ASCE Code of Ethics Case Studies

An Online Continuing Education Course for Engineers

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Prologue

On May 15, 2008, a grand jury in the Eastern District of Louisiana returned four indictments against Kern Wilson and Raul Miranda, contract engineers with the United States Army Corps of Engineers (USACE), and Durwanda Heinrich, a subcontractor.[i] Following a three-day trial in federal district court, Wilson was convicted of conspiracy to commit bribery and soliciting and accepting a bribe. Heinrich was convicted of bribery and conspiracy to commit bribery. Wilson and Heinrich conspired to bribe Miranda to obtain confidential information about project bids submitted to the USACE for a contract to rebuild part of the Lake Cataouatche Levee near New Orleans.[ii]

Miranda cooperated with the prosecution and pleaded guilty to bribery; as part of his plea agreement, he agreed to testify against the others.[iii]

Introduction

Every human being is faced with the temptation and motivation to take ethical shortcuts. Oftentimes, actions and activities appear to be in one's self-interest, but violate obligations to others. Even those most concerned about the honesty and integrity of their work are subject to strong pressures from revenue demands, employers, clients and managers to take actions with which they are uncomfortable.

Some ethical decisions are straight- forward. Everyone recognizes – or should – that the actions leading to the convictions cited in the opening paragraph are unethical. One makes a yes-or-no decision to solicit or accept a bribe and it's widely recognized that bribery is not only unethical, but illegal as well. Similarly, one makes a yes-or-no decision to approve inspections that have not been conducted, to overbill for materials and skim the excess for personal use, or to bill for services that have not been provided. Recognizing outright fraud and corruption is relatively easy. The law is specific; state, employer and organizational codes of ethics are specific, and the consequences of unlawful acts are well known.

Yet, in day-to-day activities, ethical decisions are seldom clear- cut. The boundaries of obligations and responsibilities may be complex or not clear. Pressure from supervisors, clients, officials and other parties may be intense. It often appears that mitigating circumstances may justify an action, or information is incomplete or appropriate alternative actions are not apparent. One may have the experience and intuition to suspect that aspects of a project are being mishandled, but lack solid evidence. Even if legal obligations are fulfilled, one may be left with the uneasy sensation that perhaps ethical obligations were not.

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It can be extremely difficult to determine what the correct course of action is, even with the highest standards of integrity and best of intentions. As a result, ethical issues are often a matter of opinion and may require lengthy research and consideration, along with consultation with others in the organization or independent advisors. Some individuals devote their life's work to the study of ethics. Ethics advisory boards abound, seminars and training proliferate, and volumes upon volumes of articles and books are dedicated to the subject. Yet, outside of the black and white cases, if one takes a specific case to a group of ethical advisors, a spectrum of opinions may be generated.

Engineering Codes of Ethics

The rules and regulations of state boards vary widely from state to state, yet virtually all model their requirements on the canons developed by organizations such as The American Society of Civil Engineers (ASCE) or the National Society of Professional Engineers (NSPE). Ethical mistakes can have serious consequences to an engineer's career, ranging from state board sanctions to the possibility of imprisonment. But a firm understanding of the framework of ethical codes of conduct can help to avoid those dangers.

This course focuses on The American Society of Civil Engineers (ASCE) Code. ASCE is the oldest engineering society in the United States, incorporating as the American Society of Engineers and Architects in 1852. It developed its first code of ethics in 1914, which lays the foundation for the codes developed by many states and other engineering societies.

Initially ASCE's Code focused on relationships of engineers with their clients or with other engineers, rather than responsibilities to the public. It has since evolved to include ethical obligations to the public and employers, as well as addressing sustainability and protecting the environment.

Among other changes, the ASCE Code once included a "*when-in-Rome"* clause that applied when practicing in other countries and cultures. That is, if the culture in another country was understood to demand practices that violated U.S. principles, such as the payment of bribes, the Code was not applicable to the foreign situation.

The controversial clause stated: "On foreign engineering work, for which only United States engineering firms are to be considered, a member shall order his practice in accordance with the ASCE Code of Ethics. On other engineering works in a foreign country, he may adapt his conduct according to the professional standards and customs of that country, but shall adhere as closely as practicable to the principles of this Code."

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ASCE eliminated the "*when-in-Rome"* clause in 1976 and today the Society has a zero-tolerance policy towards bribery and corruption. Engineers in the U.S. would also be well-advised to recall that the federal Foreign Corrupt Practices Act imposes severe civil and criminal penalties on engineers involved in corrupt foreign practices.

Course objectives

ASCE's Code of Ethics contains the admonition that engineers shall "act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero tolerance for bribery, fraud, and corruption." How are the terms of the Code to be applied to engineers' professional lives? How does one maintain integrity and determine if an act is ethical—or avoid the potential slide into criminal activity or loss of license?

The purpose of this course is not to solve ethical dilemmas, but to provide a framework for recognizing and evaluating ethical issues and generating alternatives.

The objectives are to:

- Familiarize the reader with the portions of the Code that regulate engineers' ethical obligations to employers, clients, the community and the profession, and
- Provide the framework for application of the Code to engineers' individual professional activities.

To this end, several case studies are provided, along with discussions of the relevant portions of ASCE's Code of Ethics and possible alternatives for addressing the issues. Appendix A covers a couple of engineering disasters related to Canons 1 and 2. However, the focus of the case studies within the course will be on Canons 4, 5 and 6:

- **Canon 4:** Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.
- **Canon 5:** Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.
- **Canon 6:** Engineers shall act in such a manner as to uphold and enhance the honor, integrity, and dignity of the engineering profession and shall act with zero tolerance for bribery, fraud, and corruption.

Canons 4, 5 and 6 might be easily summarized as:

- Don't lie, cheat, steal or offer or accept a bribe.
- Keep sensitive information confidential.
- Operate with full disclosure and transparency. When in doubt, err on the side of disclosure and pose the question "would I want to defend this action in a deposition or to a grand jury?"

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Real-life dilemmas are rarely neatly categorized. Other relevant portions of the Code will be included in the discussions; no doubt the astute reader will identify other sections of the Code, procedures of professional conduct, and state and federal laws, rules, and regulations that apply as well.

The first case study is straightforward; readers will easily identify the transgressions. The remaining case studies are more complex.

Case Study 1:

In the aftermath of Hurricane Katrina, Louisiana saw an influx of emergency relief workers and out-of-state contractors, laborers and consultants as the job of reconstruction began. Individuals were driven by a variety of motives and the area experienced both the best and the worst of human behavior.

The U.S. Army Corps of Engineers (USACE) began levee reconstruction and improvement in the Greater New Orleans area and hired subcontractors to oversee portions of the projects. Raul Miranda and Kern Wilson were among the engineer consulting contractors hired by USACE in the summer of 2006. This summary of events is reconstructed from the grand jury's indictment, the Appellee's Brief for the Fifth Circuit Court of Appeals, and the decision from the Fifth Circuit Court of Appeals (Endnotes 1, 2 and 3).

Raul Miranda, originally from Spring, Texas, was hired by Integrated Logistical Support, Inc. (ILSI) as an architect engineer and ILSI assigned him to manage construction projects on the Lake Cataouatche Levee for USACE. Miranda was part of USACE's source selection board and identified deficiencies in proposals submitted to the board by contractors.

In early 2006, Kern Wilson left his wife behind in Florida and moved to Louisiana to work on Katrina emergency relief efforts and post-storm reconstruction. Wilson's civil engineering degree and experience made him well qualified to consult for USACE. He is a retired U.S. Army Major and worked for USACE's emergency management disaster response system and managed USACE's contract requirements training program. After retiring from the Army, Wilson moved to Florida and became a coordinator for emergency management programs before retiring again.

Wilson was also hired by ILSI in Louisiana and assigned to USACE's Lake Cataouatche Levee project. He and Miranda had adjoining desks and became good friends, even renting adjoining apartments in a duplex.

Durwanda Heinrich was a subcontractor who supplied dirt, sand and gravel; she was pursuing work as a subcontractor on levee reconstruction. She met Wilson when the two worked for an unsuccessful consortium of emergency relief consultants, becoming friends and forming a

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romantic relationship. Wilson was her mentor and helped her with her projects. Heinrich frequently visited Wilson's apartment, where she met Miranda.

The Lake Cataouatche program was a $16 million project to rebuild and reinforce the Lake's levees.[iv] USACE solicited proposals from contractors, using a best-value approach to evaluating bids.

In a low-bid process, contracts are simply awarded to the contractor with the lowest price and the contents of low-bid proposals are opened to the public.

The best-value method looks at a variety of fact eyond price to determine which proposal delivers the best value for the agency. These st, volume, technical specifications, past perf ualifications of the contractors' l urce selection evaluation b the contractors to develop revi and costs and bids change a re considered highly sensiti

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If a contractor constitute an unfair advantag ure of contractor bid a USACE are required to sign contractor bids and proposa the confidentiality of

USACE's initially the first phase of the Catao ing dirt for the project. She wa ect, so she and Wilson approac nda agreed, but asked to

The three agreed to w and planned to continue to help Heinrich on future projects, if they were unsuccessful acquiring business during the first phase. Miranda was responsible for reviewing the proposals for technical deficiencies and agreed to provide the other two with details from Manson Gulf's proposal and help them develop technical specifications, to guarantee that Manson Gulf would win the project.

Heinrich agreed to pay Miranda and Wilson each 25 cents per cubic yard. Miranda expected to net about $300,000 in the scheme.

After the source selection board's meeting, Miranda met with the other two and "dictated to both Mr. Wilson and Ms. Heinrich the summary of the findings or technical deficiencies in Manson

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