Kenneth L. Carper's Commentary on "Leaking Waste Containers"

Commentary On
Leaking Waste Containers

Inspection and oversight responsibilities have become critical functions of technical professionals. Modern society is increasingly vulnerable to severe effects of failures and accidents. A single structural connection failure in a long-span roof can threaten the lives of thousands of occupants. A single industrial accident, such as the methyl isocyanate gas leak experienced in Bhopal, India in December 1984, can cause tens of thousands of casualties. Hazardous wastes can cause irreparable environmental damage (Gross, et. al. 1989, Carper 1989).

Society has recognized the need for increased protection. Legislation has been introduced to protect the environment and to enhance public safety. These laws exist because some controls must be mandated and enforced. Unless they are enforced diligently and equitably, the profit motive will control to the detriment of the environment and the public welfare. The competitive market will unfairly penalize those corporations that adopt costly environmental protection or public safety policies.

Inspection by a competent, licensed professional is critical to the effectiveness of enforcement (Carper 1984). Insofar as possible, the inspecting engineer should be autonomous, working under an administrative arrangement that permits the inspector to act independently.

Scott Lewis, however, finds himself in a much less desirable situation. He has been assigned the task of inspecting his employer's operation. Placing an employee in such an oversight position is fraught with conflicts. The employee is under the constant threat of potential pressure from superiors within the organization, and is often overly conscious of the economic implications of the negative reports that may be required by strict interpretation of regulations. The inspector's own job is on the line. Indeed, employees have been fired for subordination when they were

conscientiously performing their inspection assignments (Martin and Schinzinger 1989, pp. 6-7, 216-217).

The situation of self-inspection places those assigned the task in a very awkward position. Similar ethical challenges are encountered by the Accountant who must audit the records of a corporation. The Accountant who submits a report that is truthful may incur the wrath of the client corporation that has retained the Accountant. To a certain extent, there is constant implied pressure to perform a service that pleases the client. This conflict has been addressed in the accounting profession through strict adherence to a professional code of ethics and through diligent enforcement of legal requirements.

Laws are involved in Scott Lewis' case as well. There are public safety and environmental impact issues at stake. Scott should discuss his concerns with Tom Treehorn, including the potential consequences of breaking the law. He should vigorously object to Tom's intentions, appealing to the Code of Ethics for support, if necessary. Reference to the Code of Ethics can be very useful when an engineer is confronted by such pressure from an employer or client (Evans 1988).

If such appeals are ignored, Scott should definitely threaten Tom with a report to Tom's superior. If Tom receives support from the management above him, Scott should be prepared to go outside the organization. Whistleblowing is justified when laws are being violated. In fact, Scott is obligated by his Code of Ethics to go to the proper authorities when his employer is in deliberate violation of regulations, especially when the public welfare is threatened (Elliston et al 1985, Pletta 1987). For example, the American Society of Civil Engineers has a policy statement that requires its members to report unsafe conditions discovered in the course of their work, even if the client for whom they are performing services objects.

An important principle in this case is the principle of universalizability (Martin and Schinzinger 1989, pp. 37-38). Scott should confront Tom with the implications of everyone acting as he proposes to do. What if every chemical corporation were to ignore regulations regarding disposal? What if each supervisor were allowed to do it his or her own way? Even if each were thoughtful and conscientious, and even if each felt they knew best how to safely dispose of the waste, wouldn't the resulting chaos be unmanageable?

Scott should especially be concerned when Tom refers to the economic benefit of following his plans. Tom's true motive is revealed here; it is the profit motive.

Later, when problems do arise, a class-action suit is brought against the corporation. In the court proceedings, Scott must be truthful. This will include giving an account of the part he played in the inspection and in helping Tom violate the law. This will be complicated by his new position with a competing corporation.

It should be noted that if Scott were a Professional Engineer at the time of the violation, he may now be subject to personal litigation, and to prosecution by the state in which he is licensed. He may also be subject to disciplinary action by his professional engineering society.

Suggested Readings:

1. Carper, Kenneth L. 1984. "Limited Field Inspection Vs. Public Safety," *Civil Engineering*, American Society of Civil Engineers, New York, NY, Vol. 54, No. 5, May, pp. 52-55.
2. Carper, Kenneth L., ed. 1989. Forensic Engineering, Elsevier Science Publishers, New York, NY, pp. 26-28.
3. 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.
4. Elliston, Frederick, J. Keenan, P. Lockhart and J. Van Schaick 1985. *Whistleblowing Research: Methodological and Moral Issues*, Praeger Publishers, New York, NY.
5. Gross, John L., J. Smith, and R. Wright 1989. "Ashland Tank: Collapse Investigation," *Journal of Performance of Constructed Facilities*, American Society of Civil Engineers, New York, NY, Vol. 3, No. 3, August, pp. 144-162.
6. Martin, Mike W. and R. Schinzinger 1989. *Ethics in Engineering* (2nd edition), McGraw-Hill, Inc., New York, NY, pp. 6-7, 37-38, 216-217.
7. Pletta, Dan H. 1987. "'Uninvolved' Professionals and Technical Disasters," *Journal of Professional Issues in Engineering*, American Society of Civil Engineers, New York, NY, Vol. 113, No. 1, January, pp. 23-31.