

2004 DANIEL W. MEAD CONTEST FOR YOUNGER MEMBERS

**"Is it Ethical for Engineers to Hold Political Positions
While Practicing Engineering?"**

By:

**Richard A. Kaufmann, P.E., M.ASCE
Member I.D. # 343375**

**Nebraska Section
District 16
Zone III**

Since the founding of the United States over two and quarter centuries ago, political positions at the highest levels were dominated by life-long politicians and lawyers. However, a few notable exceptions exist. For instance, George Washington was trained to be a surveyor. In fact, he first held public office as Surveyor of Culpeper County, Virginia. Although he subsequently became a military officer and politician, his technical background undoubtedly served him in office, especially at a time when so much of the country was being explored and surveyed for the first time. Many other famous figures in American political history, including Thomas Jefferson and Herbert Hoover, were trained as engineers, architects or surveyors.

Engineers Suited to the Task

Elected officials are asked to make many technical decisions, as legislation addressing technical issues is debated. As an example, the headlines from ASCE's "This Week In Washington" weekly email report for members in the Key Contact Program for the week of October 31, 2003 included the following.

- Senate Leaders Introduce TEA-21 Reauthorization Legislation
- NEHRP (National Earthquake Hazards Reduction Program) Coalition Urges Senate Action
- House Committee Removes Bonding Mechanism from Rail Development Bill
- Senate Rejects Climate Change Legislation
- USGS Receives Increased Funding for FY 2004

This brief sampling of the issues that our federal legislators must address reflects the technical nature of these issues. Technical expertise is not only needed at the federal level, however. Local governments often find themselves in need of technical expertise when debating issues, such as zoning, planning and funding for infrastructure. Ideally, the city council or county board would include technical professionals, and outside expertise would not be needed. However, this is not usually the case.

Proper and fair legislation must include discussions of policy, constitutionality, economics, social concerns, and a host of other priorities. Among the most important of these must be technical issues. Sound legislation must rely on sound technical data and its proper interpretation. For instance, many arguments for or against particular legislation are rife with emotion. While it may gratify supporters of proposed regulatory legislation that they have "protected our environment," it is possible they were swayed by emotional and alarmist arguments, and not by legitimate scientific data. In general, engineers are more qualified to make technical judgments and disregard emotional pleas.

Engineers are logical, linear thinkers and problem solvers; tend to remove emotion from the decision process; have technical knowledge of public works; and often stay up to date on local issues of public welfare, especially infrastructure issues. In addition, engineers are well suited for the tasks required of elected officials for reasons other than technical expertise. They read the newspaper, are involved in their communities, and are inclined to view the common welfare above their own personal welfare. To demonstrate this, surveys comparing various professions' average salaries to those of engineering positions show that there are many fields a bright young person could enter to make more money. However, a sense of public service guides many civil engineers into that profession—serving the community takes precedence over financial gain.

Successful engineers must be part scientist/technical expert, part negotiator and ambassador, part lawyer, and part fiscal manager. Successfully landing projects, effectively managing them, completing them with due skill and care, treating clients the way they expect to be treated, and turning a profit are all regular parts of engineers' job requirements. Obviously, some will be more accomplished in one area or another, but in general, engineers must be at least somewhat skilled in all of them.

Admittedly, it is in these non-technical skills some engineers are lacking. In fact, the logical world of scientific study and engineering data, and the supposed infrequency of written or oral communication are reasons why many engineers and scientists entered their field in the first place. However, increasingly, engineers are being forced into the role of client relations specialist, publicist, and marketer. They must be able to effectively communicate with clients and the public. They must be able to find innovative, economical solutions, as well as compose and present effective reports with skill and creativity. Furthermore, they need to accomplish all of this without exposing the firm to undue risk or liability. This is especially true in the consulting field.

The benefits of having a well-trained engineer in a position of power are many. In addition to, and perhaps because of, the skills required of a successful engineer mentioned above, engineers typically have a broad, unique view of the issues faced by those in office. This different viewpoint could lead to sound judgment based on properly interpreted data, innovative approaches to challenges faced by the community, fiscal responsibility, and overall good leadership.

Conflict of Interest

Engineers, especially civil engineers, conduct a large amount of business with public agencies. It seems that a possible conflict of interest could be a reason ethics would dictate that engineers should not serve in office. Improper awarding of contracts by public entities to engineers could be problematic, if the engineer who won the contract were sitting on the public board.

The ASCE Code of Ethics addresses this issue. Section D of Canon 4 states:

“Engineers in public service as members, advisors, or employees of a governmental body or department shall not participate in considerations or actions with respect to services solicited or provided by them or their organization in private or public engineering practice.”

Likewise, Section A of Canon 5 states:

“Engineers shall not give, solicit or receive either directly or indirectly, any political contribution, gratuity, or unlawful consideration in order to secure work, exclusive of securing salaried positions through employment agencies.”

In addition, the NSPE Code of Ethics for Engineers includes the following:

“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.”

“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.”

One intent of these statutes is to remove even the appearance of unfair awarding of contracts, i.e. “trading favors.” However, the codes are silent on the specific issue of whether a practicing engineer can hold a political position.

The Honorable Bill Ratliff, State Senator and former Lt. Governor of Texas was the keynote speaker at ASCE’s 2001 Conference and Exposition in Houston. In his address, Mr. Ratliff stated the need for technically knowledgeable people to step forward and enter the political arena, namely engineers. Recently, when asked whether an ethical dilemma ever surfaced in his experience from practicing engineering while in office, Mr. Ratliff’s response included the following:

“There are obviously occasions when a practicing engineer would be faced with a conflict of interest if serving as an elected official. Such conflicts are inevitable, but perhaps no more so than any other profession. All [elected officials] who are gainfully employed will be faced with public policy questions in which there is a conflict, and the ethical approach is always to abstain from participation in such matter.”

Mr. Ratliff’s situation is perhaps different than an engineer considering a more local, part time position. In his case, Mr. Ratliff became a full time politician. However, local legislators (city council, etc.) continue to have a “day job.” Thus, an engineer elected or appointed to a local position would likely continue practicing while in office. However, Mr. Ratliff’s comments above still apply. The ethical engineer should divest himself/herself from any decisions involving even the appearance of a conflict of interest. This is consistent with the ASCE and NSPE Codes. With this in mind, it would not be unethical for a practicing engineer to hold public office, as long as the engineer acts sagaciously when potential conflicts arise. Otherwise, it would be unethical for a lawyer, member of academia, doctor, or any other practicing professional to hold office.

An Unprecedented Opportunity

With such programs as the Report Card for America’s Infrastructure, ASCE is helping advance the civil engineering profession in the political arena. As this program and similar programs continue, and more engineers feel compelled to serve in office, the result will be better-informed decision makers and more diversity in law-making entities. There seems to be a perception that life-long politicians are not representing their constituents in office, and that a new kind of lawmaker is needed. Current events, such as the recent gubernatorial recall and election of Arnold Schwarzenegger in California, and rhetoric from 2004 presidential hopefuls chastising “Washington politicians” indicate public dissatisfaction with the current makeup of elected officials. From the highest levels down to local government, this current dissatisfaction appears to be a trend. Engineers and other technically trained professionals thus have an opportunity to enter the political field and show voters that they have relevant expertise to be responsible leaders.

For this to happen, engineers must step outside of their traditional comfort zones “behind the scenes,” and take initiative to lead. The results could be dramatic. University of Pennsylvania Engineering School Dean Eduardo Glandt commented on what engineers tend to have in common:

“Is there, perhaps, an ‘engineer’s gene,’ something one could be tested for?...We surely share traits, but it’s unlikely to be just genetics. Our own educational histories have certainly influenced each of us. But whatever the reason, whatever the mix of nature and nurture, of one thing I am sure: We [engineers] are not a random sample of the general population, we...are a self-selected crowd, a crowd that shares patterns for thinking, for understanding things, and for building things.”

The benefits of having knowledgeable, informed, and technically savvy leaders as described above overshadow any particular ethical problems which could arise out of practicing engineers holding political positions.

Works Cited

American Society of Civil Engineers Code of Ethics. Adopted September 2, 1914, most recently amended November 10, 1996.

“Commencement Speakers Offer Words of Wisdom to Engineers of the Future.” *Engineering Times*. Vol. 25, No. 7. July, 2003.

Glandt, Eduardo. Commencement ceremony speech. University of Pennsylvania. June, 2003.

National Society of Professional Engineers Code of Ethics for Engineers. Revised January, 2003.

Ratliff, Bill. Keynote address, 2001 Civil Engineering Conference & Exposition. Houston, TX. October 11, 2001.

Ratliff, Bill. Personal correspondence. September 30, 2003.

"Washington, George." Microsoft® Encarta® Online Encyclopedia 2004.
<http://encarta.msn.com>. © 1997-2004 Microsoft Corporation. All Rights Reserved.

Weingardt, Richard. “Engineering as a tool for city management.”
<http://www.americancityandcounty.com>. © 2003 Primedia Business Magazines and Media. All Rights Reserved.