

**DUTY TO REPORT UNSAFE CONDITIONS/
CLIENT REQUEST FOR SECRECY**

Case No. 98-9

Facts:

Engineer A, a structural designer of a large commercial building, incorporates new and innovative design concepts. After construction is complete and the building is occupied, he finds an omission in his calculations that could result in its collapse under severe, but not unusual wind conditions. The collapse would not only jeopardize the occupants and their immediate surroundings but could possibly cause a "domino" effect threatening a much larger area.

Engineer A advises the architect and client of the problem. After consultation with the architect, the client, and the city engineer, all agree upon remedial construction, which can be accomplished over the next few months. A storm monitoring system and contingency evacuation plan for the building and surrounding neighborhood are developed for the time before construction is complete.

Both the client and architect strongly agree that the situation should be kept secret, with construction accomplished during the evening hours when the building is unoccupied. Engineer A is confident that the construction will completely rectify any structural concerns and that the evacuation plan has a reasonable chance of success.

Engineer B, the city engineer, has concern for the public, especially the office workers in the building and their right to know, but the architect and the client maintain that right is superseded by the consequences of a possible public panic resulting from any notification.

Questions:

1. Is it ethical for Engineer A, the structural engineer, to comply with the client's and the architect's desire for secrecy?
2. Is it ethical for Engineer B, the city engineer, to maintain the secrecy?

References:

Section I.1. - Code of Ethics: *Engineers, in the fulfillment of their professional duties, shall hold paramount the safety, health and welfare of the public.*

- Section II.1.a. - Code of Ethics: *Engineers shall hold paramount the safety, health and welfare of the public. If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.*
- Section II.1.c. - Code of Ethics: *Engineers shall not reveal facts, data or information without the prior consent of the client or employer except as authorized or required by law or this Code.*
- Section II.1.e. - Code of Ethics: *Engineers having knowledge of any alleged violation of this Code shall report thereon to appropriate professional bodies and, when relevant, also to public authorities, and cooperate with the proper authorities in furnishing such information or assistance as may be required.*
- Section II.4. - Code of Ethics: *Engineers shall act for each employer or client as faithful agents or trustees.*
- Section III.4. - Code of Ethics: *Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which they serve.*

Discussion:

The Board has interpreted the language contained in Sections II.4. and III.4. in the context of the obligations of employed engineers to maintain the confidences of their employer particularly with regard to certain confidential information that might be made available to the engineer during the course of employment, as in Case 61-8. However, more recently, the Board has also interpreted this language in the context of the relationships owed by the engineer in private practice to the client and the public.

The facts in this case are somewhat similar to those presented in Case 89-7. In that case, Engineer A was retained to investigate the structural integrity of a 60-year old occupied apartment building, which his client is planning to sell. Under the terms of the agreement with the client, the structural report written by Engineer A was to remain confidential. In addition, the client made it clear to Engineer A that the building was being sold "as is" and he was not planning to take any remedial action to repair or renovate any system within the building prior to its sale. Engineer A performed several structural tests on the building and determined that the building was structurally sound. However, during the course of providing services, the client confided in Engineer A and informed him that the building contained deficiencies in the electrical and mechanical systems, which violated applicable codes and standards. While Engineer A was not an electrical nor mechanical engineer, he did realize those deficiencies could cause injury to the occupants of the building and so informed the client. In his report, Engineer A made a brief mention of his conversation with the client concerning the deficiencies;

however, in view of the terms of the agreement, Engineer A did not report the safety violations to any third party.

In determining that it was unethical for Engineer A not to report the safety violations to the appropriate public authorities, the Board of Ethical Review first noted that the facts presented raised a conflict between two basic ethical obligations of an engineer: The obligation of the engineer to be faithful to the client and not to disclose confidential information concerning the business affairs of a client without that client's consent, and the obligation of the engineer to hold paramount the public health and safety. In its review, the Board noted that Code Section III.4 can be clearly understood to mean that an engineer has an ethical obligation not to disclose confidential information concerning the business affairs of any present client without the consent of that client. That provision makes no specific exception to the language. For example, the drafters of the Code could have provided exceptional circumstances, where such confidential information could be disclosed by the engineer; however, no such provisions have been included.

However, after noting the significance of III.4, the Board stated: "We believe under the facts, Section II.1.c. should be read in conjunction with Section II.1.a. The latter section refers to the primary obligation of the engineer to protect the safety, health, property and welfare of the public. The obligation of the engineer to refrain from revealing confidential information, data, facts concerning the business affairs of the client without consent of the client is a significant ethical obligation. We further believe that matters of public health and safety must take precedence. The NSPE Code of Ethics is clear on this point. Section I.1. employs the word 'paramount' to describe the obligation of the engineer with respect to the public health and safety."

"We believe Engineer A could have taken other steps to address the situation, not the least of which was his paramount professional obligation to notify the appropriate authority if his professional judgment is overruled under circumstances where the safety of the public is endangered. Instead, Engineer A, like the engineer in BER Case 84-5, 'went along' and proceeded with the work on behalf of the client. In that case, the engineer recommended to a client that a full-time, on-site project representative be hired for the project because of the potentially dangerous nature of implementing the design during the construction phase. When the client indicated to the engineer that the project would be too costly if such a representative were hired, the engineer acceded to the client's wishes and proceeded with the work. This was not ethical under the NSPE code."

In Case 88-6, Engineer A is employed as the City Engineer/Director of Public Works. She finds that the municipal sewage plant lacks the capacity to handle the waste from several large industrial food processing plants. Engineer A reveals this to her

supervisor, the City Administrator, who orders Engineer A to discuss the problems only with him and warns her that her job is in danger if she disobeys. She privately brings the problem up to other city officials. Engineer A is notified by the Administrator that she is removed from responsibility for the entire sanitary system and the chain of command by a letter instructing Technician B that he is to take responsible charge of the sanitary system and report directly to City Administrator.

Although she had already gone beyond her immediate superior by discussing the matter with other city officials and had been relieved of responsibility for the operation, the Board maintained that Engineer A had a further responsibility to report a matter endangering the public safety and health to the proper authorities.

While the Board noted earlier that the Code makes no direct exception to the language contained in Section III.4., as we have stated on numerous occasions, no section of the Code should be read in a vacuum or independent of the other provisions of the Code. Section II.1.c. provides additional guidance in this case making it clear that the Engineer A has an ethical obligation to refrain from disclosing information which she acquires during the course of providing professional services to the client unless first obtaining the client's consent to disclose. Importantly, however, this section also includes a relevant exception that allows the engineer to disclose information acquired during the course of providing professional services to the client if such disclosure is authorized or required by law or by the Code. In other words, if the engineer has a legal or ethical responsibility to disclose the information in question, the engineer is released from the obligation to maintain confidentiality.

Much of the same reasoning applies in the present case. Under the reasoning of BER Case 88-6, the engineer had an obligation to go further. As earlier stated, we believe under the facts, Section II.1.c. should be read in conjunction with Section II.1.a. The latter section refers to the primary obligation of the engineer to protect the safety, health, property and welfare of the public. The obligation of the engineer to refrain from revealing confidential information, data, facts concerning the business affairs of the client without consent of the client is a significant ethical obligation. We further believe that matters of public health and safety must take precedence. Again, the Code of Ethics is clear on this point -- Section I.1. employs the word "paramount" to describe the obligation of the engineer with respect to the public health and safety.

Engineer A's actions in promptly reporting his findings to the client and providing a corrective design were both ethical and commendable. Nevertheless, the necessary repairs require months before the building's stability could be ensured. During that time, the building's occupants along with a large area of the city, remained in jeopardy, with only an untested evacuation plan protecting them from possible disaster.

The desire to avoid public panic is certainly a legitimate factor in deciding upon a course of action. However, withholding critical information from thousands of individuals whose safety is compromised over a significant period of time is not a valid alternative for the conditions presented.

It would seem that Engineer A should have informed the client and the architect that, while he has an obligation of confidentiality to them as clients, he has this ultimate, paramount obligation to see that the public is protected. He should have let them know that he must inform the appropriate authorities unless they immediately develop and carry out a plan to do so. Such a plan, developed in consultation with a public relations firm and legal advice, could have avoided panic and sensational media hype, while protecting the public.”

The argument can be made that the Engineer B, the city engineer, could be considered an “appropriate authority.” However, given the magnitude of the situation, it was incumbent for Engineer A, as well as Engineer B, to vigorously advocate actions necessary for public protection and notification to higher authorities. By not doing so, both engineers failed to hold paramount the obligation for public safety.

Engineer A could have taken other steps to address the situation, not the least of which was his paramount professional obligation to notify the appropriate authority if his professional judgment is overruled under circumstances where the safety of the public is endangered. This responsibility is outlined in Code Section II.1.e. Instead, Engineer A “went along” and proceeded with the work on behalf of the client. His conduct cannot be condoned under the Code.

Conclusions:

1. It was not ethical for the structural engineer to comply with the client's and the architect's desire for secrecy.
2. It was not ethical for the Engineer B, the city engineer, to maintain the secrecy.

BOARD OF ETHICAL REVIEW

Lorry T. Bannes, P.E.
James G. Fuller, P.E.
Donald L. Hiatte, P.E.
Joe Paul Jones, P.E.
Paul E. Pritzker, P.E.
Richard Simberg, P.E.
C. Allen Wortley, P.E., Chairman

NOTE: *The NSPE Board of Ethical Review (BER) considers ethical cases involving either real or hypothetical matters submitted to it from NSPE members, other engineers, public officials and members of the public. The BER reviews each case in the context of the NSPE Code of Ethics*

and earlier BER opinions. The facts contained in each case do not necessarily represent all of the pertinent facts submitted to or reviewed by the BER.

Each opinion is intended as guidance to individual practicing engineers, students and the public. In regard to the question of application of the NSPE Code of Ethics to engineering organizations (e.g., corporations, partnerships, sole-proprietorships, government agencies, university engineering departments, etc.), the specific business form or type should not negate nor detract from the conformance of individuals to the NSPE Code. The NSPE Code deals with professional services -- which services must be performed by real persons. Real persons in turn establish and implement policies within business structures.

This opinion is for educational purposes only. It may be reprinted without further permission, provided that this statement is included before or after the text of the case and that appropriate attribution is provided to the National Society of Professional Engineers' Board of Ethical Review.

Visit the "Ethics Button" on NSPE's website (www.nspe.org) and learn how to obtain complete volumes that include all NSPE Opinions (or call 1-800-417-0348).