

## How we define a model board

Recently, I have expressed concern for the direction some states seem to be heading with regard to the makeup and structure of their professional boards. In engineering and surveying, we have seen boards absorbed into large umbrella bureaucracies and regulated along with nonlearned professions. We have seen state proposals that would essentially remove all professional involvement from the regulatory process. More and more we are seeing Member Boards that are not allowed to travel due to budget constraints, and more and more we are seeing Member Boards that do not or cannot get involved in licensure issues at a national level. As I considered this trend and its ramifications for licensure and for the Council, I recalled that the Council does have a standard for state boards. It is described in the *Model Law* and *Model Rules*. I reviewed both to see how a "model board" would look and operate. I liked what I saw, and I thought it might be of value to review a few of the key provisions with you.

Section 120.10 of the *Model Law* states, "The board shall consist of ... professional engineers, ... professional surveyors, and ... public members who shall be appointed by the governor ... [M]embers shall preferably be appointed from a list of nominees submitted by the respective engineering and/or surveying societies ..." Our model board includes people drawn from the professions, and it suggests that the professional societies should be involved in their selection. It embraces the idea that states should allow the professions to be a part of the regulatory process. In my opinion, this is as it should be—for the good of the public, the states, and the professions.

Section 120.60 of the *Model Law* addresses the authority of the model board. I will not cite each provision, but if you read this section you will find

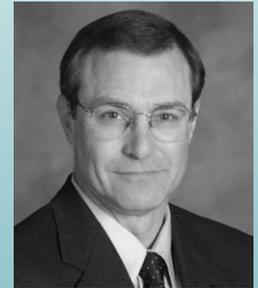
that our model board has broad powers. It is the board members who have the authority and responsibility to regulate. Our model board is not advisory, and it is not subject to an umbrella organization, which many times is not made up of people from our professions or does not include professionals at all. Instead, the authority rests with the board of professional surveyors and engineers and public members. Once again, this is as it should be.

Section 120.70 of the *Model Law* says, "All monies in this fund [the fund that holds all monies derived

*The Model Law and Model Rules affirm the critical importance of the professional members in the regulatory process and affirm the roles of both board members and staff members. We have a good standard. If it could become a reality in all states, I think the public, the states, licensure, and the Council would all be better for it.*

from the provisions of the Act] are hereby specifically appropriated for the use of the board ... The board shall ... make expenditures from the abovementioned fund for any purpose ... including the expenses of the board's delegates to meetings of and membership fees to the National Council of Examiners for Engineering and Surveying ..." Clearly our model board has the authority to fund its members to participate in NCEES. This is an indication of how critical the Council believes involvement by the Member Boards is. It is included in its own model statute.

This section also says, "The board shall employ such staff as are necessary for the proper performance of its work ..." Section 220.10 of the *Model Rules* says, "The board may employ an individual who shall be responsible for the administration of the policies of the board and for processing of its routine operations." The model board hires and directs the activities of its administrator. Certainly the board would have to follow the state's requirements for hiring this individual, but it is the board that sets the requirements and makes the selection. It also clear that it is the model board that sets policy.



Jon D. Nelson, P.E.  
 NCEES President

*How we define a model board  
(continued from page 1)*

The *Model Law* and the *Model Rules* plainly lay out the Council's consensus concept for a state board. The model board includes members of the profession and suggests the involvement of the profession in their selection. The powers of the board are broad and certainly not just advisory. The professions are included in the regulatory process in a significant way. The board is able to sustain itself financially and ensure that its members can be active on a national level. The board sets policy, and staff members implement that policy. In my opinion, this is a good model.

The Council provides valuable service to the states and the state boards, and it provides the opportunity for continuous improvement in the

licensure process in all jurisdictions. Surveying and engineering licensure need a strong and effective council of boards. The *Model Law* and *Model Rules* affirm the critical importance of the professional members in the regulatory process and affirm the roles of both board members and staff members. Several states have been initiating change that is contrary to our standard and clearly in the wrong direction. Perhaps it is time to initiate moves in the right direction. We have a good standard. If it could become a reality in all states, I think the public, the states, licensure, and the Council would all be better for it.

*Jon D. Nelson, P.E.  
NCEES President*

## Speaker's Kits updates

This past year, NCEES worked jointly with the American Council on Surveying and Mapping (ACSM) and the National Society of Professional Surveyors (NSPS) to develop the Surveying Speaker's Kit. It was introduced at the Board Presidents' Assembly in February. This professionally packaged kit includes a script, video, brochures, and PowerPoint presentation designed to make it easy to talk about the profession and licensure.

According to Curt Sumner, executive director of ACSM, the kits have been very popular and generated positive feedback. ACSM has distributed more than 100 kits to a variety of groups. They include surveying societies in the United States and Canada, ABET-accredited schools that teach surveying, the National Middle School Association, and NSPS officers and directors.

ACSM has also distributed the CD, which contains all of the kit's materials except the brochure, to all NSPS governors (50 copies) and to fulfill e-mail and telephone orders (more than 100). They, in turn, can reproduce the CD for distribution to members of their state societies.

The Engineering Speaker's Kit, introduced in 2003, has also been highly successful. Since its debut, more

than 230 have been distributed. The material continues to receive high marks for function and usability. From NCEES tracking alone, Council staff has received feedback from more than 50 presentations at more than 25 institutions and nearly 2,500 attendees. The measure of effectiveness of the message is demonstrated by 96 percent of respondents saying they are now considering professional licensure as part of their career path.

In connection with the Speaker's Kits, the Council continues to recruit licensed professionals to speak at their local university campuses. These volunteers form a speaker's bureau from which the Council's outreach coordinator can draw when a student organization or engineering group requests a licensure presentation. The speaker's bureau has grown to include nearly 100 speakers from 35 different states and is currently used almost 70 percent of the time to provide speakers. The Council's collaborative efforts with several student organizations are the primary source of student presentation requests. NCEES has also had a large number of requests for repeat visits. If you are interested in participating in the speaker's bureau, contact Mike Shannon, P.E., NCEES director of professional services, at 864-654-6824 or at [mshannon@ncees.org](mailto:mshannon@ncees.org).

## UPDATE

## Exam tip line and other security enhancements

NCEES continues to implement new exam security measures as part of our ongoing effort to respond to recommendations from last summer's exam security audit. Member Boards recently received information about one of these—a new tip line for reporting a breach of security or an exam irregularity. The tip line, which went live just before the April exam administration, can be accessed by completing an online form off the NCEES home page or by calling 800-250-3196, ext. 296, and leaving a message. Anyone reporting an incident has the option of remaining anonymous. Suspected security breaches can also be reported to the NCEES compliance and security manager by calling the toll-free number.

Filling the new compliance and security manager position was also a high-priority recommendation of the security audit, and I'm happy to report that Bob Whorton, P.E., has accepted the position. Bob joined NCEES two years ago as a technical assistant (TA) in Exam Development, working with mechanical, chemical, fire protection, control systems, and naval architecture and marine engineering exam development committees. Before joining NCEES, he practiced as a consulting engineer for almost 20 years. Bob graduated with a B.S. in mechanical engineering from Clemson University and is licensed in South Carolina.

In his role as a TA, Bob has seen firsthand that security is fundamental to all aspects of NCEES exams—from creation to administration. This experience, along with his engineering background, will be valuable in defining this new Council position.

As compliance and security manager, he will be responsible for all areas of exam security within NCEES and ELSSES. In addition, he will develop and perform periodic audits of all NCEES and ELSSES personnel and procedures to ensure compliance with policy and procedure; make recommendations to alter or enhance policy and procedure where needed after evaluation; and oversee, investigate, and manage all incidents that may or may not lead to a breach declaration in accordance with the Exam Security Procedures approved by the Board of Directors.

### April exam pass rates

Exam pass rates for the April 2005 administration were not yet available at press time, but they will be posted online at [www.ncees.org](http://www.ncees.org) in mid-June.

### New study guides available

New editions of several study guides will be available this June. The *FE Supplied-Reference Handbook*, *FE Sample Questions and Solutions*, *FS Sample Questions and Solutions*, and *PS Sample Questions and Solutions* have been revised to correspond with new exam specifications.

NCEES recently completed a content review of the Fundamentals of Engineering (FE) exam after an FE content review survey was sent to EAC/ABET-accredited programs and licensed practitioners across the United States. Volunteers used the survey results to develop new FE specifications, and the Examinations for Professional Engineers Committee approved the specifications at its February 2004 meeting. The new FE exam will be administered this October.

The Committee on PAKS—Land Surveying completed its Professional Activities and Knowledge Study (PAKS) in the fall of 2003. Based on the results of the PAKS, the surveying committee developed new specifications for the Fundamentals (FS) and the Principles and Practice of Surveying (PS) exams. New FS and PS exams will also be administered for the first time this October. The new specifications and information about ordering the study guides are available at [www.ncees.org](http://www.ncees.org).

### Annual Meeting in Memphis

I encourage you to attend the 84th Annual Meeting in Memphis, Tennessee, August 24–27. In addition to greeting old friends and meeting new members of fellow boards, you will have the opportunity to learn more about the Council, gain professional development hours, undergo ABET and other training workshops, and make decisions on committee motions that will impact the future of NCEES for years to come. You'll find an agenda on page 12 of this issue.

Betsy Browne  
NCEES Executive Director



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NCEES Executive Director

## UPDATE

## Enforcement—the fourth E

A recent article published in *Licensure Exchange* appropriately identified enforcement as licensure's fourth E, in addition to the traditional three Es of education, examinations, and experience. (See "The four Es of licensure," *Licensure Exchange*, August 2004.)

Yes, it's that portion of licensure we all wish were not necessary. But let's get real. Enforcement is an obligation we must all undertake. The failure to do so means we are not fulfilling the very basis of our statutory existence—protection of the public. In fact, failure to provide an effective enforcement program also means failure to protect the profession in general.

The amount of time it takes to get licensed and the number of years we actually practice are not equal. Licensing consists of 4 years of education plus 4 years of experience plus 16 hours of examination. The average number of years of practice, on the other hand, is about 40.

I'll be the first to acknowledge that this is an oversimplification of the commitment and effort associated with the traditional three Es, and I certainly do not want to diminish their importance in any way. However, in licensing and regulating the engineering and surveying professions, we must also recognize that as important as the initial three Es are, licensees have met only a threshold level of competency at that point. Equally as critical is that no confirmation of the ethical character of the licensee occurs. When we become licensed, we still have a long professional life ahead of us. The simple fact is that everyone will not perform at an appropriate level. Boards are obligated to address these failures by providing protection to those who have every reason to expect it.

Here are a few real-life examples of unethical practice in the engineering and surveying communities:

- ◆ A licensee who is believed to have practiced without a license in another jurisdiction is being

investigated by a board. He has someone in his office call the board staff to say that he has been killed in an accident.

- ◆ A professional licensed in more than 40 jurisdictions has been discovered to often certify plans prepared by others without reviewing them.
- ◆ A dual registrant surrenders both licenses due to serious competency and ethical issues. He then attempts to practice surveying without a license,

creating more boundary conflicts. He is ultimately prosecuted for unlicensed practice on four different occasions.

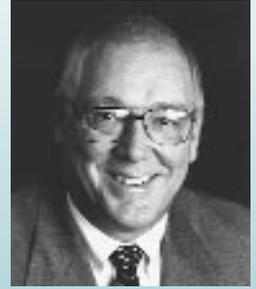
The list continues. The point is that all licensees do not possess the strong moral fiber we would like. Are they in the majority? Thank goodness, no. It's another example of 90 percent of the problems being caused by 10 percent of the population.

However, left unchecked, this minority can cause irreparable harm to the public and to the professions.

Are we devoting an adequate level of attention to the fourth E? A few years ago, the Committee on Law Enforcement conducted a survey of the Member Boards to determine, in part, which jurisdictions have an active enforcement program and which do not. Of the two-thirds of the boards that responded, only a limited number indicated that they had active enforcement programs. If your board cannot answer this affirmatively, then who is protecting the public from those members of our professions who either cannot or will not practice at the appropriate level either technically or ethically?

We must police ourselves, or someone else just might decide to do it for us. I doubt if any of us wants outside oversight to become part of the engineering and surveying professions.

*Robert Fentress, L.S.  
Chair, Committee on Law Enforcement*



*Robert Fentress, L.S.  
Chair, Committee on Law  
Enforcement*

*Enforcement is an  
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so means we are not  
fulfilling the very basis of  
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Gregg E. Bradow, Ph.D., P.E., S.E.  
NCEES Treasurer

# Council budget is a year-round process

**N**CCEES is a nonprofit corporation, but, just like any business, it must be financially sound to stay alive, grow, and fulfill its mission. The big difference between NCEES and for-profit corporations is that the revenue we generate is not taxed. The Council is also restricted in *how* it can generate revenue—it must stay within its charter to keep its tax exemption. In a sense, NCEES does have shareholders—the public, through the Member Boards.

The main sources of our revenue are examinations, ELSSES, the Records Program, study materials, and Member Board fees. Member Board services such as the Annual Meeting, exam development, and exam administration are some of our expense areas. Creating and tracking the budget for all of this is a year-round process.

The NCEES treasurer is responsible for overseeing the financial operations of the Council. In light of recent headline-making corporate financial scandals—in both private corporations and nonprofits—these responsibilities have taken on added significance lately. Are solid internal controls in place? Is the annual audit conducted properly? Are the correct regulations being followed? When I stepped into the treasurer position this past year, I learned how the Council addresses these issues firsthand. What I've seen is that NCEES does have strong internal controls in place. They are designed to give reasonable assurance of the integrity and objectivity of financial reporting, to safeguard assets, and to carry out and properly record all financial transactions.

## How it works

The Council as a whole votes on a final budget at the Annual Meeting in August. But budget development begins much earlier than that—in October, the beginning of the new fiscal year. The budget goes through many revisions as it makes its way through the approval process, which includes the Finance Committee and the Board of Directors.

One reason the Council's fiscal year runs from October 1 to September 30 is to allow the incoming Board of Directors to get a true picture of where the Council stands financially. Then the treasurer, Finance Committee, president-elect, and

executive director can work together to recommend the income and expense budget for the next year.

The Board of Directors constantly reviews financial and accounting policies, practices, and reports. The Finance Committee studies the financial needs of the Council, recommends sources of income and ways and means of securing adequate funds for the proper operation of the Council, and assists the Board of Directors in financial matters.

This basic system of controls was put into place in the 1970s after the Council had faced an internal problem of insolvency. As Council officers and directors became aware of the problem, several critical defects in financial procedures were identified, including a lack of adequate controls. For example, at the time there were no accurate monthly or quarterly reports provided to permit the Finance Committee or Board to monitor the Council's financial status. NCEES began to recognize that an additional officer was needed on the Board for financial control, and at the 1976 Annual Meeting the Council voted to add the office of treasurer. Soon after that, the treasurer and the Finance Committee developed financial procedures that were subsequently adopted into the *Bylaws*.

## NCEES and the Sarbanes-Oxley Act

Today, the Council follows sound fiscal procedures, and it is constantly evaluating how they work and how they can be improved. That is one reason it has recently taken steps to implement some of the major guidelines of the Sarbanes-Oxley Act. While most portions of the act apply only to publicly traded corporations at this time, some provisions may eventually be extended to nonprofits. NCEES has decided to address these before they are mandated. These include establishing an audit committee and developing a full annual report.

The recently created Board of Directors Financial Audit Committee identifies and employs the auditors, oversees the scope and results of independent audits, and addresses any comments on the adequacy of internal controls and quality of financial reporting.

The annual report was developed for the first time this past year and was mailed to all Member Board members in January. In line with Sarbanes-Oxley, the management of NCEES—specifically, the

president, treasurer, executive director, and chief financial officer—take responsibility for the preparation, integrity, and objectivity of the financial statements included in the annual report by signing a statement of management.

This statement says that they have reviewed the report and that the financial statements and other financial information fairly represent, in all material respects, the financial condition and results of operations of NCEES for the fiscal year.

### **Year-end projections are positive**

For the seven months ending April 30, 2005, the Council has a surplus of \$537,844 compared to a budgeted deficit of \$729,344. Total revenue year-to-date is \$5,850,136, which is 1.4 percent under budget. All revenue centers except ELSESES are slightly below budget year-to-date. Exam usage was below

budget for the October 2004 administration, and early indications are that usage was down for April 2005 exams as well. Total expense year-to-date is \$5,312,292, which is 20 percent less than budgeted.

Some of these revenue and expense variances are due to the cyclical nature of council activities and the timing of exams twice a year. Exam revenues are concentrated in December and June. ELSESES revenues are concentrated in the February to March and August to September time frames. The savings in some expense categories should be able to more than offset the projected revenue shortfall. These expense savings combined with an increased volume in ELSESES revenue are projected to result in a surplus at year end for 2004–05.

*Gregg E. Brandow, Ph.D., P.E., S.E.  
NCEES Treasurer*

*When I stepped into the treasurer position this past year, I learned how the Council addresses these issues firsthand. What I've seen is that NCEES does have strong internal controls in place. They are designed to give reasonable assurance of the integrity and objectivity of financial reporting, to safeguard assets, and to carry out and properly record all financial transactions.*

## UPDATE

## ACCA charges to result in motions



L.G. Lewis Jr., PE., Chair  
Advisory Committee on  
Council Activities

Over the past year, the Advisory Committee on Council Activities (ACCA) has addressed 12 charges that involve a number of administrative issues facing the Council. Here are a few of them, along with the findings of the committee and some of the motions it will bring forward in August.

*Charge #3: Develop a white paper and a Council position statement on the issue of the splintering of the engineering disciplines.*

ACCA is convinced that this issue has potentially far-reaching implications on *Model Law* provisions and the engineering examination programs of NCEES. The continuing creation and expansion of traditional engineering knowledges means that the splintering of engineering disciplines will continue. This will increasingly challenge the traditional licensing philosophies of NCEES and its Member Boards.

ACCA believes that the splintering of the engineering disciplines is a major factor in the declining relevance of licensure to engineering graduates and in the added difficulties of creating written examinations suitable for the new and emerging specialty disciplines of engineering. For this reason, ACCA believes that the development of a Council position statement is premature at this time and instead recommends that the Council, through appropriate presidential charges, conduct further research and seek consensus agreement on proper strategic actions on this matter. ACCA has developed a draft version of the white paper that is currently under review.

*Charge #7: Review Position Statement 14 regarding the licensing of engineering faculty, and recommend any needed revisions.*

ACCA reviewed and discussed the Council's adopted position concerning licensure of engineering faculty. The committee recognizes that there are differences from state to state concerning requirements for, or exemptions to, licensure of engineering faculty in connection with the work they do for the college or university at which they are employed. The committee also recognizes,

however, that many engineering faculty members do provide engineering services on matters not directly associated with university teaching or research assignments. In its consideration of these issues, ACCA recommends changes to PS 14 and has prepared Motion 3 to reflect its recommended changes.

#### PS 14 Licensing of Engineering Faculty

NCEES encourages all faculty members who teach advanced engineering courses or who are in responsible charge ~~for teaching of engineering curricular or engineering research to be~~ licensed professional engineers. It is the position of NCEES that faculty members who practice engineering as defined by applicable statutes must be licensed.

*Charge #10: Revise Section 5.04 of the Constitution to require that only members of Member Boards are entitled to vote on issues that come before the Council.*

Proposed wording is presented in the form of Motion 5 for referral to the Committee on Constitution and Bylaws.

**Section 5.04 Voting.** – Only delegates who are members of Member Boards shall be entitled to vote. Voting shall be by Member Boards, with each board entitled to one vote. If a Member Board is represented by more than one voting delegate present at the time of voting, the vote may be split proportionately if its voting delegates wish. An associate member may not serve as a Member Board delegate for voting purposes ~~only when so designated by that Member Board.~~

*Charge #11: Review the draft position statement on the equivalency of foreign-licensed engineers applying for licensure in the United States, and recommend any needed revisions.*

The committee reviewed the draft statement, made minor editorial changes, and will present the following motion (Motion 6) with the recommended position statement and background information.

Move that NCEES adopt the following position statement on the equivalency of foreign professional engineers applying for licensure in jurisdictions of the United States.

**PS XX Equivalency of Foreign Professional Engineers Applying for Licensure in Jurisdictions of the U.S.**

It is the position of NCEES that Member Boards of the Council should provide appropriate recognition of equivalent qualifications for professional engineers licensed by or otherwise approved for professional practice in a foreign jurisdiction.

**Background (Ref: USCIEP Position Statement 6)**

NCEES, through USCIEP, participates with a number of foreign economies in efforts to eliminate unnecessary barriers to the cross-border movement of professional engineers working in an international environment. One manner in which this is done is through the operation of an International Registry by which the United States, and other participating economies, acknowledges the credentials of engineers whose names appear on the Registry. However, because each participating economy is free, within certain limitations, to establish its own credentializing standards, the Registry does not attempt to grant or otherwise provide practice privileges for an engineer seeking recognition by a foreign jurisdiction. Where credentialization processes in a foreign jurisdiction, after careful evaluation, are determined by USCIEP to be substantially equivalent to those of a U.S. jurisdiction, it is the position of NCEES that its Member Boards should provide recognition of those credentials.

It is the intention of USCIEP, through bilateral or multilateral recognition agreements, when and where appropriate, to recognize those credentialization processes by foreign jurisdictions that are determined by USCIEP to result in a demonstration of engineering knowledges and abilities substantially equivalent to engineers licensed in the United States under standards of the NCEES Model Law. This action by USCIEP is conceptually no different from the Substantially Equivalent recognitions provided by ABET to qualifying engineering programs of foreign universities.

Notwithstanding all of the above, NCEES believes that, no matter how strong the technical credentials of an engineer licensed or otherwise professionally recognized by a foreign jurisdiction, it would not be appropriate to grant a license for the independent, unsupervised practice of engineering to a foreign practitioner who does not possess, or cannot demonstrate, a knowledge of the local customs and unique practice knowledges that are normally acquired by experience working within the jurisdictional provinces of a particular economy. Because of these concerns, and their relationship to the public welfare, NCEES also believes that for purposes of licensure, the recognition of substantially equivalent qualifications should be combined with an appropriate period of qualifying experience within the regulatory systems of the United States or with a demonstration of knowledges gained through such an experience period.

*L.G. Lewis Jr., P.E., Chair  
Advisory Committee on Council Activities*

# Engineering Council of India seeks to standardize country's engineering practice

A representative from the Engineering Council of India (ECI) visited NCEES headquarters on April 5, 2005, to describe the status of India's effort to establish a federal engineering act.

Dr. Uddesh Kohli, chair of the ECI, met with representatives of NCEES and USCIEP. Meeting attendees included NCEES Past President L.G. "Skip" Lewis Jr., P.E., chair of the USCIEP Monitoring Committee; Chuck Wallace, P.E., NCEES director of exam development; and Lisa White, assistant to the executive director and staff liaison to USCIEP.

While regulatory acts exist in India for medical doctors, attorneys, and architects, Kohli reported that similar legislation does not exist to regulate the practice of India's approximately 3 million engineers. Currently, some of the professional societies for specific engineering disciplines, such as the Institution of Engineers (India), assess engineers to determine if they are competent to perform professional activities in their individual professions.

If approved, the proposed Engineers Bill will establish a statutory body for the registration of professional engineers, associate professional engineers, and engineering organizations; regulation of the engineering profession; and the maintenance of national and international registries.

The Engineers Bill was drafted by the ECI and discussed intensively over the past two years. Two primary factors prompted 26 leading professional organizations in India to organize the ECI. These were India's rapid economic growth—both domestic and international—and the implementation of international mobility and trade agreements based upon mutually recognized and accepted standards and qualifications.

## Modeled on other countries' systems

In the course of writing the bill and designing their future registration system, ECI representatives visited regulatory and professional bodies in the United States, Canada, Japan, the United Kingdom, and Ireland in 2003 to learn about the laws, assessment mechanisms, and procedures employed there.

In the proposed system, the ECI borrowed some fundamental features from the U.S. system. For example, licensed professional engineers will be called professional engineers and allowed to use the title P.E. Licensure will not be mandatory for all engineers, but it will be required to engage in the following activities:

- ◆ To undertake independent practice on matters such as planning, research, design, analysis, execution, manufacturing, maintenance, testing, evaluation, quality assurance, management, and/or guidance thereof, certification work
- ◆ To certify an engineering drawing, design, process, system, cost estimate, time schedule, resources forecast, budget allocation for any engineering work, project, product, or process
- ◆ To certify the adequacy of safety measures and environmental protection
- ◆ To certify that the quality of construction, product, and/or process is in accordance with the design

## Proposed engineer classifications

An associate professional engineer, similar to an engineer-in-training in the United States, would be a person who has earned an accepted engineering undergraduate degree and who works under the supervision of a P.E. To become registered by the ECI as an associate professional engineer, one would be required to obtain a bachelor's degree in engineering or technology or the equivalent from a university or institution approved or recognized by a statutory body, prove oneself to be a person of good character, and agree to adhere to the ECI Code of Conduct of Ethics.

To become registered by the ECI as a P.E., one would be required to pass a fundamentals of engineering written exam; pass a practice of engineering written exam; and complete an interview with a peer or committee to assess the continuing professional development, training, and experience acquired as an associate professional engineer. In some cases, engineers may be exempt from examination. P.E.'s would be required to renew their licenses every five years.

A third classification, engineering organization, would apply to an organization that undertakes work that requires professional abilities in engineering and technology under the supervision of P.E.'s.

The Engineers Bill is currently being processed by the Ministry of Human Resource Development and

is being circulated for comments. ECI expects the bill to be placed before the Indian Parliament in August 2005. If approved, the legislation will be called the Engineers Act, 2005. For more information, go to [www.engineeringcouncilofindia.org](http://www.engineeringcouncilofindia.org).

*Lisa White*  
*NCEES Staff Liaison to USCIEP*

Member Board

## NEWS

### NJ Board continues licensure promotion program

As reported in an earlier edition of *Licensure Exchange*, the New Jersey Board of Professional Engineers and Land Surveyors has embarked on a program to promote licensure at the state's engineering colleges. (See "New Jersey Board visits engineering colleges to promote licensure," *Licensure Exchange*, March 2004.) To date, the board has met with four of the state's five engineering schools.

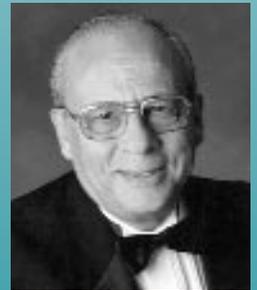
It most recently visited the Stevens Institute of Technology. Board members were advised that Stevens Institute is currently reviewing the curriculum's "design spine" running through the four years of study. The staff will identify specific points along the design spine at which students can learn about licensure. The purpose is to communicate the concept of licensure early and often during students' four years of study. Stevens Institute requested that a board representative begin speaking about licensure in the spring of students' junior year—the year all engineering students start their senior design project.

The students will be encouraged, and, in some cases, required to take the FE exam in October of their senior year, with permission of the state board. Currently, only the civil and environmental engineering departments require students to take the FE exam. This requirement will be extended to other departments as deemed appropriate. Stevens Institute told the board that it is also exploring ways to recognize students who pass the FE.

In addition, the board and Stevens Institute discussed faculty licensure. The school currently has many faculty members who are licensed P.E.'s, and it plans to encourage other faculty who have the appropriate background to pursue licensure.

The board intends to coordinate efforts such as these among all colleges in the state. After all interviews are complete, the board will compile all comments and procedures.

*Louis A. Raimondi, P.E., L.S.*  
*Northeast Zone Vice President*



*Louis A. Raimondi, P.E., L.S.*  
*Northeast Zone Vice President*

# NCEES 84th Annual Meeting

August 24–27, 2005 • The Peabody Memphis

This August, Council members will meet in Memphis to discuss and decide issues vital to the future of licensure. NCEES committees and task forces have spent a great deal of time investigating their charges throughout the year. Their work will result in motions for the Council's consideration during the Thursday and Friday business sessions. In addition to the business sessions, the 2005 Annual Meeting program will offer learning opportunities that may assist licensed engineers and surveyors in satisfying continuing-education requirements.

## Wednesday, August 24

**ABET Training**—Learn about the ABET evaluation process. The expanded session will focus on changes in the process brought about by Engineering Criteria 2000 as well as the roles of board representatives.

**Leadership in NCEES**—This workshop will provide information about the responsibilities and time commitment required of officers of NCEES. Past presidents and other officers of the Council will share their experiences and knowledge of what is required to serve in a leadership role.

**Ethics for Professional Engineers and Surveyors (3.0 PDHs)**—Don't miss this powerful workshop featuring international speaker and certified ethics trainer Deborah Long. Newspapers such as The Wall Street Journal and Chicago Tribune have lauded her work with licensed professionals. Attendees will learn their ethical IQ, the latest research on professionalism and ethics, how to resolve complex dilemmas, and more.

**New-Member Orientation**—This session will benefit first-time meeting attendees, those who are new to their licensing board and to NCEES, and those who are simply unfamiliar with NCEES. You'll learn about the organization, its products and services, and volunteer and leadership opportunities.

**Member Board Administrators' Forum**—Join the MBAs in this open-discussion forum. The session will be moderated by the leaders of the MBA Networking Group and will provide an exchange of information about techniques and processes used by various jurisdictions. Questions and comments are welcome.

**Engineers' Forum (up to 3.0 PDHs)**—Some of the many topics will be exam analysis to indicate irregularities, the EPP Committee initiative on minimum competence, the changes in the FE exam and FE results, the Engineering Speaker's Kit and licensure promotion, exam security, trends in numbers of examinees, the practice exam initiative, and updates on EPE Committee charges.

**Surveyors' Forum (up to 3.0 PDHs)**—Presentation and discussion topics will include the status of surveying education, the Surveying Speaker's Kit and licensure promotion, exam performance and status, exam security, and reports on the EPS Committee charges.

## Thursday, August 25

### Business Session I

**Zone Meetings with Buffet Deli Lunch**—Join the other members of your zone for a discussion on important issues. Lunch will be served.

### Business Session II

## Friday, August 26

### Business Sessions III and IV

### Zone Meetings

## Saturday, August 27

### Business Session V (if needed)

### Committee Organizational Meetings

**Law Enforcement Program**—Join your peers for an interactive session on interview techniques, trial information, and settlement techniques. Bring any questions you may have or real-life experiences to share with the group.

**Laser Scanners and Software (3.0 PDHs)**—Michael Harvey of Leica Geosystems will demonstrate the latest generation of laser scanners and software. This equipment can slash field and office labor costs for ordinary topographic surveys to as little as 75 percent of what it takes to perform them traditionally.

**Test Piracy and Cheating**—Cheating on exams and the harvesting of exam items have become significant phenomena for all testing entities. Jim Impara of Caveon Test Security, a nationally recognized test security firm, will give a

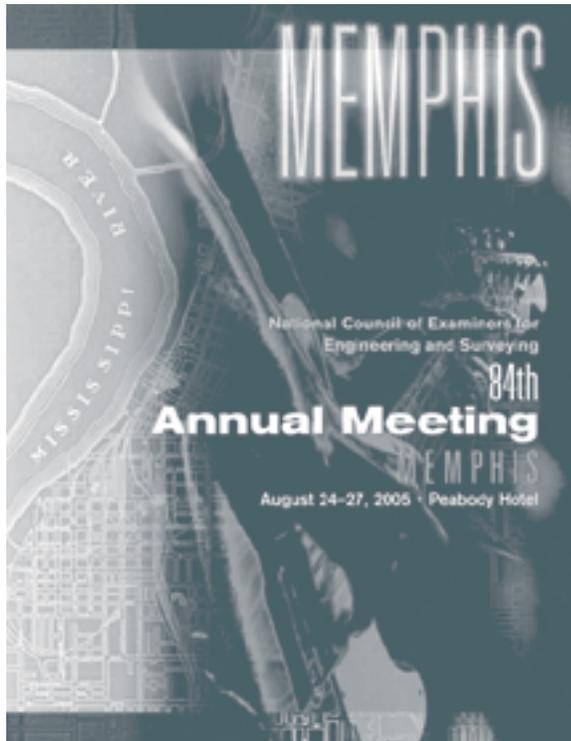
presentation on this global issue as well as the results of an independent audit of NCEES exam processes.

#### **Cut Scores**

**Workshop (1.5 PDHs)**—Learn how the passing scores for NCEES exams are determined. It's not necessary to have an exam background to get some real value from this session, and you'll have a chance to ask questions.

**New Member Board Administrator Training**—What are the governing documents for NCEES? How are NCEES committees created? These and other questions will be addressed in this session intended for new MBAs. It will provide a history of NCEES, describe the leadership structure and services offered, and open the floor for questions.

**Computer-Based Testing Update**—This workshop will provide an update on the Council's activities with respect to CBT implementation and the issues that need to be addressed.



#### **Defining the Body of Knowledge for Civil Engineers**

—At this workshop, representatives from ASCE will provide an update on the association's efforts to upgrade the education requirements for the civil engineering profession.

#### **Promotion of the Professions**

—Attend this session to learn more about NCEES outreach efforts, including new materials for surveying developed in conjunction

with ACSM/NSPS. Get tips on making the best use of the materials and delivering an effective presentation.

#### **Forensic Engineering and P.E./P.S. Licensure**

(1.5 PDHs)—Forensic engineers are often called upon at the last minute to go to the scene of an accident to document, measure, and photograph the location before evidence is erased or removed. In some cases, the client may be in one state, the lawsuit in another, and the deposition in a third. This session will address some of the challenges forensic engineers face in following the rules of different licensing boards.

## Registration deadline: July 19, 2005

To register for the 2005 Annual Meeting, complete the registration form you received by mail in May, or download the online registration form at [www.ncees.org/amreg.html](http://www.ncees.org/amreg.html). Then return the form via fax (864-654-6033) or mail (NCEES, P.O. Box 1686, Clemson, SC 29633-1686). You can also register by calling NCEES at 800-250-3196 or 864-654-6824.

A copy of the 2005 conference reports will be mailed to everyone who registers. The conference reports contain preparatory materials such as committee reports and motions that will be delivered at the 2005 Annual Meeting. Please bring your copy of the conference reports with you to the meeting.

Send letters to *Licensure Exchange* editor at NCEES, P.O. Box 1686, Clemson, SC 29633 or [kanderso@ncees.org](mailto:kanderso@ncees.org).

Please include your name and state of residence on the letter. Letters may be edited for clarity, brevity, and readability.

# NEWS

**ALASKA**

◆ Richard Heieren, Harley Hightower, and Mark Morris are new appointees to the board. The terms of Donald Iverson, Scott McLane, and Patricia Peirsol have expired.

**IDAHO**

◆ The board's address is 5535 W. Overland Rd., Boise, ID 83705. Its phone number is 208-373-7210, its fax number is 208-373-7213, and its Web site is [www.ipels.idaho.gov](http://www.ipels.idaho.gov). Dave Curtis' e-mail is now [dave.curtis@ipels.idaho.gov](mailto:dave.curtis@ipels.idaho.gov).

**ILLINOIS PE**

◆ John Hoffstatter and Benjamin Miller are new appointees to the board.

**ILLINOIS LS**

◆ Ralph Van Dorpe retired from the board on May 1.

**MAINE PE**

◆ The board's Web site is now [www.maine.gov/professionalengineers](http://www.maine.gov/professionalengineers). Warren Foster's title is now executive director.

**MINNESOTA**

◆ Stephanie Ball, Diane Johnson, and Mary West are new appointees to the board. The terms of Daniel Ballentine, Jean Miller, and Dawn Tracy have expired.

**MONTANA**

◆ Brooke Jasmin ([bjasmin@mt.gov](mailto:bjasmin@mt.gov)), program manager, is the new contact for the board. She replaces Todd Boucher.

**NEW JERSEY**

◆ James Cleary and Lawrence Koo are new appointees to the board. The term of Robert Bogart has expired.

**NEW MEXICO**

◆ Salvador Vigil is a new appointee to the board. David Marble is no longer on the board.

**PENNSYLVANIA**

◆ Thomas Gillespie and David Widmer are new appointees to the board.

**RHODE ISLAND LS**

◆ Alfred DiOrion is the new board chair. Richard Lipsitz is a new appointee to the board. The term of Joseph Frisella has expired.

**SOUTH CAROLINA**

◆ Cecil Huey Jr. is a new appointee to the board. The term of W. Kenneth Humphries has expired.

**VERMONT PE**

◆ Bonnie Giuliani is a new appointee to the board.

**WASHINGTON DC**

◆ Teresa Ennis is the new board representative. She replaces Linda Dixon, who is retiring.

**WISCONSIN**

◆ Matthew Janiak is a new appointee to the board. The board's phone number is now 608-261-4486.

# West Virginia pilots program to waive FE exam fee

Convincing students to take that first step in becoming licensed—sitting for the FE exam—can be a challenge. A few years ago, the West Virginia State Board of Registration for Professional Engineers decided to eliminate one of the potential hurdles by starting a pilot program that waives the exam fee for students. After a little fine-tuning, the program has been successful enough that the board recently decided to continue it for five more administrations.

## Program genesis

The project started in 2003 after the board conducted a budget review of the cost and number of FE exams given in West Virginia. The board also conducted informal surveys of students who were not signing up for the exam. Most indicated that the \$75 cost of the exam was a factor in their decision not to take it.

Exam application fees are due at the beginning of the semester, which is about the same time fees for tuition, books, and labs and deposits for rent are due. The board decided to implement the fee waiver to reduce this financial burden.

Through the program, all eligible, full-time students attending an EAC/ABET or TAC/ABET engineering or engineering technology program in West Virginia could sign up and take the FE exam for free.

## A need for fine-tuning

The immediate results were dramatic. During the first administration, the number of FE exam applicants increased by almost 40 percent. We also quickly discovered a downside. Normally, about 5 to 7 percent of candidates do not show up for the exam. After the fee waiver was implemented, that number increased to about 15 percent.

Although our board did not shoulder a cost burden for the no-shows (most of the expense is in the handling and grading of the exam after completion), the turnout was disappointing. We refined the program to curtail absenteeism by stipulating that the waiver is not applicable to anyone who has previously been granted a fee waiver and then failed to attend that exam.

We also better defined what was meant by “student” to ensure that the intended beneficiaries were actually the ones taking advantage of the program. The candidates must be full-time students enrolled in a four-year ABET EAC/TAC program. Undergraduate students must be carrying a minimum of 12 hours; graduate students, a minimum of 9 hours.

To address the possibility that students might not take the exam seriously when they don't have to pay for it, the board capped the number of times a candidate who failed the exam could take it. Now, only two fee waivers are granted.

## Effect on pass rates

Another issue was the effect that the fee waiver has had on pass rates. In April 2003, the pass rate was 44 percent of 193 exam takers compared with 58 percent of 165 exam takers in October 2002, before the waiver program began. In October 2003, the pass rate increased to 50 percent of 223 exam takers. In April 2004 and October 2004, a noticeable decline in pass rates again occurred.

While the board was initially concerned with the drop in pass rates, it is

confident that eventually the pass rates will increase. The fee waiver project has resulted in additional exposure to the FE exam and licensure process, as well as a sharp increase in student applicants interested in becoming P.E.'s.

An additional positive outcome of the pilot program is how well it has been received by the engineering faculty and deans. Many of them have told us that it is much easier to encourage students to take the exam now that cost is no longer an issue.

In November 2002, the board unanimously approved the pilot project through April 2005. In January 2005, it approved continuation of the program through October 2007.

*Lesley L. Rosier-Tabor, P.E.*  
*Executive Director*

*West Virginia State Board of Registration  
for Professional Engineers*



*Lesley L. Rosier-Tabor, P.E.*  
*Executive Director*  
*West Virginia State Board*  
*of Registration for*  
*Professional Engineers*

*The fee waiver project has resulted in additional exposure to the FE exam and licensure process, as well as sharp increases in student applicants interested in becoming professional engineers.*

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2004–2005 NCEES

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# NCEES plans Practice in Education Awards Program

The Council is moving ahead on plans to create an NCEES Practice in Education Awards Program. The purpose of this program will be to recognize engineering programs that advance the integration of licensed practice and education.

Earlier this year, President Nelson authorized a group of volunteers—including two past presidents of the Council, a Member Board member, a Member Board administrator, a previous NCEES committee chair, and staff—to meet to identify issues and to draft criteria for the Board's consideration. The group developed a program abstract proposing that all EAC/ABET-accredited engineering programs within NCEES jurisdictions will be eligible to participate and that submissions should represent experience in the following areas:

- ◆ Team leadership
- ◆ Professional ethics
- ◆ Practice environment
- ◆ Infrastructure
- ◆ Allied/affiliate professionals
- ◆ Benefits to the health, safety, and welfare of the public
- ◆ Project development

The program abstract recommends six cash awards annually, with one submission being recognized as the grand prize winner.

At the February 2005 meeting, the NCEES Board of Directors approved the concept of this award and authorized \$25,000 in the 2005–06 budget to develop the program and \$115,000 in each NCEES budget thereafter to fund the awards program. The Board also directed that this matter be placed on the 2005 Annual Meeting agenda for discussion and action by the Council.

*NCEES staff*



National Council of Examiners  
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P.O. Box 1686  
Clemson, SC 29633-1686

(864) 654-6824  
Fax (864) 654-6033  
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