



ETHICS

Engineering is considered to be a "profession" rather than an "occupation" because of several important characteristics shared with other recognized learned professions, law, medicine, and theology: special knowledge, special privileges, and special responsibilities. Professions are based on a large knowledge base requiring extensive training. Professional skills are important to the well-being of society. Professions are self-regulating, in that they control the training and evaluation processes that admit new persons to the field. Professionals have autonomy in the workplace; they are expected to utilize their independent judgment in carrying out their professional responsibilities. Finally, professions are regulated by ethical standards.¹

The expertise possessed by engineers is vitally important to public welfare. In order to serve the public effectively, engineers must maintain a high level of technical competence. However, a high level of technical expertise without adherence to ethical guidelines is as much a threat to public welfare as is professional incompetence. Therefore, engineers must also be guided by ethical principles.

The ethical principles governing the engineering profession are embodied in codes of ethics. Such codes have been adopted by state boards of registration, professional engineering societies, and even by some private industries. An example of one such code is the NCEES *Model Rules of Professional Conduct*, which is presented here in its entirety. As part of his/her responsibility to the public, an engineer is responsible for knowing and abiding by the code.

The three major sections of the model rules address (1) Licensee's Obligations to Society, (2) Licensee's Obligations to Employers and Clients, and (3) Licensee's Obligations to Other Licensees. The principles amplified in these sections are important guides to appropriate behavior of professional engineers.

Application of the code in many situations is not controversial. However, there may be situations in which applying the code may raise more difficult issues. In particular, there may be circumstances in which terminology in the code is not clearly defined, or in which two sections of the code may be in conflict. For example, what constitutes "valuable consideration" or "adequate" knowledge may be interpreted differently by qualified professionals. These types of questions are called conceptual issues, in which definitions of terms may be in dispute. In other situations, factual issues may also affect ethical dilemmas. Many decisions regarding engineering design may be based upon interpretation of disputed or incomplete information. In addition, tradeoffs revolving around competing issues of risk vs. benefit, or safety vs. economics may require judgments that are not fully addressed simply by application of the code.

No code can give immediate and mechanical answers to all ethical and professional problems that an engineer may face. Creative problem solving is often called for in ethics, just as it is in other areas of engineering.

NCEES Model Rules of Professional Conduct

PREAMBLE

To comply with the purpose of the (identify jurisdiction, licensing statute)—which is to safeguard life, health, and property, to promote the public welfare, and to maintain a high standard of integrity and practice—the (identify board, licensing statute) has developed the following *Rules of Professional Conduct*. These rules shall be binding on every person holding a certificate of licensure to offer or perform engineering or land surveying services in this state. All persons licensed under (identify jurisdiction's licensing statute) are required to be familiar with the licensing statute and these rules. The *Rules of Professional Conduct* delineate specific obligations the licensee must meet. In addition, each licensee is charged with the responsibility of adhering to the highest standards of ethical and moral conduct in all aspects of the practice of professional engineering and land surveying.

The practice of professional engineering and land surveying is a privilege, as opposed to a right. All licensees shall exercise their privilege of practicing by performing services only in the areas of their competence according to current standards of technical competence.

Licensees shall recognize their responsibility to the public and shall represent themselves before the public only in an objective and truthful manner.

They shall avoid conflicts of interest and faithfully serve the legitimate interests of their employers, clients, and customers within the limits defined by these rules. Their professional reputation shall be built on the merit of their services, and they shall not compete unfairly with others.

The *Rules of Professional Conduct* as promulgated herein are enforced under the powers vested by (identify jurisdiction's enforcing agency). In these rules, the word "licensee" shall mean any person holding a license or a certificate issued by (identify jurisdiction's licensing agency).

¹ Harris, C.E., M.S. Pritchard, & M.J. Rabins, *Engineering Ethics: Concepts and Cases*, Copyright © 1995 by Wadsworth Publishing Company, pages 27–28

I. LICENSEE'S OBLIGATION TO SOCIETY

- a. Licensees, in the performance of their services for clients, employers, and customers, shall be cognizant that their first and foremost responsibility is to the public welfare.
- b. Licensees shall approve and seal only those design documents and surveys that conform to accepted engineering and land surveying standards and safeguard the life, health, property, and welfare of the public.
- c. Licensees shall notify their employer or client and such other authority as may be appropriate when their professional judgment is overruled under circumstances where the life, health, property, or welfare of the public is endangered.
- d. Licensees shall be objective and truthful in professional reports, statements, or testimony. They shall include all relevant and pertinent information in such reports, statements, or testimony.
- e. Licensees shall express a professional opinion publicly only when it is founded upon an adequate knowledge of the facts and a competent evaluation of the subject matter.
- f. Licensees shall issue no statements, criticisms, or arguments on technical matters which are inspired or paid for by interested parties, unless they explicitly identify the interested parties on whose behalf they are speaking and reveal any interest they have in the matters.
- g. Licensees shall not permit the use of their name or firm name by, nor associate in the business ventures with, any person or firm which is engaging in fraudulent or dishonest business or professional practices.
- h. Licensees having knowledge of possible violations of any of these *Rules of Professional Conduct* shall provide the board with the information and assistance necessary to make the final determination of such violation.

II. LICENSEE'S OBLIGATION TO EMPLOYER AND CLIENTS

- a. Licensees shall undertake assignments only when qualified by education or experience in the specific technical fields of engineering or land surveying involved.
- b. Licensees shall not affix their signatures or seals to any plans or documents dealing with subject matter in which they lack competence, nor to any such plan or document not prepared under their direct control and personal supervision.
- c. Licensees may accept assignments for coordination of an entire project, provided that each design segment is signed and sealed by the licensee responsible for preparation of that design segment.

- d. Licensees shall not reveal facts, data, or information obtained in a professional capacity without the prior consent of the client or employer except as authorized or required by law.
- e. Licensees shall not solicit or accept financial or other valuable consideration, directly or indirectly, from contractors, their agents, or other parties in connection with work for employers or clients.
- f. Licensees shall make full prior disclosures to their employers or clients of potential conflicts of interest or other circumstances which could influence or appear to influence their judgment or the quality of their service.
- g. Licensees shall not accept compensation, financial or otherwise, from more than one party for services pertaining to the same project, unless the circumstances are fully disclosed and agreed to by all interested parties.
- h. Licensees shall not solicit or accept a professional contract from a governmental body on which a principal or officer of their organization serves as a member. Conversely, licensees serving as members, advisors, or employees of a government body or department, who are the principals or employees of a private concern, shall not participate in decisions with respect to professional services offered or provided by said concern to the governmental body which they serve.

III. LICENSEE'S OBLIGATION TO OTHER LICENSEES

- a. Licensees shall not falsify or permit misrepresentation of their, or their associates', academic or professional qualifications. They shall not misrepresent or exaggerate their degree of responsibility in prior assignments nor the complexity of said assignments. Presentations incident to the solicitation of employment or business shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures, or past accomplishments.
- b. Licensees shall not offer, give, solicit, or receive, either directly or indirectly, any commission, or gift, or other valuable consideration in order to secure work, and shall not make any political contribution with the intent to influence the award of a contract by public authority.
- c. Licensees shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice, or employment of other licensees, nor indiscriminately criticize other licensees' work.