

Kenneth L. Carper's Commentary on "Exceeding Pollution Limits"

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Exceeding Pollution Limits

It is interesting to notice the language people use to justify unethical behavior. Plant Manager Edgar Owens refers to overlooking "mere technicalities," when he really means breaking established laws. He requests Marvin Johnson to "adjust" the report, when he really intends for Johnson to falsify scientific data.

The falsification of data is viewed by scientists and engineers to be an extremely serious breach of ethics. Marvin Johnson is being asked to compromise one of the most important moral concepts in science, truthfulness in reporting of scientific measurements. Should he consent to a false report, and should the incident come to light, his own personal career will be in grave jeopardy. The scientific and engineering community cannot survive unless its members can trust one another to present data truthfully.

Yet, Marvin Johnson finds himself in a very difficult position. His manager has raised the question of loyalty. The implication is that truthfulness will damage the company; fellow employees will suffer. Competitors will profit at the expense of Wolfog Manufacturing. The arguments given by Edgar Owens can be quite persuasive, and they are all too familiar in the corporate setting (Nelson and Peterson 1982). Regulations are often seen to be unrealistic or arbitrary. The assumption is often made that competitors must be falsifying data to meet these unrealistic expectations, so it is only wise business practice to do what everyone else is doing.

Much has been written about the pitfalls of misguided loyalty. While principled loyalty can be a commendable virtue, misguided loyalty has been responsible for many, many tragic moral disasters. When loyalty to a corporation, or a government, or an individual, requires the sacrifice of fundamental moral principles, such loyalty is not a virtue.

Engineers who find themselves in stressful situations like this should refer to their professional Code of Ethics. This can be a helpful, tangible tool in negotiations with their employers. (Carper 1991, Davis 1991). Certain fundamental ethical principles are embodied in the Codes of Ethics adopted by professional societies, and the embattled engineer can point to these principles, stating that his or her career as an engineer requires adherence to these principles. What Johnson is being asked to do is a violation of the canons of his profession.

The principle of universalizability is introduced in this case study. Immanuel Kant's "categorical imperative" provides this guidance:

Act only according to that maxim by which you can at the same time will that it should become a universal law.

In this case, Johnson should not write an "adjusted report" unless he is truly willing to accept similar actions by all his colleagues in the scientific and engineering community when confronted by similar situations and similar pressure from their employers. Should Johnson consent to Edgar Owens' request, later self-analysis of his actions will bring the crisis of conscience experienced by others who have compromised their values in the interest of misguided loyalty.

One relevant example is the B. F. Goodrich case involving data falsification on critical brake and wheel assembly testing for Air Force attack aircraft (Martin and Schinzinger 1989, p.58). The first-hand account provided by Kermit Vandiver, a B. F. Goodrich employee, is very enlightening (Vandiver 1972).

Deborah Randle, the engineer who works for the Department of Natural Resources, will most certainly evaluate reports from the various corporations with the principle of universalizability in mind. How else can someone charged with global responsibility operate, and remain impartial? False data will be absolutely unacceptable to Randle. Again, engineers simply must be able to trust each other.

Should an unethical report be discovered, not only will Johnson's reputation be irreparably damaged, but the impact on Wolfog Manufacturing will also be significant. The case of emissions test data falsification by the Ford Motor Company shows the damage such behavior can do to a corporation (Martin and Schinzinger 1989, pp. 163-164). A review of the Ford case illustrates the fact that compromising ethics in the interest of loyalty can actually result in great damage to the very employer one is trying to protect.

It seems that Marvin Johnson has some thinking to do. It is probably not yet time to "blow the whistle" publicly. There are some moral principles and procedures involved in proper whistleblowing, and Johnson has not yet exhausted his avenues within the corporation (Elliston et al 1985). Indeed, Johnson has an excellent opportunity to provide some moral leadership to his colleagues by speaking out on the issue of scientific truthfulness. But engineers simply must refuse to work for corporations that place profit above scientific honesty. If Edgar Owens represents the moral stature of the Wolfog corporate management, then Wolfog Manufacturing is not a healthy environment for an honest engineer.

Suggested Readings:

1. Carper, Kenneth L. 1991. "Engineering Code of Ethics: Beneficial Restraint on Consequential Morality," *Journal of Professional Issues in Engineering Education and Practice*, American Society of Civil Engineers, New York, NY, Vol. 117, No. 3, July, pp. 250-257.
2. Davis, Michael 1991. "Thinking Like an Engineer: The Place of a Code of Ethics in the Practice of a Profession," *Philosophy and Public Affairs*, Princeton University Press, Princeton, NJ, Vol. 20, No. 2, Spring, pp. 150-167.
3. Elliston, Frederick, J. Keenan, P. Lockhart and J. van Schaick 1985. *Whistleblowing Research: Methodological and Moral Issues*, Praeger Publishers, New York, NY, pp.133-161.
4. Martin, Mike W. and R. Schinzinger 1989. *Ethics in Engineering* (2nd edition), McGraw-Hill, Inc., New York, NY, pp. 58, 163-164, 176.
5. Nelson, C. and S. R. Peterson 1982. "The Engineer as Moral Agent," *Journal of Professional Issues in Engineering*, American Society of Civil Engineers, New York, NY, Vol. 108, No. 1, January, pp. 1-5.
6. Vandiver, Kermit 1972. "Why Should My Conscience Bother Me?" from *In the Name of Profit*, by Robert L. Heilbroner, Doubleday and Company, Inc., Garden City, NY, pp. 3-31.