Kenneth L. Carper's Commentary on "Question of Delegating Responsibilities"

Commentary On
Question of Delegating Responsibilities

Dan Dorset has been provided with an excellent opportunity to demonstrate the extent of his personal commitment to professionalism. He can act in his own self-interest, or at some personal cost, he can choose to act in the interest of public safety. The easier, less-costly alternative violates company policy and may increase the risk of accidents. The right thing to do is clear.

Unfortunately, an attractive compromise has been presented. Jerry Taft's offer would relieve Dan of any personal cost and would compromise professional principles only slightly.

Dan's employer has funded his travel to supervise installation of equipment. The location of the project is near a ski resort. Dan's vacation plans at the resort were predicated on the assumption that there would be no delays in the project. He didn't provide for a single day of contingencies when making these plans.

Construction engineering projects always involve scheduling uncertainties. Dan surely recognizes that planning with no contingencies was his responsibility. His concern for public safety, along with acknowledgment of deficient planning on his part, should encourage him to eliminate any options that imply increased risk to the client or the public, even if these risks are of very low probability.

Of the options listed at the end of Part I, only the first is directly driven by the moral principles of professionalism: Decline Jerry Taft's offer and stay until the job is complete. The second option also has some merit. A call to the home office may suggest some additional alternatives. For example, Dan's supervisor, Ed Addison may offer some additional vacation days or other compensation, or he may be able to suggest ways to circumvent the immediate installation of safety-critical

components of the equipment so that other construction scheduling is not unnecessarily delayed.

This option, not listed at the end of Part I, deserves some consideration. Perhaps the installation of the final two units could simply be delayed altogether until after Dan's vacation. Not enough information is given to assess the possibility of this option. It may be that the project schedule would be severely impacted by such a delay, but creative people might be able to find an acceptable compromise. Ed Addison should feel some obligation to assist Dan in meeting both his professional and personal commitments, insofar as possible.

In Part II, Ed Addison exhibits some very disturbing attitudes for an engineer in a management position. Ed is clearly motivated by the desire to avoid personal responsibility for management decisions. He would rather not know when company policies or professional responsibilities are being circumvented. This attitude is not likely to inspire confidence with his subordinates, or to encourage them to accept responsibility.

Complacency and a cavalier attitude regarding professional responsibility is contagious within organizations, particularly when management sets this tone. Rubin and Banick, in their outstanding review of the Kansas City Hyatt pedestrian walkway collapse, refer to the complacent attitude of the design engineer. In this case, 114 people were killed and another 200 seriously injured, partly due to this complacency.

Rubin and Banick ask: How can their conduct be explained?

An understanding of their conduct is perhaps the most important lesson that can be drawn from the Hyatt collapse because it represents, more than anything else, a human failure to which all professionals are subject. Some succumb, some do not; most are just plain lucky in that they do not get caught. Our errors are picked up by others, or although our errors go undetected, no tragedy ensues. Complacency is a human failure. It creeps into a professional's approach to practice as the newness, excitement, and other early rewards of the profession fade. The professional becomes indifferent and stops worrying and agonizing. He takes shortcuts and gets away with it, and then takes more shortcuts. It becomes a way of life. This is human. The shock of an occasional failure brings him to his senses and forces him to reevaluate his conduct. (Rubin & Banick 1987)

Ed Addison's attitudes are particularly disturbing since Rancott's equipment has experienced some recent failures. The possibility of failure should be more than an abstract concept to Ed, and he has a responsibility to convey the seriousness of inspection to his young subordinate, Dan Dorsett.

Apparently, it is all right for Ed's subordinates to take risks, but he won't. His cautious approach to risk-taking involves concern for his "own neck," rather than concern for public safety, should something "go wrong." This self-interest based concern is also evident in his comments about skiing, although there is no ethical conflict here. The risks one takes while skiing are directly related to one's own well-being. The risks taken by professionals involving the welfare of others fall into an entirely different moral category.

Complacency is a dangerous attitude for an engineer. But engineers in the corporate setting, particularly in management positions, can become insulated from the public they serve. Professional responsibility may become an abstract concept, unrelated to day-to-day decisions.

The dialogue presented in Part II certainly does not suggest a reevaluation of the moral rightness of Dan's decision. Ed is not a worthy role model for professional responsibility. The safety of society depends to a great extent on a professional engineering community that takes its responsibilities much more seriously than Ed Addison does. The profession has a long tradition of engineers who have spent sleepless nights contemplating the risks associated with their judgments (Petroski 1985). Were this not so, there would be far more failures of engineered facilities

and products.

Ed Addison says, "...the bottom line is satisfied customers and keeping Rancott, Inc. out of trouble..." This statement is absolutely untrue. The primary guiding principle for engineers is to "use their knowledge and skill for the advancement of human welfare." (Evans 1988). The Code of Ethics further instructs engineers to "hold paramount the safety, health, and welfare of the public in the performance of their professional duties." Thus, the engineer's ethical responsibilities extend far beyond the employer and the client. Engineers are more than employees of a corporation. They are licensed professionals, trusted by society to maintain this focus on the public welfare (Rubin and Banick 1987).

Perhaps it should be noted here that other professions may operate under entirely different ethical guidelines. For example, attorneys are bound by their Code of Ethics to always act in their client's interest (Carper 1990). This concept could have disastrous implications for public safety, should it be adopted by the engineering profession.

Ed Addison would like to avoid failure. However, he interprets this task as his responsibility to "keep Rancott, Inc. out of trouble," rather than a responsibility to protect the public welfare. The danger in this attitude toward failure is that it confuses liability with professional responsibility. The engineer who is motivated merely by the desire to avoid liability may simply address the problem by writing contracts that transfer responsibilities to others, and by purchasing more insurance to insulate the firm from the economic impact of failure. This approach alone is not in the interest of public safety, but it is all too common in the current litigious society. Traditionally, engineers have accepted the responsibilities of their profession, and have been diligently motivated by concerns for the public who will suffer when things go wrong.

In Part IV, the violation of company policy and compromised professional standards leads to a further deterioration of principles, as small compromises often do. The next step involves falsification of records. This is a definite complication, one that raises legal implications in addition to new ethical issues.

Part V asks us to consider the dilemma from a new perspective. Dan's situation is now the result of a new job assignment. In this case, he should insist on official orders from Ed Addison authorizing him to leave the first assignment prior to

completion. This transfers responsibility to Ed; it will be good for him.

While asking for official orders, it might be in order for Dan to further discuss with Ed the ethical dimensions of his statements. He might include reference to the lessons Dan is learning from Ed's example. Perhaps Ed has become so insulated in his management position that he is no longer cognizant of his professional responsibilities that extend beyond enforcement of company policies. Perhaps he is unaware of his important influence on the professional development of his colleagues.

Part VI introduces the question of probability of outcome. The varying probabilities of various outcomes certainly ought to be a factor in making professional judgments among alternatives. It should always be recognized that these probabilities are estimates, and even if they prove to be accurate statistically, an outcome having a low predicted probability is still a possibility.

For this reason, the actual outcome should not necessarily be given greater weight than other alternative outcomes when reviewing the rightness or wrongness of a prior decision. While the consequences may be undesirable, the decision may have been morally correct, given the information available at the time the decision was made. Similarly, a positive outcome should not be used to justify a decision that was morally flawed.

Risk analysis is an important component of engineering (Martin and Schinzinger 1989). One contemporary engineer who specializes in risk analysis defines this activity as "assessing the probability of regret." Consideration of risk is something one should lose sleep over; it is not something to be taken lightly, as Dan is tempted to do, for personal convenience.

Suggested Readings:

1. Carper, Kenneth L. 1990. "Ethical Considerations for the Forensic Engineer Serving as an Expert Witness," *Business and Professional Ethics Journal*, Rensselaer Polytechnic Institute, Troy, NY, Vol. 9, Nos. 1 and 2, Spring-Summer, pp. 21-34.
2. Evans, R. J. 1988. "Commentary on the Code of Ethics," *Journal of Professional Issues in Engineering*, American Society of Civil Engineers, New York, NY, Vol. 114, No. 2, April, pp. 148-156.

3. Martin, Mike W. and R. Schinzinger 1989. *Ethics in Engineering* (2nd edition), McGraw-Hill, Inc., New York, NY, pp. 118-124.
4. Petroski, Henry 1985. *To Engineer is Human*, St. Martin's Press, New York, NY, pp. 214-215.
5. Rubin, Robert A. and Lisa A. Banick 1987. "The Hyatt Regency Decision: One View," *Journal of Performance of Constructed Facilities*, American Society of Civil Engineers, New York, NY, Vol. 1, No. 3, August, pp. 161-167.