ENGINEERING STUDENT SERVING AS CONSULTANT TO UNIVERSITY

FACTS:

Engineer A, a professional engineer on unpaid leave from employer of ZYX Consultants, is a post-graduate student at a small private university and is enrolled in a research class for credit taught by Jones, a mechanical engineering professor at the university. Part of the research being performed by Engineer A involves the use of an innovative geothermal technology. The university is in the process of enlarging its facilities and Jones, a member of the University's building committee, is charged with responsibility for developing a request for proposal (RFP) in order to solicit interested engineering firms. Jones plans to incorporate an application of the geothermal technology into the RFP. Jones approaches Engineer A and asks if he would personally serve as a paid consultant to the university's building committee in developing the RFP, reviewing proposals, etc. ZYX Consultants will not be submitting a proposal and is not averse to having Engineer A submit a proposal. Engineer A agrees to serve as a paid consultant.

QUESTIONS:

1. Was it ethical for an Engineer A to be enrolled in a class for credit at the university and at the same time agree to serve as a consultant to the university?

2. Was it ethical for Engineer A to participate in the preparation of the RFP?

3. Was it ethical for Engineer A to review the proposals?

REFERENCES:

Section II.2.a. -Engineers shall undertake assignments only when qualified by education or experience in the specific technical fields involved.
Section II.4.a. -Engineers shall disclose all known or potential conflicts of interest to their employers or clients by promptly informing them of any business association, interest, or other circumstances which could influence or appear to influence their judgement or the quality of their services.

Section III.11. -Engineers shall cooperate in extending the effectiveness of the profession by interchanging information and experience with other engineers and students, and will endeavor to provide opportunity for the professional development and advancement of engineers under their supervision.

DISCUSSION:

This case raises for the first time a number of somewhat subtle but nevertheless important ethical considerations involving the activities of engineering students in connection with the work performed for a grade and similar work performed for a fee. These issues arise in the context of the academic setting which, in recent years, has played an increasingly important role in shaping the practice of engineering.

While the Code of Ethics is quite comprehensive and detailed in addressing a variety of ethical matters, the Code does not specifically speak to the ethical obligations of engineering students. Section III.11 of the Code comes closest to addressing the educational obligations of engineers. This provision places the obligation on engineers to promote the widest dissemination of engineering data and material to enhance the educational attainment of other engineers and engineering students. However, this provision does not directly deal with the ethical obligations of engineering students per se.

While we have not had an opportunity to address a case of a nature as the one before us, an early BER case involved circumstances that have some bearing on the matter at hand. In BER Case 65-15, a professor of engineering shared his time at the university between teaching and research projects under contract between the university and a government agency. The professor also owned an interest in a research and development company in the community and devoted evenings and weekend time to the interests of the company. The private R&D company and the university as well as others were invited by a federal agency to submit proposals for a project, the technical content of which was based in large part upon the research performed by the university for a different federal agency in which the professor participated. In deciding it was ethical for the professor to participate in the preparation of a proposal for the university, the Board noted that the professor is first an employee of the university and, as such, BER 91-5 has a primary responsibility to the university. His interest in and work for the private R&D company, while neither necessarily inappropriate nor unethical, must be treated as secondary to his responsibilities to the university. Under the circumstances described, it is obligatory for the professor to advise both the university and the R&D company of his interest and previous work in connection with the project in behalf of the university and insist that these facts be made known to the government agency requesting the proposal. Based on BER Case 65-15, the R&D company could only submit a proposal if the university did not submit a proposal.
While the facts in BER Case 65-15 is quite different than the present case, it contains a number of important points which are relevant to our consideration. It is clear that as a general proposition, the Code of Ethics recognizes the primarily responsibility of engineering educators to the university. In the present case, the student is acting as a professional engineer in connection with the consulting work for the university and is therefore bound by the Code of Ethics.

Turning to the facts of this case, we believe that the circumstances involved are of a nature which involve a conflict of interest in the review of innovative technologies of competing firms.

The results of this case could easily be somewhat different if Engineer A was an active employee of ZYX Consultants and that firm was interested in submitting a proposal for the enlargement project. But those facts are not before this Board at this time.

Finally, we should add a word of clarification concerning Engineer A's treatment as a student. We recognize the need for universities, their faculties and students to develop new methods of addressing innovative technological questions, and infer an attitude of good faith on the part of all involved. However, it is necessary to stress the importance for all involved in such methods to carefully delineate the scope of duties and responsibilities for those who serve in the capacity of both student and consultant. We can envision a set of circumstances in which misunderstandings could arise concerning the line of demarcation between student and consultant; therefore, we suggest such arrangements be prudently documented and communicated and that evaluations be made with these considerations in mind.

CONCLUSIONS:

1. It was ethical for Engineer A to be enrolled in a class for credit at the university and at the same time agree to serve as a consultant to the university.

2. It was ethical for Engineer A to participate in the preparation of the RFP.

3. It was unethical for Engineer A to review the proposal.
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