

# ETHICS PANEL

## **Moderator:**

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## **Panelists:**

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# Code of Ethics for Engineers

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.

# 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 and 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.

# The Road to Ethics



# Remember Roger Boisjoly

An engineer warned management.

Management overruled engineers.

Disaster followed.

Engineer became labeled a whistle blower.

Retaliation followed.

Resignation and a new career.

# Driverless Vehicle

**You are a professional engineer working to develop a driverless vehicle operating system. Your team is being asked for a recommendation for the following potential situation:**

- *In the event of an unavoidable crash, should the vehicle's operating system be programmed to choose the outcome that will likely result in the greatest potential for safety for the vehicle's passengers or for the greatest potential for safety for other motorists or bystanders?*
- *What are your ethical obligations?*

# Question 1 – Dangerous Conditions

Fran is a professional engineer employed by a construction contractor hired by DOT to inspect and repair a series of parkway on- and off-ramps. Commercial vehicles are not permitted on the parkway. Fran is directed to design inspection and construction scaffolding for a cloverleaf ramp with limited height and width clearance. From her personal experience driving on the parkway to and from work, Fran has observed commercial vehicles illegally driving on the parkway. She is concerned that the safety of the inspection and construction employees, as well as others, could be endangered if one of these commercial vehicles passes by the proposed inspection and construction scaffolding.

- *What are Fran's ethical obligations under the circumstances?*

# Question 1 - What the Board Concluded

Fran should immediately notify verbally, and in writing if necessary, her immediate supervisor of the safety hazards to employees and others due to commercial vehicles passing while inspection and repair is being performed on the ramps.

Notification of transportation or law enforcement is also advisable so that decisions can be made about enhanced safety measures, such as increased enforcement while the work is performed.



# Question 2 – The Man Who Knew Too Much

Albert is a forensic engineer. Albert is approached to serve as an expert witness by the lawyer for the plaintiff. Several months earlier Albert was approached by the lawyer for the defense in the same case. The defense lawyer did not disclose any confidential information or facts to Albert but did make the statement that “*actually, we have a very weak case and will probably lose.*” There was no further contact by the defense lawyer.

- *Would it be ethical for Albert to serve as an expert witness retained by the lawyer for the plaintiff?*

# Question 2 - What the Board Concluded

It would be ethical for Albert to serve as an expert witness retained by the lawyer for the plaintiff. NSPE Code references section II.4.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.

# Question 3 – Intern as a Project Lead

Bart is a PE with a BS and MS in Civil Engineering. Bart has been assigned to a project where the project lead is Fred, an Engineer Intern. Fred has a MS in civil engineering but his undergraduate degree is not in engineering and so he must wait a few more years before taking the PPE Exam. Bart is concerned that his work as a PE is being scrutinized by a person who has not yet attained engineering licensure.

- *Would it be ethical for Bart, a licensed PE, to work on an assignment for which the project lead is an Engineer Intern?*

# Question 3 - What the Board Concluded

It would not be unethical for Bart, a licensed PE, to work on an assignment for which the project lead is an Engineer Intern. However, if Bart is required to sign and seal engineering documents he will need to exercise the requisite “responsible charge” over the engineering design work and be satisfied that the engineering work meets applicable engineering standards. In addition, Bart must also review the state engineering licensing laws and regulations to determine these requirements and, if necessary, discuss these issues with his immediate supervisor and other managers as appropriate.

# Question 4 – Acceptable Exchange

Hardy Cross, PE is the owner of Moment Structural Engineering, a small firm. The Wright Foundation, a local nonprofit organization, needs the structural engineering services offered by Moment, but has limited funding. The Wright Foundation proposes to include Moment's name and logo in their advertising materials in exchange for the structural engineering services.

- *Would it be ethical for Moment to agree to Wright's proposal?*

# Question 4 - What the Board Concluded

It would be ethical for Moment to agree to Wright's proposal so long as the advertisement by Wright is not misleading or deceptive.

Of note, the US Supreme Court found that restrictions on non-deceptive advertising are unlawful, so the Board's decisions regarding advertising have evolved over time.

# Question 5 – Ethics Course

Engineering Firm ABC offers continuing education for staff. As a service to the engineering profession, ABC also offers ethics courses to engineers who are not employees. The course is open to any engineer. Many attendees are clients of the Firm, but most are not. While the purpose of the course is not business development, it could result in a business contact potentially leading to future work. No follow-up is made by ABC, except that a certificate is issued at the end of the course. A fee of \$25 is charged to cover lunch and administrative support. It is not intended for ABC to make a profit from the course.

- *Is it ethical for ABC to offer the ethics course?*
- *Is it ethical for ABC to offer the course without charging the \$25 fee?*

# Question 5 - What the Board Concluded

It is ethical for ABC Engineering to offer the ethics course. Offering an ethics course advances the profession.

It is ethical for ABC to offer the course without fee. The program does not amount to valuable consideration, and there is no quid pro quo.



# Question 6

The City Engineer conducts a traffic study. Based upon available data the City Engineer develops a public works improvement program and presents the plan to the City Council. One of the recommendations in the program is the purchase of a right-of-way to expand the size of the 11-foot lanes to 12 feet in order to meet current engineering standards and design guidelines. The City Council rejects the recommendations and directs the City Engineer to continue with the proposed public works improvements but retain the present lane configuration.

- *What are the City Engineer's ethical obligations under the circumstances?*

# Question 6 - What the Board Concluded

The City Engineer has an obligation to advise members of the City Council that failure to follow the recommendations, which are based on current codes and standards, would place the public health and safety at risk and will also put the city in noncompliance with federal and state standards and requirements.

The City Engineer should not sign, seal or approve documents that fail to meet current codes and standards unless appropriate exceptions are received.

# Question 7

An engineer performs an evaluation of a structural failure in connection with litigation, and is subject to a confidentiality agreement. Litigation settles, engineer's confidentiality agreement prohibits disclosure of her findings, but her findings indicate a significant public health and safety issue.

- *What are the Engineer's obligations?*

# Question 7 – What the Board Concluded

The Engineer should:

- Explain her ethical obligations for public safety & welfare
- Explore an alternative path to identify the issue (paper or article without identifiable facts that would compromise the settlement agreement)

However, if Client refuses and Engineer believes the matter rises to an imminent or urgent threat, she should notify appropriate authorities.

# Question 8

An engineer reviews a contractor's change order for work already completed. Engineer determines that change order is a result of faulty workmanship and denies payment. Contractor contacts Engineer's supervisor (not a PE) and supervisor directs Engineer to approve change order.

- *Would it be ethical for Engineer to approve the change order?*

# Question 8 – What the Board Concluded

It would not be ethical for the Engineer to sign off on the change order.

If pressured to sign, the Engineer would have an obligation to bring the matter to the appropriate authorities.

# Question 9

Engineer A works for a large company, is the only PE, and supervises a number of unlicensed engineers.

Unlicensed Engineer B has a history of poor performance, including safety issues, which have not been resolved through improvement plans. Engineer A contacts HR and recommends termination. HR decides against.

- *What are Engineer A's ethical obligations?*

# Question 9 – What the Board Concluded

Because safety issues are involved, Engineer A has an ethical obligation to make his professional opinion and recommendation known to higher management.

While Engineer B is still employed, Engineer A should do everything in his power to eliminate the safety issues.



# Question 10

An engineer is retained by a client to perform design services. During the performance of these services, the state board of professional engineers contacts the engineer regarding an ethics complaint filed against the engineer by a former client for which the engineer provided the same services. The engineer does not believe that it is necessary to notify their current client of the pending complaint. Through another party, the current client learns of the complaint and is upset that they were not notified directly by the engineer.

- *Is it unethical not to notify the current client of the former client's ethics complaint?*

# Question 10 – What the Board Concluded

No engineer should be compelled to disclose potentially damaging allegations about his professional practice — allegations that could be false, baseless, and motivated by some malicious intent. Instead, the engineer should weigh all factors and, depending upon the nature and seriousness of the charges, take prudent action, which might include providing the client with appropriate background information.

# Question 11

An attorney requests that Engineer potentially assist with a litigation. No details or strategy discussed at this stage. Engineer sends resume and fee schedule, and requests sign off on fee schedule and a retainer. Does not hear from Attorney. In the interim another attorney contacts Engineer about expert witness services on the same case. Not having heard from the first attorney, Engineer accepts the assignment. Afterwards, the first attorney contacts Engineer and says they are ready to proceed, and after finding out the circumstances threatens to disqualify the engineer from providing services.

- *Was it unethical for Engineer to accept the assignment from the second attorney?*

# Question 11 – What the Board Concluded

It was not unethical for the Engineer to accept the assignment from the second attorney.

The Board did note that it would have been courteous for the Engineer to contact the first attorney before accepting the assignment. However, the Board was not prepared to say that the Engineer had any obligation ethical or otherwise to do so.

# Question 12

A forensic engineer is asked to be a technical expert in a litigation in order to review and comment on settlement documents prepared by the opposition. The engineer receives the documents electronically and notices (though no one else has), that the documents contain embedded comments that are detrimental to the interests of the opposing party.

- *What is the engineer's ethical obligation regarding this information?*

# Question 12 – What the Board Concluded

The Engineer had an ethical duty to immediately advise his client and attorney of the fact that the Defense Attorney's comments had been revealed to Engineer. In addition, Engineer may be required to suspend further action in this matter pending the court's resolution of the issue.