Disclosure of Information to Peer/Employee of Competitor

Case No. 05-2

Facts:
Engineer A is employed with Company Y, a firm that designs and manufactures mass transit braking systems. After running certain tests, Engineer A is concerned that certain equipment manufactured by Company Y could result in brake failure on rapid transit trains. Engineer A has raised his concerns within Company Y with Supervisor B, an engineer, and shows Supervisor B the test results. Supervisor B responds that he believes the design is adequate and considers the matter closed. Company Y has a company hotline for employees to raise ethical concerns within the company. However, Engineer A is hesitant to contact the company hotline. Instead, Engineer A confers with Engineer C, a professional peer who is a mechanical engineer with a competing brake manufacturing company. Engineer C agrees that the design is adequate.

Question:
Was it ethical for Engineer A to confer with Engineer C instead of using the company hotline?

References:

Section I.1.	-	*NSPE 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.	-	*NSPE Code of Ethics:*	*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.	-	*NSPE Code of Ethics:*	*Engineers shall not reveal facts, data, nor information without the prior consent of the client or employer except as authorized or required by law or this Code.*
Section II.4.	-	*NSPE Code of Ethics:*	*Engineers shall act for each employer or client as faithful agents or trustees.*
Section III.4.	-	*NSPE 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:
Ethical issues relating to professional disagreements within the workplace are among some of the more difficult and challenging issues faced by practicing engineers. How engineers respond to these professional challenges have a significant effect upon their professional lives and on the companies in which they work. Experience has demonstrated that engineers confront these issues in a variety of ways, depending upon the corporate culture in which they practice, the nature of the professional disagreement, the engineer's personal background, and other factors.

One case that deals with some of the basic issues involved in the present case is BER Case No. 88-6. There, Engineer A was employed as the city engineer/director of Public Works. She found that the municipal sewage plant lacked the capacity to handle the waste from several large industrial food-processing plants. Engineer A revealed this to her supervisor, the city administrator, who ordered Engineer A to discuss the problems only with him and warned her that her job was in danger if she disobeyed. She privately brought the problem up with other city officials. Engineer A was then notified by the city administrator that she was removed from responsibility for the entire sanitary system and the chain of command by a letter instructing Technician B that he was to take responsible charge of the sanitary system and report directly to the city administrator. In finding that Engineer A did not fulfill her ethical obligations, the Board noted that Engineer A knew or should have known that reporting to the city administrator under the circumstances would be ineffective and that, therefore, Engineer A should have

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reported the improprieties to appropriate state officials. The Board also noted that by virtue of the failure to act, Engineer A had acquiesced to permitting nonengineering personnel to perform engineering functions illegally.

Another example that addresses some of the issues found in the present case is BER Case No. 98-9, where Engineer A, a structural designer of a large commercial building, incorporated new and innovative design concepts into a building's design. After construction was complete and the building was occupied, Engineer A found 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 also cause a domino effect, threatening a much larger area. Engineer A advised the architect and client of the problem. After consultation with the architect, the client, and the city engineer, they all agreed upon remedial construction, which could be accomplished over the next few months. A storm monitoring system and contingency evacuation plan for the building and surrounding neighborhood was developed for the time before construction was complete. Both the client and the architect strongly agreed that the situation should be kept secret, with construction accomplished during the evening hours when the building was unoccupied. Engineer A was confident that the construction would completely rectify any structural concerns and that the evacuation plan had a reasonable chance of success. Engineer B, the city engineer, had concern for the public, especially the office workers in the building and their right to know, but the architect and the client maintained that right was superseded by the consequences of a possible public panic resulting from any notification. In deciding that it was not ethical for the structural engineer to comply with the client's and the architect's desires for secrecy and that it was not ethical for Engineer B to maintain the secrecy, the Board noted that "the obligation of the engineer to refrain from revealing confidential information, data, and facts concerning the business affairs of the client without consent of the client is a significant ethical obligation." The Board also noted, however, that "matters of public health and safety must take precedence." Said the Board, "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."

While the facts in BER Case Nos. 88-6 and 98-9 are somewhat different than those in the instant case, the Board can draw certain basic principles from both of these cases that are useful in its analysis. It is the Board's view, consistent with BER Case Nos. 88-6 and 98-9 that while confidentiality considerations are important and that engineers must be mindful of their responsibilities, in the final analysis, considerations of public health and safety supersede questions of confidentiality. Therefore in the instance case, Engineer A's instincts to take further action when his safety concerns were not given appropriate regard were appropriate and justified.

However, the ultimate course of action pursued by Engineer A under the facts does not square with the potential options provided to Engineer A. For example, it is unclear to the Board why Engineer A did not pursue recourse through the established Company Y hotline, which was presumably established for the very purpose of allowing employees with safety and other concerns to raise those concerns with appropriate individuals within the company. Moreover, while it may have been appropriate for Engineer A to confer with a professional peer or an expert (e.g., mechanical engineering faculty at an engineering college) to vet his concerns, the Board finds it troubling that Engineer A decided to confer with Engineer C, a mechanical engineer with a competing brake manufacturing company. While it is appropriate to obtain trusted input on the design, revealing such information to an individual employed by a competing company was poor judgment and an apparent abrogation of Engineer A's ethical responsibility not to reveal the employer's proprietary information to another party. Clearly, Engineer A had other options. For Engineer A to have sought the professional opinion of an employee of a competing brake manufacturing company places both Engineer A and Engineer C in a professionally compromised predicament.

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Conclusion:
It was unethical for Engineer A to confer with Engineer C instead of using the company hotline.

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