HP210, CLARKSON ENERGY STUDY FALL 2002

Professional Ethics Background Material

CONTEXT

You have real clients – Clarkson's Board of Trustees and the on-campus Cabinet. You will be providing real advice, formulated by interdisciplinary teams that span the engineering disciplines and also have representation from science, business, and liberal arts disciplines. You should assume that your clients will expect the same degree of professionalism in you and your work that they would expect from any technical consultants.

What does this mean they will expect of you?

TERMINOLOGY

- Morality. Morality consists of a relatively small set of universally accepted standards for human behavior. For example, "Do not commit murder."

- Ethics. Ethics consists of a set of standards, typically going beyond the base of morality (as defined above), that are accepted by a specific society or social group. For example, "Do not ever act in a violent manner."

- Professional Ethics. Professional ethics are a set of special standards, always going beyond the demands of morality and ethics, that are adopted by the members of a profession as part of the definition of what is required of members of the profession. For example, (if a lawyer) "Never disclose information that is protected by lawyer-client privilege." Or, (if an engineer) "Never overstate your expertise in an area."

CODES OF PROFESSIONAL ETHICS

Professions typically publish their special standards as "Codes of Ethics." These both inform the public what to expect from members of the profession and put members of the profession on notice *re* behavior that would effectively remove them from the profession.

Attached are the Codes of the four major engineering professional societies – ASCE, ASME, AIChE, and IEEE – plus the American Chemical Society as a representative science group and the Association of Management Consultants as a representative business group.

Also attached is a model procedure for thinking about and resolving issues of professional ethics.

ASCE Code of Ethics[1]

Fundamental Principles[2]

Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:

1. using their knowledge and skill for the enhancement of human welfare and the environment;
2. being honest and impartial and serving with fidelity the public, their employers and clients;
3. striving to increase the competence and prestige of the engineering profession; and
4. supporting the professional and technical societies of their disciplines.

Fundamental Canons

1. Engineers shall hold paramount the safety, health and welfare of the public and shall strive to comply with the principles of sustainable development[3] in the performance of their professional duties.
2. Engineers shall perform services only in areas of their competence.
3. Engineers shall issue public statements only in an objective and truthful manner.
4. Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.
5. Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.
6. Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession.
7. Engineers shall continue their professional development throughout their careers, and shall provide opportunities for the professional development of those engineers under their supervision.

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[1] As adopted September 2, 1914, and most recently amended November 10, 1996.

[2] The American Society of Civil Engineers adopted THE FUNDAMENTAL PRINCIPLES of the ABET Code of Ethics of Engineers as accepted by the Accreditation Board for Engineering and Technology, Inc. (ABET). (By ASCE Board of Direction action April 12-14, 1975)

[3] In November 1996, the ASCE Board of Direction adopted the following definition of Sustainable Development: "Sustainable Development is the challenge of meeting human needs for natural resources, industrial products, energy, food, transportation, shelter, and effective waste management while conserving and protecting environmental quality and the natural resource base essential for future development."

AIChE

Code of Ethics

The Board of Directors of the American Institute of Chemical Engineers adopted this Code of Ethics to which it expects that the professional conduct of its members shall conform, and to which every applicant attests by signing his or her membership application.

Members of the American Institute of Chemical Engineers shall uphold and advance the integrity, honor, and dignity of the engineering profession by: being honest and impartial and serving with fidelity their employers, their clients, and the public; striving to increase the competence and prestige of the engineering profession; and using their knowledge and skill for the enhancement of human welfare. To achieve these goals, members shall:

- Hold paramount the safety, health, and welfare of the public in performance of their professional duties.
- Formally advise their employers or clients (and consider further disclosure, if warranted) if they perceive that a consequence of their duties will adversely affect the present or future health or safety of their colleagues or the public.
- Accept responsibility for their actions and recognize the contributions of others; seek critical review of their work and offer objective criticism of the work of others.
- Issue statements or present information only in an objective and truthful manner.
- Act in professional matters for each employer or client as faithful agents or trustees, and avoid conflicts of interest.
- Treat fairly all colleagues and co-workers, recognizing their unique contributions and capabilities.
- Perform professional services only in areas of their competence.
- Build their professional reputations on the merits of their services.
- Continue their professional development throughout their careers, and provide opportunities for the professional development of those under their supervision.

SEVEN STEP GUIDE FOR ETHICAL DECISION MAKING[1]

1. ***State problem***. Something specific – some feeling or thought – has led you to think you have a possible ethical problem. What is it? For example, "there's something about this decision that makes me uncomfortable" or "do I have a conflict of interest?"

2. ***Check facts***. Many problems disappear upon closer examination of the situation, while others change radically.

3. ***Identify relevant factors***. For example, the persons involved, applicable laws, professional codes or standards, other practical constraints (for example, the gift you have received would create a clear conflict of interest if it were really large, but it is worth only $25).

4. ***Develop a list of options***. What other actions or decisions are available to you besides the original one that started you thinking? Be imaginative. Try to avoid "dilemmas." Look for something besides a simple "yes, do it" or "no, don't do it." Consider whom to go to and the perspectives and/or help they can give, not just what to say or do.

5. ***Test the options***. Use such tests as the following:
   a. Harm test: Does this option do less harm than the alternatives?
   b. Publicity test: Would I want my choice of this option published in the newspaper? Would I want my Grandma to know?
   c. Defensibility test: Could I defend this choice of option before a committee of peers, or a Congressional committee, without appearing self-serving?
   d. Reversibility test: Would I still think this choice of option was good if it were applied to me instead of others, especially if some of the effects are adverse?
   e. Colleague test: What might my profession's governing board or ethics committee say about this option?
   f. Organization test: What does my organization's ethics officer or legal counsel say about this?

6. ***Make a choice*** based on steps 1-5.

7. ***Review steps 1-6***. What could you do to make it less likely that you would have to make such a decision again?
   a. Are there any precautions you can take as an individual (for example, announce your policy on the question, change jobs, etc.)?
   b. Is there any way to have more support next time?
   c. Is there any way to change your organization (for example, suggest policy changes at the next department meeting)?

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[1] Adapted from Michael Davis, *Ethics and the University* (Routledge, London, 1999), pp. 166-67.