

## Ethics for Engineers - Part 2

Based on the NSPE "Code of Ethics for Engineers"  
PDH906

### Case 1

John Pemlot, P.E. is President and CEO of Wallz-Up Design-Build, Inc. Wallz-Up is an international design-build firm specializing in the fast-track design and delivery of big-box retail stores using tilt-up construction methods. John uses a PowerPoint presentation for marketing that shows photos of the buildings completed by the firm along with the "Total Erection Time" for each. Each photo includes a small-font footnote that explains that the time-period begins with the first tilt-up and ends when the building is "dried-in." The actual beginning to end construction time is usually at least double the amount shown on John's powerpoint slide.

When one of John's employees asked if the completion times quoted were deceptive, John explained. "Good marketing is as much about what you don't say as what you do. Nothing in our presentation is a lie."

1. How does John's approach square with the "Code of Ethics?"

- a. John's presentation is truthful; therefore, it complies with the NSPE Code of Ethics.
- b. John's presentation is about marketing, not engineering; therefore, the NSPE Code of Ethics does not apply.
- c. As long as John truthfully reveals any details when asked, his presentation meets the requirements of the NSPE Code of Ethics.
- d. John's employee was correct. The presentation is deceptive, misleading, and does not meet NSPE ethical standards.

### Case 2

Elizabeth Southworthy, P.E., is employed as an electrical engineer for a multi-disciplined engineering consultant. She has a bachelor's of science degree, but she learns that the firm's marketing proposals list her as having a master's degree. She meets with her supervisor and points out that this misrepresentation of qualifications is a clear violation of the code of ethics. Her boss is not surprised by her challenge. He has been through this before with other employees and shows her that the same code of ethics prevents her from disclosing the deception.

2. What should Elizabeth do?

- a. Get over it. Go back to her desk and get her work done. It's not her lie, so she is not responsible.
- b. Reveal the misrepresentation to authorities.
- c. Resign and remain silent.

### Case 3

Walter Hogsed, P.E., is a geotechnical engineer. He performs percolation tests on home-sites for local builders to judge whether a site would be acceptable for a septic tank and drain field. His largest customer sets the ground rules for pricing his service by agreeing to pay him \$1,000 for each test that passes and only \$200 for the tests that fail. The pricing works perfectly for the builder because Walter knows how to get passing results even on the most stubborn, impervious lot, so he rarely has to settle for the smaller fee.

3. Does Walter's pricing structure meet the requirements of the "Code of Ethics?"

- a. Yes, everything is aboveboard. The client is fully informed about Walter's pricing.
- b. No, Walter's contingent fee structure compromises his judgment and is therefore prohibited.

#### Case 4

Stella Vicerig, P.E., wears two hats. She is a sole practitioner civil engineering consultant as well as the part-time Town Engineer for the village of Genlock Falls. Stella avoids conflicts of interest between her two jobs by never accepting consulting assignments that are within the village.

A new assignment came her way when a home builder offered her the engineering contract for a 40-acre subdivision just outside the village limits. The Village Council was in favor of the development and instructed Stella to attend the County zoning hearing to convey their support. The builder suggested that Stella not mention the pending engineering contract until after the rezoning was complete. He said, "You should attend the zoning hearing in your official capacity as Town Engineer. Revealing our business arrangement may confuse matters. As long as we delay the contract signing until after the approval, there's nothing to report."

4. Is this ethical?

- a. Yes, the builder is correct. Delaying the contract signing means there is nothing to report.
- b. Yes, the development is not in the village; therefore, she has no duty to report her private business dealings.
- c. No, Stella must reveal her arrangement with the home builder.
- d. No, the Village Council created a conflict of interest when they instructed Stella to attend the meeting in her official capacity as Town Engineer. It would be unethical for her to accept the contract with the builder.

#### Case 5

William Skipwith, Ph.D., P.E., is a university professor of engineering and, independently of his profession, a strong advocate for second amendment gun rights. He is a regular speaker at gun rights rallies and a frequent guest on television news and talk shows. William is unique among gun advocates and more influential than others because he is NOT a member of any national gun lobby group, and he insists that he is independent of any gun advocacy organization. This claim of independence is false because privately, William receives generous payments from the lobbyists for two U.S. firearms manufacturers for his efforts. The lobbyists and William agree that keeping the payments confidential makes him a more forceful and effective advocate. He has a clear conscience despite the deception because, as he says, "The payments do not alter my beliefs. My opinions are my own."

5. Does William's behavior violate the NSPE Code of Ethics for Engineers?

- a. Yes, failure to disclose the payments is deceptive and a violation of the NSPE Code of Ethics.
- b. No, his behavior may be misleading, even despicable, but nothing about William's behavior or his relationship with the gun industry involves engineering; therefore, he is not in violation of the NSPE Code of Ethics.

#### Case 6

Margaret Foliot, P.E., is a bona fide employee and marketing partner for the "Smart Team" of engineers and architects. She is the only member of the firm who is paid purely on a commission basis for the contracts that she lands. In the most prosperous years, this pay plan is controversial among the other officers of the firm because her pay tops everyone else in the firm

6. Is Margaret's sales commission method of payment ethical based on the NSPE Code of Ethics?

- a. Yes, her payment method meets the requirements of the NSPE Code of Ethics.
- b. No, the NSPE Code of Ethics does not allow payment of commissions or brokerage fees.

#### Case 7

Vincent Gambuzza, P.E., is a structural engineer and a computer scientist. It was years in development, but he finally has a fully functioning design software package that automates the design and construction plan drafting for fixed span highway bridges. With a few short hours of data input, the system is capable of planning, designing, and producing finished drawings for a tiny fraction of the cost of traditional methods.

Vincent is a vocal advocate for awarding all bridge design contracts on a competitive bid basis, giving him a significant advantage. It does not make him very popular with his peers, who call it unethical to bid on engineering services.

7. Is bidding for engineering services allowed by the code of ethics?

- a. Vincent is not breaching the code of ethics by bidding for engineering work.
- b. Bidding for engineering services is unethical.

### Case 8

Isabel Whalesboro, P.E., is a busy mechanical engineer in private practice in the oil refinery industry. She has only one client, a major US oil company. During the construction phase of projects, her client pays her to provide construction inspections and shop-drawing reviews. Her contract requires her to complete those services within a 48-hour turnaround window, but the contractors want it faster. One of the contractors offered a solution. He agreed to secretly pay Isabel a monthly fee for the duration of the project as private compensation for expediting inspections and shop drawing review.

8. Is this ethical?

- a. Yes, as an independent consultant, Isabel is free to earn compensation from anyone, including the contractor. The payments are only for expediting the work, not altering her opinion.
- b. No, Isabel may not accept such payments from the contractor.

### Question 9

9. How does the NSPE Code of Ethics protect employers?

- a. Except when required or authorized by law, employees may not reveal facts, data, or information without the employer's consent.
- b. Employees must notify their employer before accepting outside engineering employment.
- c. Engineers shall act for each employer or client as faithful agents or trustees.
- d. Employees may not, without permission, use their employer's equipment, supplies, laboratory, or office facilities to carry on outside private practice.
- e. All of the above.

### Question 10

10. How does the NSPE Code of Ethics protect engineer employees?

- a. Employers are required to supply appropriate safety clothing and equipment, including fall, hearing and sight protection for engineer employees exposed to hazards on the job.
- b. An employer may not direct engineer employees to offer any gift or other valuable consideration to a public employee, which may be reasonably construed as having the intent of influencing public decision making.
- c. An employer may not assign an engineer employee to undertake any assignment unless the engineer is qualified to undertake the assignment by education or experience.
- d. The NSPE Code of Ethics is silent on the subject of protecting engineers in their employment.