes, he may have still signed off because he already did not care about the safety of his design



Case Decision

- The Engineer's Code of Ethics states that: "Engineers shall hold paramount the safety, health, and welfare of the public in the performance of their professional duties."
- The code also states that: " Engineers shall approve or seal only those design documents, reviewed or prepared by them, which are determined to be safe for public health and welfare in conformity with accepted engineering standards."
- Since the engineer had given his seal on the project, the Committee on Professional Conduct (CPC) decided that he was responsible.
- At first the CPC had recommended that the engineer be expelled from the Engineers Society, but upon further debate, the Board decided that the engineer was "vicariously responsible" for the tragedy "but not guilty of gross negligence nor of unprofessional conduct."
- The engineer was suspended from the Society for three years.

Group Decision: Our group agrees that the engineer was responsible for the walkway collapse, However we believe that the entire team was at fault. The engineer was not responsible for the steel companies changes to the components and should not be blamed entirely.