

Duty to Report Improper Conduct by Management

Case No. 09-2

Facts:

Engineer A, an electrical engineer, worked for Dicers, a company that purchased wafers for microprocessor chips from another company and then reprocessed, packaged, and resold them. Engineer A was assigned the task of testing the wafers. After a while, Engineer A was instructed by his supervisor to alter the testing process, to which both parties had contractually agreed. The testing process was altered, over Engineer A's objections, in such a manner that the quality of the purchased wafers was made to seem lower, when in reality there is no reduction in the quality. This lowered the price paid by Dicers to the other company. Engineer A objected to this practice and refused to go along, and as a consequence, was discharged.

Question:

What are Engineer A's obligations under the circumstances?

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 I.5 - NSPE Code of Ethics: *Engineers, in the fulfillment of their professional duties, shall avoid deceptive acts.*
- Section II.1.b. - NSPE Code of Ethics: *Engineers shall approve only those engineering documents that are in conformity with applicable standards.*
- 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.d. - NSPE Code of Ethics: *Engineers shall not permit the use of their name or associate in business ventures with any person or firm that they believe is engaged in fraudulent or dishonest enterprise.*
- 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.*

Discussion:

Engineers have a professional and ethical obligation to perform their services in a manner consistent with the highest standards of honesty and integrity. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. This basic

principle is clearly stated and is also implicit in various provisions of the NSPE Code of Ethics. When an employer or client imposes strictures that interfere with an engineer's ability to perform in this manner, the engineer must take actions that defend and strengthen the credibility of the profession.

One example of this issue was addressed under precisely the same facts in two previous decisions, BER Case Nos. 97-12 and 99-13. In those two cases, an engineer was employed by SPQ Engineering, an engineering firm in private practice involved in the design of bridges and other structures. As part of its services, SPQ Engineering used a CAD software design product under a licensing agreement with a vendor. Under the terms of the licensing agreement, SPQ Engineering was not permitted to use the software at more than one workstation without paying a higher licensing fee. SPQ Engineering ignored this restriction and used the software at a number of employee workstations. The hired engineer became aware of this practice and called a "hotline" publicized in a technical publication and reported his employer's activities.

When this case was originally decided in 1997 (see BER Case No. 97-12), it was determined that it was not ethical for the engineer to report his employer's apparent violation of the licensing agreement on the "hotline" without first discussing his concerns with his employer. Citing earlier NSPE Board of Ethical decisions, the Board determined that the facts and circumstances were not of a character that involve any danger—direct or indirect—to the public health and safety. Instead, the facts and circumstances related to matters of a legal nature and did not relate to engineering judgment or expertise. The Board noted that NSPE Code Section II.4. placed a basic obligation on engineers to be faithful agents and trustees in professional matters with their employers. The Board also noted under the facts that it was troubled that the engineer did not consider other, less adversarial and surreptitious, alternatives.

For example, the engineer could have first discussed this matter with his employer, pointing out the possible damages that the violation posed to SPQ Engineering, and suggesting that SPQ Engineering confer with its legal counsel before continuing its current actions. Instead, he took a course of action that could cause significant damage to SPQ Engineering and ultimately to himself. The Board was inclined to wonder about the motivation for his actions, without his first exploring less adversarial and surreptitious alternatives—in view of the lack of any direct danger to the public health and safety. While, in the context of the facts of this case, the Board could not conclude that this provision compelled the engineer to ignore an apparent violation of the law and the NSPE Code (See NSPE Code Section III.9.), the Board concluded that he could have easily exercised far greater judgment and professional discretion before taking action. Therefore, it was the Board's opinion that his action in reporting his employer's apparent violation, without first pursuing alternative actions open to him, was in conflict with the Code of Ethics. The Board determined that he had an obligation to actively pursue this matter with SPQ Engineering, and if a satisfactory ethical resolution cannot

be reached, he was obligated to report the violation to the vendor. In addition, the engineer was advised to reconsider (under Code Section II.1.d.) his further association with a firm which has shown itself engaged in fraudulent and dishonest enterprise.

Following issuance of its ruling in BER Case 97-12, in BER Case 99-13, the Board of Ethical Review had cause to review its decision in BER Case 97-12. Among the causes for review included concern that the opinion could be read to suggest that engineers may ethically tolerate unlawful actions by their employers or their clients. Another concern was that BER Case No. 97-12 could suggest that an engineer who brings unlawful actions to the appropriate authorities would be acting unethically. Additional comments noted that the opinion did not recognize the possibility of retribution by the employer against the engineer and that the opinion failed to condemn or criticize the employer for its improper actions and bad conduct. As a result, in BER Case 99-13, the Board clarified its intent in rendering its opinion under the facts.

The Board expressed that its intent was to recognize the right and the obligation of the engineer to report such violations as appropriate. At the same time, the Board continued to maintain that as a professional, an engineer should always exercise judgment and discretion when confronting a situation. Depending upon all of the facts and circumstances, an engineer should take reasonable steps to exhaust all appropriate alternatives before taking an extreme action, such as reporting an employer or a client for their actions, particularly where such actions do not appear to result in physical harm or danger to the public health or safety. At the same time, engineering supervisors acting for an employer who knowingly act in an unlawful manner or who take retaliatory actions against another engineer who brings such matters to their attention are ignoring the basic principles contained in the NSPE Code of Ethics and are acting unethically.

Turning to the present case, it is prudent to consider whether the facts and circumstance involve a danger to the public health and safety. In today's world, computer chips are used in virtually every sector of the economy, including consumer goods, medical equipment, energy facilities, building and plant operations, and a multitude of other areas. Therefore, it is reasonable to assume that in the present case, the chips did or very likely could have entered the stream of commerce where it could have a direct and potentially significant impact on the public health and safety. However, since the effect of the altered testing was to bias the assessed quality of the wafer downwards, Dicers was reselling chips that were presumably of higher quality than was represented by the test results. It is therefore not clear without further information whether or not there may be unintended consequences of Dicer's actions that present a danger to the public.

More significantly, the downgrading of the perceived quality of the purchased wafers due to the altered testing process enabled Dicer to deceptively make lower payments for the wafers to the manufacturer, and thus increase its profits at the manufacturer's

expense. Engineer A may have reasoned that substituting an alternate testing process without the consent or knowledge of the manufacturer was injurious to that party, as well as deceptive, and hence constituted an unethical action.

Given the fraudulent nature of the supervisor's directive, it is the Board's view that Engineer A fulfilled his ethical obligation in his steadfast yet unsuccessful attempt to convince his supervisor to adhere to the contractually agreed testing procedures. The Board believes that had the company officers and directors been aware of the supervisor's improper directive, the company officers and directors would have taken immediate action, including but not limited to disciplinary action against the supervisor. For that reason, it is the Board's view that under the facts, it would be appropriate and ethical for Engineer A to immediately contact the Dicers officers and directors and advise them of the supervisor's improper conduct. If, following disclosure to the company, the company does not take appropriate action, it would be appropriate and ethical for Engineer A to advise the other company of the practice by Dicers.

Conclusion:

It would be appropriate and ethical for Engineer A to immediately contact the Dicers officers and directors and advise them of the supervisor's improper conduct. If, following disclosure, the company does not take appropriate action, it would be appropriate and ethical for Engineer A to advise the other company of the practice by Dicers.

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