

THE HYATT REGENCY DECISION: ONE VIEW

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ABSTRACT: The 442-page administrative law judge's decision recommending suspension or revocation of the Kansas City Hyatt structural engineers' professional engineering licenses has been viewed differently by the various people who have read and commented upon it. This paper is one view regarding the appropriateness of the decision and the implications of the decision for professional practice. The cause of the pedestrian walkway collapse is discussed and the administrative hearing commission proceedings are reviewed. Recommendations for improved professional practices and attitudes are presented.

INTRODUCTION

Much has been discussed and written about the 442-page administrative law judge's decision recommending suspension or revocation of the Kansas City Hyatt engineers' professional engineering licenses on the grounds of gross negligence, misconduct, and fraudulent misrepresentation. The decision has been viewed differently by the various people who have read and commented upon it. Some have deemed it a travesty; others have regarded the engineers as hapless victims, scapegoats of a system they did not create; some have accepted the decision as warranted. The writers view the decision from the perspective of lawyers whose practice is principally devoted to construction litigation. Each writer also has a degree in civil engineering with structural engineering majors. The writers represent engineers and architects and, upon occasion, have also sued engineers and architects. The writers also represent owners, contractors, subcontractors (including some steel fabricators and erectors), as well as others involved in the construction process.

The purpose of this paper is to put the Hyatt decision into perspective, and to discuss what the writers perceive to be appropriate responses to the decision.

The engineers have appealed the revocation on several grounds, including their opinion that the Missouri licensing statute is unconstitutional because its standards are unduly vague and that the administrative law judge used the wrong evidentiary standard in rendering the decision. The writers' purpose is not to further vilify the Hyatt engineers and certainly not to prejudice their appeal. But the facts found by the administrative law judge (right or wrong) must be understood in order to understand his decision and its implications. For the purpose of this paper, therefore, the writers assume the correctness of the fact findings of the administrative law judge, recognizing that the revocation may be overturned on appeal.

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The decision must be understood in the strict legal and procedural context in which it was rendered. The Missouri Board of Architects, Professional Engineers and Land Surveyors filed a complaint on February 3, 1984, and two later-amended complaints seeking a determination that two engineers involved in the Hyatt Regency Hotel project, Daniel M. Duncan and Jack D. Gillum, and the engineering firm, G.C.E. International, were subject to disciplinary action under the Missouri licensing statutes.

The administrative hearing commission headed by the Commissioner, Hon. James B. Deutsch, held formal hearings for about one month at which numerous exhibits were presented and many witnesses testified. Approximately one year after the hearings ended, Judge Deutsch submitted a 442-page decision finding the engineers guilty of gross negligence, misconduct, and unprofessional conduct in the practice of engineering, and that cause had been established for discipline to either suspend or revoke the engineers' licenses.

The eight-member Board met two months later and held another hearing to decide upon the discipline. The Board unanimously voted to revoke the licenses of Duncan and Gillum and the certificate of authority of G.C.E. International.

The administrative law judge was invested with authority *solely* to determine facts and recommend whether the engineers in question should be sanctioned. His job was not to measure the relative responsibility of the engineers in relation to the others involved in the project such as the contractor and the steel fabricator. His job was only to measure the conduct of these engineers against the standard of their professional responsibility. This was not a damage suit where everyone was sued for negligence. Perhaps other professionals should have been singled out also. There is always the possibility of injustice when one is singled out for punishment.

Some criticism was made of an administrative law judge who was admittedly not an engineer, deciding the fate of engineers. It must be remembered that his detailed findings, together with all the testimony and exhibits, were subject to the scrutiny of the Board. They revoked the licenses of the engineers—not the judge.

THE FACTS

Construction of the Hyatt Regency began in the spring of 1978. Duncan was assigned to the role of project engineer and worked under the direct supervision of Gillum, president and principal of G.C.E. International.

The initial architect's conceptual layout for the atrium walkways showed that the second- and fourth-floor walkways were to be suspended one under the other from six continuous rods, with 1-1/4-in. (31.75-mm) diameter, anchored in the ceiling. The third-floor walkway was to be located east of the second- and fourth-floor walkways and suspended from six 1-1/4-in. (31.75-mm) diameter round steel rods anchored in the ceiling.

The structural drawings were prepared by G.C.E. International and sealed personally by Gillum. Drawings S303, S304, and S305, the fram-

ing plans for the second-, third-, and fourth-floor walkways, respectively, indicated that the lateral structural support for the walkways was to be box-beam members, each comprised of two 8×8.5 MC channels. On the second- and fourth-floor walkways, the 1-1/4-in. (31.75-mm) diameter steel rods were intended to run from the ceiling down to and through the fourth-floor box beams and then to continue down through the second-floor box beams, where the rods would terminate. The ends of the rods were depicted as threaded so that the walkways could be leveled by adjusting the nuts on the threaded rods.

These drawings then refer to drawing S405.1, detail 10 for more information on the box-beam members. Steel detail drawing S405.1, details 10 and 11, indicated that for each box beam the two MC channels were to be placed toe to toe. The 1-1/4-in. (31.75-mm) rod was shown to be running through the channels terminating just below the channel bottom. The end of the rod is threaded and shows a nut-and-washer assembly as support. No bearing plates or stiffeners are detailed. Judge Deutsch found that this connection was a "special connection," and that the fabricator and detailer could reasonably interpret the connection to be a completely designed connection. The judge determined that no engineering calculations were ever performed by the engineers to determine the structural strength or adequacy of the box beam or box-beam connection as shown on drawing S405.1.

Since the rod is shown to terminate, the drawings are ambiguous with respect to the connection for the fourth-floor box beams. The architectural drawings and framing plan indicate a continuous rod through the fourth-floor walkway.

The structural drawings were sent to the fabricator to prepare the shop drawings. In December 1978 or January 1979, an unnamed detailer phoned Duncan due to confusion over the design intent of the fourth-floor box-beam connection. The detailer also told Duncan that he believed the walkways couldn't be built with one single continuous rod and that he would prefer a two-rod system. Duncan admits he told the detailer that he would have no problem with two rods.

The architect testified that Duncan phoned him in January 1979 to inform him that the single-rod system was unbuildable, and that it was being changed to a two-rod system. The architect expressed concern from an aesthetic standpoint, and from a structural-integrity standpoint. The architect remembers that Duncan assured him that it was safe and did not affect the structural integrity. Duncan neither admits nor denies this conversation.

The fabricator testified that he phoned Duncan in January or February 1979 to request clarification of the detail for the connection at the fourth-floor box beam. The fabricator stated he was told by Duncan that it would be all right to offset the rods and use a two-rod system. Duncan denies this conversation took place. Additionally, the architect phoned Duncan in January or February 1979 to ask if it was permissible to switch to a double-rod arrangement. Duncan admits he stated that it was fine.

Judge Deutsch found that in spite of assurances Duncan gave to those who inquired about the change, Duncan never did any engineering calculations to check the changed connection for structural integrity, de-

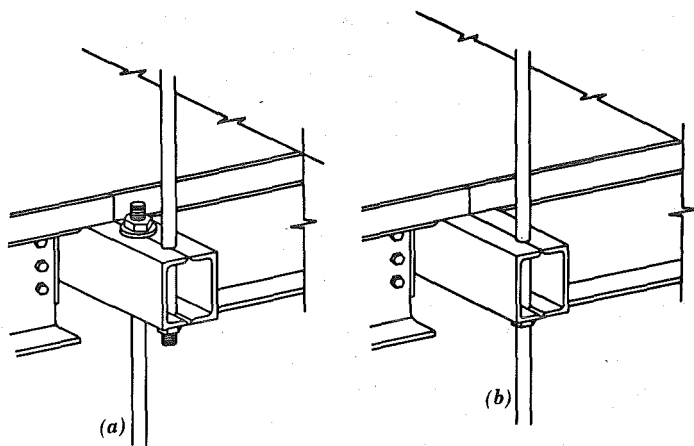


FIG. 1.—Connection Detail: Fourth-Floor Walkway Box Beam (a) As Built; (b) Original Detail

spite the fact that the change to a two-rod system doubled the load being carried by the connection.

The shop drawings and erection drawings were sent to the engineers on February 16, 1979. During the shop drawing review, a technician who was reviewing the shop drawings for Gillum's firm noted a discrepancy between the structural drawings and the shop drawings with respect to the fourth-floor walkway connection (Fig. 1). The technician brought the strength of the rod and the changed connection to the attention of Duncan, who admits he told the technician that the fabricator could not make the walkway work with one rod. Duncan stated further that the two-rod system was basically the same as the one-rod system. Duncan looked at the shop drawing but did not "review" the box-beam connection.

Despite several questions directed to the engineers about the adequacy and design of the fourth-floor walkway box-beam connection during the preparation of the shop drawings (two admitted phone conversations with the architect and detailer; one phone conversation with the architect that Duncan would neither deny nor admit; and one phone conversation with the fabricator, which Duncan denies), and a question by the engineer's technician, who was reviewing the shop drawings, about the design of the connection, the judge found that no one at Gillum's firm ever checked the connection, even though it differed from the original design concept. The change to a two-rod system doubled the load on that connection, yet Duncan represented that there was no problem. The shop drawing was stamped, "reviewed only for conformance with the design concept and compliance with the information contained in the contract documents." The shop drawing stamp tracked the language contained in the contract concerning review of shop drawings. The judge found that the engineers did not fulfill this contractual requirement.

On October 14, 1979, close to a year before the construction was completed, 2,700 sq ft (250 m²) of the atrium roof collapsed because of a

failure of one of the roof connections at the north end of the atrium. No one was injured in this collapse. An investigation found that the collapse of the roof was caused by inadequate expansion bolts in the concrete and failure of the slotted holes to allow movement.

The owner became very concerned with the adequacy of the design and asked the engineers to check the entire design of the atrium. The judge found that Gillum assured the owner that he would check every detail in the atrium to be sure it was safe. The investigation report was forwarded by Duncan to the architects on November 6, 1979, and states in part that "We then checked the suspended bridges and found them to be satisfactory. . . ." The judge found that, at a meeting on December 12, 1979, the engineers represented that they had reviewed every connection in the atrium. The judge determined that the engineers never checked the fourth-floor walkway connection despite requesting payment for doing so, and representing that they had checked it.

Construction proceeded and was completed in July 1980. One year later, on July 17, 1981, the second- and fourth-floor walkways collapsed, killing 114 people and injuring about 200 others.

The judge found that the rods and the box-beam hanger-rod connections for each of the three walkways did not meet the design specifications of the Kansas City Building Code. The cause of the walkway collapse was the failure of the fourth-floor box-beam hanger-rod connections.

The judge's findings can be summarized as follows:

1. No original design calculations were found for the box beam that failed.
2. The engineers were aware of the change that had been made to the design of the connection, which had the effect of doubling the load on the connection that ultimately failed.
3. The detailer and the architect specifically brought the change to Duncan's attention and asked if it was structurally safe. He assured them that it was.
4. The engineer's own technician, in reviewing the shop drawings, specifically brought the change to Duncan's attention.
5. Duncan personally looked at the shop drawing but did not "review" the box-beam connection.
6. A partial structural collapse in the same atrium where the walkways were located occurred before occupancy. The engineers requested an additional fee after allegedly reviewing the entire structural design in the atrium. They assured the owner they had done so, including the box-beam connections that ultimately failed.

CONCLUSION

The writers' conclusions are as follows:

1. Based on the facts found by the administrative law judge regarding the events that led up to the Hyatt collapse, license revocation was more than warranted. The engineers' conduct cannot be justified under any standard of professional practice. They were callously indifferent to life

and safety after questions relating to the particular connection that failed were repeatedly brought to their attention. They were not hapless victims of the system in any sense.

2. It is paradoxical that while tragedies such as the Hyatt failure provide an incentive to change practices, the Hyatt failure is a poor example on which to base recommendations for change, because essentially no change in practices would likely have averted the Hyatt tragedy.

3. Examination of the facts discloses an ironic twist. With all the alleged deficiencies in current practices, oddly enough, Hyatt proves that the system really does work. The right people asked the Hyatt engineers the right questions before the collapse occurred. The design and change in design of the connection that failed did not "fall through the cracks." It did not go unnoticed. Specific questions were asked on three and possibly five occasions that should have led the engineers to catch their error. Others beside the engineers can surely be faulted, particularly the fabricator, but that begs the question. These engineers were given sufficient opportunity to discover the problem. Their failure to do so is inexcusable by any standard. They deserve the strongest professional sanctions that can be imposed upon them.

4. How can their conduct be explained? An understanding of their conduct is perhaps the most important lesson that can be drawn from the Hyatt collapse because it represents, more than anything else, a human failure to which all professionals are subject. Some succumb, some do not; most are just plain lucky in that they do not get caught. Our errors are picked up by others, or although our errors go undetected, no tragedy ensues. Complacency is a human failure. It creeps into a professional's approach to practice as the newness, excitement, and other early rewards of the profession fade. The professional becomes indifferent and stops worrying and agonizing. He takes shortcuts and gets away with it, and then takes more shortcuts. It becomes a way of life. This is human. The shock of an occasional failure brings him to his senses and forces him to reevaluate his conduct.

5. "There but for the grace of God . . ." is an appropriate response to the Hyatt failure and the engineers' license revocation. But at the same time, it is inappropriate and counterproductive to blame the system, the administrative law judge, or others who also ought to have caught the error.

Appropriate responses to the Hyatt failure are two-fold:

1. The need to police professions (law and engineers alike) and to continually punish professional misconduct must be recognized. It is healthy; it is necessary. It instills public confidence—it removes from practice those who may cause loss of life in the case of engineers, and serious economic or personal loss in the case of lawyers. *Most* important, however, is its prophylactic effect on the profession. It is an effective weapon against the complacency to which all may become subject. It must therefore be acknowledged that, as painful as it is to participate in the process (and despite the real hardships it imposes on the few who get caught), it is as essential, if not more essential, than anything else that can be done. It is more effective than any other reforms that can be initiated.

(Similarly, strict punishment of drunk drivers and speeders is a more effective means of reducing highway fatalities than air bags and other safety devices.)

2. The Hyatt collapse should be used as an impetus to modify structural engineering practices in order to avert other potential tragedies—even though it is recognized that their implementation might not have averted the Hyatt collapse. It is a good opportunity for reevaluation and remediation.

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