



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Duty of Government Engineer -- NSPE Case No. 92-4

Year

1992

Description

An engineer refuses to draw up a permit for a building she believes violates environmental standards. Several days later, she learns that her department issued a permit anyway.

Body

Facts

Engineer A, an environmental engineer employed by the state environmental protection division, is ordered to draw up a construction permit for construction of a power plant at a manufacturing facility. He is told by a superior to move expeditiously on the permit and "avoid any hang-ups" with respect to technical issues. Engineer A believes the plans as drafted are inadequate to meet the regulation requirements and that outside scrubbers to reduce sulphur dioxide emissions are necessary and without them the issuance of the permit would violate certain air pollution standards as mandated under the 1990 Clear Air Act. His superior believes that plans which involve limestone mixed with coal in a fluidized boiler process would remove 90% of the sulphur dioxide will meet the regulatory requirements. Engineer A contacts the state engineering registration board and is

informed, based upon the limited information provided to the board that suspension or revocation of his engineering license was a possibility if he prepared a permit that violated environmental regulations. Engineer A refused to issue the permit and submitted his findings to his superior. The department authorized the issuance of the permit. The case had received widespread publicity in the news media and is currently being investigated by state authorities.

Questions

1. Would it have been ethical for Engineer A to withdraw from further work in this case?
2. Would it have been ethical for Engineer A to issue the permit?
3. Was it ethical for Engineer A to refuse to issue the permit?

References

- Preamble - "Engineering is an important and learned profession. The members of the profession recognize that their work has a direct and vital impact on the quality of life for all people. 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. In the practice of their profession, engineers must perform under a standard of professional behavior which requires adherence to the highest principles of ethical conduct on behalf of the public, clients, employers and the profession."
- Section I.1. - "Hold paramount the safety, health and welfare of the public in the performance of their professional duties."
- Section II.1.a. - "Engineers shall at all times recognize that their primary obligation is to protect the safety, health, property and welfare of the public. If their professional judgment is overruled under circumstances where the safety, health, property or welfare of the public are endangered, 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 which are safe for public health, property and welfare in conformity with accepted 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."

Discussion

The facts of this case are in many ways a classic ethical dilemma faced by many engineers in their professional lives. Engineers have a fundamental obligation to hold paramount the safety, health and welfare of the public in the performance of their professional duties (Code Section I.1.). Moreover, the Code provides guidance to engineers who are confronted with circumstances where their professional reputation is at stake. Sometimes engineers are asked by employers or clients to sign off on documents in which they may have reservations or concerns.

The Board of Ethical Review has examined this issue over the years in differing contexts. As early as case BER 65-12, the Board dealt with a situation in which a group of engineers believed that a product was unsafe. The Board then determined that as long as the engineers held to that view, they were ethically justified in refusing to participate in the processing or production of the product in question. The Board recognized that such action by the engineers would likely lead to loss of employment.

In [BER Case 82-5](#), where an engineer employed by a large defense industry firm documented and reported to his employer excessive costs and time delays by subcontractors, the Board ruled that the engineer did not have an ethical obligation to continue his efforts to secure a change in the policy after his employer rejected his reports, or to report his concerns to proper authority, but has an ethical right to do so as a matter of personal conscience. The Board noted that the case did not involve a danger to the public health or safety, but related to a claim of unsatisfactory plans and the unjustified expenditure of public funds. The Board indicated that it could dismiss the case on the narrow ground that the Code does not apply to a claim not involving public health and safety, but that was too narrow a reading of the ethical duties of engineers engaged in such activities.

The Board also stated that if an engineer feels strongly that an employer's course of conduct is improper when related to public concerns, and if the engineer feels compelled to blow the whistle to expose facts as he sees them, he may well have to

pay the price of loss of employment. In this type of situation, the Board felt that the ethical duty or right of the engineer becomes a matter of personal conscience, but the Board was unwilling to make a blanket statement that there is an ethical duty in these kinds of situations for the engineer to continue the campaign within the company, and make the issue one for public discussion.

More recently, in [BER Case 88-6](#), an engineer was employed as the city engineer/director of public works with responsibility for disposal plants and beds and reported to a city administrator. After (1) noticing problems with overflow capacity which are required to be reported to the state water pollution control authorities, (2) discussing the problem privately with members of the city council, (3) being warned by the city administrator to only report the problem to him, (4) discussing the problem again informally with the city council and (5) being relieved by the city administrator of responsibility for the disposal plants and beds by a technician, the engineer continued to work in the capacity as city engineer/director of public works. In ruling that the engineer failed to fulfill her ethical obligations by informing the city administrator and certain members of the city council of her concern, the Board found that the engineer was aware of a pattern of ongoing disregard for the law by her immediate supervisor as well as by members of the city council.

After several attempts to modify the views of her superiors, the engineer knew or should have known that "proper authorities" were not the city officials, but more probably state officials. The Board could not find it credible that a city engineer/director of public works for a medium sized town would not be aware of this basic obligation. Said the Board, the engineer's inaction permitted a serious violation of the law to continue and made the engineer an "accessory" to the actions of the city administrator and others.

Turning to the facts of this case, we believe the situation involved in this case is in many ways similar to the situation involved in BER Case 88-6. This, unlike BER Case 82-5 did not involve a matter of personal conscience, but rather a matter which had a direct impact upon the public health and safety. Yet unlike the circumstances involved in BER Case 88-6 where the issues were hidden from public note, here, the case involves facts which have received coverage in the media. In view of this fact, we do not believe it is incumbent upon Engineer A to bring this issue to the attention of the "proper authorities". As we see it, such officials are already aware of the situation and have begun an investigation. The reason for our position in BER Case 88-6 was that the engineer's failure to bring the problems to the attention of the

"proper authorities" made it more probable that danger would ultimately result to the public health, safety and welfare. Here, the circumstances are presumably already known to appropriate public officials. To bring the matter to their attention is a useless act.

However, we believe it would not have been ethical for Engineer A to withdraw from further work on the project because Engineer A had an obligation to stand by his position consistent with his obligation to protect the public, health, safety and welfare and refuse to issue the permit. Engineers have an essential role as technically qualified professionals to "stick to their guns" and represent the public interest under the circumstances where they believe the public health and safety is at stake.

We would also note that this case also raises another dimension which involves the role of the state licensing board in determining the ethical conduct of licensees. Under the facts, Engineer A affirmatively sought the opinion of the state as to whether his approval of the permit could violate the state engineering registration law. We believe Engineer A's actions in this regard constitute appropriate conduct and actions are consistent with Section II.1.a. of the Code. This case involves a question of public health and welfare and Engineer A's decision to disassociate himself from further work on this project avoids having Engineer A being placed in a professionally compromising situation.

Conclusions

Q1. It would not have been ethical for Engineer A to withdraw from further work on the project.

Q2. It would not have been ethical for Engineer A to issue the permit.

Q3. It was ethical for Engineer A to refuse to issue the permit.

Board of Ethical Review:

- William A. Cox, Jr., P.E.
- William W. Middleton, P.E.
- William E. Norris, P.E.

- William F. Rauch, Jr., P.E.
- Jimmy H. Smith, P.E.
- Otto A. Tennant, P.E.
- Robert L. Nichols, P.E., Chairman

[NSPE Code of Ethics](#) An earlier version may have been used in this case.

Notes

In regard to the question of application of the Code to corporations vis-a-vis real persons, business form or type should not negate nor influence conformance of individuals to the Code. The Code deals with professional services, which services must be performed by real persons. Real persons in turn establish and implement policies within business structures. The Code is clearly written to apply to the Engineer and it is incumbent on a member of NSPE to endeavor to live up to its provisions. This applies to all pertinent sections of the Code.

For a version of this case adapted for classroom use, see: [Clean-Air Standards and a Government Engineer \(adapted from NSPE Case No. 92-4\)](#).

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