Engineering Ethics

Conflicts of Interest, Licensure, Confidentiality, and Public Criticism

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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

NOTICE

Engineering Ethics

Conflicts of Interest, Licensure, Confidentiality, and Public Criticism

has been approved for continuing education credit by New York State. Participants requiring documentation for New York will receive direction to the online quiz that is required following this session.

Engineering Ethics

- **Black and White Areas – Easy**
  - Right *vs.* Wrong
- **Gray Areas – Tougher**
  - Right *vs.* Right
  - Lesser of the Evils/Dilemma
- **Other Factors**
  - Time/Money
  - Family
  - Career
  - Reputation

Engineering Ethics

Why Study Engineering Ethics?

- To Understand the Standards Governing What is Acceptable Behavior in the Practice of Engineering

Why Practice Engineering Ethically?

- Personal Injury/Property Damage
- Disciplinary Action
- Impact on Reputation, Employer, Clients, Profession
- Possible Loss of Job, Business, etc.

Engineering Ethics

Three Basic Ethical Obligations:

(1) Public

(2) Employer/Client

(3) Other Professionals

- Never Mutually Exclusive - Reciprocal
- Not A “Zero Sum Game”
- All Need To Be Considered At All Times
- Should Be Complementary to Integrated With One Another to the Fullest Extent Possible
- Ethical Integration = Professional Integrity

Engineering Ethics

Seven Principles Impacting Each Obligation

1. Protecting the Public Health, Safety and Welfare
2. Demonstrating Professional Competence
3. Maintaining Objectivity/Truthfulness
4. Addressing Conflict of Interest
5. Preserving Confidentiality
6. Receiving and Providing Valuable Consideration
7. Emerging Areas/Emerging Challenges

Engineering Ethics

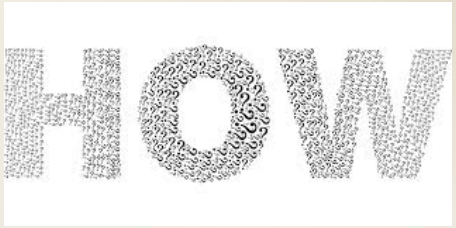
Conflicts of Interest

- Not all conflicts are conflicts of interest
- What is a conflict of interest?
- Financial/Organizational
- Why is a conflict of interest a problem?
  - Reliance on professional judgment
  - Public health, safety, welfare
  - Competence
  - Bias
  - Deception
  - Trust

Engineering Ethics

How to address a conflict of interest

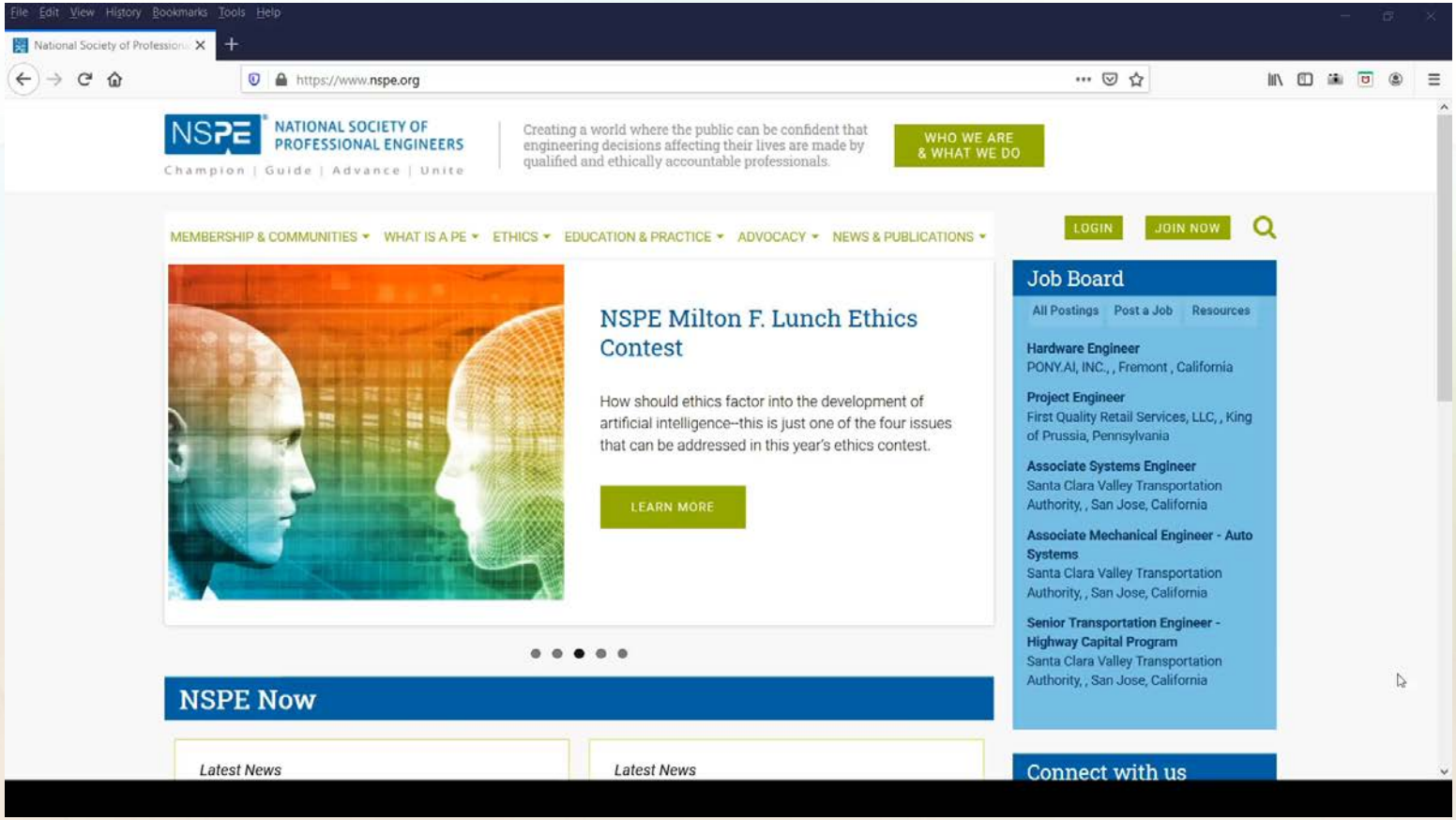
- Disclosure
- Manage
- Recusal
- Resignation



Engineering Ethics

NSPE's Deputy Chief Executive Officer and General Counsel Arthur Schwartz, CAE will review engineering ethics principles and discuss business and professional ethics issues involving conflicts of interest, licensure, confidentiality, and public criticism. Polling questions and opportunity for Q&A will allow opportunities for audience interaction.

Navigating New BER Case Search Engine



Case:

CONFLICT OF INTEREST—

SERVING ON A PUBLIC UTILITY BOARD SELECTION COMMITTEE

Case:
Conflict of Interest—
Serving on a Public Utility Board Selection Committee

Facts:

Engineer A, a professional engineer in private practice, is appointed to a public utility board selection committee for the purpose of hiring an engineer for a sewer project. Engineer B, a professional engineer in private practice, subsequently submits a statement of qualifications for the sewer project. Engineers A and B have their own engineering firms and compete in the same geographic area where the sewer project is being proposed.

Case:
Conflict of Interest—
Serving on a Public Utility Board Selection Committee

Facts *(continued)*:

Engineer A is not competing for this project. During the utility board selection process, Engineer A evaluates and assigns Engineer B a low score. Engineer B was not selected for the sewer project. Instead, Engineer C, the engineer with the highest-ranked score, is retained by the public utility to perform the engineering services.

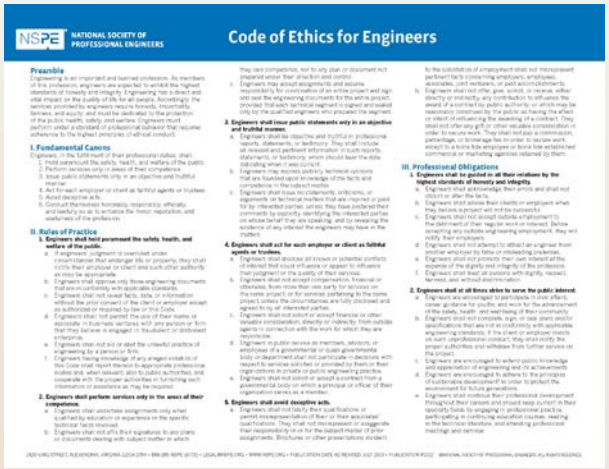
Case:
Conflict of Interest—
Serving on a Public Utility Board Selection Committee

Question:

What are Engineer A's ethical obligations under the circumstances?

Section II.4.a. – NSPE Code of Ethics

Engineers shall disclose all known or potential conflicts of interest that could influence or appear to influence their judgment or the quality of their services.



NSPE Code of Ethics for Engineers

Preamble

I. Fundamental Canons

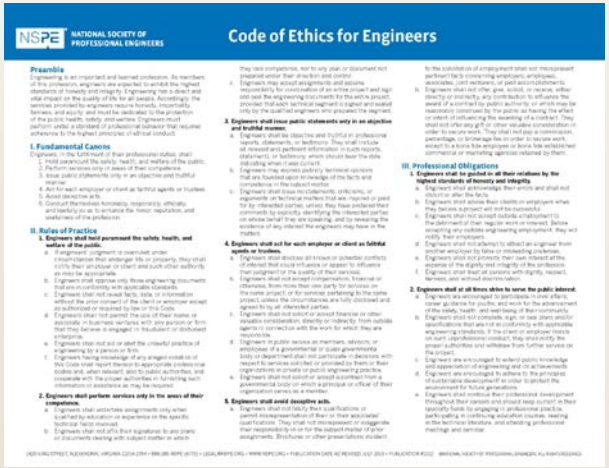
II. Rules of Practice

III. Professional Obligations

Case:
Conflict of Interest—
Serving on a Public Utility Board Selection Committee

Section II.4.d. – NSPE Code of Ethics

Engineers in public service as members, advisors, or employees of a governmental or quasi-governmental body or department shall not participate in decisions with respect to services solicited or provided by them or their organizations in private or public engineering practice.


NSPE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Code of Ethics for Engineers

Preamble

I. Fundamental Canons

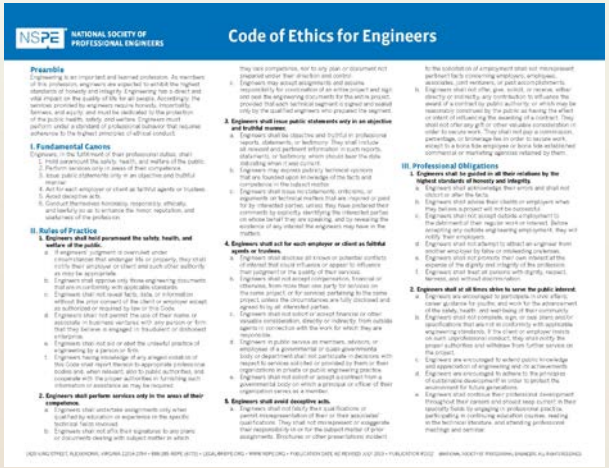
II. Rules of Practice

III. Professional Obligations

Case:
Conflict of Interest—
Serving on a Public Utility Board Selection Committee

Section III.5. – NSPE Code of Ethics

Engineers shall not be influenced in their professional duties by conflicting interests.



NSPE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Code of Ethics for Engineers

Preamble

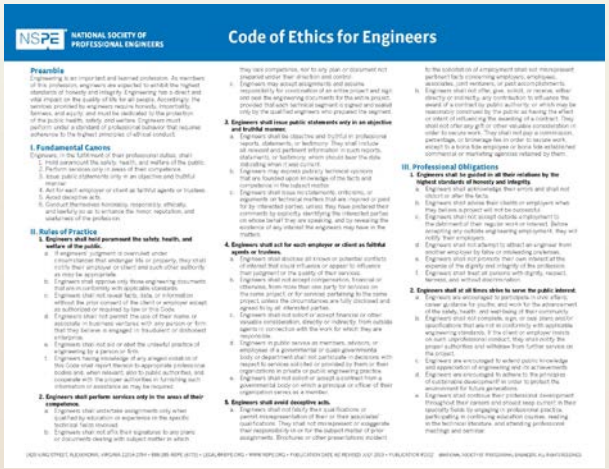
I. Fundamental Canons

II. Rules of Practice

III. Professional Obligations

Section III.6. – NSPE Code of Ethics

Engineers shall not attempt to obtain employment or advancement or professional engagements by untruthfully criticizing other engineers, or by other improper or questionable methods.


NSPE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Code of Ethics for Engineers

Preamble

I. Fundamental Canons

II. Rules of Practice

III. Professional Obligations

Conclusion:

Engineer A had an obligation to fulfill all required conflict-of-interest disclosure requirements that might apply under the applicable public utility laws and regulations. At that point, it would be up to the public utility selection board to determine whether Engineer A would be required to be recused from the selection.

Polling Question #1

If Engineer A had awarded a high score to Engineer A, Engineer A would not have been required to disclose any potential conflict of interest Engineer A's firm may have had in connection with the procurement of Engineer B's firm's services.

- Agree
- Disagree
- Not Sure

Case:

LICENSURE—OUT OF STATE SERVICES

Case:
Licensure—Out of State Services

Facts:

Engineer A is licensed in the state and is retained by an attorney in State A to evaluate a large piece of capital equipment that failed in an industrial plant located there. There is a pending legal action before the state courts.

Following the equipment failure, the owner moved the equipment to its warehouse in State B. Engineer A is not licensed in State B.

Case:
Licensure—Out of State Services

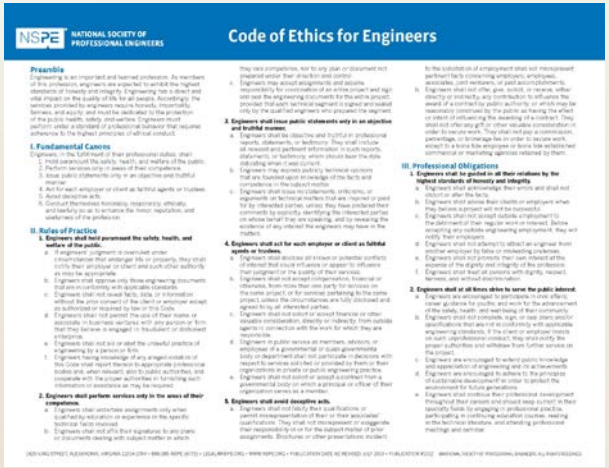
Question:

Would it be ethical for Engineer A, who is not licensed in State B, to inspect the equipment in State B?

Case:
Licensure—Out of State Services

Section III.8.a - NSPE Code of Ethics

Engineers shall conform with state registration laws in the practice of engineering.



NSPE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Code of Ethics for Engineers

Preamble

Engineering is an important and learned profession. As members of this profession, engineers are expected to exhibit the highest standards of honesty and integrity. Engineering has a direct and vital impact on the quality of life for all people. Accordingly, the services provided by engineers require honesty, impartiality, fairness, and equity, and must be dedicated to the protection of the public health, safety, and welfare. Engineers must perform under a standard of professional behavior that requires adherence to the highest principles of ethical conduct.

I. Fundamental Canons

Engineers, in the fulfillment of their professional duties, shall:

1. Hold paramount the safety, health, and welfare of the public.
2. Perform services only in areas of their competence.
3. Issue public statements only in an objective and truthful manner.
4. Act for each employer or client as faithful agents or trustees.
5. Avoid deceptive acts.
6. Conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.

II. Rules of Practice

1. Engineers shall hold paramount the safety, health, and welfare of the public.

a. If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.

b. Engineers shall approve only those engineering documents that are in conformity with applicable standards.

c. Engineers shall not reveal facts, data, or information without the prior consent of the client or employer except as authorized or required by law or this Code.

d. Engineers shall not permit the use of their names or associate in business ventures with any person or firm that they believe is engaged in fraudulent or dishonest enterprise.

e. Engineers shall not aid or abet the unlawful practice of engineering by a person or firm.

f. Engineers having knowledge of any alleged violation of this Code shall report thereon to appropriate professional bodies and, when relevant, also to public authorities, and cooperate with the proper authorities in furnishing such information or assistance as may be required.

2. Engineers shall perform services only in the areas of their competence.

a. Engineers shall undertake assignments only when qualified by education or experience in the specific technical fields involved.

b. Engineers shall not affix their signatures to any plans or documents dealing with subject matter in which they lack competence, nor to any plan or document not prepared under their direction and control.

c. Engineers may accept assignments and assume responsibility for coordination of an entire project and sign and seal the engineering documents for the entire project, provided that each technical segment is signed and sealed only by the qualified engineers who prepared the segment.

3. Engineers shall issue public statements only in an objective and truthful manner.

a. Engineers 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, which should bear the date indicating when it was current.

b. Engineers may express publicly technical opinions that are founded upon knowledge of the facts and competence in the subject matter.

c. Engineers shall issue no statements, criticisms, or arguments on technical matters that are inspired or paid for by interested parties, unless they have prefaced their comments by explicitly identifying the interested parties on whose behalf they are speaking, and by revealing the existence of any interest the engineers may have in the matters.

4. Engineers shall act for each employer or client as faithful agents or trustees.

a. Engineers shall disclose all known or potential conflicts of interest that could influence or appear to influence their judgment or the quality of their services.

b. Engineers shall not accept compensation, financial or otherwise, from more than one party for services on the same project, or for services pertaining to the same project, unless the circumstances are fully disclosed and agreed to by all interested parties.

c. Engineers shall not solicit or accept financial or other valuable consideration, directly or indirectly, from outside agents in connection with the work for which they are responsible.

d. Engineers in public service as members, advisors, or employees of a governmental or quasi-governmental body or department shall not participate in decisions with respect to services solicited or provided by them or their organizations in private or public engineering practice.

e. Engineers shall not solicit or accept a contract from a governmental body on which a principal or officer of their organization serves as a member.

5. Engineers shall avoid deceptive acts.

a. Engineers shall not falsify their qualifications or permit misrepresentation of their or their associates' qualifications. They shall not misrepresent or exaggerate their responsibility in or the bulk of the subject matter of prior assignments. Brochures or other presentations incident to the solicitation of employment shall not misrepresent pertinent facts concerning employers, employees, associates, joint ventures, or past accomplishments.

b. Engineers shall not offer, give, solicit, or receive, either directly or indirectly, any contribution to influence the award of a contract by public authority, or which may be reasonably construed by the public as having the effect or intent of influencing the awarding of a contract. They shall not offer any gift or other valuable consideration in order to secure work. They shall not pay a commission, percentage, or brokerage fee in order to secure work, except to a bona fide employee or bona fide established commercial or marketing agencies retained by them.

III. Professional Obligations

1. Engineers shall be guided in all their relations by the highest standards of honesty and integrity.

a. Engineers shall acknowledge their errors and shall not distort or alter the facts.

b. Engineers shall advise their clients or employers when they believe a project will not be successful.

c. Engineers shall not accept outside employment to the detriment of their regular work or interest. Before accepting any outside engineering employment, they will notify their employers.

d. Engineers shall not attempt to attract an engineer from another employer by false or misleading pretenses.

e. Engineers shall not promote their own interest at the expense of the dignity and integrity of the profession.

f. Engineers shall treat all persons with dignity, respect, fairness, and without discrimination.

2. Engineers shall at all times strive to serve the public interest.

a. Engineers are encouraged to participate in civic affairs; career guidance for youths; and work for the advancement of the safety, health, and well-being of their community.

b. Engineers shall not complete, sign, or seal plans and/or specifications that are not in conformity with applicable engineering standards. If the client or employer insists on such unprofessional conduct, they shall notify the proper authorities and withdraw from further service on the project.

c. Engineers are encouraged to extend public knowledge and appreciation of engineering and its achievements.

d. Engineers are encouraged to adhere to the principles of sustainable development in order to protect the environment for future generations.

e. Engineers shall continue their professional development throughout their careers and should keep current in their specialty fields by engaging in professional practice, participating in continuing education courses, reading in the technical literature, and attending professional meetings and seminars.

Case:
Licensure—Out of State Services

Conclusion:

Engineer A has an ethical obligation to review the definition of the practice of engineering in State B or become licensed in State B if the activities Engineer A will be performing require a license.

Case:
Licensure—Out of State Services

Polling Question #2

State engineering licensure comity laws are relatively easy to adhere to.

- Yes
- No
- Not Sure

Case:

CONFIDENTIALITY—FIRE INVESTIGATION

Case:
Confidentiality—Fire Investigation

Facts:

Engineer A is retained by Attorney X, representing Client Y, a plaintiff in a lawsuit against the owner of a building and several building material manufacturers, to conduct a forensic engineering investigation in connection with a building fire that resulted in the death and injury of several individuals.

Case:
Confidentiality—Fire Investigation

Facts *(continued)*:

Following the completion of Engineer A's investigation and report, Attorney X and Client Y enter into a private settlement with the building owner and the building material manufacturers. Under the terms of the settlement, which is approved by the court, Engineer A is ordered not to reveal the contents of her forensic engineering investigation report.

Case:
Confidentiality—Fire Investigation

Facts *(continued)*:

Engineer A is concerned that her finding would undermine her obligation to the public, because she believes the forensic engineering report contains important findings relating to the use of manufactured building materials.

Case:
Confidentiality—Fire Investigation

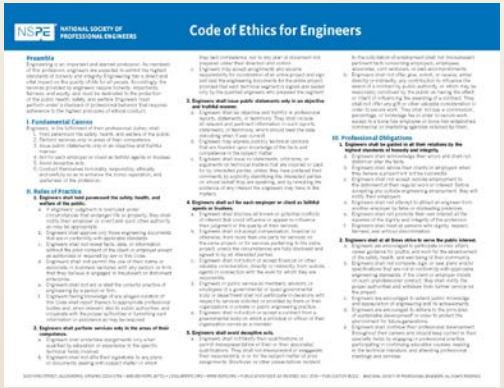
Question:

What are Engineer A's obligations under the circumstances??

Case:
Confidentiality—Fire Investigation

Section II.1. - NSPE Code of Ethics

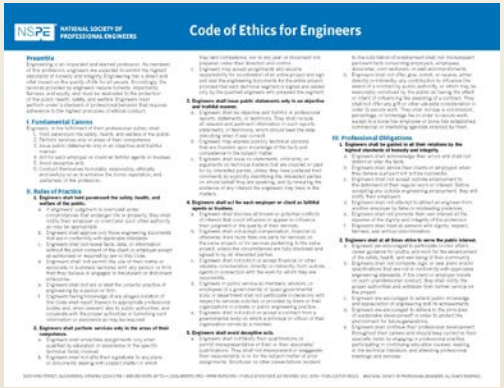
Engineers shall hold paramount the safety, health, and welfare of the public.



Case:
Confidentiality—Fire Investigation

Section II.1.a. - NSPE Code of Ethics

If engineers' judgment is overruled under circumstances that endanger life or property, they shall notify their employer or client and such other authority as may be appropriate.

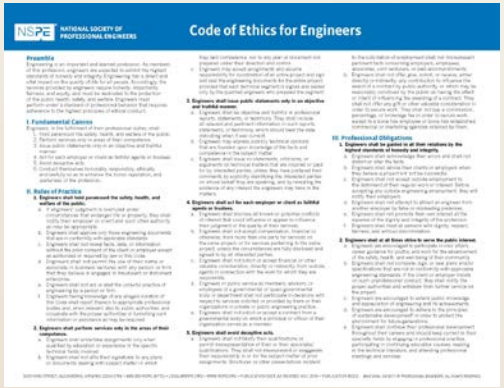

NSPE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Code of Ethics for Engineers

Case:
Confidentiality—Fire Investigation

Section III.2.a. - NSPE Code of Ethics

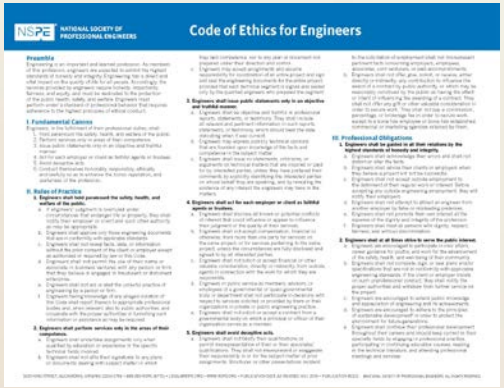
Engineers are encouraged to participate in civic affairs; career guidance for youths; and work for the advancement of the safety, health, and well-being of their community.



Case:
Confidentiality—Fire Investigation

Section III.4. - NSPE Code of Ethics

Engineers shall not disclose, without consent, confidential information concerning the business affairs or technical processes of any present or former client or employer, or public body on which they serve.


Code of Ethics for Engineers

Case:
Confidentiality—Fire Investigation

Conclusion:

Engineer A has an ethical obligation to maintain the confidentiality of the forensic engineering report. Engineer A may also explore an alternative path to identify the technical issues involved, such as further research that explains her technical concerns without revealing specific and identifiable facts and circumstances that would compromise the settlement agreement involving Client Y.

Polling Question #3

Confidentiality provisions in agreements between professional engineers and their clients interfere with the ethical obligation of a professional engineer to report activities that could endanger the public health, safety and welfare.

- Agree
- Disagree
- Not Sure

Case:

PUBLIC CRITICISM—PARODY

Case:
Public Criticism—Parody

Facts:

Engineer A is an engineering student within an engineering program at a major university. In an online student blog not directly associated with the university, Engineer A parodied one of his engineering professors, Engineer B.

The parodied characterization could be viewed by some as humorous and not malicious. It could also be viewed by others as disparaging. The blog was viewed by many engineering students at the university as well as by engineering faculty.

Case:
Public Criticism—Parody

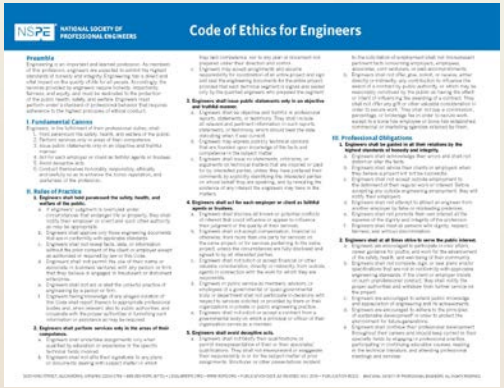
Question:

Was it ethical for Engineer A to satirize one of his engineering professors, Engineer B?

Case:
Public Criticism—Parody

Section III.7. - NSPE Code of Ethics

Engineers shall not attempt to injure, maliciously or falsely, directly or indirectly, the professional reputation, prospects, practice, or employment of other engineers. Engineers who believe others are guilty of unethical or illegal practice shall present such information to the proper authority for action.



Case:
Public Criticism—Parody

Conclusion:

Engineer A's actions were inconsistent with the NSPE Code of Ethics. Engineer A should issue an apology to Engineer B in Engineer A's blog and personally.

Case:
Public Criticism—Parody

Polling Question #4

The use of social media has generally improved communications and transparency within the engineering profession.

- Agree
- Disagree
- Not sure

Engineering Ethics

Review of Key Points

Engineering Ethics

- Black and white ethical situations are among the easiest ethical situations to resolve.
- A conflict between the public health and safety and the duty of confidentiality is an example of a gray area ethical situation.
- In the hierarchy of ethical obligations, protection of public health and safety is paramount.

Engineering Ethics

- While it is important to understand the various individual provisions of the Code of Ethics, reading the Code in its entirety is critical to understanding an engineer's ethical obligations.
- Engineers practicing internationally should be mindful of their obligations to continue to adhere to US laws and regulations.
- Giving due credit to and recognizing the contributions of professional colleagues is a critical part of being an ethical professional engineer.

Engineering Ethics

- Conforming to the requirements of state engineering licensure laws and regulations often involves proactive measures on the part of a professional engineer in relation to the public, employers/clients and professional colleagues.

- Sustainable design and development principles should incorporated in all professional engineer's services.

Engineering Ethics

Discussion

Check out NSPE on

Twitter: http://twitter.com/NSPE

and

Facebook: http://bit.ly/19Rfak

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NOTICE


Thank
You!