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New Registration Board Members Appointed by Governor Bush

Governor George W. Bush appointed three new members to the registration board on January 17, 1996. Ernest D. (Dave) Dorchester, P.E., Edmundo R. Gonzalez, Jr., P.E. and Danny R. Perkins replace retiring members James K. Wilhelm, P.E., Earnest F. Gloyna, D.E., P.E. and John G. Farbes.

Mr. Dorchester is an electrical engineer retired from T.U. Electric. He graduated from the University of Texas at Austin with a Bachelor of Science in Electrical Engineering. He previously served on the board from 1987 through 1991. He has also served on the United States Committee on International Engineering Practice as a representative for the National Society of Professional Engineers. He has been an emeritus member of the National Council of Examiners for Engineering and Surveying who awarded him the Distinguished Service Award. He resides in Midland with his wife Mary.

Mr. Gonzalez is a civil engineer and owner of Gonzalez Engineering & Surveying, Inc. in Brownsville, Texas. He graduated with a Bachelor of Science in Civil Engineering from Kansas State University. He serves as president of Brownsville's United Way Board and president of the Food Bank in the Rio Grande Valley. He resides in Brownsville with his wife Peggy.

Mr. Perkins is principal owner of ESC Polytech Consultants, Inc. in Houston, Texas. He graduated with a Bachelor of Arts in Public Affairs and Master of Science in Transportation Planning and Management from Texas Southern University. In 1995, Mayor Bob Lanier selected him to serve as a commissioner on the City of Houston Building and Standards Commission. He resides in Houston with his wife Melanie and their two children Danielle and Danny Jr.

Thanks for the Service of Gloyna, Farbes, Wilhelm, Nemir, & Riter

Earnest F. Gloyna, D.E., P.E., John G. Farbes, and James K. Wilhelm, P.E. have recently ended their terms on the Texas State Board of Registration for Professional Engineers. All were effective members of the board and were supportive of the board's Professional Development Program of which this newsletter is a part. Gloyna and Wilhelm were both members of the board's Professional Development Committee. Sincere thanks is extended to these former board members for their dedication to the professional practice of engineering.

Charles E. Nemir, P.E. has retired as executive director after serving with distinction for many years. Charles has worked closely with and been supportive of professionalism and ethics programs throughout the state. He will continue to serve the board as a member of both the Education and Industry Advisory Committees. Steven Riter, Ph.D., P.E. has completed his two year term as the chair of the board's Education Advisory Committee; C. Roland Haden, Ph.D., P.E. replaces Steve as chair. Roland is dean of engineering at Texas A&M University.

All of these individuals have played an important role during the last several years in establishing closer relationships among board members, engineering deans, and industry leaders in Texas. Their service to the profession is greatly appreciated.

John R. Speed, P.E. Appointed

Former Deputy Executive Director of the State Board of Registration, John R. Speed, P.E., has assumed the duties of Executive Director following the retirement of Charles Nemir, P.E. John has ten years experience with the state, eight of which were with TxDOT as Manager of Engineering Professional Development. **Welcome John!**

Ethics and Political Contributions

by Jimmy Smith, Ph.D., P.E. and Dave Dorchester, P.E.

Large political contributions to local political candidates made by engineers who later accept contracts from the elected officials they supported poses an ethical question. There are some engineers who say they feel they must contribute in order to be "eligible" for consideration to receive local government contracts. We hear the refrain from within the profession that "engineers are pressured into making contributions," and "it's a matter of survival."

In this matter, we are confronted with a clash between ethical principles of a profession which is also faced with the pressures of the business environment. We believe in the right of individual engineers to make campaign contributions to those running for office, and believe in the right of professional societies such as TSPE, through its' political action committee, to make contributions to individual political campaigns for the purpose of promoting better government in our state. However, it is naive to believe that very large political contributions made by individual engineers are "only in the interest of promoting better government," especially when the engineer or his/her firm later accepts contracts from the elected official supported.

The National Society of Professional Engineers (NSPE) Code of Ethics Section II.5.b states: "Engineers shall not offer, give, solicit or receive, either directly or indirectly, any political contribution in an amount intended to influence the award of a contract by public authority, or which may be reasonably construed by the public of having the effect or intent to influence the award of a contract..."

The NSPE Board of Ethical Review (BER) has considered this matter many times since its first case in 1962. In BER Case 88-2, which is included as an insert in this newsletter, the BER reconfirmed that: "**fundamental ethical principles stated in unequivocal terms cannot be bent or broken for economic expediency or gain.**"

The writers believe that professional engineers who make major political contributions and subsequently accept work from the politicians they generously supported are presenting an image of the profession to the public that is not in keeping with the "professional conduct and ethics" aspects of being a licensed engineer in Texas.

[Note: Readers wishing to express their opinions on this subject may send them to the Murdough Center, Texas Tech University, Box 41023, Lubbock, Texas 79409-1023.]

Jimmy Smith, P.E. is Professor of Civil Engineering and Director of the Murdough Center for Engineering Professionalism at Texas Tech University. He is a member of the NSPE Board of Ethical Review, a member of the Engineering Accreditation Commission of ABET, and is Immediate Past President of both the Texas Society of Professional Engineers and the National Institute for Engineering Ethics.

Dave Dorchester, P.E. is a retired Electrical Engineer from Texas Utilities Electric. He is a current member and former chairman of the Texas State Board of Registration for Professional Engineers. Dave is a Past President of the Texas Society of Professional Engineers and has chaired several national committees for NSPE and the National Council of Examiners for Engineering and Surveying.

Engineering Ethics and NAFTA

The provisions of the North American Free Trade Agreement (NAFTA) include requirements for addressing the practice of the professions across the borders of Canada, Mexico and the United States. These requirements include "conduct and ethics." The NSF provided funding for a team of from Mexico, Canada, and the USA to study the professional conduct and ethics aspect of NAFTA related to the engineering profession among the three countries. That effort resulted in the approval by the NAFTA Forum on Engineering Practice of a document (see page 3) entitled "Principles of Ethical Conduct in Engineering Practice Under the North American Free Trade Agreement."

A&M Develops Ethics Cases

Thirty six competitively chosen professors from around the nation attended a workshop at Texas A&M University last August. The workshop focused on developing numerical problems associated with existing or new engineering ethics cases. It was funded by the National Science Foundation and conducted by the Texas Engineering Extension Division (TEEX). In addition to the faculty, eight carefully selected Bovay Fellowship students worked with the faculty to develop and test the problems.

The workshop was organized and run by Professors C. E. Harris, Jr. and M. J. Rabins of Texas A&M University, & M. S. Pritchard of Western Michigan University.

The goal of the program was to develop numerical problems that can be used for homework, lectures, or quizzes in required undergraduate engineering courses while introducing engineering ethics cases into them, without straining the course syllabus! Most of the work was conducted in four breakout groups of ten participants each. The groups focused on four different engineering disciplines: mechanical (including materials), electrical (including computers), civil (including construction), and chemical (including environmental issues).

The tentative results are about eighty different case treatments, each with one or more numerical problems. The cases are currently being edited by the participants and will be available in the public domain by early this summer on the World Wide Web (WWW). A mini-plenary session about the workshop results has been approved for the forthcoming annual meeting of the American Society of Engineering Education (ASEE) in Washington, DC on Tuesday morning, June 25, 1996.

New Edition of Ethics Text Available

The third edition of the text "Ethics in Engineering" by Mike Martin and Roland Schinzinger was just released by McGraw-Hill Publishing Company. This text was used in the workshops for engineering faculty sponsored by the Texas State Board of Registration. Another recent engineering ethics text by Harris, Pritchard, and Rabins was described in our Fall 1994 newsletter.

Ethics on the World Wide Web

Several universities, including Texas Tech University, Texas A&M University, and MIT now have home pages with engineering ethics information on the WWW. Their web addresses are:

Texas Tech:	HTTP://coe.ttu.edu/ethics/ethics.htm
Texas A&M:	HTTP://ethics.tamu.edu
MIT:	HTTP://web.mit.edu/ethics/www

PRINCIPLES OF ETHICAL CONDUCT IN ENGINEERING PRACTICE UNDER THE NORTH AMERICAN FREE TRADE AGREEMENT

*Prepared by a team of engineers and advisors from Canada, Mexico and the USA under the direction of the
Murdough Center for Engineering Professionalism, Texas Tech University.
Supported by a grant from the National Science Foundation*

[Approved by the NAFTA Forum on Engineering Practice, at Puerto Vallarta, Mexico January 28, 1995]

The privilege of practicing engineering is entrusted to those qualified and who have the responsibility for applying engineering skills, scientific knowledge and ingenuity for the advancement of human welfare and quality of life. Fundamental principles of conduct of engineers include truth, honesty and trustworthiness in their service to society, and honorable and ethical practice showing fairness, courtesy and good faith toward clients, colleagues and others. Engineers take societal, cultural, economic, environmental and safety aspects into consideration, and strive for the efficient use of the world's resources to meet long term human needs. In the practice of engineering:

1. Engineers shall hold paramount the health, safety and welfare of the public in the practice of their profession.
2. Engineers shall practice only in their areas of competence, in a careful and diligent manner and in conformance with standards, laws, codes, and rules and regulations applicable to engineering practice.
3. Engineers shall examine the societal and environmental impact of their actions and projects, including the wise use and conservation of resources and energy, in order to make informed recommendations and decisions.
4. Engineers shall issue public statements only in an objective and truthful manner. If representing a particular interest, the engineer shall clearly identify that interest.
5. Engineers shall sign and take responsibility for all engineering work which they prepared or directly supervised. An engineer may sign work prepared by others, but only with their knowledge and after sufficient review and verification to justify taking responsibility for that work.
6. Engineers shall act as faithful agents for their employers or clients and maintain confidentiality; they shall avoid conflicts of interest whenever possible, disclosing unavoidable conflicts.
7. Engineers shall ensure that a client is aware of the engineer's professional concerns regarding particular actions or projects, and of the consequences of engineering decisions or judgments that are overruled or disregarded. An employee engineer shall initially express those concerns to the employer.
8. Engineers shall appropriately report any public works, engineering decisions or practice that endanger the health, safety and welfare of the public. When, in an engineer's judgment, a significant risk to the public remains unresolved, that engineer may ethically make the concerns known publicly.
9. Engineers shall commit to life-long learning, strive to advance the body of engineering knowledge and should encourage other engineers to do likewise.
10. Engineers shall promote responsibility, commitment, and ethics both in the education and practice phases of engineering; they should enhance society's awareness of engineers' responsibilities to the public and encourage the communication of these principles of ethical conduct among engineers.

Note: This document is included among other matters related to engineering practice in Canada, Mexico, and USA by the NAFTA Forum on Engineering Practice to be recommended to the Free Trade Commission.

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Note to Readers: Articles on engineering ethics and/or professionalism, and suggestions for future topics for the **TexethicS** Newsletter will be welcomed.