

REFERENCES:

- II.2.b. - Code of Ethics: Engineers shall not affix their signatures to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared under their direction and control.*
- II.2.c. - Code of Ethics: Engineers may accept assignments and assume responsibility for coordination of an entire project and sign and seal the engineering documents for the entire project, provided that each technical segment is signed and sealed only by the qualified engineers who prepared the segment.*
- 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.*
- III.9.a. - Code of Ethics: Engineers shall, whenever possible, name the person or persons who may be individually responsible for designs, inventions, writings, or other accomplishments.*

**SIGNING/SEALING DOCUMENTS FOLLOWING
COMPANY REORGANIZATION**

FACTS:

Engineer A, a licensed professional engineer, works for a utility company. Technician B works under Engineer A and Technician B becomes trained in the design of small single-story buildings. Eventually, Technician B requires minimal supervision, but Engineer A carefully reviews and signs and seals all drawings and specifications as required by the local building authority. During a company reorganization as a result of downsizing, Engineer A is transferred to another department and performs different activities and functions. Technician B continues to design small single-story buildings and brings the plans and specifications to Engineer A's department for Engineer A to sign and seal before bringing them to the local building authority for approval. Although not his direct supervisor, Engineer A follows the procedures used in the past, continues to direct and control Technician B, reviews all of the documents prepared by Technician B, and finds them to be correct and signs and seals them. Engineer C, a professional engineer in the utility company and a professional colleague of Engineer A, is aware of this and does nothing.

QUESTIONS:

Question 1: Was Engineer A ethical in signing the documents as Technician B is no longer under Engineer A's direct supervision and control?

Question 2: Was Engineer C ethical in not reporting the actions taken by Engineer A?

DISCUSSION:

Over the years, the Board has considered many cases relating to the basic principle of signing and sealing of drawings prepared either by the engineer, under the engineer's responsible charge or under other circumstances. This principle is one of the most fundamental concepts contained in the NSPE Code of Ethics because it identifies the engineer's obligation to be responsible for his work and the work of those whom the engineer directs or supervises.

For example, in BER Case No. 86-2, the Board considered a case involving Engineer A who was the chief engineer within a large engineering firm who affixed his seal to some of the plans prepared by licensed engineers working under his general supervision who did not affix their seals to the plans. At times, Engineer A also sealed plans prepared by nonlicensed graduate engineers under Engineer A's supervision. Because of the size of the organization and the large number of projects being designed at any one time, Engineer A found it impossible to give a detailed review or check of the design. He believed he was ethically and legally correct in not doing so because of his confidence in the ability of those he had hired and were working under his general direction and supervision. By general direction and supervision, Engineer A meant that he was involved in helping to establish the concept, the design requirements, and review elements of the design or project status as the design or project progressed. Engineer A was consulted about technical questions and he provided answers and direction on these matters.

In determining that it was unethical for Engineer A to seal plans that had not been prepared by him, or which he had not reviewed and checked in detail, the Board noted that the term "direction" contained in NSPE Code Section II.2.b. is generally defined as "guidance or supervision of action or conduct; management; a channel or direct course of thought or action." The word "control" is generally defined as "the authority to guide or manage: direction, regulation, and coordination of business activities." The Board recognized that the role of a chief engineer in an engineering firm may be that of a "manager who provides guidance, direction, and counsel to those within his responsible charge." Indeed in a large engineering firm this role is crucial to the successful operation of the firm. The Board noted that under the facts in Case No. 86-2, the chief engineer should be involved at the outset of the project in the establishment of the design concept and the design requirements, as well as in the review of the various elements of the design or project status as the design or project progressed. In addition, the chief engineer should also be available to consult on technical questions relating to the project design.

In contrast, five years later, the Board took a contrary position in a related case. In Case No. 91-8, Engineer A's firm was retained by a major fuel company to perform site investigations in connection with certain requirements under state and federal environmental regulations. Under the procedures established by Engineer A's firm, the site visits were conducted by engineering technicians (under the direct supervision of Engineer A) who performed all observations, sampling, and preliminary report preparation. The engineering technicians also took photographs of the sites. No professional engineers were present during the site visits. Following the site visits, all pertinent information and material was presented to Engineer A who was competent in the field. Following careful review, Engineer A certified that the evaluations were conducted in accordance with engineering principles.

In concluding that it was ethical for Engineer A to certify that the evaluations were conducted in accordance with engineering principles, the Board reviewed its reasoning in Case No. 86-2 as well as Case No. 90-6, which involved an engineer's signing and sealing of documents prepared using a CADD system. In Case No. 90-6, the Board had noted that in rendering its decision in Case No. 86-2, the Board raised considerable discussion within the engineering community because, to many, the opinion appeared to be inconsistent with customary and general prevailing practice within the engineering profession and would therefore place a significant number of practitioners in conflict with the provisions of the NSPE Code. After concluding that the Board's decision in Case No. 86-2 needed to be clarified, the Board noted that "customary engineering practice includes the use of engineering technicians, technologists, graduate engineers and others to prepare preliminary reports, studies, evaluations, etc. with a professional engineer performing a careful review of all pertinent material and then signing and sealing appropriate plans and drawings."

Turning to the facts in the immediate case, the Board understands the reasoning of the Board in deciding Case No. 91-8 and the realities of practice and the need for delegation for the performance of engineering services under the responsible charge of the engineer. The Board is not troubled by Engineer A's actions. Although no longer his direct supervisor, Engineer A has direct day-to-day oversight control and supervision over the work of Technician B. The Board is therefore of the opinion

that it would be proper for Engineer A to sign the documents prepared by Technician B under these circumstances. It is not difficult to reconcile this decision with earlier Board precedents. The Board believes that there are important similarities between this case and previous Board determinations. For example, Case No. 86-2 involved work actually being performed by subordinates who were licensed engineers and presumably had and demonstrated the necessary education, experience, and qualifications to prepare the work that the senior engineer signed and sealed. In addition, the Board believes this case presents a similar set of facts to those presented in Case No. 91-8, where the chief engineer had engineering technicians perform virtually all preliminary work, which the chief engineer certified was performed in accordance with engineering principles. This is because under the facts, the engineering firm had established and followed clear procedures for the performance of the work. Similarly, under the facts of this case, the actual design work is being performed by a nonengineer with substantial, actual, direct, personal supervision under the responsible charge of a licensed professional engineer. Technician A and Engineer B are not operating under a loose, ill-defined structure, which could result in consequences for them as well as for their employer, the utility company. It is clear that the former relationship that existed between Engineer A and Technician B would be consistent with the Board's decision in Case No. 91-8, and it appears that the current approval process is an appropriate approval process.

The Board cannot find any reason why Engineer C should bring this matter to the attention of Engineer A's supervisors for appropriate action since Engineer A's conduct and actions are acceptable.

CONCLUSIONS:

Question 1: It was ethical for Engineer A to sign the documents prepared by Technician B.

Question 2: It was ethical for Engineer C not to take any action.

BOARD OF ETHICAL REVIEW

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