

Whistleblowing—Industrial Design

Case No. 05-1

Facts:

Engineer A is employed as an engineer with Company X, which designs and manufactures certain industrial machinery. Engineer A made certain recommendations in connection with the design of a new type of industrial equipment. Following a meeting with Supervisor B, Engineer A is informed that his design will not be accepted by Company X because it will result in higher manufacturing costs. In response to Company X's decision, Engineer A informs Supervisor B that if Company X does not follow Engineer A's proposed design, Engineer A will consider reporting Company X's industrial waste-disposal methods to appropriate authorities, which could result in significant fines and criminal penalties. Engineer A's design recommendations have no bearing on Company X's industrial waste-disposal methods.

Question:

Was it ethical for Engineer A to coerce Company X into accepting his design by threatening to report Company X to the appropriate authorities?

References:

- Section II.1. - NSPE Code of Ethics: *Engineers shall hold paramount the safety, health, and welfare of the public.*
- Section II.1.c. - NSPE 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.f. - NSPE 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. - NSPE Code of Ethics: *Engineers shall act for each employer or client as faithful agents or trustees.*
- Section III.1.e. - NSPE Code of Ethics: *Engineers shall not promote their own interest at the expense of the dignity and integrity of the profession.*
- 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.*
- Section III.7. - NSPE 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.*

Discussion:

In all professional relations, engineers have an obligation to act with judgment and discretion, as well as with a sense of fairness and balance, in recognition of the complex issues involved in engineering practice and the business and technical issues faced by employers or clients.

The facts in the present case raise issues concerning actions proposed by an engineer if the engineer's recommended course of actions is not followed. While the NSPE Board of Ethical Review has had occasion to examine cases relating to the obligations of engineers to report activities that endanger the public health and safety, the Board has not had an opportunity to review a specific case where, as here, an engineer's action to report a violation that endangers the public appears to be driven by a somewhat unrelated and personal motivating factor. In order to understand this case and its relationship to other

Board opinions, it is important for the Board to examine prior public health and safety opinions by the Board in order to provide a degree of context in this matter and also to assist the Board in its analysis.

One example of the Board's prior health and safety case analysis can be found in NSPE BER Case No. 89-7, where an engineer, Engineer A, was retained to investigate the structural integrity of a 60-year-old, occupied apartment building, which Engineer A's client was 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 clear to Engineer A that the building was being sold "as is" and that the client 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 confidentially informed Engineer A that the building contained deficiencies in the electrical and mechanical systems, which violated applicable codes and standards. While Engineer A is 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. Specifically, 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 deciding it was unethical for Engineer A not to report the safety violations to the appropriate public authorities, the Board noted that the facts presented in the case raised a conflict between two basic ethical obligations of an engineer: 1) 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 2) the obligation of the engineer to hold paramount the public health and safety.

As noted in BER Case No. 89-7, there are various rationales for the nondisclosure language contained in the NSPE Code of Ethics. Engineers, in the performance of engineers' professional services, act as "agents" or "trustees" to their clients. They are privy to a great deal of information and background concerning the business affairs of their clients. The disclosure of confidential information could be quite detrimental to the interests of their clients and, therefore, engineers as "agents" or "trustees" are expected to maintain the confidential nature of the information revealed to them in the course of rendering their professional services.

Later, in BER Case No. 97-13, the Board considered facts involving a public agency that retained the services of VWX Architects and Engineers to perform a major, scheduled overhaul of a bridge. VWX retained the services of Engineer A, a civil engineer, as its subconsultant to perform bridge inspection services on the bridge. Engineer A's scope of work was solely to identify any pavement damage on the bridge and report the damage to VWX for further review and repair. Three months prior to the beginning of the scheduled overhaul of the bridge, while traveling across the bridge, Police Officer B lost control of his patrol car. The vehicle crashed into the bridge wall. The wall failed to restrain the vehicle, which fell to the river below, killing Police Officer B. While conducting the bridge inspection, although not part of the scope of services for which he was retained, Engineer A noticed an apparent pre-existing defective condition in the wall close to where the accident involving Police Officer B occurred. Engineer A surmised that the defective condition may have been a contributing factor in the wall failure and noted this in his engineering notes. Engineer A verbally reported this information to his client, which then verbally reported the information to the public agency. The public agency contacted VWX Architects and Engineers, which then contacted Engineer A and asked Engineer A not to include this additional information in his final report since it was not part of his scope of work. Engineer A stated that he will retain the information from his engineering notes but not include it in the final report, as requested. Engineer A does not report this information to any other public agency or authority. In ruling that it was ethical for Engineer A to retain the information in his engineering notes but not include it in the final written report as requested, the Board noted that Engineer A acted reasonably under the circumstances by properly balancing the obligation of the engineer to be faithful to the client and not to disclose what might be considered by the client to be 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. The Board said this because there was nothing under the facts to indicate anything more than Engineer A's general surmise and speculation about the cause of the structural failure of the wall. Engineer A's observation appeared to be based upon a visual inspection without anything more. There was nothing noted in the facts to indicate that Engineer A had expertise in structural engineering. While it may be appropriate for Engineer A to note such information in his field notes, the Board noted that to place this information in a final report would not be responsible and could unnecessarily inflame the situation. Therefore, the Board concluded that Engineer A did the appropriate thing in coming forward to his client with the information and also by documenting the information for possible future reference as appropriate. Under the circumstances it would have been improper for Engineer A to include reference to the information in his final report, particularly since it would have been based upon mere speculation and not careful testing or evaluation by a competent individual or firm. At the same time, the Board was of the opinion that Engineer A has an obligation to follow through to see that correct follow-up action is taken by the public agency. Only if the public agency does not take corrective action should Engineer A consider alternatives. Finally, said the Board, for Engineer A to have reported this information to a public authority under the circumstances as outlined in the facts, before determining whether corrective action is taken, would have been an overreaction and could easily have risked jeopardizing the professional reputations of his client and the public agency.

Although the Board can draw much in comparing the facts in the present case with the two previously discussed cases, the facts in the present case describe a scenario significantly at odds with those the Board found in Case Nos. 89-7 and 97-13. Unlike the situation in the two previous cases where the engineers were acting independently of their own personal interests, here Engineer A is clearly attempting to use coercion to force his employer to accept his industrial design.

The Board believes that any attempt to coerce or threaten an employer or client in order to force the employer or client to accept a course of action is beyond the bounds of acceptable ethical conduct. The Board cannot fathom any circumstances under which an engineer would be justified to attempt to coerce or threaten an employer to undertake a particular action. Unlike BER Case No. 89-7 where the engineer had no motivation other than the protection of the public, here Engineer A seems to be driven solely by a desire to see his engineering approach prevail. One has to ask where was Engineer A's declared public concern prior to the point at which the employer declined to follow Engineer A's recommendation for the industrial design. Moreover, it does not appear that Engineer A's obligations (a) concerning employer confidentiality, and (b) seeking internal resolution of the waste disposal issue within the company structure (or some other resolution of the matter) were ever part of Engineer A's consideration of his possible actions.

Moreover, there is nothing in the facts to suggest that Engineer A possessed the competence to determine the propriety of Company X's waste-disposal methods. For Engineer A to believe that his course of action would result in anything other than to inflame his relationship with his employer and cause Company X's reputation to be harmed is difficult to imagine.

Separate and apart from the ethical questions surrounding the use of coercion by an engineer against his employer is the question of to what extent and in what way this matter actually involved public health and safety issues. The facts do not suggest that (1) Engineer A's proposed industrial design had any effect on the public health and safety, and (2) Engineer A's proposed design was in any way related to Engineer A's threatened allegations relating to Company X's waste-disposal methods. However, even if it had been the case that Engineer A's proposed design affected the public health and safety and was related to the company's waste-disposal methods, the Board could still not contemplate circumstances where it could ever condone Engineer A's behavior.

Conclusion:

It was unethical for Engineer A to coerce Company X into accepting his design by threatening to report Company X to the appropriate authorities. Independent of the issues regarding Engineer A's design, Engineer A cannot ignore illegal waste-disposal methods and is obligated ethically to present such information to the proper authorities.

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