Report on a Case by the Board of Ethical Review

Case No. 68-6

Value Engineering

Facts:
A government agency entered into a contract with an engineering firm to design a facility. Following completion of the design, bids were received from contractors for the construction, and a contract was entered into with the low bidder. The construction contract contained a value engineering clause to the effect that the contractor could submit to the contracting officer of the government agency suggested changes in the plans or specifications for the purpose of reducing the cost. The suggested changes would be submitted by the contracting officer (Engineer "B") to the Engineer ("C") for comment, following which the contracting officer would make the decision whether to approve the suggested changes, in whole or in part. The saving resulting from approved changes would be divided equally between the contractor and the government.

Engineer "'A", employed by the contractor, proposed a change in the plans and specifications in accord with the value engineering clause. His employer transmitted the proposed change to Engineer "B", the contracting officer. He submitted the proposed change to Engineer "C", a principal in the design engineer firm. Engineer "C" recommended that the change not be approved and further objected that the actions of Engineers "A" and "B" were unethical.

Question:
Is it unethical for engineers employed by contractors and government agencies to present, review, or approve changes in engineering designs prepared by another engineer?

References:
Code of Ethics-Section 12(a)- "An Engineer in private practice will not review the work of another engineer for the same client, except with the knowledge of such engineer, or unless the connection of such engineer with the work has been terminated."

Section 12(b)-"An engineer in governmental, industrial, or educational employ is entitled to review and evaluate the work of other engineers when so required by his employment duties."

Discussion:
The review of the plans and specifications prepared by the engineering firm by Engineers "A" and "B" were within the permissible scope of Section 12(b), as in both cases their activities were required by their employment duties under the terms of the construction contract. Each was acting for his respective employer.

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A different question would arise if the government agency had retained a second firm in private practice to review the work of the design firm. In that case Section 12(a) requires that such review not be performed without the knowledge of the design firm. While we are not faced with this precise question in this case, we note that value engineering clauses are now being uniformly inserted in construction contracts issued by some Federal agencies and by some state agencies. The use of such clauses has been widely publicized to the engineering profession and where used are in accordance with agency regulations, which are public documents. Accordingly, we express the view for future guidance that engineers in private practice have constructive knowledge of the existence and use of value engineering clauses. It becomes incumbent upon engineers in private practice, who may not wish to be subject to value engineering arrangements of the type described, to check with the governmental (or private) agency or organization to determine if a value engineering clause will be used in the construction contract in order to decide whether the design engineer is willing to accept the engineering engagement on that basis. Failure to do so will remove any later objection by the engineer on ethical grounds that his work was reviewed by another engineer in private practice without his knowledge.

Conclusion:*
It was not unethical for Engineers "A" and "B" to present, review, or approve changes in the engineering designs prepared by the design engineering firm, "C".

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