REVIEW BY ENGINEER OF WORK OF DESIGN ENGINEER FOR CLIENT

Case No. 00-12

Facts:
Customer X (a cellular phone company) asks Corporation Y (a tower manufacturer) to design and manufacture a 300' antenna tower. Engineer A, as an employee of Corporation Y, performs a structural design of the tower and provides signed/sealed drawings of the design.

Customer X wants to make sure it receives a good product, so it engages Corporation Z, a tower manufacturer that competes with Corporation Y, to analyze Corporation Y's tower design and manufacture. Engineer B, as an employee of Corporation Z, performs a structural analysis of Corporation Y's design and puts together a report of his findings. Engineer B then signs and seals his own report and submits it to Customer X.

Question:
Was it ethical for Engineer B to perform a structural analysis of Corporation Y's design and put together a report of his findings?

References:

Section III.1.f.	-	*Code of Ethics:*	*Engineers shall not promote their own interest at the expense of the dignity and integrity of the profession.*
Section III.7	-	*Code of Ethics:*	*Engineers shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice or employment of other engineers. Engineers who believe others are guilty of unethical or illegal practice shall present such information to the proper authority for action.*
Section III.7.b.	-	*Code of Ethics:*	*Engineers in governmental, industrial or educational employ are entitled to review and evaluate the work of other engineers when so required by their employment duties.*
Section III.7.c.	-	*Code of Ethics:*	*Engineers in sales or industrial employ are entitled to make engineering comparisons of represented products with products of other suppliers.*

Discussion:
Review of one engineer's work by another engineer has been the subject of previous Board of Ethical Review Opinions. In BER Case No. 79-7, Engineer A was retained by the prime professional engineer to provide mechanical and electrical engineering services for a large housing project. The project was completed and occupied four years later, and Engineer A was fully paid for his services. Approximately seven years after the original occupancy, ownership of the facility changed. The new owner informed Engineer A he had retained Engineer B to make an engineering inspection of the facility, and there were problems associated with the wiring. At the owner's request,

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a joint inspection of the wiring was made by the two engineers and the city wiring inspector. The inspection did not reveal any defects in the wiring. The owner advised Engineer B of his complaint concerning the plumbing and heating systems. Engineer B thereafter conducted a further study and filed a report with the owner. The report noted there was no problem with the design of the plumbing system, but concluded there were design inadequacies in the original sizing of the equipment for hot water and heating. Engineer B recommended the installation of equipment of higher capacity. Engineer A thereafter filed a complaint with the state engineering registration board alleging that Engineer B had acted improperly in that the report was not objective and did not include all pertinent information, and further alleged that the actions of Engineer B were self-serving at the expense of the dignity and reputation of Engineer A. Engineer A requested the registration board to find Engineer B guilty of "misconduct" in that Engineer B had obtained employment by a questionable method of criticizing Engineer A without his knowledge. In ruling that it was not unethical for Engineer B to take the assignment and render the report to the owner, the Board noted that it was apparent that Engineer A knew that Engineer B had been retained to make an engineer's inspection of the facility and that the resulting evaluation would necessarily entail a review of the original designs. Also, it is equally clear that the connection of Engineer A with the project had been terminated some years earlier. The Board also noted that the purpose of the language in the code relating to reviewing the work of another engineer is intended to provide the engineer whose work is being reviewed by another engineer the opportunity to submit his comments or explanation for his technical decisions, thereby enabling the reviewing engineer to have the benefit of a fuller understanding of the technical considerations in the original design in framing his comments or suggestions for the ultimate benefit of the client. (See BER Case Nos. 68-6 and 68-11).

On the basis of the facts in the present case, there does not appear to be any indication that Engineer B had undertaken his review and subsequent report with the intent to injure the professional reputation or practice of Engineer A. It is therefore the Board's view that Engineer B did not have any obligation to first discuss this matter with Engineer A to obtain some understanding of the reasons and justifications for Engineer A's initial design. Under the facts, Engineer A and his company, Corporation Y, had a professional relationship with Customer X. However, neither Engineer A nor Corporation Y had any ethical right to know that Customer X was planning or did consult with Engineer B. If indeed, Engineer B concluded that some changes were needed in the equipment originally specified, Engineer B was free to include that information in the report. As a matter of ethics, Engineer B did not have a professional obligation to consult with Engineer A concerning the technical issues being addressed by Engineer B. NSPE Code of Ethics Sections III.7.b. and III.7.c. make it clear that industrial employees are free to evaluate the designs of other engineers when so required by their employment duties. Any other determination under the NSPE Code would, in fact, be contrary to the interests of the client and the language of the NSPE Code of Ethics.

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Conclusion:

It was ethical for Engineer B (an employee of a tower design and manufacturing company) to perform a structural analysis of Engineer A's (an employee of another tower design and manufacturing company) design and put together a report of his findings without first consulting with Engineer A.

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