



## **Drawings, Plans, and Specifications for Industrial Processing Facility**

Case No. 15-5

### **Facts:**

Engineer A is retained by Client X to oversee the design of an industrial processing facility, including its manufactured elements. Engineer A prepares the drawings, plans, and specifications and, in doing so, incorporates manufactured equipment into the facility. In preparing the drawings, plans, and specifications, Engineer A includes copies of the drawings, plans, and specifications provided by the manufacturer of the manufactured equipment with his own drawings, plans, and specifications. Engineer A gives full attribution to the manufacturer. Also included within Engineer A's contract with Client X is the provision whereby Engineer A represents that he has reviewed the manufacturer's drawings, plans, and specifications and in his professional opinion believes the equipment will perform as represented, but that Engineer A is not responsible for the performance of the manufactured equipment.

### **Questions:**

1. Was it ethical for Engineer A to include copies of the drawings, plans, and specifications provided by the manufacturer of the manufactured equipment with his own drawings, plans, and specifications, giving full attribution to the manufacturer?
2. Was it ethical for Engineer A to include within his contract with Client X a provision whereby he represents that he has reviewed the manufacturer's drawings, plans, and specifications and in his professional opinion believes the equipment will perform as represented, but that he is not responsible for the performance of the manufactured equipment?

### **NSPE Code of Ethics References:**

- Section II.2. – *Engineers shall perform services only in the areas of their competence.*
- Section III.8. – *Engineers shall accept personal responsibility for their professional activities, provided, however, that engineers may seek indemnification for services arising out of their practice for other than gross negligence, where the engineer's interests cannot otherwise be protected.*
- Section III.9. – *Engineers shall give credit for engineering work to those to whom credit is due, and will recognize the proprietary interests of others.*

**BER Case References: 59-3; 64-11; 76-8; 91-7****Discussion:**

Ethical considerations involving the obligations of engineers in connection with the specification of products have been considered by this Board on more than one occasion. As long ago as BER Case 59-3, the Board stated that the use of standard specifications by reference and the provisions for the preparation and submission of shop drawings by the contractor are well-established customs within the construction industry and do not conflict with the NSPE Code of Ethics. Five years later, the Board considered BER Case 64-11, in which a government agency programmed the construction of a bridge. It retained a consulting engineer to design the total structure. An engineer who was a sales representative of Firm A, which produced and sold pre-stressed concrete bridge members, contacted the consulting engineer and requested that he consider using Firm A's material. The engineer of Firm A indicated that his firm would provide the design of the superstructure incorporating its product at no charge to the consulting engineer, and that this design would be performed by licensed professional engineers. In finding that it would be unethical both for the engineer employed by Firm A to make such an offer and unethical for the consulting engineer to accept such an offer under the circumstances stated in the facts, the Board noted that if the consulting engineer believed the construction material (product) proposed by Firm A was best and in the client's interests, and proposed to contract for an appropriate fee with Firm A for the necessary engineering design, the engineer must first disclose such activity to his client.

Later in BER Case 76-8, the Board considered a set of factual circumstances involving the design of a technical training school and concluded that the furnishing of a sketch and other information prior to selection of a firm for negotiations was a violation of the NSPE Code of Ethics. Noting that changes in the NSPE Code provisions at that time were made to permit the giving of free engineering services to civic, charitable, and other eleemosynary organizations, the Board acknowledged that in everyday engineering practice, engineers must provide some degree of engineering information and expertise in discussions with potential clients. However, after weighing the facts and circumstances of the case, the Board concluded that the firm in question went further than what would be permissible under the NSPE Code.

In BER Case 91-7, Engineer A was retained to design a facility and developed a set of plans and specifications for the client's consideration. One of the manufacturers of a product specified by Engineer A included in its informational material a provision that indicated that in the event that the specified product did not perform according to the client expectations and the client brought a suit against Engineer A, the manufacturer would indemnify Engineer A and hold the engineer harmless for any losses suffered in connection with Engineer A's specification of the manufacturer's product. The Board of Ethical Review decided that Engineer A had an ethical obligation to (1) discuss the informational material with the client; (2) not accept the indemnification for his own

personal benefit; and (3) recommend that the client explore the possibility of client's indemnification with the manufacturer. The BER noted that in this age of increased liability, engineers, architects, materialmen, suppliers, and others have sought to employ new and innovative techniques to address liability concerns, market services and products, and deal with client concerns. The question for the BER was whether it was proper for a specifying engineer to specify a product when the product manufacturer, in an attempt to make its product more attractive, has in essence agreed to "insure" the specifying engineer. The Board determined that such an arrangement would create a conflict of interest between the specifying engineer's obligation to specify products consistent with the best interests of the client and the specifying engineer's self-interest in achieving the maximum protection from potential liability. The Board noted that the specifying engineer's self-interest could lead to a decision to specify the product and not some other more appropriate or less expensive product, which would be improper.

Looking at the facts in the present case, it is the BER's opinion that Engineer A's actions were consistent with the NSPE Code of Ethics. In reviewing the issues raised by earlier cases, the Board believes that Engineer A's actions were consistent with the customs and standards of the engineering profession and the construction industry. It is common and well-accepted practice for professional engineers to incorporate manufacturers' specifications and other technical requirements into the engineering work product provided appropriate attribution and credit is given to the manufacturer who designed and built the equipment. The Board would also distinguish BER Case 64-11 from the present case. Unlike earlier cases discussed by the BER, here Engineer A is incorporating only a fractional element in the overall engineering design into the facility. Finally, in the present case, as part of the overall design, Engineer A is incorporating manufactured elements. Engineer A has an ethical obligation to provide appropriate attribution and give credit for the design of the manufactured equipment to the equipment manufacturer, exercise due diligence in reviewing the manufacturer's product information to confirm that it meets the project specifications, and offer a professional opinion regarding the adequacy of the manufactured equipment for the project. However, Engineer A cannot be expected to assume responsibility or liability for the manufactured equipment that he did not design or manufacture.

In view of this important fact, it is entirely appropriate for Engineer A to include within his contract with Client X a provision whereby he represents that he reviewed the manufacturer's drawings, plans, and specifications and in his professional opinion believes the equipment will perform as represented, but that he is not responsible for the performance of the manufactured equipment.

**Conclusions:**

1. It was ethical for Engineer A to include copies of the drawings, plans, and specifications provided by the manufacturer of the manufactured equipment with his own drawings, plans, and specifications, giving full attribution to the manufacturer.
2. It was ethical for Engineer A to include within his contract with Client X a provision whereby he represents that he will exercise due diligence in his review of the manufacturer's drawings, plans, and specifications and in his professional opinion believes the equipment will perform as represented, but that he is not responsible for the performance of the manufactured equipment.

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