



NATIONAL SOCIETY OF
PROFESSIONAL ENGINEERS

BOARD *of* ETHICAL REVIEW



CASE REVIEW:

Professional Responsibility if Appropriate Authority Fails to Act

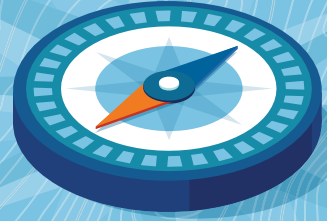
CASE NO. 22-5
APPROVED MAY, 2023

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PROFESSIONAL RESPONSIBILITY IF APPROPRIATE AUTHORITY FAILS TO ACT

CASE NO. 22-5

APPROVED 5/23

FACTS:

Engineer B, a resident of City M and a consulting engineer with ABC Engineers, was retained to evaluate changing the Metropolitan Water Commission's (MWC) public water source serving City M from remote reservoirs located in another regional authority to using the local river. The purpose of the contemplated change in water source would be to reduce expenses. City M is a major client of ABC Engineers, through the MWC on water supply projects, and on other public works projects through other commissions and departments.

Engineer B's report recommended to the MWC the need for appropriate water treatment prior to making the change in water source to ensure that sufficient corrosion control is provided so that old service pipes in the MWC service area don't leach lead in excess of drinking water standards. The report clearly outlined the risk of even short-term exposure of adults, and particularly children, to elevated lead levels if appropriate treatment was not provided concurrent with the change in water source. The MWC met and decided to proceed with the change in water source but to construct water treatment improvements at a later date. Engineer B

pointed out at a public meeting with the Water Commissioners that public health and safety would be at risk. Following the meeting, Engineer B provided the Water Commissioners with a letter detailing the risk to public health and safety. Engineer B subsequently sent the original report with a letter to the water supply division of the State Department of the Environment.

The MWC discharged Engineer B and ABC Engineers from project involvement in the water source change, and retained XYZ Consultants to assist with implementation. XYZ Consultants provided a report to the Water Commission indicating that insufficient information was available to predict the severity of any potential public health and safety risk.

Several months later, Engineer B read in the local newspaper that the professional engineer in charge of the water supply division of the State Department of the Environment had approved the change of water source, with a five-year implementation plan to provide updated water treatment.

Engineer B continued to be concerned that public health and safety would be at risk and considered

whether there were continuing ethical obligations, and if so, what alternative courses of action as an engineer and/or as a citizen of City M might merit consideration.

Rules of Practice II.4.

Engineers shall act for each employer or client as faithful agents or trustees.

QUESTIONS:

1. Is Engineer B ethically obligated to take further action to protect public health, safety and welfare?
2. If Engineer B wishes to take further action to continue to correspond with the MWC or the regulatory agency regarding the public health and safety risk, or to notify the public, what are the ethical considerations in doing so?

NSPE CODE OF ETHICS REFERENCES:

Rules of Practice II.1.

Engineers shall hold paramount the safety, health, and welfare of the public.

Rules of Practice 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.

NSPE BER CASE REFERENCES:

[76-4](#), [89-7](#), [20-4](#)

DISCUSSION:

This case focuses on the engineer's duty to hold paramount the public health, safety and welfare while also balancing how far an engineer should go in pursuing an issue involving protection of the public beyond reporting to appropriate authorities.

[BER Case 76-4](#) addressed the duty to report likely environmental damage to appropriate regulatory authorities. Engineer Doe was retained by an industry to evaluate whether a proposed change in their manufacturing process would result in meeting minimum water quality standards. Doe concluded that the change would not meet minimum standards and apprised the client of that decision. The client severed Doe's contract and asked DOE not to write a report. Subsequently, another engineer unaware of factors that Doe had recognized, presented the view at a public hearing that the industry would meet minimum standards. The BER concluded that Doe had an obligation to report the observations to the applicable regulatory authority.

In [BER Case 89-7](#), a structural engineer inspected a building that was about to be sold, and was apprised confidentially by the owner that, although the building was structurally sound, there were mechanical and electrical code violations that had not been addressed and that were required to be rectified

prior to sale of the building and use by the public. The structural engineer was not qualified to address mechanical and electrical engineering issues, but was aware that the code violations could constitute a safety violation. The structural engineer made only brief mention of the potential mechanical and electrical violations in the project report, and did not report the potential violations to any third party. The BER concluded that the engineer had a duty to report the potential code violations to the appropriate authority.

[BER Case 20-4](#) is directly related to the current case. In [Case 20-4](#), Engineer B, the same Engineer B identified in this current case, was a consulting engineer to the MWC. Engineer B had provided reports and testimony at public meetings to the effect that changes in water treatment were necessary prior to changing the water source in order to protect public health and safety. Despite those recommendations, the MWC decided to make the change in water source, but delay the construction of water treatment improvements. The BER concluded that Engineer B had an ethical obligation to report the risk to public health and safety to the appropriate regulatory authority, regardless of whether the MWC consented to or opposed such a report. The facts of the present case show Engineer B did report the matter to the regulatory authority; namely, the Water Commission (both verbally and in writing) and to the water supply division of the State Department of the Environment (in writing).

Each of the above cases refer to what is clearly established in the NSPE Code of Ethics: there is an obligation to report public health and safety risks to “appropriate authorities”. The current case goes beyond that, posing the question as to what an engineer’s ethical obligations are if the “appropriate authority” fails to act to adequately protect public health and safety in the opinion of the engineer.

Turning to the facts of the current case, Engineer B has indeed reported the health and safety risk to the client, and to the “appropriate authority”. Engineer B should carefully assess whether verbal and written reports to the Water Commission and the written report to the water supply division of the Department of the Environment were sufficiently clear so that there was no misunderstanding of the technical documentation. And Engineer B should consider whether the health and safety risk might reasonably be interpreted otherwise by another engineer. Is this a disagreement of professional opinions, or is it a misunderstanding of the facts or the technical considerations? If Engineer B has clearly communicated the public health and safety risks both to the client and the regulatory agency, the BER concludes that Engineer B has fulfilled the Code’s ethical and professional obligations since Engineer B and ABC Engineers are no longer representing the MWC.

Whether Engineer B wishes to consider additional alternative courses of action on a personal basis raises other ethical considerations. In the project described in this case, such other actions might include additional communication with the MWC, with other levels of management of the Department of the Environment, communication with other political bodies beyond the MWC, or communication with the public. All of these potential actions beyond Engineer B’s professional obligations would be as a concerned citizen. In considering such actions, Engineer B would need to consider the interests of his employer, ABC Engineers. Any such steps should only be taken with full knowledge and concurrence of the employer, since Engineer B has an ethical obligation to act as a faithful agent of the employer, while recognizing that the obligation to protect public health and safety is paramount in comparison to other ethical obligations. ABC Engineers likely has a need to evaluate both the business impacts and legal

liabilities of such additional steps. If Engineer B is no longer employed by ABC Engineers, those considerations may be moot and not a constraint.

Nothing herein should be construed as a constraint to any engineer functioning as a “Whistleblower” in an event where public health and safety is at risk. The BER concludes that clear notification of public health and safety risk to appropriate authorities satisfies an engineer’s ethical obligation, and that subsequent steps are a personal, rather than a professional choice, and should be taken in consideration of the many stakeholders affected by the matter and the engineer’s continuing ethical obligations where pertinent.

CONCLUSION:

1. Clear reporting of unresolved public health and safety risks to “appropriate authorities” satisfies Engineer B’s obligation to protect public health, safety and welfare.
2. Any additional steps taken beyond the notification of appropriate authorities are not an obligation of Engineer B but rather a personal choice as a citizen, and should be taken with due consideration of the multiple stakeholders in this matter and the engineer’s many ethical obligations.

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