

**Public Health, Safety and Welfare—  
Former Employee’s Participation in a Public Safety Standards Hearing**

Case No. 16-10

**Facts:**

Engineer A works for Company X in connection with the design and manufacturing of a new consumer product. During and following the company’s standard safety testing process (which has been completed and has demonstrated that the new consumer product is within acceptable safety parameters), Engineer A observes what Engineer A believes are inconsistent product performance issues that in Engineer A’s opinion raise unique safety concerns. Engineer A recommends to Supervisor B that Company X conduct a new series of tests to determine whether the new consumer product will be operated safely by consumers. Current national product safety standards do not yet address the new product or its potential impact on consumer safety. Currently, there are no governmental or industry standards relating to this new consumer product other than general and standard product safety-testing policies and procedures. Because of the potential cost and the delay that may result due to additional testing, Company X rejects Engineer A’s recommendation that it perform additional safety testing. Later, Engineer A resigns from Company X. One year later, the relevant government agency announces a public safety standard hearing in connection with a series of new consumer products, including the new product developed by Company X and ones developed by its competitors. Engineer A is considering participating as a witness at the public safety standards hearing.

**Question:**

Would it be ethical for Engineer A to participate as a witness at the public safety standard hearings?

**NSPE Code of Ethics References:**

- Section I.1. - Engineers, in the fulfillment of their professional duties, shall hold paramount the safety, health, and welfare of the public.*
- Section II.1.a. - If engineers’ judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.*
- Section II.1.b. - Engineers shall approve only those engineering documents that are in conformity with applicable standards.*
- Section II.3.a. - Engineers shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony, which should bear the date indicating when it was current.*
- Section II.3.b. - Engineers may express publicly technical opinions that are founded upon knowledge of the facts and competence in the subject matter.*
- Section III.4. - Engineers shall act for each employer or client as faithful agents or trustees.*

**NSPE BER Case References: 76-4; 08-10**

**Discussion:**

This case presents an example of one of the more salient ethical dilemmas faced by professional engineers in their professional practice. Engineers are sometimes presented with situations involving an impact on the public health and safety and must decide, after pointing out the situation, how far their obligation reaches in recommending corrective action.

The NSPE Board of Ethical Review has considered this ethical dilemma on several occasions, and the Board's decision in each of these situations depends on the specific facts and circumstances involved. There is no black and white standard that can be applied to these types of cases.

For example, in BER Case No. 76-4, the XYZ Corporation was advised by a State Pollution Control Authority that it had 60 days to apply for a permit to discharge manufacturing wastes into a receiving body of water. XYZ Corporation was also advised of the minimum standard that must be met. To convince the authority that the receiving body of water would still meet established environmental standards after receiving the manufacturing wastes, the corporation employed Engineer Doe to perform consulting engineering services and submit a detailed report. After completing his studies but before completing a written report, Engineer Doe concluded that the plant's discharge would lower the quality of the receiving body of water below established standards. He further concluded that corrective action would be very costly. Engineer Doe verbally advised the XYZ Corporation of his findings. Subsequently, the corporation terminated the contract with Engineer Doe with full payment for services performed and instructed Engineer Doe not to render a written report to the corporation. Thereafter, Engineer Doe learned that the authority had called a public hearing and that the XYZ Corporation had presented data to support its view that the present discharge met minimum standards. In concluding that Engineer Doe had an ethical obligation to report his findings to the authority upon learning of the hearing, the Board concluded that upon learning of the hearing, Engineer Doe was squarely confronted with his obligations to the public concerning its safety, health, and welfare. The Board said, "The NSPE Code requires that his duty to the public to be paramount. In this case, it is presumed that a failure to meet the minimum standards established by law is detrimental to the public health and safety."

More recently in BER Case 08-10, Engineer A, an experienced professional engineer, was employed by MedTech, a company that manufactured medical equipment. A key company product were respirators that were used in hospitals. Engineer B, a company colleague of Engineer A, asked Engineer A to evaluate a respirator designed by MedTech for infant use. Following his review, Engineer A, although not an expert on respirators, determined that a relief valve intended to protect against overpressure being applied to the infant's lungs may have been incorrectly placed so that under certain circumstances, an infant could potentially experience dangerously high pressure levels—although no incidents had been reported. Correcting the error would involve stopping the manufacturing process for part of a week to correct problem. Engineer A brought the issue and his proposed solution to the attention of the appropriate

manager, who was not an engineer, and Engineer A assumed that the matter would be taken care of immediately. However, a month later Engineer A learned from Engineer B that nothing had been done to correct the issue. Hundreds of new respirators were then on the market, and Engineer A was concerned about the increasing likelihood of a tragic event. Engineer A again urged the manager to take immediate action. When the manager indicated that the matter was still being looked into by a design team, Engineer A indicated that if prompt measures were not taken to correct the problem, he would be compelled to report the matter to an appropriate federal regulatory agency.

The Board concluded that it was not ethical for Engineer A to indicate that he would be compelled to report the matter to an appropriate federal regulatory agency if prompt measures were not taken to correct the problem. Instead, the Board decided that Engineer A should have sought to determine what internal steps were being taken to address the concerns. However, if after making the additional inquiries, Engineer A determined that no meaningful action was being taken to address the issue, Engineer A should have explored internal mechanisms within MedTech to seek further recourse regarding this issue. The Board concluded that only if such efforts did not produce satisfactory results should Engineer A consider exploring external avenues for action.

Turning to the circumstances of the present case, it appears that Engineer A had expressed to Company X general product safety concerns regarding the new product due to inconsistent performance by the product and not due to any clear or demonstrative expressed safety concern. At the same time, Engineer A believed that the new product developed by Company X raised unique safety concerns that may require additional study and analysis, and he advised Company X of this fact. Given that there were no governmental or industry standards to guide Company X, it is not unreasonable for Company X to not pursue additional internal testing of the new product.

The NSPE Board of Ethical Review does not believe there is any clear ethical prohibition on Engineer A from participating in the public safety standards hearing as long as (1) Engineer A possesses the technical competence to serve as an engineering expert in the area in which Engineer A is testifying; (2) Engineer A testifies in an objective and truthful manner; and (3) Engineer A does not disclose any information regarding Company X's product that will violate any confidentiality agreements with Company X. If, in fact, Engineer A has a good faith belief that Company X or other industry products raise public safety concerns for consumers, Engineer A should bring this to the attention of the appropriate governmental agency or authorities for further review, investigation, and analysis, consistent with the NSPE Code of Ethics.

### **Conclusion:**

The NSPE Board of Ethical Review does not believe there is any clear ethical prohibition on Engineer A from participating in the public safety standards hearing as long as (1) Engineer A possesses the technical competence to serve as an engineering expert in the area in which Engineer A is testifying; (2) Engineer A testifies in an objective and truthful manner; and (3) Engineer A does not disclose any information regarding Company X's product that will violate any confidentiality agreements with Company X. If, in fact, Engineer A has a good faith belief that Company X or other industry products raise public safety concerns for consumers, Engineer A should bring this to the attention of the appropriate governmental agency or authorities for further review, investigation, and analysis, consistent with the NSPE Code of Ethics.

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