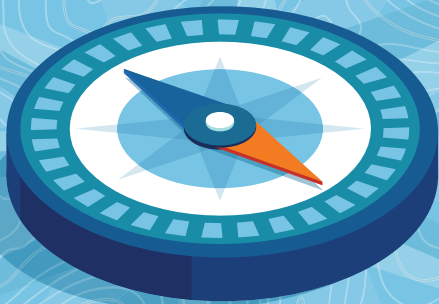




NATIONAL SOCIETY OF  
PROFESSIONAL ENGINEERS

# BOARD *of* ETHICAL REVIEW



CASE REVIEW:

# IMPAIRED ENGINEERING

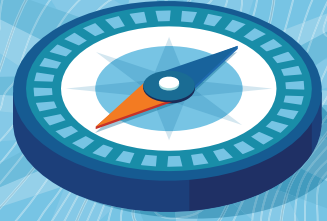
CASE NO. 22-07  
APPROVED JANUARY, 2023

NSPE.ORG



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## IMPAIRED ENGINEERING

CASE NO. 22-07

APPROVED 1/23

### FACTS:

Engineer A owns a consulting engineering firm specializing in civil engineering and surveying services associated with land development. Business has been very successful, so much so that Engineer A has taken steps to expand the business. Among other things, Engineer A purchased land for a new office building, he retained an architect, and he retained Engineer B, his friend and a structural engineer consultant, to perform the structural design.

Construction drawings were completed, permits were issued, a contract was let, and the contractor began construction of the new office building – which included a basement. However, early during the process of constructing the basement there was a significant structural failure. While observing the failed system, Engineer A noticed what he believed was “odd” structural bracing and other questionable structural details. To obtain a second opinion about the failure, Engineer A retained a well-respected structural engineer, Engineer R, to perform an independent review of the structural drawings and the failed basement structure.

Engineer R’s review revealed a surprising number of serious structural design errors, omissions, and faulty details, not only for the failed basement, but also for the portions of the structure that had not been built yet. Engineer A retained Engineer R to completely redesign the structure.

As a professional courtesy, and because he considered Engineer B a personal friend, Engineer A met privately with Engineer B and confronted him with the faulty design, including Engineer R’s report. At this meeting, Engineer B divulged he had suffered a stroke a few months prior. Being the only licensed professional engineer in his firm, for financial and other reasons, Engineer B felt he could not afford to suspend work or close his office. Rather, Engineer B’s wife took over management of the business, and Engineer B delegated practically all design work to Engineer Intern C, a graduate engineer employee with about two years’ experience. The way they operated was, Engineer Intern C (who was fully aware of Engineer B’s impaired condition) would perform the structural design and develop the construction drawings, and Engineer B would sign and seal the drawings with little to no review. Ultimately, this process led to the failure of Engineer A’s building. Because of their long

friendship and consideration of Engineer B's impairment, Engineer A did not report Engineer B to the State Board.

## QUESTIONS:

1. Was it ethical for Engineer A to not report Engineer B?
2. Were Engineer B's actions ethical?
3. Were Engineer Intern C's actions ethical?
4. What are Engineer A's further ethical obligations under these circumstances?
5. What are Engineer R's ethical obligations?

## NSPE CODE OF ETHICS

### REFERENCES:

- Section I.1 Engineers shall hold paramount the safety, health, and welfare of the public.
- Section II.1.e. Engineers shall not aid or abet the unlawful practice of engineering by a person or firm.
- Section II.1.f. 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.2 Engineers shall perform services only in the areas of their competence.

Section II.2.b. Engineers shall not affix their signatures to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared under their direction and control.

Section III.7. 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.

Section III.8.a. Engineers shall conform with state registration laws in the practice of engineering.

## OTHER NSPE REFERENCES:

NSPE Position Statement No. 10-1778: Responsible Charge

## NSPE BER CASE REFERENCES:

[17-7, 15-2](#)

## DISCUSSION:

The primary issues of this case are the competency and professional actions of Engineer B, Engineer Intern C's apparent complicity in the matter, the "compassion" of Engineer A and any subsequent actions by Engineer A, and the ethical obligations of Engineer R. The critical assessment of Engineer B's competency and professional actions is overriding and will lead to other required determinations. The evaluation of this issue can be determined by separate facts.

The facts are that Engineer B suffered a stroke and was unable to adequately direct and review engineering designs and drawings being prepared under his signature and seal. While suffering a stroke by itself was not an ethical problem, the fact that Engineer B chose to sign and seal design drawings without proper review while impaired by this stroke was a problem. The BER has not previously examined competence as it relates to mental health; however, the facts in this case make the determination of [non]competence straightforward. Engineer B violated Section II. 2. of the code because he affixed his signature and seal to documents prepared without his direction or control. This also shows Engineer B was practicing in violation of the state licensure law (Section III.8.a).

The Board further notes that Engineer B's actions were in violation of NSPE's Position Statement No. 10-1778: Responsible Charge which states: "The professional engineer in Responsible Charge is actively engaged in the engineering process, from conception to completion. Engineering decisions must be personally made by the professional engineer or by others over which the professional engineer provides supervisory direction and control authority. Reviewing drawings or documents after preparation without involvement in the design and development process does not satisfy the definition of Responsible Charge."

The actions of Engineer Intern C should be evaluated as well. Granted, Engineer Intern C is not yet a licensed professional engineer but an intern, and thus is working within the safety net of Engineer B's guidance and direct supervision. While this might keep Engineer Intern C from legal censure per the State Engineering Practice Act, it does not absolve Engineer Intern C of ethical responsibility. The facts suggest Engineer Intern C, a subordinate of Engineer B, was fully aware of Engineer B's impaired condition. Further, it appears

Engineer Intern C cooperated with Engineer B in their arrangement to continue to deliver engineering design services as soon as it was realized Engineer B was unable to provide guidance, direct supervision or review. A similar ethical violation is discussed in [Case 15-2](#), in which an engineering report was revised after the report was signed and sealed inappropriately. The BER determined that the Engineer had an obligation to seek an immediate correction by contacting appropriate authorities, including the state engineering licensure board and other enforcement officials as appropriate. In summary, Engineer Intern C is ethically culpable through violation of Section II.1.e, Section II.1.f, and Section III.8.a of the Code of Ethics.

What about Engineer A's actions? Reference is made to Section I.1 of the Code, engineers shall hold paramount the safety, health, and welfare of the public and, more specifically, Section II.1.e, engineers shall not aid or abet the unlawful practice of engineering by a person or firm and Section II.1.f, 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. The BER has almost always taken the position that whenever any violation of the Code or issues of public health, safety, and welfare are uncovered, the proper authorities should be notified. In [Case 17-7](#), the BER determined that an Engineer had an obligation to further report the situation to the appropriate the local, state, and/or federal authorities to ensure that relevant engineering standards were consistent with the public health, safety, and welfare. This was a case where a proposed change to an ordinance was contrary to established engineering standards.

Even though Engineer A was a friend of Engineer B,

their friendship was not an ethical justification for Engineer A to ignore or conceal Engineer B's violations. Code Section III.7, engineers who believe others are guilty of unethical or illegal practice shall present such information to the proper authority for action, unambiguously requires that such violations be reported to the appropriate professional body, in this case the State Board. This determination is also strengthened by Section III.8.a, engineers shall conform with state licensure law.

That being said, the friendship between Engineer A and Engineer B warrants consideration. Hypothetically, what might an engineer do that would have been both ethical and would also have respected the friendship? Section III.7 of the Code says engineers "shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice, or employment of other engineers." By this view and with Engineer B's knowledge and approval, Engineer A could have privately discussed the matter with proper authorities at the State Board. Working together, the parties might cooperatively identify a practice alternative consistent with ethical and legal engineering consulting work, say, hiring a qualified temporary engineer – possibly Engineer R – until Engineer B was able to return to full duty. Further, under such a scenario, the Board might exercise discretion relative to formal sanction (or not) of Engineer B. Other approaches are also possible. But any of them must begin with the conviction that the ethics code does not permit engineers to turn a blind eye to the unethical practice of engineering.

Finally, what are Engineer R's ethical obligations? The facts reveal it was Engineer R who technically uncov-

ered the incompetent nature of Engineer B's design and construction documents. Further, in the aftermath of Engineer R's discovery, it is reasonable to think Engineer R was informed of Engineer B's impairment due to a stroke, and also the series of actions by Engineer B and Engineer Intern C that followed. Since Engineer A was the person who got Engineer R involved in the first place, if Engineer A took the lead in reporting the matter, the report could be styled to note Engineer R's concurrence. Otherwise, Engineer R would be obligated to report Engineer B to the State Board (Section II.1.f).

## CONCLUSIONS:

1. It was unethical for Engineer A to not report Engineer B, in spite of the fact that Engineer A and Engineer B were friends.
2. It was unethical for Engineer B to continue work in an impaired state in which he could not competently perform engineering design, could not guide and direct his subordinates, or properly review their designs or drawings.
3. Engineer Intern C's complicity in helping Engineer B to continue work was unethical.
4. Engineer A was obligated to report Engineer B to the proper authority, in this case the State Board. As Engineer B's friend and with Engineer B's approval, once the matter was reported to the Board, it would have been permissible for Engineer A to help cooperatively identify a temporary practice management alternative that supported the professional and ethical practice of engineering work in Engineer B's business, until Engineer B returned to full duty.
5. Given his direct knowledge of the situation, Engineer R, like Engineer A, was obligated to report



Engineer B to the proper authority, in this case the State Board. If Engineer A did the reporting as noted above, Engineer A's report could be styled to indicate Engineer R's concurrence.

Board of Ethical Review.

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Each opinion is intended as guidance to individual practicing engineers, students, and the public. In regard to the question of application of the NSPE Code of Ethics to engineering organizations (e.g., corporations, partnerships, sole proprietorships, government agencies, and university engineering departments), the specific business form or type should not negate nor detract from the conformance of individuals to the Code. The NSPE Code deals with professional services, which must be performed by real persons. Real persons in turn establish and implement policies within business structures.

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