Report on a Case by the Board of Ethical Review

Case No. 76-8

Free Engineering—Preliminary Sketch and Cost Estimate of Facility

Facts:
A state-supported technical training school contacted several engineering firms seeking expressions of interest and statement of qualifications for an additional facility. The school's letter indicated the new facility would consist of a brick building, approximately 60 feet by 110 feet, including a laboratory, a lecture hall, a study area, and various treatment processes which will be scaled-down versions of municipal operations. The intended facility is to include a small oxidation ditch, waste treatment plant, plastic media trickling filter tower, sludge coil filter, carbon columns, large ozonator, and a complete chlorine room.

Several firms submitted background and qualification data, following which interviews were held to select the firm deemed best qualified for the project. At the interviews the school's representative stated he would like each firm to provide a rough sketch of its concept and approach and an estimated construction cost of the facility, as envisioned by the firms. Engineer A, a principal of one firm, responded to the request by submitting the desired information, including a one-page sketch showing the proposed division of space in the proposed building and adjacent location of the oxidation ditch system and trickling filter tower. The firm's response also stated an estimate of cost for the required equipment and a range for construction of the building on a square foot basis, noting that an accurate cost estimate could be developed only after more detailed discussions and that a reduction in scope might be necessary to meet the client's budget limitations.

One of the other firms under consideration for the project has protested that the furnishing of the sketch and estimate prior to selection of the firm of Engineer A violates the Code of Ethics.

Question:
Is the furnishing of the sketch and estimate prior to selection of a firm for negotiations as described a violation of the Code of Ethics?

References:
Code of Ethics-Section 9(a)-"He will not undertake or agree to perform any engineering service on a free basis, except for civic, charitable, religious, or elemosynary nonprofit organizations when the professional services are advisory in nature."

Section 11(g)-"An Engineer will not use 'free engineering' as a device to solicit or otherwise secure subsequent paid engineering assignments."

Copyright © 1976 National Society of Professional Engineer (NSPE) www.nspe.org . All rights reserved.
To request permission to reproduce this NSPE Board of Ethical Review Case, please contact the NSPE Legal Department (legal@nspe.org).

Discussion:
When this case was submitted §9(a) of the code was in force. However, at the July 1976 meeting of the NSPE Board of Directors, upon the recommendation of the NSPE Ethical Practices Committee, §9(a) was deleted from the code, and §11(g) was added. As explained in the report of the Ethical Practices Committee, by reference to a special report of this Board of Ethical Review in January 1976, the basis for the change was to clarify the original intent to avoid procedures under which competing firms could offer "free" engineering as a device to secure work, recognizing also that it is consistent with professional practice to permit firms to provide free engineering for truly unselfish civic or charitable motives.

Whether we judge this case under the now-abandoned §9(a), or under the new §11(g), the principal question is to determine the extent of the application of "free engineering" in the context of furnishing a preliminary sketch and estimate requested by the potential client as related to the seeking of the assignment. Our previous opinions under §9(a) dealt only with the issue of whether the intent was to truly provide a "selfless" service of a civic or charitable nature, or whether the free engineering offer was intended in fact to help the firm secure an assignment (Cases 67-2, 67-6).

That is not the issue in the facts before us because it is clear that the firm was not in any way offering to contribute its services for civic or charitable purposes. The controlling issue, therefore, is whether any degree of preliminary technical data provided in connection with an attempt to be retained for a project falls within the concept of free engineering as a device to secure a subsequent paid engagement.

We recognize that in everyday engineering practice engineers must provide some degree of engineering information and expertise in discussions with potential clients. As we noted in a different context in Case 65-14, it was permissible for an engineer to provide "minimal" engineering data to assist a community in applying for certain grant funds. But that case is distinguishable because the engineer had been retained for the proposed project if the funds were made available. In the facts before us the engineering data, whether or not considered "minimal," were a factor in the selection by the client.

In one sense it can be considered that "free engineering" in the present context is limited to engineering data which may be actually utilized by a prospective client for the ultimate result desired by that client, e.g., an economic or feasibility study having direct value of its own. Under that approach it may be contended that the sketch involved in this case is not of such direct value in that it would not be used by the client to proceed with necessary engineering plans and specifications, or for award of a construction contract for the facility inasmuch as the sketch does not show actual measurements for the space allocation, the structural system, the foundation requirements, or the type and location of the mechanical or electrical systems. Nor does it include or refer to the required detailed specifications to enable the owner to obtain construction bids or order the necessary equipment on his own.

Copyright © 1976 National Society of Professional Engineer (NSPE) www.nspe.org . All rights reserved.
To request permission to reproduce this NSPE Board of Ethical Review Case, please contact the NSPE Legal Department (legal@nspe.org).

While this interpretation has substantial merit and may apply in appropriate circumstances, we are persuaded that the degree of engineering services provided the client in this case was more than the type of engineering data which may be indicated in the normal engineer-client discussion prior to selection. Here the engineer had to consider more detailed engineering analysis to determine the location of the proposed equipment in relation to the building addition, as well as the location of the building facilities and rooms. These kinds of determinations should not be made "off the top of the head" as generalized ideas but must require some degree of technical consideration and some degree of the technical requirements of the project. The cost estimates for the equipment and building, while stated in broad terms and with the qualification noted, likewise should be and presumably were related to the engineering considerations leading to the sketch.

While we appreciate the practical considerations faced by engineers who are requested by clients to submit the type of preliminary data illustrated in this case, we believe that the countervailing concern should be the extent to which this process might be abused to the detriment of clients when competing firms either provide inadequate and potentially misleading sketches and estimates, or on the other extreme provide more carefully developed and specific engineering data at a cost to each firm which must ultimately be reflected in overhead costs passed on to other future clients. On balance, therefore, we interpret free engineering as restricted in §11(g) very narrowly so as to restrict submitting specific data for a specific project.

Long experience of the profession confirms that the best interests of the public are served when the design professional is selected on the sole basis of background, experience, qualification, and expertise, followed then by the more detailed discussions of scope, estimates, concepts, and approaches for the project at hand. If those discussions should at any point indicate to the client that the selected firm does not have or does not develop acceptable concepts and procedures the client retains the right to terminate the selected firm and start anew to obtain the engineer best suited to his needs.

Conclusion:*
The furnishing of a sketch and estimate of the type described prior to selection of a firm for negotiations is a violation of the Code of Ethics.

**Note:* This opinion is based on data submitted to the Board of Ethical Review and does not necessarily represent all of the pertinent facts when applied to a specific case. This opinion is for educational purposes only and should not be construed as expressing any opinion on the ethics of specific individuals. This opinion may be reprinted without further permission, provided that this statement is included before or after the text of the case.

Copyright © 1976 National Society of Professional Engineer (NSPE) www.nspe.org . All rights reserved.
To request permission to reproduce this NSPE Board of Ethical Review Case, please contact the NSPE Legal Department (legal@nspe.org).

Board of Ethical Review

Robert R. Evans, P.E.; James G. Johnstone, P.E.; Joseph N. Littlefield, P.E.; Donald C. Peters, P.E.; James F. Shivler, Jr., P.E.; L.W. Sprandel, P.E.; William J. Deevy, P.E., chairman

Copyright © 1976 National Society of Professional Engineer (NSPE) www.nspe.org . All rights reserved.
To request permission to reproduce this NSPE Board of Ethical Review Case, please contact the NSPE Legal Department (legal@nspe.org).