

Professional Ethics - The Employment Of Engineers In Industry, And A Model Of The Future

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ABSTRACT: *The Professional Engineer in industry, faced with the dual responsibility to support his employer's profit objectives while at the same time to uphold the safety, health and welfare of the public, is placed in a dilemma when his employer states the priorities to be (1) meeting cost first, then (2) meeting schedule, and then (3) meeting performance (in that order). Economic pressure and/or employment termination penalties are levied if one fails to support profits over public safety, health, and welfare. A proposed model of the future may offer a remedy.*

INTRODUCTION

There must be an ethical responsibility in the practice of Professional Engineering [1], supporting corporate profit objectives, if the public is to be afforded safety protection. The Code of Ethics set forth basic principles of conduct which the Engineer agrees to practice by [2]. The Code of Ethics sets forth a standard, against which each engineer gauges his particular practice situation in which he finds himself placed and faces the test of challenge by departing.

Because each engineer is individualistic in his practice, there will invariably be different interpretations made by two or more engineers regarding a common situation. As a professional, each is bound to follow the results of his own convictions as a result of evaluating the various priorities.

Now, then, this will lead to situations where resolution of differences may be necessary, as one's actions may appear to be a serious breach of ethical conduct as observed by another. Each engineer is bound to bring this to the attention of the proper authorities; be it industry, society or the Professional Board of the State. Where improper conduct is found to have occurred, proper disciplinary action must be taken.

On the other hand, every individual is entitled to receive due process before being prematurely convicted. This should apply both in industry matters within a corporation as well as outside. If an engineer is thought to have done an improper act, he should not be judged by management or his associates on hearsay testimony behind the individual's back, and then forever more be treated as an outcast. He should be treated innocent until proven guilty and is entitled to receive proper due process in an industrial environment sense. Too many times, engineers have been black-balled without even being aware that his trial was going on. This discriminatory practice itself, to me, seems highly unethical and unprofessional.

CODE OF ETHICS AND PENALTIES

The State, through its registrations laws [3], has granted no real rights to the licensed Professional Engineer, but instead has set forth specific responsibilities with liabilities and with penalties established which could be levied against him. It seems to me that the very requirement for legally registering professional engineers, whom practice corporate engineering, places them in a continual conflict of interest, since by law, also, they are a part of the management team which expects loyal support of profit objectives.

Now let's look at some statements in the Code of Ethics which the engineer is bound to adhere to:

1. "The Engineer will have proper regard for the safety, health, and welfare of the public in the performance of his professional duties.

2. If his engineering judgement is overridden by non-technical authority, he will clearly point out the consequences.

3. He will notify the proper authority of any observed conditions which endanger public safety and health.

4. He will regard his duty to the public as paramount.

5. He will not complete, sign or seal plans and/or specifications that are not safe to the public health and welfare and in conformity with accepted engineering standards. If the client or employer insists on such unprofessional conduct, he shall notify the proper authorities and withdraw from further service on the project."

If these criteria aren't enough to make the licensed Professional Engineer a little shaky, how about Section 471.37(1) from the Florida Statutes:

The fact that individual registered professional engineers practice engineering as defined in this chapter through a corporation or partnership shall not relieve such engineers from personal liability for their professional acts and each such corporation or partnership shall be jointly and severally liable for the professional acts of agents, employees, officers or partners.

In discussing this liability matter with an attorney he stated that lawyers are faced with the same liability risks and to protect himself he carries one million dollars worth of liability insurance.

Another section of the Law, FS471.37, states that:

Any person who violates any of the provisions of this chapter or commits any of the unlawful acts or practices as herein set forth shall be guilty of a misdemeanor of the first degree, punishable at the discretion of the court by a fine up to \$200, or a maximum of one year in jail, or both if convicted. If such convicted person be a registered professional engineer, then his conviction as aforesaid shall immediately and automatically revoke and annul his certificate or registration. It shall be the duty of the duly constituted officers of the law of this state or any political subdivision thereof to enforce the provisions of this chapter and to prosecute any persons, firms, partnerships or corporations violating the same.

These criteria seem straightforward enough, if one concludes that the thing he has to do is to adhere to the Code of Ethics, avoid any liability caused by faulty or unsafe design, and not to violate any provisions of the State's Professional Engineering Registration and Practice Laws. But let's consider another set of real constraints also placed upon the engineer working for an employer of a corporation in business to make profits.

THE EMPLOYED PROFESSIONAL ENGINEER'S DILEMMA

The new Guidelines to Professional Employment of Engineers [4] states "The professional employee must be loyal to the employer's objectives and contribute his creativity to those goals." It also states that:

"The responsibility of the professional employee to safeguard the public interest must be recognized and shared by the profes-

sional employee and employer alike;" and this leads to the engineer's dilemma.

Within an industrial corporation, it may not be in the corporation's best profit interest for an engineering staff member to be a licensed Registered Professional Engineer. This could be argued on the basis that such an individual would have an internal business conflict of interest between supporting the company's profit goals and adhering to the legal code of ethics, to safeguard the public. It is commonly stated in industry that the priorities to be followed are (1) meeting cost, (2) meeting schedule, and (3) meeting performance, in that order. On the other hand, decisions by court rulings have already set precedences stating that profits cannot overrule protecting public safety. If, however, profit is not the practical choice made by the Registered PE in industry, he may soon find out that the company will no longer continue his services. This is the dilemma then in which today's practicing Professional Engineer finds himself in industry. Maybe, through study of this problem there will be found ways in which the law can provide additional practical interpretive guidelines with safeguards for the Professional Engineer, so he, in turn, will be able to safeguard the public better with protection set by law, without economic pressure extended by management upon him for acting professionally and ethically.

National Support for the Three Ex-BART Engineers Needed: [5] I would like to recommend support, on a national scale, in behalf of the three ex-BART engineer's legal suit against BART over their being fired, rather than resigning, when they attempted to correct unsafe BART design practices ethically working within the BART organization. The NSPE, IEEE, ASSE and Systems Safety Society are urged to back these engineers, form a legal defense fund for providing financial support, and attempt to have a landmark legal decision by the court made which would provide the legal protection needed by engineers practicing professionally in accordance with their Code of Ethics. Otherwise, the dilemma caused by profits versus ethics will continue to be prolonged.

A Code of Professional Integrity is Proposed As The Model of the Future: [6] A three-point program has been outlined, proposing a code of professional integrity, to assist the technical professional in speaking out against hazards harmful to the public interests. "First, enact legislation providing for safeguards against arbitrary treatment against employees who speak out as professionals on matters affecting society. Second, organize a solid constituency of professionals for the adoption by management of the requisite due process procedures, which the professional can appeal to or enforce in the courts. And third, have professional societies express their readiness to defend colleagues when they are arbitrarily treated for invoking the professional ethics toward the corporate activity in which they were involved."

CONCLUSION

The Professional Engineer faces an ethical compliance dilemma. A proposed Model of the Future may provide the means to a solution.

REFERENCES

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