BER Case 91-3

APPROVED BY BER
November 1, 1991

Section II.3.b. - Code of Ethics
Section III.1.b. - Code of Ethics
Section III.2.b. - Code of Ethics

## ENGINEER EMPLOYEE'S REFUSAL TO PROVIDE REPORT

FACTS:

Engineer A, a structural engineer, is an employee of a federal agency responsible for performing inspections and filing reports on certain rehabilitated structures in an urban area. Engineer A's Supervisor B, a non-engineer, assigned Engineer A the responsibility to inspect and write a report on a building upon which repairs were allegedly conducted. Among the issues that Supervisor B requests Engineer A to address in his report are whether the building will require additional "major, minor or additional structural work over the life of the building in order to used it in a manner consistent with the public health and safety." The agency required this information in order to make a determination as to whether to repair or foreclose on the property. Prior to undertaking the work involved, Engineer A, who was not involved in inspecting the building prior to the rehabilitation, requested detailed information from the agency as to the types of structural repairs conducted (e.g., plans, specifications, etc.). The requested information is not available and no funding exists for further investigation. Engineer A tells Supervisor B he would be unable to provide the requested report. Nevertheless, Supervisor B persists in requesting a complete report addressing the issues.

QUESTION:

Was it ethical for Engineer A to refuse to provide the requested report?

REFERENCES:

Section II.3.b. -Engineers may express publicly a professional opinion on technical subjects only when that opinion is founded upon adequate knowledge of the facts and competence in the subject matter.

Section III.1.b. -Engineers shall advise their clients or employers when they believe a project will not be successful.

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Section III.2.b. -Engineers shall not complete, sign or seal plans and/or specifications that are not of a design safe to the public health and welfare and in conformity with accepted engineering standards. If the client or employer insists on such unprofessional conduct, they shall notify the proper authorities and withdraw from further service on the project.

DISCUSSION:

The obligation of engineers to express an opinion only when it is founded on adequate knowledge and honesty has been a fundamental concept contained in the Code of Ethics from its inception. This basic ethical responsibility to strive for truth in the rendering of professional services clearly underlies many of the provisions contained in the Code.

In a very early case, BER Case 63-4 involved a confidential questionnaire designed to obtain the opinion of engineers as to reputation of certain engineering firms, the Board articulated its view of this concept by interpreting the Canon of Ethics 5 which, at that time was limited only to the role of the engineer when serving as a witness before a court, commission or other tribunal and Canon of Ethics 7 which was then restricted to expressing an opinion publicly. Said the Board, this provision "convey(s) the idea that an engineer should express opinions only on the basis of facts, honest belief and adequate knowledge. While (the provisions) are limited to the engineer serving as a witness or expressing an opinion publicly, the general principle should apply to all expressions of opinion. This is true even when the opinion to be given is treated as confidential."

Later, in BER Case 63-6, involving conflicting engineering opinions during a public hearing on pending legislation relating to water supply, flood control and electric power, the Board noted that some aspects of an engineering problem will admit to only one conclusion, but cautioned that it is a fallacy to carry this statement to the ultimate conclusion that all engineering problems admit only to one correct answer. The Board said that particularly in large and complicated engineering problems, such as a water-powered complex, there may be many approaches, all based on sound engineering principles. Large public projects are notably in this category and the approach finally adopted may properly reflect not only engineering diagnosis, but also determinations of public policy. Citing as an example, the Board indicated that engineering judgment from exclusively an efficiency and cost standpoint may conclude that a proposed highway should be built through the heart of a heavily populated residential district. Public policy may dictate, however, that the highway should be build at greater cost and less efficiency through a lightly populated area. An engineer who presents either point of view cannot be said to be incorrect.

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In BER Case 63-6, the Board also offered the view that there may be honest differences of opinion among equally qualified engineers on the interpretation of known physical facts. Assuming complete factual agreement on such factors as water flow, soil conditions, rate of evaporation, past rainfall, runoff, etc., engineers can and do arrive at different conclusions based on their understanding of the application of those facts. The Board also recognized that frequently engineers must base their opinions on estimates of indeterminate facts, e.g., construction cost by one method or another, population growth, economic development of the area and possible future trends in more efficient equipment. Importantly, the Board noted that the applicable provisions in the Code of Ethics refer to the expression of "opinion" confirming the idea that the engineer is called upon for the expression of his judgment, not the mere recital of known engineering data.

Finally, in the fairly recent BER Case 88-7 involving an engineer who agreed to perform a bridge safety inspection for a newspaper which consisted of a one-day visual observation, the Board noted that in situations where an engineer is being asked to provide technical expertise to the public discussion, the engineer should offer objective, truthful and dispassionate professional advice that is pertinent and relevant to the points at issue. The Board noted that the engineer should only render a professional opinion publicly, when it is (1) based upon adequate knowledge of the facts and circumstances involved, and (2) the engineer clearly possessed the expertise to render such an opinion. The Board concluded that under the circumstances, it was not unethical for the engineer to agree to perform an investigation for the newspaper in the manner stated but that the engineer had an obligation to require the newspaper to state in the article that the engineer had been retained for a fee by the newspaper to provide a professional opinion concerning the safety of the bridge.

While none of the cases herein discussed are entirely dispositive of the matter presently before the Board, each of the cases is helpful to the Board in resolving the matter. Additionally, in interpreting Code Sections III.1.b and III.2.b., it is clear that the Board has over the years placed a great degree of significance on the ethical obligation of engineers to render professional opinions based upon a sufficient degree of understanding and candor relating to the matters involved and that where there may be circumstances which may impact upon this ethical obligation, the engineer has an obligation to fully disclose the nature of those circumstances.

Turning to the case at hand, it would appear that before Engineer A could ethically prepare a report containing the engineer's opinion on a building rehabilitation which was not performed under the engineer's direction or control, in order to determine whether the work was performed in a manner which is consistent with the public health and safety, it would appear that the engineer would need to (1) review all relevant information, reports, plans and drawings on the condition of the building prior to the rehabilitation; (2) review all documents used as part of the actual rehabilitation; (3) review all documents prepared following the rehabilitation and (4) perform a sufficient investigation of the facility to verify whether the work was performed as indicated. After careful review and analysis of the information, if a reasonable basis exists to make a conclusion, the engineer may issue a report with conclusions addressing the issues raised by the supervisor. If a sufficient basis upon which to draw conclusions does not exist, the engineer may not ethically issue a report with conclusions, but may issue a qualified report without conclusions, noting all deficiencies in the information, plans, drawings, etc. and other documents provided to him.

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Under circumstances such as here, where none of the information requested by Engineer A was forthcoming and funds were unavailable, we do not believe Engineer A could ethically issue a report of the type requested.

CONCLUSION:

It was ethical for Engineer A to refuse to provide the report requested.

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