

## From the President

### Council must continue raising the bar for licensure

The next month will be a very busy one for the Council as we converge in Minneapolis for the Annual Meeting. It has been an eventful year, and I thank everyone involved with NCEES for their time and hard work on a range of challenges facing the engineering and surveying professions.

We are getting better at demonstrating to the public the enormous role the engineering and surveying professions play in maintaining our standard of living. In recent years, NCEES has committed many resources to programs designed to raise public awareness of our professions. During my term as president, I have started to see some positive results from these programs. I encourage everyone to continue to serve as ambassadors to the public on behalf of the engineering and surveying professions; speak to groups in your community and make yourself available to the media.

NCEES has devoted much effort to upholding and, in many ways, enhancing the prestige of licensure. Raising the education standards for licensed engineers is one such effort. It is absolutely necessary that we, as leaders of the profession, take measures to respond to the rapidly expanding body of knowledge in the profession. Higher standards will protect the public by helping to ensure that licensed engineers in the United States have the knowledge needed to meet the challenges of the 21st century. The need for education standards that address the changing demands of the profession has been expressed for more than three quarters of a century, going back to Dr. D.B. Steinman's presidency in the 1930s. But now, as engineering disciplines are growing more specialized and technology is evolving at a blistering pace, this need is more urgent than ever.

I do not disagree with those who say there are obstacles that stand in the way of implementing the bachelor's plus 30 requirement at the state level. But engineers don't typically back away from a challenge. We have enough time between now and the proposed 2020 implementation date to provide for a transition to

the new requirements. As protectors of the public health, safety, and welfare, it is our duty to ensure that future P.E.'s are armed with sufficient knowledge to do their jobs effectively.

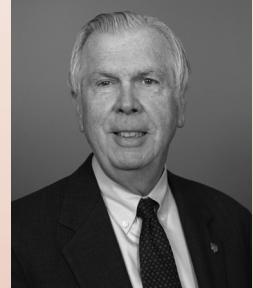
The Council's status as a newly accredited standards developer with ANSI is another way NCEES is working to promote licensure as the gold standard for the engineering and surveying professions. NCEES has published its first draft standard (see page 12), which outlines the requirements to obtain the Model Law Engineer designation. This is a positive step toward increasing acceptance of engineering licensure in academia and industry.

The need for greater comity for qualified engineers and surveyors continues. NCEES is in a better position than any other organization to address this issue, and we have done so throughout our history. The Council Records Program, which continues to grow, and the Registered Continuing Education Providers Program, one of our newest services, are excellent tools for those seeking licensure in multiple jurisdictions.

As our global economy continues to develop, the need for international comity increases. USCIEP, an affiliate organization of NCEES, can be an excellent tool for promoting international comity. The Center for Professional Engineering Education Services is now almost two years old. Its staff expertise and its relationship to NCEES allow it to provide a valuable service to the Member Boards. Its ability to compare foreign education credentials with those of accredited American programs and its capabilities in rooting out fraudulent credentials will continue to make the Center an important part of NCEES.

It has been a pleasure and an honor to represent NCEES as its president for the past year. I look forward to continuing to serve the Council, and I thank you again for your support.

*W. Gene Corley, Ph.D., P.E., S.E.  
NCEES President*



W. Gene Corley, Ph.D., P.E., S.E.  
NCEES President

# UPDATE



Jerry T. Carter  
NCEES Executive Director

## Annual Meeting workshop brings international focus

This year's Annual Meeting workshops give the Council opportunities for in-depth discussion of issues affecting the engineering and surveying professions. One such workshop scheduled for August 16 during the meeting addresses international issues in engineering licensure.

I will report on the International Engineering Alliance's meeting in Singapore, which USCIEP President Dale Sall, P.E., L.S., and I attended June 23–26. The meeting gave us a better understanding of the Council's potential role in the international community and how USCIEP can better serve Member Boards, such as providing assistance when they are considering bilateral agreements with foreign entities or answering their questions concerning international accords that relate to licensure issues. The workshop will provide the opportunity to discuss our findings as well as the Member Boards' needs in regard to international mobility.

Representatives of the Texas PE Board will discuss their negotiations with Engineers Australia to develop a mutual recognition agreement. Also, representatives of the Washington Board will report on that board's efforts to develop a process for licensing qualified candidates from foreign jurisdictions.

International mobility is just one part of a range of important issues that will be discussed at the Annual Meeting. I look forward to seeing you at the workshop.

### Action Items and Conference Reports

Everyone who has registered for the Annual Meeting has been sent a copy of the *Action Items and Conference Reports*. This publication is an invaluable resource for preparing for the meeting. It contains the committee and officer reports, minutes of zone meetings, and the motions that the Council will vote on during the business sessions.

If you have not received a copy, please contact Graphics and Print Coordinator Ragenia Thompson ([rthompson@ncees.org](mailto:rthompson@ncees.org)). PDFs can also be downloaded from CouncilNet ([www.ncees.org/councilnet](http://www.ncees.org/councilnet)).

### Access to ECEI evaluations

Concerns have recently been raised about the records retention policy of ABET's now-discontinued Engineers Credentials Evaluation International (ECEI) service, which provided credential evaluations for foreign-educated engineering licensure candidates.

Specifically, concerns focused on the impact to Member Boards and ECEI-evaluated applicants seeking comity licensure if these records were eventually destroyed.

ABET has confirmed that it will retain all completed ECEI evaluations and make them available to applicants and Member Boards upon request.

### Review of MLE standard

In its role as a standards development organization of ANSI, NCEES is publishing its first standard for public review. The standard, DS-1; NCEES MLE 1-2008, specifies the criteria for a Model Law Engineer (MLE), including education, experience, and examination requirements.

The standard is now open for public comment (see p.12). The full text of the standard and an online feedback form are available at [www.ncees.org/asd.php](http://www.ncees.org/asd.php). Developing the MLE standard for ANSI will lead to wider acceptance of licensure as the ideal means of ensuring competence in the engineering profession, which also is a strategic goal of the Council.

*Jerry T. Carter  
Executive Director*

# April 2008 exam pass rates

## Fundamentals of Engineering

FE exam pass rates reflect students/graduates of EAC/ABET-accredited engineering programs.

*All modules*

| Examination Module | First-time Repeat takers (%) | takers (%) |
|--------------------|------------------------------|------------|
| Chemical           | 86                           | 41         |
| Civil              | 73                           | 23         |
| Electrical         | 74                           | 29         |
| Environmental      | 75                           | 39         |
| Industrial         | 66                           | 14         |
| Mechanical         | 85                           | 45         |
| General            | 78                           | 27         |

*General exam only*

| Examinee major     | First-time Repeat takers (%) | takers (%) |
|--------------------|------------------------------|------------|
| Aeronautical       | 79                           | 48         |
| Agricultural       | 78                           | 26         |
| Architectural      | 79                           | 37         |
| Biological         | 81                           | 58         |
| Biomedical         | 87                           | 100        |
| Chemical           | 80                           | 30         |
| Civil              | 73                           | 27         |
| Computer           | 54                           | 23         |
| Electrical         | 57                           | 21         |
| Eng. Mechanics     | 68                           | 6          |
| Eng. Physics       | 81                           | 21         |
| Environmental      | 83                           | 13         |
| General Eng.       | 79                           | 39         |
| Geological         | 65                           | 15         |
| Industrial         | 69                           | 6          |
| Mechanical         | 84                           | 35         |
| Mining and Mineral | 72                           | 37         |
| Naval Arch./Marine | 87                           | 87         |
| Nuclear            | 88                           | 0          |
| Petroleum          | 59                           | 59         |
| Structural         | 78                           | 33         |
| Other              | 66                           | 8          |

## Principles and Practice of Engineering

| Examination             | First-time Repeat takers (%) | takers (%) |
|-------------------------|------------------------------|------------|
| Agricultural*           | 72                           | 33         |
| Architectural           | 79                           | 24         |
| Chemical                | 73                           | 23         |
| Civil                   | 64                           | 29         |
| Control Systems*        | 74                           | 56         |
| Electrical and Computer | 69                           | 34         |
| Environmental           | 63                           | 21         |
| Fire Protection*        | 54                           | 27         |
| Industrial*             | 69                           | 22         |
| Mechanical              | 67                           | 37         |
| Metallurgical*          | 52                           | 45         |
| Mining and Mineral*     | 67                           | 42         |
| Naval Arch./Marine      | 76                           | 33         |
| Nuclear*                | 73                           | 67         |
| Petroleum*              | 70                           | 18         |
| Structural I            | 46                           | 24         |
| Structural II           | 56                           | 32         |

\*These PE exams are offered only in the fall. Rates are shown for the October 2007 administration.

## Surveying

| Examination | First-time Repeat takers (%) | takers (%) |
|-------------|------------------------------|------------|
| FS          | 63                           | 27         |
| PS          | 69                           | 44         |

## Design Squad recognition

NCEES has been a major sponsor of “Design Squad” since its premiere in April 2007, providing financial support and participating in outreach efforts. Now in its second season, PBS’s innovative program dedicated to getting children excited about engineering is garnering a significant amount of acclaim.

At the Daytime Emmy Awards in June, the show’s director won for Outstanding Directing in a Children’s Series. The show was nominated in three other categories, including Outstanding Children’s Series.

Later that month, the show’s producers accepted a George Foster Peabody Award, one of the highest honors in electronic media. The Peabody board noted that “Design Squad” is a true delight—educational television in the best sense of the term. This series...works because it recognizes and appreciates the intelligence of its intended audience.”

The *Design Squad Educator’s Guide* was awarded a 2008 Distinguished Achievement Award from the Association of Educational Publishers. This guide is one of a range of resources to help educators and engineers engage children in hands-on projects. More information about “Design Squad” can be found at [www.pbskids.org/designsquad](http://www.pbskids.org/designsquad).

“Promoting a positive image of the profession is essential to attracting a new generation of engineers,” said NCEES Executive Director Jerry T. Carter. “I’m proud that NCEES supports a program of such quality that is inspiring future engineers.”

# 2008 Annual Meeting motions

The following is a summary of the motions that Council members will vote on during this year's Annual Meeting business sessions.

## Advisory Committee on Council Activities

Move that an amendment to Constitution, Section 4.04, Elections and Terms of Office, addressing treasurer term limits be referred to a Special Committee on Constitution and Bylaws

Move that Council committee members and consultants be required to sign a conflict-of-interest statement (*Consent Agenda*)

Move that an amendment to Constitution, Section 5.04, Voting, addressing associate members as voting delegates be referred to a Special Committee on Constitution and Bylaws (*Consent Agenda*)

## Structural Exam Task Force

Move that the UPLG Committee be charged to revise the definition of Model Law Structural Engineer in the *Model Rules* to include an 8-hour, state-developed fundamentals of engineering exam as an acceptable alternative to the NCEES FE exam (*Consent Agenda*)

## Finances Committee

Move that the adoption of the 2008–09 operating and capital budgets be postponed until the last business session (*Consent Agenda*)

Move that FP 3, Travel Expenses, be amended to allow the president and president-elect to purchase business-class airfares for flights of three or more hours

Move that FP 9, Membership Fees, be amended to establish a new tier of membership fees for Member Boards with 150 or fewer registrants (*Consent Agenda*)

Move that FP 7, Guests of Annual Business Meeting, be amended to provide for the waiving of registration fees for each past president and his or her guest and the funding of travel expenses for each past president (*Consent Agenda*)

Move that FP 10, Unbudgeted Expenditures, be amended to increase the dollar limits for approval of unbudgeted expenditures (*Consent Agenda*)

Move that PS 15, Council Funds, be amended to add a designated reserve equal to the computed cost of a total exam breach

## Bachelor's Plus 30 Task Force

Move that a committee be charged with exploring the idea of creating a national clearinghouse to carry out activities needed to implement the B+30

Move that a committee be charged with incorporating *Model Rules* language to define B+30 terms (see next page for full text of proposed language)

Move that the UPLG Committee be charged with incorporating the M-ABET concept into the *Model Law* and *Model Rules*

## Committee on Uniform Procedures and Legislative Guidelines

Move that *Model Law*, Section 130.10, General Requirements for Licensure, and *Model Rules*, Section 210.20, Definitions, be amended to set 2020 as the earliest effective date for the B+30

Move that *Model Rules*, Section 230.40, Examinations, be amended to revise language related to credits above 120 being applied to the B+30

Move that *Model Rules*, Section 210.20, Definitions, be amended to clarify whether advanced degree holders can receive experience credit after the B+30 is implemented

Move that *Model Law*, Section 110.20, Definitions, A.1, A.2, and B.1, regarding the definitions of "engineer," "professional engineer," and "professional surveyor" be amended

The remaining UPLG motions resulted from the committee's scheduled *Model Law* review. (*Consent Agenda*)

## Computer-Based Testing Task Force

Move that the Council authorize a feasibility study of potential exam candidates regarding computer-based testing (CBT)

Move that the Council issue a request for information (RFI) to vendors regarding CBT logistics

## Constitution and Bylaws

*The following amendments incorporate language approved at the 2007 Annual Meeting.*

Move that Bylaws, Section 4.02, ACCA, be amended

Move that Constitution, Section 1.02, Definitions and Abbreviations, be amended

Move that Constitution, Section 3.02, Affiliate Member Boards; Section 3.033, Affiliate

Members; Section 3.06, Representatives; and Section 6.01, Fees, be amended

Move that Bylaws, Section 2.01, Annual Business Meetings; Section 4.01, Standing Committees; Section 7.01, Fees; Section 7.011, Fee Schedule; Section 7.012, Inactive Status, be amended

Move that Constitution, Section 3.031, Associate Members, be amended

## Governance Task Force

Move that the proposed NCEES Bylaws be adopted to replace the existing Constitution and Bylaws (*see article on page 10*).

## Exam Policy and Procedures Committee

Move that EAP 2, Examination Schedules, be modified to require that the NCEES security and compliance manager approve requests for deviation from the published exam schedule (*Consent Agenda*)

Move that EDP 7, Deletion of a Discipline or Module from the Examination Program, be modified to clarify the policy's scope and that the EPE Committee should review requests first (*Consent Agenda*)

Move that EAP 11, Security and Administrative Procedures, be modified to clarify that Member Boards and testing services should follow the NCEES *Security and Administrative Procedures Manual* (*Consent Agenda*)

Move that April 13–14 and October 26–27 be adopted as the 2018 exam administration dates (*Consent Agenda*)

Move that EAP 8, Release of Examination Results, be amended to indicate that NCEES exam scores are final after one year, except in cases of improper examinee conduct or risk to exam security

Move that EDP 1, Examination Titles, be amended to define Group I and II exams

## Board of Directors

Move that the NCEES executive director be authorized to negotiate contracts for exams and/or exam services with the American University in Cairo and the Korean Professional Engineers Association (two separate motions)

Move that FP 3, Travel Expenses, be amended to provide for Council funding of one delegate from each Member Board to attend the board's respective zone interim meeting

## B+30 motion to define acceptable coursework and approved course provider

At the 2008 Annual Meeting, the Bachelor's Plus 30 Task Force will present the following motion.

Move that the appropriate committee be charged with incorporating the following language into the *Model Rules*.

A. The term "acceptable upper-level undergraduate and/or graduate-level coursework" used in Section 130.10 C.1.c of the *Model Law* is interpreted to mean the following:

1. In technical topic areas, acceptable coursework shall be upper-level undergraduate and/or graduate-level courses in engineering. Some coursework may be in sciences and mathematics related to engineering.
2. In professional practice topic areas, acceptable coursework shall be relevant to engineering and may include but not be limited to business, communications, contract law, management, ethics, public policy, and quality.
3. All coursework shall be equivalent in intellectual rigor and learning assessment to upper-level undergraduate and/or graduate courses offered at institutions that have a program accredited by EAC/ABET.
4. At least half of the credits shall consist of coursework as defined in paragraph A.1 above.
5. The term "credit" is defined as 1 semester hour or its equivalent.

B. The term "approved course provider" used in Section 130.10 C.1.c of the *Model Law* is interpreted to mean the following:

1. An institution that has an EAC/ABET-accredited program. (Any of these institution's courses that meet paragraph A above would be acceptable.)
2. An institution or organization whose development, delivery, and outcomes assessment of coursework are accredited by an NCEES-approved accrediting body. (This institution/organization would be approved to develop and offer courses that meet paragraph A above. NCEES-approved accrediting bodies may include regional accreditation bodies and other appropriate discipline accreditations.)
3. An institution or organization that offers specific courses individually accredited by an NCEES-approved accrediting body. (This institution/organization would be approved to offer one or more specifically approved courses that meet paragraph A above.)

# Q&A: Whitman, Jans share vision for future of NCEES

**David Whitman,  
Ph.D., P.E.  
Candidate for  
President-Elect**

Member, Wyoming Board of Registration for Professional Engineers and Professional Land Surveyors; member, NCEES Committee on Examinations for Professional Engineers; participant, NCEES cut score study for FE exam; co-author, NCEES white paper “Using the Fundamentals of Engineering Examination to Assess Academic Programs”; member and committee chair, Wyoming Engineering Society; section coordinator, Mortar Board National Honor Society; recipient, Outstanding First-Year Student Advocate Award from the National Resource Center for the First-Year Experience and Students in Transition, Tau Beta Pi Outstanding Undergraduate Teaching Award from the University of Wyoming, John P. Ellbogen Meritorious Classroom Teaching Award from the University of Wyoming, and Outstanding Teaching Award from the American Society for Engineering Education Rocky Mountain Section; member, Order of the Engineer; professor of electrical and computer engineering at the University of Wyoming.

*What are your goals for the next two years as NCEES president-elect and then as president?*

Two of the issues that will be at the forefront of NCEES over the next two years will be the bachelor's plus 30 requirement and computer-based testing (CBT). The bachelor's plus 30 continues to be somewhat controversial. While almost everyone agrees that more education will be needed for the Engineer of 2020, a requirement of additional education only for those who choose licensure may not be the most effective solution. I will continue to work with ABET in any way possible to move that organization toward requiring additional education for all engineering graduates of accredited programs. This will be a difficult task and will require the help of everyone. With regard to CBT, I hope that we can find a way to successfully implement this method of giving the exams. We can learn from the other



professional organizations that have migrated to CBT to find a technical and economical solution.

*As an electrical engineering professor at the University of Wyoming, you have the opportunity to interact with engineering students far more often than the average Council member. How can NCEES better promote licensure to students in engineering programs, such as electrical engineering, that produce relatively low numbers of P.E.'s?*

I believe that licensure is most often driven by the marketplace. Those areas of engineering where licensure is required for personal promotion will continue to produce P.E.'s, and those where the industrial exemption dominates will not. However, getting students on the road to licensure during their college career is very important. At any given university, a culture that promotes licensure needs to be developed by the faculty. Therefore, we need to start with the faculty and get them to support the concept of licensure early on in the students' academic careers. At the University of Wyoming, we use the NCEES Speaker's Kit in both our freshman Orientation to Engineering course and many of our senior design courses as a way to introduce engineering students to the licensure process.

*Are there any potential changes to the Council's governance structure that could make NCEES more effective in addressing the unique challenges facing the engineering and surveying professions?*

I don't believe that we should change the current governance structure. NCEES is made up of *all* Member Boards and all should have the opportunity to vote on NCEES policies. With that said, we are all professionals and, if an issue to be voted on is not within a particular Member Board's purview, then I trust that it will abstain from that vote so as not to artificially point the Council in a particular direction.

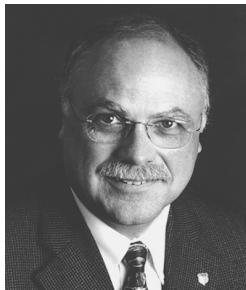
*Representing NCEES as its president requires a large commitment in terms of time and travel. What motivates you to serve in this capacity?*

I have been involved with the FE exam since 1996, when Past President John Steadman, Ph.D., P.E., got me involved with a cut score panel. I believe strongly that engineers have

an obligation to give back to their profession, and when the opportunity came in 2001 to serve on the Wyoming Board of Registration, I jumped at the chance. Over the past two years as the vice president of the Western Zone, I have truly enjoyed serving on the NCEES Board of Directors and look forward to representing NCEES the best way that I can in the future. I am grateful to the College of Engineering at the University of Wyoming for supporting my service on both boards.

**Dale A. Jans, P.E.  
Incoming Central  
Zone Vice  
President**

Vice chair and former chair, South Dakota Board of Technical Professions; former Central Zone assistant vice president; chair, Special Task Force on Governance; past chair, Awards and Finance committees; former member, Special Committee on Constitution and Bylaws; recipient, NCEES Distinguished Service Award; national life director, Associated General Contractors of America (AGC); former chair, AGC National Public Relations Committee; advisory board member, South Dakota State University (SDSU) Department of Civil Engineering; member, SDSU Foundation Council of Trustees; member, American Society of Civil Engineers; member, National Society of Professional Engineers; board member, Sioux Falls Development Foundation; board member, Better Business Bureau; board member, Goodwill Industries; president and owner, Jans Corporation.



*What issues do you plan to focus on as vice president?  
Do you have any specific goals for your term?*

I see my duties as Central Zone Vice President as twofold. First, I am the liaison between the Board of Directors and the members of the Central Zone. My duties will be to communicate the recommendations, issues, and concerns that members of the Central Zone have to the Board of Directors and the staff at NCEES and, conversely, to make sure the actions of the Board are clearly communicated to the Central Zone membership. Secondly, I will be active in serving the Council in whatever capacity President-Elect Rebane asks me. I come to this position without any personal agenda but simply to serve the Council and its membership in whatever capacity I can.

*What strategic issues do you think will be the most important to the Council and the Board of Directors during your term as vice president?*

Two items that I see as especially challenging are computer-based testing and the implementation of the bachelor's plus 30 requirement. Both of these issues have been discussed and worked on for several years. We are fast approaching the time where we will need to make specific decisions as to when we will implement those processes and how we will go about it. I think those two issues will have a long-term, major impact on the Council, and in order to be successful, they will have to be carefully and thoughtfully prepared before they are implemented. Another item that will be extremely important to the long-term success of NCEES is the relationship that we develop with foreign licensing groups.

*What role do you see for NCEES when it comes to representing the interests of Member Boards when dealing with foreign licensing bodies?*

In my opinion NCEES needs to be the leader in representing the interests of Member Boards concerning relationships with foreign licensing groups. With the expertise that NCEES has in evaluating foreign degrees, it seems logical that they would be the best qualified entity to work with foreign licensing groups. There would be substantial benefit to the Member Boards, especially when issues with comity are involved. The ability of NCEES to administer exams seems to be a good fit with the ability to evaluate foreign degrees. Most Member Boards do not have the capability to deal with these issues, and as our professions continue to become more global, it is imperative that we are at the forefront of these changes.

*Serving on the NCEES Board of Directors requires substantial time and travel. Why have you chosen to pursue serving as an NCEES vice president?*

I have been involved with NCEES for a number of years and have had the opportunity to chair several national committees. I feel that I have personally and professionally benefited from my experiences with NCEES and the people I have had the opportunity to meet. I think it is time for me to give back to the organization. Fortunately, my business life is in a position that allows me the opportunity to travel and spend time working for NCEES. It is a great organization, and I am willing to do what I can to help NCEES meet the challenges and opportunities that lie ahead.

**MISSION**

- ◆ Assist Member Boards in the promotion and promulgation of regulatory processes for engineering and surveying which demonstrate high standards of knowledge, competence, professional development, and ethics.
- ◆ Provide services to Member Boards that promote uniform licensing procedures which emphasize quality education, examination, experience, and continuing professional competency.
- ◆ Coordinate and cooperate among domestic and international organizations to promote licensure of all engineers and land surveyors.

NCEES Strategic Plan



AN AFFILIATE OF NCEES

## Document verification the key to academic fraud prevention

The process for verifying the authenticity of academic documents submitted in support of applications for licensure requires patience and extensive research. The staff at the Center for Professional Engineering Education Services (the Center) spends many hours doing this in its continuing efforts to combat academic fraud with regard to the engineering and surveying licensure process.

Careful verification is crucial because transcripts, diplomas, and similar documents sometimes arrive from universities without the necessary signatures. Occasionally, they are signed by faculty members who do not serve as archivist or registrar.

In countries experiencing extreme political instability, it is very important to find the appropriate avenue to contact the institution granting the degree to the licensure applicant. In one case involving an applicant who had studied in Iraq, the Center was able to locate the appropriate individuals in order to verify records from two institutions in that country.

The verification process remains the same regardless of whether applicants send the documents themselves or arrange for documents to be sent from the academic institution. Information such as the date of transport and the courier service used is important in ascertaining that documents purported to be sent directly from the institution were in fact sent from that location. Currently, the Center is reviewing the case of one individual with duplicate applications and two sets of transcripts. One reflects poor academic performance leading to a deficient application; the other features stellar grades that would lead to a program equivalency statement. The matter of who issued two separate sets of records in sealed envelopes remains a mystery, but we will continue to spend the time and efforts needed to investigate the issue. In situations such as this, the Center's main focus is to ensure that the Member Board receives accurate information upon which to base a decision on whether to admit the candidate for licensure exams.

Fraudulent documentation can come from many sources. Sometimes, a seal is copied and then discovered only due to omission of a small detail. Other times, someone working within the institution is responsible for the fraud. The latter is the most difficult to detect.

Knowledge of a country's accreditation process is another important aspect of the verification process. The professional qualifications of graduates of institutions in some countries have been found to be lacking. In some of those countries, educational authorities are implementing stricter measures to restore credibility in the quality of the institutions. Nigeria is an example of one such country. Its National Universities Commission has published on its Web site ([www.nuc.edu.ng](http://www.nuc.edu.ng)) a list of universities it says are "operating illegally without a license or official recognition from the Commission." Authorities in several other countries have informed the general public of institutional closings and reforms due to poor performance.

The Center maintains a database that tracks accredited and recognized institutions, and the staff updates it regularly. India's University Grants Commission, which is responsible for overseeing university-level education, also maintains a list of what it terms "fake universities." It can be found at [www.ugc.ac.in/inside/fakealerts.html](http://www.ugc.ac.in/inside/fakealerts.html). In the United States, employers and institutions need to be aware of the diversity of products and services offered through diploma mills.

At this year's Annual Meeting, I will be a speaker at a session devoted to the Center and exam administration. I encourage anyone interested in learning more about Center operations to attend. It is scheduled for Wednesday, August 13. As always, we at the Center are available to answer any questions Member Board members and staff have regarding foreign education and the verification process.

*Eva-Angela Adán  
Center Director*

# Civil PE candidate pleads guilty in exam theft case

On April 17, a one-time Principles and Practice of Engineering (PE) Civil exam candidate pled guilty to two counts of fourth-degree aggravated fraud in a Mayaguez, Puerto Rico, courtroom.

The candidate, Betzaida Cameron Ortiz, was dismissed from the 2006 PE exam administration after an exam proctor discovered her scanning an examination booklet. The chief proctor was notified and found that Cameron was concealing scanning and transmitting equipment beneath her clothing. After an investigation, agent Victor Perez of Puerto Rico's property crimes unit discovered evidence that Cameron had also recorded contents of the 2005 FE exam.

NCEES exam regulations prohibit cell phones, pagers, cameras, and any other recording device. Bob Whorton, P.E., NCEES security and compliance manager, says the regulations are in place to minimize the risk of incidents like this.

"We have strict exam policies in place that prohibit many personal items in the exam sites because technology can provide a dishonest candidate with opportunities to steal exam content," said Whorton. "We also rely on alert proctors to investigate any suspicious behavior they might see during the exam."

On May 27, Cameron was sentenced by Judge Arnaldo Irizarry to six months of probation for the crime. Local prosecutors had sought jail time for Cameron as well as restitution to be paid to NCEES for the loss of intellectual property.

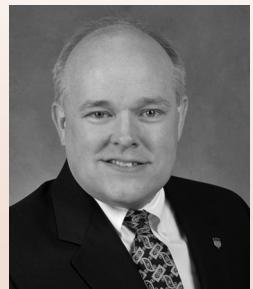
Among the witnesses presented by the prosecution were Whorton and Andrea Bledsoe of Professional Credentialing Services, a company that contracts with NCEES to supervise exam administration for engineering and surveying licensure candidates in Puerto Rico.

In its arguments, the prosecution said that several hundred exam items had to be removed from the NCEES exam item bank as a result of the defendant's actions. This resulted in costs exceeding \$1 million for new item creation.

Cameron was initially charged with two additional counts of appropriating intellectual property, but the charges were dismissed.

NCEES is currently involved in a civil suit that it has filed against Cameron.

"The Council will continue to pursue all available remedies to protect its examination content and to limit these types of incidents in the future," said Whorton. "That includes assisting authorities in criminal cases and pursuing civil suits against people who try to compromise exams."



*Bob Whorton, P.E.  
Security and Compliance  
Manager*

# UPDATE

## FAQs: Adopting the new NCEES Bylaws

*The following are the answers to some questions that have been raised regarding the anticipated adoption of the new NCEES Bylaws at the Annual Meeting this August. The Special Task Force on Governance will present the motion for adoption on Friday, August 15. For more on parliamentary procedure during the Annual Meeting, see the article on the back cover.*

**Why is NCEES merging the Constitution and Bylaws into a single document named the Bylaws?**

In short, for simplicity's sake. Legal counsel recommended that NCEES create a single document named the Bylaws to replace the dual documents currently used.

This is the principal reason the Special Task Force on Governance was constituted by then-president Louis Raimondi, P.E., L.S., in 2006. Last year, the Council approved a motion to revise the governing documents.

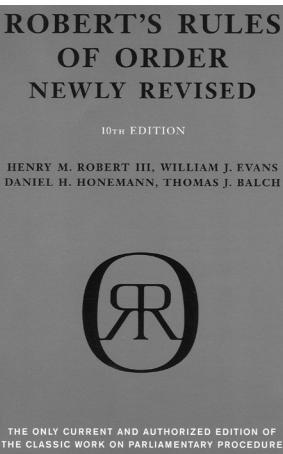
The result of this revision, the new Bylaws, will describe the rules under which the Council operates. *Robert's Rules of Order, Newly Revised*, advises not to maintain a Constitution separate from the Bylaws unless state or local laws require it (which they don't, in the case of NCEES).

The rationale behind this is that having the two documents in addition to the corporate charter can cause undo confusion and create potential conflicts with the corporate charter. Adopting a single document is standard practice among organizations similar to NCEES.

**Besides now being a single document, what else will change in NCEES governance?**

To say that the Council is adopting a "new" governing document is technically true, but it sounds more drastic than it really is. The new Bylaws contains all of the governing provisions that are currently in the Constitution and Bylaws. However, it is more organized

and concise than the current documents. A careful examination of the proposed Bylaws and the existing documents will show that some provisions have been rearranged in a more logical order. Also, redundant language has been trimmed. In some cases, language in the current Bylaws that complements language in the Constitution has been combined in a single article of the new Bylaws (see box on facing page for an example). It is designed to be a more efficient document that is easier for someone unfamiliar with the intricate details of Council governance to understand.



**Will the current Constitution and Bylaws need to be suspended at the Annual Meeting in order to consider the new Bylaws?**

No. Technically speaking, in terms of parliamentary procedure the new Bylaws is actually an amendment to the current Constitution and will be voted on as such. The document will be voted on in its entirety, and a two-thirds majority will be required in order for it to go into effect.

**Will delegates be able to make floor amendments to the new Bylaws?**

No. When the Governance Task Force moves to adopt the new Bylaws, the floor will be open to discussion, as it would be with any other motion. But because it amends the current Constitution, the vote will be to accept the Bylaws as is, without floor amendments. Once the new Bylaws is adopted (assuming it will be, since the Council voted overwhelmingly last year to authorize the revision process), it can be amended using the standard process in which proposed amendments are turned over to the Special Committee on Constitution and Bylaws (which would at that point be called the Special Committee on Bylaws).

## Combining the documents

In some instances, complementary language that was separated in the existing Constitution and Bylaws has been combined into a single article in the new Bylaws.

The following is an example. Currently, language describing the purpose of the organization is separated, with one section found in the Constitution and another in the Bylaws:

### Constitution, p.1

#### ARTICLE 2. Purpose.

**Section 2.01 Purpose.** - The purpose of this Council shall be to provide an organization through which state boards may act and counsel together to better discharge their responsibilities in regulating the practice of engineering and land surveying as it relates to the welfare of the public in safeguarding life, health, and property. The Council also provides such services as may be required by the boards in their mandate to protect the public.

### Bylaws, p.7

#### PART 1. Objectives.

**Section 1.01 Objectives.** - In the public interest, NCEES provides to licensing boards services which assist in the development and administration of the licensing process by promoting:

- (1) the improvements of licensing laws for engineering and land surveying, including the administration and effectiveness of these laws;
- (2) the uniformity of standards and practices used in engineering and land surveying licensure;
- (3) the general acceptance and recognition of comity for engineering and land surveying licensure among boards;
- (4) the definition and maintenance of nationally recognized licensing qualifications to become professional engineers and professional land surveyors;
- (5) the identification and observation of international engineering and surveying licensing procedures and the maintenance of a liaison with international licensing agencies;
- (6) the improvement and uniformity of standards for law enforcement and disciplinary action in engineering and land surveying licensing laws and their administration and;
- (7) the value of the licensure of engineers and land surveyors as it relates to the health, safety, and welfare of the public.

*In the new Bylaws found beginning on p. 151 of the Action Items and Conference Reports, these parts have been combined in Article 2, Purpose. The actual language remains the same.*

### Does the proposed Bylaws document reflect this year's motions from the Special Committee on Constitution and Bylaws?

Yes. If for some reason a Constitution and Bylaws Committee motion is not passed by the Council, then the proposed Bylaws will be changed to reflect that decision before it is considered. It's rare, however, that the Special Constitution and Bylaws Committee motions do not pass. To reach the committee, the proposed language has to have been presented to and approved by the Council at a previous Annual Meeting.

### What if I have questions about the new Bylaws?

Copies of the new Bylaws were distributed to Member Boards on January 31, 2008, in accordance with Constitutional requirements to provide notice at least 60 days prior to the first zone interim meeting. The new Bylaws is also found in the 2008 *Action Items and Conference Reports* (available on the CouncilNet home page) as an appendix to the report of the Governance Task Force. Anyone with questions about the new document is encouraged to contact the Governance Task Force chair, Dale Jans, P.E., or a member of NCEES staff.

# NCEES completes ANSI standard for Model Law Engineer

**N**CEES has published its first standard as an accredited standards developer with the American National Standards Institute (ANSI). The standard, MLE 1-2008, outlines the criteria for establishing competency to practice engineering. The standard, reprinted here, is found online at [www.ncees.org/asd.php](http://www.ncees.org/asd.php). This page also contains a link to submit feedback on the standard.

## MLE 1:2008

### Standards for Licensure as a Model Law Engineer

#### 1.1 Scope, purpose, need, and application

The scope of the standard covers the requirements for a Model Law Engineer. These standards have been vetted by the engineering community and are used to assess candidate qualification for professional licensure. It is the intention of NCEES to formalize these standards via the ANSI process.

The purpose of the standard is to provide guidance for uniform measures of competency as a Model Law Engineer in the practice of engineering for protection of the public. The standard is structured to facilitate adoption by regulatory bodies at the state, territory, and federal levels. Uniformity of guidelines is needed in engineering practice to better assure the public that persons engaged in the work of evaluating, planning, designing, building, or updating roads, bridges, buildings, vehicles, public transportation systems, wastewater systems, utilities, communication systems, or industrial or consumer products (or any other project that requires engineering training and education) are qualified to do such work. Because engineering services and their products are used by the public, it is important that the regulatory community seek comity in standards to provide uniformity in criteria for the practice of engineering to protect the public and its trust of engineering systems. The standards are applicable to all disciplines of engineering and in all practice settings. The widespread adoption of such uniform standards will promote public safety and simplify cross-boundary and multi-jurisdictional licensure of engineers.

#### 1.2 Specifications

This standard specifies the criteria for a Model Law Engineer. Such criteria provide for the public safety in the practice of engineering and include standards for uniformity in the education, experience, and examination requirements of candidates for engineering licensure. The standard provides the recommended procedures and criteria for demonstrating professional competency in engineering practice. Research conducted by NCEES clearly indicates that these specifications, which consist of a combination of education, experience, and examination, are needed to complete the requirements for competency in engineering practice.

The standard specifies that to practice the profession of engineering as a Model Law Engineer in any discipline, the following minimum requirements must be met by each individual who is a candidate for licensure:

#### Step 1: Graduation

The first step is graduating from an ABET-accredited engineering program at a college or university. ABET, Inc., is the nationally recognized accrediting organization for engineering and technology curricula.

#### Step 2: FE examination

The first examination in the licensure process is the NCEES Fundamentals of Engineering (FE) examination. After passing this examination, the candidate is classified as an intern, known as Engineer Intern (EI) or Engineer-in-Training (EIT).

#### Step 3: Work experience

After passing the FE examination, the licensure candidate must gain four (4) years of experience under the supervision of a professional engineer, and that experience must involve increasing levels of responsibility.

#### Step 4: PE examination

After passing the FE exam and meeting and documenting the required experience, the candidate is eligible to take the second examination in the licensure process, the NCEES Principles and Practice of Engineering (PE) examination. This examination is given in a variety of engineering disciplines.

After completing all four steps in the engineering licensure process a candidate is eligible for licensure by a jurisdictional licensing board. Once the candidate is granted licensure, he or she may use the distinguished designation Professional Engineer, or P.E.

#### **Step 5: Model Law Engineer Designation**

Once an individual has obtained licensure in at least one jurisdiction by satisfying steps 1 through 4, he or she is eligible for the designation Model Law Engineer.

#### **2. Referenced publications**

Users of the standard are to reference the latest editions of the following NCEES documents for updates and specifications: *Model Law, Model Rules, Manual of Policy and Position Statements*.

These publications are produced by NCEES and are available for download from its Web site ([www.ncees.org](http://www.ncees.org)); by writing to NCEES at P.O. Box 1686, Clemson, SC 29633-1686; or by phoning NCEES at 800-250-3196.

#### **3. Definitions**

NCEES: National Council of Examiners for Engineering and Surveying, the recognized engineering and surveying licensure body for the United States and territories and the ANSI-approved standards development officer (SDO) for standards in the field of professional credentialing in engineering and surveying

**Licensure:** The process of qualifying persons for practice as mandated by law and in legally recognized professions

**Professional Engineer:** The designation legally signifying a person who has been duly licensed by a U.S. jurisdiction to offer or provide engineering services to the general public

**Model Law Engineer:** The designation signifying a person who has been qualified through this standard and who has obtained licensure as a Professional Engineer in at least one jurisdiction

#### **4. Metric**

The metric system is used in the majority of assessments referred to in this NCEES standard. NCEES standards will use the metric system where it is compatible with the systems in effect that govern the practice of engineering.

#### **5. Review**

The ANSI Standards Task Force of NCEES has reviewed this standard and determined that it is technically sound and valid for publication to interested parties.

#### **6. Codes**

There are no codes required as reference for users of this standard.

*Member Board*

# NEWS

**Colorado**

- ◆ The board's mailing address is 1560 Broadway, Suite 1500, Denver, CO 80202

**Delaware LS**

- ◆ Debbie Heinsch ([Debbie.heinsch@state.de.us](mailto:Debbie.heinsch@state.de.us)) is the new board administrator for the Delaware board.

**Georgia**

- ◆ The Georgia board's new phone number is (478) 207-2440.

**Michigan LS**

- ◆ George Y. Karmo, P.E., is a new appointee to the board. M. Regine Beauboeuf, P.E., is no longer on the board.

**Michigan PE**

- ◆ Charles Dulic, P.E., and Keith Swaffar, P.E., are new appointees to the board. M. Regine Beauboeuf, P.E., and Ronald Hausmann, P.E., are no longer on the board.

**Missouri**

- ◆ Kevin C. Skibiski, P.E., P.L.S., is a new appointee to the board. Cheri J. Leigh, P.E., is no longer on the board.

**Montana**

- ◆ The new phone number for the Montana board is (406) 841-2351.

**New Mexico**

- ◆ Elena Garcia has retired as executive director of the board. Edward Ytuarte, P.E., P.S., is the board's new executive director.

**Oklahoma**

- ◆ Ted Sack, P.L.S., is the new board chair. Bill McVey, P.E., has been reappointed for another 6-year term with the board.

**Oregon**

- ◆ Ken W. Hoffine, P.E., P.L.S., is a new appointee to the board. Ronald E. Stuntzer is no longer on the board.

**Rhode Island LS  
and PE**

- ◆ The contact information for the Rhode Island LS and PE boards is now 1511 Pontiac Avenue, Building 68-2, Cranston, RI 02920, Phone: (401) 462-9595, Fax: (401) 462-9532.

**Virginia**

- ◆ Kathleen (Kate) R. Nosbisch is the new executive director of the Virginia board.

**Wisconsin**

- ◆ Tim Wellnitz is no longer bureau director for the Wisconsin Board of Engineering and Land Surveying. The position is currently vacant.

# FORUM

I am writing to correct two inaccuracies in the points made regarding the Architect Registration Examination (ARE) in the article "CBT Task Force considers shifting NCEES exams to computer format" in the June 2008 issue of *Licensure Exchange*.

In the article, David Curtis, P.E., writes

The licensure exam administered by the architects currently consists of seven divisions offered throughout the year. Recently, the exam length has been reduced. Candidates must pass all seven divisions within a rolling five-year window. If a candidate does not pass all seven divisions within that five-year window, his or her scores are voided and the candidate must start over.

More accurately, the ARE currently consists of nine divisions offered throughout the year. Recently, work was completed to reduce the exam length to seven divisions. Beginning July 1, 2008, new candidates will take the seven-division ARE version 4.0, while those already testing in ARE version 3.1 may continue taking the nine-division exam through June 30, 2009.

Candidates attempting the ARE must pass all divisions within a rolling, five-year window. If a candidate does not pass all seven divisions within that five-year window, his or her score for any division taken outside that window is voided and the candidate must retake that division.

In addition, the statement in the article that "the volume of candidates has rebounded somewhat since the initial decline" is misleading. In 1998, the first fiscal year of computer based testing, we administered only 19,573 exam divisions. In fiscal year 2007, we administered 43,226 exam divisions. In fiscal year 2008, which ends this month, we anticipate reaching 50,000 administrations.

*Lenore M. Lucey, FAIA  
Executive Vice President,  
National Council of Architectural Registration Boards*

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

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# Parliamentary procedure guides Annual Meeting business sessions

**D**uring this year's Annual Meeting in Minneapolis, one of the major items of business to be conducted by delegates will be the consideration of the new NCEES Bylaws (for more detail on the process, see pages 10–11 in this issue). The motion to adopt the new Bylaws will be made by the Special Task Force on Governance.

Like other procedures followed during Annual Meeting business sessions, the process for adopting the revised Bylaws is dictated by *Robert's Rules of Order, Newly Revised*. The book, widely used as a resource by societies like NCEES throughout the country, serves as the Council's parliamentary authority. Under the current NCEES Bylaws Section 2.06, Rules of Order,

The Council shall be governed by the most recent edition of *Robert's Rules of Order, Revised* when not in conflict with the Constitution of the Council or these Bylaws. The presiding officer shall rule on all questions pertaining to the Constitution, Bylaws, and Rules of Order in the conduct of the meetings.

In its more than 700 pages, *Robert's Rules of Order* covers the range of parliamentary procedure topics, from the duties of the executive board to the publication of minutes to the minutiae of all types of motions.



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