CHAPTER TWO

Professionalism and Codes Ethics

2.3.1 What Is a Code of Ethics?

Primarily, a code of ethics provides a framework for ethical judgment for a professional. The key word here is “framework.” No code can be totally comprehensive and cover all possible ethical situations that a professional engineer is likely to encounter. Rather, codes serve as a starting point for ethical decision making. A code can also express the commitment to ethical conduct shared by members of a profession. It is important to note that ethical codes do not establish new ethical principles. They simply reiterate principles and standards that are already accepted as responsible engineering practice. A code expresses these principles in a coherent, comprehensive, and accessible manner. Finally, a code defines the roles and responsibilities of professionals [Harris, Pritchard, and Rabins, 2000].

It is important also to look at what a code of ethics is not. It is not a recipe for ethical behavior; as previously stated, it is only a framework for arriving at good ethical choices. A code of ethics is never a substitute for sound judgment. A code of ethics is not a legal document. One can't be arrested for violating its provisions, although expulsion from the professional society might result from code violations.

As mentioned in the previous section, with the current state of engineering societies, expulsion from an engineering society generally will not result in an inability to practice engineering, so there are not necessarily any direct consequences of violating engineering ethical codes. Finally, a code of ethics doesn't create new moral or ethical principles. As described in the previous chapter, these principles are well established in society, and foundations of our ethical and moral principles go back many centuries. Rather, a code of ethics spells out the ways in which moral and ethical principles apply to professional practice. Put another way, a code helps the engineer to apply moral principles to the unique situations encountered in professional practice.

How does a code of ethics achieve these goals?

First, a code of ethics helps create an environment within a profession where ethical behavior is the norm. It also serves as a guide or reminder of how to act in specifi c situations. A code of ethics can also be used to bolster an individual's position with regard to a certain activity: The code provides a little backup for an individual who is being pressured by a superior to behave unethically. A code of ethics can also bolster the individual's position by indicating that there is a collective sense of correct behavior; there is strength in numbers. Finally, a code of ethics can indicate to others that the profession is seriously concerned about responsible, professional conduct [Harris, Pritchard, and Rabins, 2000].

2.3.2 Objections to Codes

Although codes of ethics are widely used by many organizations, including engineering societies, there are many objections to codes of ethics, specifi cally as they apply to engineering practice. First, as mentioned previously, relatively few practicing engineers are members of professional societies and so don't necessarily feel compelled to abide by their codes. Many engineers who are members of professional societies are not aware of the existence of the society's code, or if they are aware of it, they have never read it. Even among engineers who know about their society's code, consultation of the code is rare. There are also objections that the engineering codes often have internal conflicts, but don't give a method for resolving the conflict. Despite these objections, codes are in widespread use today and are generally thought to serve a useful function.

2.3.3 Codes of the Engineering Societies

Before examining professional codes in more detail, it might be instructive to look briefly at the history of the engineering codes of ethics. Professional engineering societies in the United States began to be organized in the late 19th century. As these societies matured, many of them created codes of ethics to guide practicing engineers.

Early in the 20th century, these codes were mostly concerned with issues of how to conduct business. For example, many early codes had clauses forbidding advertising of services or prohibiting competitive bidding by engineers for design projects. Codes also spelled out the duties that engineers had toward their employers. Relatively less emphasis than today was given to issues of service to the public and safety. This imbalance has changed greatly in recent decades as public perceptions and concerns about the safety of engineered products and devices have changed.

2.3.4 A Closer Look at Two Codes of Ethics

Having looked at some ideas about what codes of ethics are and how they function, let's look more closely at two codes of ethics: the codes of the IEEE and the NSPE. Although these codes have some common content, the structures of the codes are very different.

The IEEE code is short and deals in generalities, whereas the NSPE code is much longer and more detailed. An explanation of these differences is rooted in the philosophy of the authors of these codes. A short code that is lacking in detail is more likely to be read by members of the society than is a longer code. A short code is also more understandable. It articulates general principles and truly functions as a framework for ethical decision making, as described previously. A longer code, such as the NSPE code, has the advantage of being more explicit and is thus able to cover more ground. It leaves less to the imagination of the individual and therefore is more useful for application to specific cases. The length of the code, however, makes it less likely to be read and thoroughly understood by most engineers.

2.3.5 Resolving Internal Conflicts in Codes

One objection to codes of ethics is the internal conflicts that can exist within them, with no instructions on how to resolve these confl icts. An example of this problem would be a situation in which an employer asks or even orders an engineer to implement a design that the engineer feels will be unsafe. It is made clear that the engineer's job is at stake if he doesn't do as instructed. **What does the NSPE code tell us about this situation?**

In clause I.4, the NSPE code indicates that engineers have a duty to their employers, which implies that the engineer should go ahead with the unsafe design favored by his employer. However, clause I.1 and the preamble make it clear that the safety of the public is also an important concern of an engineer. In fact, it says that the safety of the public is paramount. ***How can this conflict be resolved?***

There is no implication in this or any other code that all clauses are equally important. Rather, there is a hierarchy within the code. Some clauses take precedence over others, although there is generally no explicit indication in the code of what the hierarchy is. The preceding dilemma is easily resolved within the context of this hierarchy. The duty to protect the safety of the public is paramount and takes precedence over the duty to the employer. In this case, the code provides very clear support to the engineer, who must convince his supervisor that the product can’t be designed as requested. Unfortunately, not all internal confl icts in codes of ethics are so easily resolved.

2.3.6 Can Codes and Professional Societies Protect Employees?