THE THEME OF THIS ISSUE IS “LICENSING” & “FIRM REGISTRATION”

Should Engineering Faculty be Licensed?
Yes, faculty are required to be licensed if they are teaching advanced (Junior/Senior) engineering subjects, according to state legislation known as the Texas Engineering Practice Act (TEPA). A brief history on this subject: TEPA was created in 1937; then on January 1, 1938, in order to make it legal for an educator to serve on the Board, the law was changed to read that “responsible charge of engineering teaching ‘may’ be considered as the practice of engineering.” In subsequent legislation, the ‘may’ became ‘shall.’ This and other changes resulted in the current Section 4 of the TEPA, which states that “the ‘practice of engineering’ or ‘practice of professional engineering’ shall mean [among other things]… teaching advanced engineering subjects…”

In order to assist faculty to become licensed, a waiver of one or both exams is now possible under certain conditions and Section 12(c) of the TEPA now allows the teaching of engineering to be used as experience. Board Rule 131.81(b)(1), adopted March 18, 1998, reads in part: “…Satisfactory engineering experience shall include an acceptable combination of the following types of engineering activities: (A) ... (J) Teaching of engineering subjects in an EAC/ABET accredited program.” Engineering faculty wishing to know more about this matter, get a copy of the TEPA, or to obtain license application materials, may view the Board’s web site (www.tbpe.state.tx.us) or contact the Board headquarters in Austin at 512-440-7723.

“Registration” and “Licensing”
Traditionally, the Texas Board of Professional Engineers (TBPE), has "registered" individual engineers. In the future, the term "registered" will be applied only to engineering firms who have registered with the Board, and the term "licensed" will refer to individual engineers who have met the requirements for licensure. Engineers who have been “registered” in the past are automatically considered “licensed.” Your certificate may contain the words “Certificate of Registration” and your engineer seal may read “Registered Engineer” – both are still valid but you are now officially a “licensed engineer.”

Firm Registration
In accordance with House Bill 1544, enacted during the 1999 legislative session, the TBPE has initiated “Firm Registration.” This legislative requirement for firm registration is for all firms in Texas who are providing engineering services to the public in Texas and this requirement includes sole proprietorships. Thus, individual engineers offering to provide engineering services or who are providing such services (including part-time consulting work) must register as a firm. Registration forms are available on the TBPE web site (www.tbpe.state.tx.us) and should be submitted as soon as possible.

Should Engineering Faculty be Both “Licensed” and “Registered?”
No or Yes – depending on what faculty are doing outside the classroom. Faculty members do not have to be “Registered as a Firm” if they are only teaching. However, if an engineering faculty member is offering any type of engineering services to anyone (including individuals, the public, state or local agencies, private firms, etc.) they must be “registered as a firm” in addition to being “licensed” as an engineer.

You may download an excellent Power Point presentation on “Ten Reasons to Become a Professional Engineer” at the IEEE Web Site:
www.ieeeusa.org/careers/ieeepep1.ppt
Thanks to Outgoing Members of the Texas Board

For the past six years, Jose I. Guerra, P.E., Hubert Oxford III, Esq., and C. H. (Herb) Treat, Ph.D., P.E., have served the engineering profession as members of the Texas Board of Professional Engineers. Their commitment and dedication further enhanced the mission and goals of the Board through implementation of several new initiatives. During their tenure on the board, Texas became the first state to develop agreements regarding engineering practice with Mexico and Canada under the North American Free Trade Agreement, and the first state in the nation to license software engineers. The board initiated noteworthy improvements in statewide awareness of the importance and significance of the professional engineering license and of the ethical practice of engineering. Several significant modifications to the Engineering Practice Act and Board Rules were made during their tenure on the Texas Board of Professional Engineers.

Thank you, Jose, Hubert, and Herb, for your dedication to the Engineering community and your many contributions to the citizens of Texas!

Welcome New Members of the Texas Board

We welcome the following new members of the Texas Board of Professional Engineers.

Govind Nadkarni, P.E. received his B.S. in Civil Engineering from Gujarat University (India) and M.S. in Civil Engineering from the University of Southern California. He established Govind and Associates, Inc. in 1984, which includes Civil, Structural, Survey & Marine Design services. In 1989, he established Indtech, Inc. which includes Mechanical, Electrical, Instrumentation and Process Design services. Mr. Nadkarni serves as President of both firms. Govind and his wife, Bhakti, live in Corpus Christi; they have two children.

James R. Nichols, P.E. received his B.S. and M.S. in Civil Engineering from Texas A&M University. He was president of Freese & Nichols, Inc. of Ft. Worth for eleven years before he assumed the chairmanship of the company in 1988, a position he still holds. Jim has been awarded many honors, including “Engineer of the Year” in Texas, several other technical awards and many humanitarian and civic awards. He is highly regarded in the technical community, and has also been extremely active in community service, having served as an officer on almost two dozen community organizations. Jim and his wife, Billie, reside in Fort Worth.

Vicki T. Ravenburg, CPA is a native of Waco, Texas and graduated from the University of Texas at Austin in Business Administration with a major in Accounting. She is currently a Shareholder and Director in the CPA firm of Sagebiel & Ravenburg, P.C., where she is a tax partner. Vicki is a member and past president of the San Antonio Chapter of the Texas Society of Certified Public Accountants. She and her husband, George Weynand, reside in San Antonio. Vicki has one stepson, Samuel Weynand.

Robert M. Sweazy, Ph.D., P.E. of Lubbock is Interim Vice President for Research and Dean of the Graduate College and Professor of Civil Engineering at Texas Tech University. Bob is past president of the Universities Council on Water Resources and his current memberships, in addition to engineering societies, include the National Council of University Research Administrators, and the American Association for the Advancement of Science. He has received many honors, including “Engineer of the Year” from TSPE South Plains Chapter. He received his doctorate in civil engineering from the University of Oklahoma. Bob and his wife, Anne, have one child, Suzanne.

New Executive Director of the Texas Board

Victoria J.L. Hsu, P.E., is the new Executive Director of the Texas Board of Professional Engineers (TBPE). She is a licensed professional engineer in Texas with an extensive background in environmental engineering and executive leadership in state government. She most recently served as Division Director in charge of air pollution permitting at the Texas Natural Resource Conservation Commission. Prior to her 19-year career with the State of Texas, Ms. Hsu was an environmental engineer with Espey Huston and Associates, Inc., in Austin. Ms. Hsu served as a Commissioner on the Water & Waste Water Utility Commission, City of Austin, from 1996 to 1998, and is currently a member of the City of Austin’s Smart Growth Task Force. Ms. Hsu holds a Bachelor of Science in Atmospheric Sciences from the National Taiwan University, Taiwan, China, and a Master of Science in Engineering from the University of Texas at Austin. Victoria and her husband, Chi-Kao Hsu, P.E., reside in Austin and they have three children, ages 14, 11, and 6.

Welcome, Victoria
The Value of Licensing
By Victoria Hsu, P.E., Executive Director, Texas Board of Professional Engineers

I once read an excerpt from a book called “Disorder in the Court”. Here is one taken down word for word and published by the court reporter:

Q: Doctor, before you performed the autopsy, did you check for a pulse?
A: No.
Q: Did you check for blood pressure?
A: No.
Q: Did you check for breathing?
A: No.
Q: So then it is possible that the patient was alive when you began the autopsy?
A: No.
Q: How can you be so sure, Doctor?
A: Because his brain was sitting on my desk in a jar.
Q: But could the patient have still been alive nevertheless?
A: Yes, it is possible that he could have been alive and practicing law somewhere.

I am quite sure this is how a lot of professors may feel about the professional engineering licensure requirement. It seems obvious that you may question this requirement since you probably were heavily recruited by the university and most likely possess a national reputation and perhaps have received several research and/or teaching awards. You may ask: Why put me through the rigamarole of licensing? What value is added for professors to get licensed?

I personally think the value lies with providing leadership to the students in promoting excellence of the profession.

It would be more natural for a professor to convincingly advocate to the students to obtain a license if the professor were licensed. The public demands professionalism. The public demands avenues of professional accountability – beyond what is required by law and enforced by our court system. Many responsible jobs in government and private sectors require a professional license. I have often seen graduate engineers having to pass up excellent opportunities because they did not possess the necessary license.

It is natural for students to delay taking the Fundamentals Exam or resist licensing later in their careers. However, later in their lives, they will discover that taking exams is less feasible because time has dimmed their knowledge of fundamentals and they then have so many other obligations. They lose great opportunities if they never had a professor advising them to get licensed, as I did.

I am still grateful to my graduate advisor, a licensed professional engineer, for telling me I should get licensed twenty years ago. Licensed professors provide leadership to the students in promoting excellence of the engineering profession. I would love to have your comments and suggestions. Please e-mail me at: victoria.hsu@tbpe.state.tx.us.

Visit the Web Site of the Texas Board of Professional Engineers
www.tbpe.state.tx.us

Topics on this web site include: Texas Engineering Practice Act; Application for Licensing as a Professional Engineer; Firm Registration; Compact With Texans; General Information; Board and Staff; Policy Advisories; Licensing and Examinations; Test Day Instructions; Engineer-in-Training Certification; Spring 2000 Newsletter; Disciplinary Actions; The Library; Board Initiatives; and Employment Opportunities.

Texas Board of Professional Engineers
Mailing Address: P. O. Drawer 18329, Austin, Texas 78760-8329
Physical Address: 1917 IH 35 South, Austin, Texas 78741
Voice: (512) 440-7723 / Fax: (512) 442-1414
E-mail: peboard@tbpe.state.tx.us

The following four pages of this newsletter contain ethics case studies that may be copied and shared with your students or colleagues. There are over 140 other NSPE/BER engineering ethics cases available on the National Institute for engineering Ethics web site: www.niee.org

Also, this newsletter and previous ones, along with numerous other matters relating to engineering ethics, are available in electronic form on the Murdough Center for Engineering Professionalism web site: www.murdough.ttu.edu.
Licensure Reference
NSPE BER CASE 99-12

Facts:
Tom is a licensed professional engineer and a principal in a large-sized engineering firm. Sam is a graduate engineer who works in industry and has also worked as a student in Tom’s firm during a summer.

Although Sam was employed in Tom’s firm, Tom did not have direct knowledge of Sam’s work. Sam is applying for licensure as a professional engineer and requests that Tom provide him with a letter of reference testifying as to Sam’s engineering experience and that he (Tom) was in direct charge of Sam.

Sam was under the assumption that Tom had personal knowledge of his work. Tom inquired about Sam’s experience from someone who had direct knowledge of Sam’s experience. Based on the inquiry, Tom provides the letter of reference explaining the professional relationship between he and Sam.

Question:
Was it ethical for Tom to provide the letter of reference for Sam attesting as to Sam’s engineering experience, even though Tom did not have direct control of Sam's engineering work?

CD-ROM For Highway Design
NSPE BER CASE 98-3

Facts:
Gary, a chemical engineer with no facilities design and construction experience, receives a solicitation in the mail with the following information:

“Engineers today cannot afford to pass up a single job that comes by - including construction projects that may be new or unfamiliar.

Now - - thanks to a revolutionary new CD-ROM - specifying, designing and costing out any construction project is as easy as pointing and clicking your mouse - no matter your design experience. For instance, never designed a highway before? No problem. Just point to the ‘Highways’ window and click.

Simply sign and return this letter today and you’ll be among the first engineers to see how this full-featured interactive library of standard design can help you work faster than ever and increase your firm’s profits.”

Gary orders the CD-ROM and begins to offer facilities design and construction services.

Question:
Was it ethical for Gary to offer facilities design and construction services under the facts presented?

Gifts to Foreign Officials
NSPE BER CASE 98-2

Facts:
Bob, a legally recognized engineer and resident in his home country and an NSPE International Member, provides consulting, engineering, and construction contracting services to foreign national and local governments. Under the laws of Bob’s home country, it is not illegal for individuals and companies to provide cash payments or in-kind property to public officials in foreign countries in order to obtain and retain business from those public officials. In fact, the laws of Bob’s home country permit companies to claim a business tax deduction for cash payment or in-kind property to foreign officials in order to obtain or retain work.

Question:
Would it be ethical for Bob, an NSPE International Member governed by the laws of his home country and the local practices, to provide cash payments or in-kind property to public officials in foreign countries in order to obtain and retain business from those public officials?

SEE WHAT THE BER SAID!
Find a full discussion and conclusions for these and other BER cases on the NIEE web site at www.niece.org
Soliciting Competitor’s Employees
NSPE BER CASE 99-5

Facts:
Frank’s firm is attempting to increase its staff capacity and after publishing a series of advertisements in local and national job classified publications, decides to send out recruitment postcards to engineers in the local and state engineering community.

Using the state board registry of professional engineers, the firm sends the unsolicited postcards out to individual engineers at the address listed in the directory announcing Frank’s firm’s interest in recruiting new engineer employees. Such mailings are not prohibited by the state board. Many of the cards are sent to the individual engineers at their firm’s address.

Question:
Was it ethical for Frank's firm to send postcards out to individual engineers in the manner described?

Copyright Infringement
BER CASE 97-12

Facts:
Jim is employed by SPQ Engineering, an engineering firm in private practice involved in the design of bridges and other structures. As part of its services, SPQ Engineering uses a CAD software design product under a licensing agreement with a vendor.

Although under the terms of the licensing agreement, SPQ Engineering is not permitted to use the software at more than one workstation without paying a higher licensing fee, SPQ Engineering ignores this restriction and uses the software at a number of employee workstations. Jim becomes aware of this practice and calls a “hotline” publicized in a technical publication and reports his employer’s activities.

Question:
Was it ethical for Jim to report his employer’s apparent violation of the licensing agreement on the “hotline” without first discussing his concerns with his employer?

Advising Client to Exercise Judgment
When Disclosing Information
NSPE BER CASE 99-7

Facts:
Sarah is a consulting engineer and provides civil and environmental engineering services for public and private clients. Among the standard practices that Sarah has incorporated when initially meeting with clients is to explain to the client that in an effort to fulfill her obligation as a faithful agent and trustee to the client, the client should be advised that should Sarah discover a danger to the public health and safety, she (Sarah) has an ethical obligation to report such violations of the law to the appropriate public authorities and, therefore, the client “should exercise judgment and discretion when providing information to her or making her aware of facts and circumstances that could involve a violation of the law.”

Question:
Was it ethical for Sarah to advise the client in the manner described?

SEE WHAT THE BER SAID
Find a full discussion and conclusions for these and other BER cases on the NIEE web site at www.niee.org
Facts: Susanne, a licensed engineer, was retained by ABC Manufacturing for the purpose of reviewing documents to form an opinion in a patent litigation matter in an area of Susanne’s expertise. Susanne performed the requested services and was paid for her work by ABC Manufacturing. Several years later, Susanne was retained by Attorney Jones who represented a plaintiff in product liability litigation against ABC Manufacturing in a matter not involving any aspect of the earlier patent litigation. Several years later, Susanne was again retained by ABC Manufacturing in a different patent litigation matter not related to either of the proceeding events. Susanne again performed the requested services and was paid for her work. However, during cross-examination at trial, opposing counsel questions Susanne’s previous relationship both in defense of and in litigation with ABC Manufacturing, implying that by providing those services, Susanne was acting improperly.

Question: Was it ethical for Susanne to provide services to the parties in the manner described under the facts?

Discussion: Over the years, the Board of Ethical Review has considered a variety of difficult cases involving conflicts of interest and the scope of an engineer’s ethical obligation to past and present clients. The Board of Ethical Review has also considered several cases involving the question of engineers providing and performing forensic engineering services and the ethical issues that arise in that context (See BER Cases 92-5, 82-6, 76-3). These cases have involved such issues as performing such services on the basis of a contingency fee, licensing requirements when serving as an expert witness, the qualifications of the individual who is being considered to perform the expert services, relationships with attorneys, and examining the conflict of interest questions that may arise.

As the Board has noted on at least one previous occasion, one of the most common ethical issues that face engineers in their professional lives is the issue of conflicts of interest. At one point in the past, engineering codes of ethics, including the NSPE Code of Ethics for Engineers, specifically implored engineers to avoid all conflicts of interest. The basis for this position was that the engineer cannot serve two masters and when faced with a conflict of interest, the engineer must in all cases take steps to remove him or herself from such conflicts. Among the concerns expressed by supporters of this position was that engineers who were involved in conflict of interest situations created a poor image for the engineering profession because the issue raised the appearance of impropriety. However, over time, the engineering profession came to the general conclusion that by the very nature of the role of the engineer in society, conflicts of interests were virtually an immutable fact of professional engineering practice and that it was generally impossible for the engineer to, in all cases, remove him or herself from such situations. As a result, codes were changed, and engineers were implored to disclose all known or potential conflicts of interest to their employers or clients, by promptly informing them of any business association, interest, or other circumstance that could influence or appear to influence their judgment or the quality of their services.

After careful review and analysis of the facts and circumstances in the case, we believe the facts do not rise to the level of a conflict of interest prohibited by the Code of Ethics. While engineers clearly have certain basic professional obligations to their employers and clients to protect their interests, engineers do not have a duty of absolute loyalty under which the engineer can never take a position adverse to the interests of a former client. Being a “faithful agent and trustee” to a client does not obligate an engineer to a duty of absolute devotion in perpetuity (See Code Section II.4.). Such an approach would be impractical and compromise the autonomy and professional independence of engineers. This is particularly true in the present case, where the matters at issue are not in any way related to any previous work Susanne performed for either of her former clients.

While all engineers must make professional decisions based upon a variety of considerations and factors, engineers must analyze technical matters, weighing all appropriate considerations. For a variety of reasons, some engineers might choose to decline an engagement that could place the engineer in a position adverse to the interests of a former client, even though the engagement is not in any way related to the engineer’s earlier services to the client. However, the Board of Ethical Review is not prepared to say that an engineer who fails to follow this approach is somehow acting in violation of the NSPE Code of Ethics. To do so would undermine the individual judgment, independence, and discretion that each engineer must exercise.

In this connection, the Board is also concerned by the attorney’s implication under the facts that Susanne may have acted improperly, with the suggestion that Susanne’s actions may have constituted a conflict of interest. It appears that the attorney was attempting to draw a parallel between the legal profession, where there is an institutionalized “plaintiff’s bar” and “defense bar,” and the engineering profession. However, while engineers may find themselves at times working within the confines of the legal adversarial profession, unlike attorneys, they are not “advocates” in rendering their professional services, they should not be expected to compromise their professional independence and autonomy. While reasonable persons might differ as to whether Susanne’s actions under the facts would raise either a conflict or an appearance of a conflict, the Board concludes that a conflict does not exist.

Conclusion: It was ethical for Susanne to provide services to the parties in the manner described under the facts.
Bert is a real "go-getter" engineer. He is known throughout the engineering community for his ability to get a job done on time and within budget. He has a Masters degree in civil engineering, has been in practice for 15 years and is a registered professional engineer in the state in which he works. In fact, Bert's reputation recently convinced a much larger engineering firm (Far Horizons Engineering) to offer him a sizeable promotion to go to work for them. After considerable thought, Bert accepted the offer and changed jobs. The parting between Bert and the old firm (County Line Design) was amicable since Bert's former employers understood the unique opportunity being offered to Bert, even though they preferred he stay with them.

Bert began his new job with gusto and quickly became deeply involved with his assigned projects. He was amazed at the work volume in his new company. After working in the new job for about a month, Bert reviewed a set of 'in-house' prepared drawings. As he reviewed the detail sheets he noticed something very familiar. He realized that these details were an exact copy of a set that he and two other engineers labored over in his previous job at County Line Design.

Bert is aware that the technology used for structural connections was the industry standard, but the manner of presentation was distinctive and clearly the work of his former company. Bert called Far Horizons head draftsperson and asked who drew the detail sheets. The drafter stated that he wasn't sure who first drew the details, but the originals probably came either from in-house work or from a sub-contractor who had been paid for the effort. As for this particular set of drawings, the detail sheets were simply inserted from the company's database of CADD drawing details and the name of the project added in the title blocks of each sheet, along with Far Horizons name and logo.

Bert remembered that his old firm, County Line Design, had once been a sub-contractor for his present employer. However, he is sure that his previous firm had not given permission for "carte blanche" use of pieces of those previous drawings for other unrelated projects.

What, if anything, should Bert do at this point?

Alternate Approaches

1. He should feel proud that Far Horizons thought so much of his previous work that they have incorporated the design details into their own standard contract sheets.

2. Bert should realize that he has an outstanding job, and just forget about the possible infringement on some other firm's work.

3. What's the problem? Bert is being too sensitive and naive. Good details are copied all the time from one firm to another, as are sections of construction specifications.

4. Since the information shown on the detail sheets is all standard practice, getting upset because the format is the same as that developed while Bert was at County Line Design is meaningless and counterproductive.

5. There is no problem here. If Bert were to put together a new set of detail sheets for use as Far Horizons standards, he would end up with the same thing they already have and are using.

6. This is nothing to be concerned about. Far Horizons paid County Line for the detail sheets as part of their subcontract with County Line on a former project. There is no ethical dilemma here.

7. He should point out to his present company that using the detail sheets as part of their own 'boiler plate' negates any legal liability County Line Design had if there are errors in the details. This now becomes the legal responsibility of his present company.

8. He should immediately make a telephone call to his former boss at County Line Design to tell her what he has discovered, and let them take whatever action they deem advisable.

9. He should go to County Line Design, tell them what he has uncovered, and ask for his former job back.

10. He should discuss the issue with his present boss, agree to keep silent about the use of these detail sheets as Far Horizons standards (after all, Far Horizons paid for their development in connection with a former project), and negotiate a raise now and a promotion in the future.

11. He should discuss this discovery with his new boss at Far Horizons, expressing his concerns about the origin and ownership of these detail sheets, and that using them as Far Horizons standards may be illegal, depending on the terms of the contract under which they were developed regarding ownership of documents. He should ask for an explanation of the firm's view of his concerns and how Far Horizons intends to approach handling the matter. He should also follow up on his request to confirm that the matter has been addressed by Far Horizons.

12. Bert should recommend to his boss at Far Horizons that he go back to County Line to negotiate a written agreement which permits Far Horizons to use the detail sheets as part of their standard design contract package.

13. If Bert's new boss is not a principal in the firm, he should give a 'bare bones' description of the perceived problem to his boss, then request that a principal in the firm be brought in to discuss the matter as well. Perhaps the level of communication between the Far Horizons principal and Bert's counterpart at County Line Design is sufficiently amicable, they may be able to work out a cooperative agreement over the telephone for use of the detail sheets. In so doing, it will be necessary for Far Horizons to admit they have been unknowingly using the County Line detail sheets for a number of projects.

14. Bert should push to have the matter clarified and cleared up between the two companies so that County Line Design does not come across these detail sheets later on and think that Bert stole the sheets when he switched jobs!

15. What an underhanded move by Far Horizons! Were they such an inferior engineering company before Bert arrived that they have to reply on work done by another firm for use as Far Horizons standards? He should keep his mouth shut (no one likes a tattle-tale, and consulting engineering is a small community), but start looking for a position with another company, perhaps out of the area so this problem does not continue to haunt him.

16. Bert should send a copy of the detail sheets to the State Board of Registration for Professional Engineers and suggest they look into the matter as a possible breach of professional ethics.

17. Bert should seek the advice of a private lawyer.

You can go to the web site referenced above and submit comments as well as vote for your preferred approach.
Board Members, 2000-2001 Officers, and Staff of the Texas Board of Professional Engineers

Dave Dorchester, P.E., Chair .................................. Midland
James Nichols, P.E., Vice Chair ............................. Ft. Worth
Brenda Bradley, P.E., Secretary .......................... Spring
Edmundo Gonzalez, Jr., P.E. ................................. Brownsville
Govind Nadkarni, P.E. ....................................... Corpus Christi
Danny Perkins .................................................... Houston
Vicki Ravenburg .................................................. San Antonio
Robert Sweazy, Ph.D., P.E. .................................. Lubbock
Kathleen Campbell Walker ................................... El Paso

TBPE Industry Advisory Committee
Robert Navarro, P.E., Chair (2001) ......................... El Paso
Dan D. Clinton, P.E., Recording Secretary (2001) .... Houston
Joseph J. Beal, P.E., (2002) .................................... Austin
Al W. Dinnberger, P.E. (2003) ............................... Fort Worth
Dennis J. Frailey, Ph.D. (2003) ................................. Plano
Jose I. Guerra, P.E. (2003) .................................... Austin
Charles Nemir, P.E., (2002) .................................. Austin
Jorge David Perez, P.E. (2000) ................................. McAllen
David Rentschler, P.E. (2001) ............................... Austin
Herbert Kenneth Rigsbee, Jr., P.E. (2000) ............ Austin
Coy Veach, P.E. (2003) ...................................... Fort Worth
Dan Wittliff, P.E. (2001) ...................................... Austin

NOTE (year)*Indicates when term expires

Murdough Center Staff
Jimmy Smith, Ph.D., P.E., Director ......................... Lubbock
William Lawson, MS, P.E., Deputy Director ........... Lubbock
Mary Benton, BA, Assistant to the Director ........... Lubbock
Patti Harper, Administrative Secretary .................. Lubbock

TBPE Staff
Victoria Hsu, P.E. .............................................. Executive Director
Randi Warrington ............................................ Executive Assistant
Walter May, D.Min., P.E. .................................. Director of Licensing
Paul Cook ......................................................... Director of Enforcement

TBPE Education Advisory Committee
Ben G. Streetman, Ph.D., P.E., Chair ................. UT/Austin
Jose Martin, Ph.D., P.E., Recording Secretary .... UT/Brownsville
Donald F. Bailey, Ph.D. ...................................... Trinity University
Milton Bryant, Ph.D. ........................................... Prairie View A&M
Sydney Burris, Ph.D. .......................................... Rice University
John R. Busch, Ph.D. ......................................... LeTourneau University
Bill Carroll, Ph.D. ............................................ UT/Arlington
Jacob Jen-Guo Chen, Ph.D., P.E. ......................... UT/Pan American
Phil V. Compton, Ph.D., P.E. .............................. TAMU/Kingsville
Rey Elizondo, Ph.D. ........................................ UT/San Antonio
Ray Flumerfelt, Ph.D., P.E. ................................. University of Houston
Roland Haden, Ph.D., P.E. .................................. Texas A&M
Troy F. Henson, Ph.D., P.E. ................................. UT/Tyler
Jack R. Hopper, Ph.D., P.E. ................................. Lamar University
Glenn A. Jones, Ph.D. ........................................ TAMU/Galveston
Anthony J. Kaufman, Ph.D. ................................. St. Mary’s University
Benjamin S. Kelley, Ph.D., P.E. ....................... Baylor University
William M. Marcy, Ph.D., P.E. .............................. Texas Tech University
William Osborne, Ph.D., P.E. ............................ UT/Dallas
Andy Swift, Ph.D. ............................................... UT/Ell Paso
Andre’ G. Vacroux, Ph.D. ................................. SMU
Patrick L. Walter, Ph.D., P.E. .............................. TCU
Earnest Gloyd, D.E., P.E. (at large member) ........ Austin
Robert Navarro, P.E. (at large member) ............... El Paso
Charles Nemir, P.E. (at large member) ................. Austin
Grover Williams, P.E. (at large member) .............. Austin

Murdough Center for Engineering Professionalism
College of Engineering, Texas Tech University
Box 41023
Lubbock, Texas 79409-1023

TexethicS is distributed at no charge to engineering faculty members within the State of Texas and to others within the engineering profession who request to be included on the mailing list. TexethicS is one element of the Professional Development Program of the Texas Board of Professional Engineers and is sponsored by that Board. However, opinions and/or articles in TexethicS do not necessarily represent the position of the Texas Board of Professional Engineers. TexethicS is not a copyrighted publication; hence it may be reproduced but credit is requested.

NON-PROFIT ORG.
U.S. POSTAGE
PAID
LUBBOCK, TEXAS
PERMIT NO. 719

TO:

“TexethicS” Newsletter – Summer Issue 2000 -Page 8 of 8