

AN OFFICIAL NCEES PUBLICATION FOR THE EXCHANGE OF INFORMATION, OPINIONS, AND IDEAS REGARDING THE LICENSURE OF ENGINEERS AND SURVEYORS

## HEADQUARTERS UPDATE

# NCEES REINTRODUCES ITSELF WITH BRANDING CAMPAIGN

## New look, logo kick off integrated marketing plan

JERRY T. CARTER  
EXECUTIVE DIRECTOR



**A**t the Annual Meeting this month, NCEES launches its rebranding campaign, rolling out a new look and feel for the organization. This is more than a cosmetic change; it is an integral part of a larger integrated marketing plan to unify our services and align our marketing with the strategic goals of NCEES. The ultimate goal is to better support our mission and provide better service to our constituents.

The new look for our communications, including *Licensure Exchange*, is designed to visually represent NCEES and the people it serves.

The logo is based on schematic drawings. It combines hand-written and vector-based graphics to depict the balance between technology and the dedicated, creative people behind that technology.

The new colors reflect the whiteboards, field notebooks, and graph paper that are associated with the work of engineering and surveying. The handwritten diagrams and images that you

will see throughout NCEES publications are taken from the notebooks of engineers and surveyors. These elements visually connect the organization with the professions it serves.

Since its founding in 1920, NCEES has grown organically, adding services as the market demanded. While examinations for engineering and surveying licensure are still a primary concern for us, we offer a range of services other than examinations for our constituents.

Accompanying the logo is a new tagline: advancing licensure for engineers and surveyors. In defining the organization, we wanted something simple that encapsulates everything NCEES does. It's not easy to describe NCEES in six words—the organization's name isn't even limited to six words—but this tagline will succinctly introduce NCEES to the public.

### Bringing our services together

We have categorized our services into sub-brands defined by how our constituents use them, rather than by internal structure. These sub-brands will be used to unify the organization and will make it easier for our external audiences to connect the NCEES name to its various services.

We are changing the names of some of our services to bring them in line with this brand structure. ELSSES, which has recently been dissolved as a separate LLC, will be NCEES Exam Administration Services. The Center for Professional Engineering Education Services will be known as NCEES Credentials Evaluations. The following provides a breakdown of services:

**NCEES exams**—exam development, administration (previously known as ELSSES), scoring, and study materials

**NCEES records**—Records Program

**NCEES licensure**—licensure outreach and promotion

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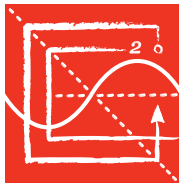
# HEADQUARTERS UPDATE

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**NCEES credentials evaluations**—previously known as the Center for Professional Engineering Education Services

**NCEES international**—includes the international registry and foreign exam administration

We will also now only use the name NCEES in our communications. The name National Council of Examiners for Engineering and Surveying still exists legally, but using our initials allows the organization's name to encompass more. Since its founding in 1920,



**NCEES**  
*advancing licensure for  
engineers and surveyors*

*The new logo is based on schematic drawings. It combines hand-written and vector-based graphics to depict the balance between technology and the dedicated, creative people behind that technology. Accompanying the logo is a new tagline: advancing licensure for engineers and surveyors.*

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## What's ahead?

This fall, we will continue developing the integrated marketing plan to help us better direct our resources to meet the strategic goals most important to our organization. We will begin introducing new promotional campaigns for NCEES services, including Records, study materials, and licensure promotion. The different campaigns will all tie together, which will bring a consistent

message to our audiences from one service to another. Our marketing strategy will strengthen the NCEES brand, building on the organization's trusted reputation. In short, it will go a long way toward helping us advance licensure for engineers and surveyors.

## Makeover for [ncees.org](http://ncees.org)

The Annual Meeting workshop Communicating with the Next Generation of Licensees will provide an overview of the features of the new Web site, which launches this fall. The revamped site will be easier to navigate and will provide much better access to NCEES information and services.

## Member Board roster on CouncilNet

The Member Board roster is now available online on CouncilNet (password protected). Having the roster online instead of in printed form will be more convenient because it will provide members with the most up-to-date information on boards.

## New addition to exam development

Bruce Martin, P.E., joined NCEES as an exam development engineer in June. He oversees the development of Principles and Practice of Engineering exams in structural, control systems, and agricultural engineering.



A native of Greenville, South Carolina, Bruce is a graduate of Clemson University, where he received his degree in civil engineering. He is licensed in South Carolina. Prior to joining NCEES, Bruce worked in the private sector in the design and management of industrial facility projects throughout the United States and in Mexico and China.

$$v_2 = \frac{20 \text{ km}}{\text{min}} \times \frac{1 \text{ m}^3}{1000 \text{ L}} \times \frac{1}{(\pi)(0.5)^2} \times \frac{10,000 \text{ cm}^2}{1 \text{ m}^2} \times \frac{1 \text{ min}}{60 \text{ s}}$$

$$v_2 = 4.24 \text{ m/s}$$



HENN REBANE, P.E.  
2008-09 NCEES PRESIDENT

## FROM THE PRESIDENT

# Board takes action to limit out-of-state proctoring

**N**CCEES is in the final stages of preparing for the Annual Meeting, an event that culminates the activities of the past year and to a large extent sets the agenda for the coming year. For me, it means I am in the final weeks of my term as president before passing the gavel to President-Elect Whitman. I am excited about the direction the Council is moving, and I look forward to supporting Dave and continuing my service on the Board as immediate past president.

### Changes to proctoring out-of-state candidates and to exam fee structures

At its most recent meeting, the Board of Directors took two actions that will impact future exam administrations. The first pertains to the practice of Member Boards proctoring exams for out-of-state candidates. This practice initially was allowed as an accommodation to military personnel, but it has since become more widespread and includes a large number of candidates who attempt exams in states where they do not plan to pursue licensure.

Proctoring exams for out-of-state candidates has created vast logistical difficulties in preparing candidate rosters and providing score reports and invoices to boards in a timely manner. It has also introduced questions about which state has authority to discipline a candidate attempting an exam under this arrangement. Therefore, the Board voted that, beginning with the October 2010 exam administration, NCEES will not recognize proctored candidates with the exception of members of the U.S. military. What this means on a practical level is that NCEES will no longer segregate the score reports and invoices for proctored candidates. If an examinee sits for an exam in South Carolina,

for example, his or her score and exam fees will go to the South Carolina Board, even if the candidate is applying for licensure in North Carolina.

Also beginning with the October 2010 administration, NCEES will simplify its fee structure for all jurisdictions that contract with NCEES for exam administration services. The fee will be \$70 for each FE or FS exam, \$100 for each PE or PS exam administered by NCEES. The Structural exam fee will be determined after the Council votes on the 16-hour Structural exam at the Annual Meeting.

### Lifelong professional learning

I recently attended a National Academy of Engineering workshop that dealt with current practices in lifelong learning for engineers. It identified several issues of interest to stakeholders and policymakers across the profession. It is evident that there is no shortage of opportunities for engineers seeking continuing education opportunities. Difficulties arise in coming to a consensus on how we can measure the quality of learning that takes place and on the appropriate amount of coursework to ensure professional competence, not to mention applying these ideas to licensure.

Finally, NCEES continues to promote licensure within academia, and the new NCEES Engineering Award is designed to help raise student and faculty awareness of the benefits of licensure. We will soon begin the second annual cycle of the award and expect to receive a large amount of interest based on the success of the inaugural award. You can find out more about the award and read what the winning schools are saying about it online at [www.engineeringaward.com](http://www.engineeringaward.com).

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## Review of NCEES Enforcement Exchange improves service

Using Enforcement Exchange can strengthen the application review process and provide information that can be used at a board's discretion.

The Law Enforcement Committee was recently charged to evaluate the effectiveness of the NCEES Enforcement Exchange and to provide recommendations to enhance the program.

Enforcement Exchange is a Web-based database that allows jurisdictional licensing boards to enter disciplinary actions taken against violators and to review disciplinary actions posted by other participating jurisdictions. Since its creation in the early 1990s, it has proven to be a tremendous resource for agencies seeking information on licensure applicants and on licensees who may have been subject to disciplinary action in other jurisdictions. Participating agencies post actions at their discretion. This information typically consists of identifying information, agency case number, violation, penalty, and whether it is an original or reciprocal disciplinary action.

While the Law Enforcement Committee recommends agencies post all disciplinary actions, it is not unusual for jurisdictions to participate at varying levels. A recent poll showed the average number of entries for participating agencies is almost 80, with some jurisdictions submitting hundreds of violators. The database currently contains over 3,500 postings. The committee looked at why agencies do not post their disciplinary actions on Enforcement Exchange. The reasons cited include

- Not being allowed by statute or policy
- Lack of awareness about the program
- Insufficient staff to post the information
- Lack of understanding about how to use the program

To make the program more user-friendly, NCEES staff is currently working with members of the Law Enforcement Committee to update the program. The updates will include the ability to search by type of violation and license, a facility for submitting documents associated with the violator, and an onscreen help function to assist with posting information to the database.

The Law Enforcement Committee will include a presentation about the database in the Saturday afternoon session of the Law Enforcement Program at the 2009 Annual Meeting. The presentation will focus on investigative tools available to Member Boards, which include Enforcement Exchange, NCEES manuals, and the Law Enforcement Directory. NCEES IT Director Steven Matthews will demonstrate the updated Enforcement Exchange and lead a discussion of its effective uses, including reporting violations and disciplinary actions.

Using Enforcement Exchange can strengthen the application review process and provide information that can be used at a board's discretion. If your board does not currently participate in Enforcement Exchange, I strongly urge you to try the updated program when it launches this fall. By sharing information on disciplinary actions, we can work together to better protect the public from unlawful or unethical practice.

*Enforcement Beat is a new Law Enforcement column that will run in Licensure Exchange each issue. If you have suggestions for column topics, e-mail the Licensure Exchange editor at [dmcguirt@ncees.org](mailto:dmcguirt@ncees.org).*

# Court awards damages to NCEES in exam theft case

## Civil suit judgment is over \$1 million

**T**he U.S. District Court in Puerto Rico has ruled in favor of NCEES in a civil suit involving damages exceeding \$1 million. The judgment resulted from the case of a civil engineering licensure candidate who was found with recording and transmitting equipment during the October 2006 administration of the Principles and Practice of Engineering exam in the city of Mayaguez.

The candidate, Bethzaida Cameron Ortiz, was discovered during the afternoon session of the administration after a proctor noticed her unusual behavior. The chief proctor at the exam site confronted Cameron, 44, and discovered that the defendant was concealing a host of recording and transmitting devices within her jacket and handbag.

Working with materials provided by law enforcement, NCEES determined that Cameron had recorded the Civil PE exam and established that she had performed a similar operation with the FE exam, which records show she attempted in October 2005 at the

**“Like any organization that develops standardized tests, NCEES’s most valuable asset is its intellectual property.”**

same location. As a result of these exam breaches, NCEES had to remove all compromised material from its exam item banks, resulting in the damages awarded in the civil



*The defendant was discovered concealing a host of recording and transmitting devices within her jacket and handbag, including a wireless audio/video transmitter, a small video camera, a receiver, a pocket video recorder, a device used to connect video cameras to a television or computer, and battery packs.*

suit. In estimating damages, NCEES takes into account the time, travel, and work hours required of NCEES staff, psychometric consultants, and subject-matter experts who are involved with the development and review of exam content.

“Like any organization that develops standardized tests, NCEES’s most valuable asset is its intellectual property. When someone steals exam content, the effects are the same for us as they would be for a retail store that has its assets stolen,” said NCEES Executive Director Jerry Carter.

NCEES develops and enforces stringent policies to protect exam content, including limiting the materials candidates are allowed to bring to the exam site. Before attempting an NCEES exam, each candidate is required

to sign a statement affirming that he or she will not copy or reveal any exam material.

Prior to the judgment in the civil suit, Cameron was convicted of fraud in criminal court as a result of the incident. She is prohibited from attempting any NCEES exam in the future.

“The fact that we are a nonprofit that assists licensing boards means that this event in some way has affected everyone in the engineering and surveying professions and, ultimately, the public,” said Carter.

“We are pleased that this judgment was reached, and we are confident this will serve as a deterrent for anyone who might consider stealing exam content in the future.”

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$$110,288 - 27,712$$

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## Q&A: BOARD NOMINEES AND INCOMING ZONE VPs

# Council to elect president-elect, treasurer and induct new zone vice presidents at Annual Meeting

The Council will vote for president-elect and treasurer at the Annual Meeting on August 15. The Committee on Nominations submitted Joe Timms, P.E., as the only nominee for president-elect and Gene Dinkins, P.E., P.L.S., and Skip Harclerode, P.E., as nominees for treasurer. The terms of the Northeast and Southern Zone vice presidents expired this year, and the respective zones elected David Widmer, P.L.S., as the incoming Northeast Zone vice president and Govind Nadkarni, P.E., as incoming Southern Zone vice president.

### NOMINEE FOR PRESIDENT-ELECT

**Leonard (Joe) Timms Jr., P.E.,**  
**West Virginia State Board of**  
**Registration for Professional**  
**Engineers**

*NCEES Experience: Northeast Zone Vice President (2007–09), Committee on Uniform Procedures and Legislative Guidelines Board of Directors' Liaison (2007–09), Bachelor's Plus 30 Task Force Board Liaison (2007–08), Committee on Law Enforcement Member (2004–07), Committee on Finances Member (2002–03), Computer-Based Testing Oversight Group Member (2000–01).*

### What have you learned about NCEES as a result of serving as Northeast Zone vice president?

After serving two years on the NCEES Board representing the Northeast Zone, I am

pleased to be nominated as president-elect by the zone. The last two years have been an invaluable learning experience and an introduction to the requirements of the office of president-elect. I am looking forward to serving with mixed emotions because of many factors: the unique opportunity to serve the profession; the realization that it will take many hours of travel, meeting preparation, and spending a lot of time in airports; the awareness of the impact that NCEES can have on the future of the profession; and finally, the inspiration that comes from knowing how many engineers and surveyors are giving willingly of their time to help ensure the safety of the public.

### What issues are of particular interest to you as you look ahead to the next two years?

I hope to be able to concentrate some special efforts in several areas. First, I want to continue to improve our communication with NCEES stakeholders. These include but are not limited to state boards, students, faculty, registrants, founder societies, ABET, and the public we are sworn to protect.

Second, I want to begin a comprehensive review of the industrial exemption. This is one of the biggest deterrents to increasing the number of licensees. The exemption doesn't make sense, and we need to review why we even have it in our *Model Law*. Some

think this is tilting at windmills, but I think that if we can make a good case, the public will support a change.

Third on the list is bringing to a conclusion the two outstanding issues that are currently assigned to special task forces. I hope that the work of the Computer-Based Testing Task Force and the Engineering Education Task Force can be completed. The Computer-Based Testing Task Force is completing its work, and the Council should be able to determine whether it is beneficial to move in this direction. Questions remain to be answered regarding whether the costs will justify the benefits and whether the tests will be affordable.

The Engineering Education Task Force has presented its work before the Council on three separate occasions, and each time the Council has voted to require additional education for engineering licensure. As always, the devil is in the details, and the task force continues to work on those details.

The final area of focus is to continue to bring to the Council those issues that support the Council's mission. NCEES staff, the standing committees, and the special task forces are always looking for ways that the state boards can better protect the public welfare. I am hopeful that we can continue to maintain that spirit of openness and innovation.



(LEFT TO RIGHT) 2009-10 PRESIDENT-ELECT NOMINEE JOE TIMMS, P.E.; 2009-11 TREASURER NOMINEES GENE DINKINS, P.E., P.L.S., AND SKIP HARCLERODE, P.E.; 2009-11 NORTHEAST ZONE VICE PRESIDENT DAVID WIDMER, P.L.S.; NOT PICTURED: 2009-11 SOUTHERN ZONE VICE PRESIDENT GOVIND NADKARNI, P.E.

## NOMINEE FOR TREASURER

### Gene Dinkins, P.E., P.L.S., South Carolina Board of Registration for Professional Engineers and Surveyors

*NCEES Experience: Southern Zone Vice President (2007–09), Committee on Exam Audit Board of Directors' Liaison (2008–09), Computer-Based Testing Task Force Board Liaison (2007–09), Sustainable Building Design Task Force Board Liaison (2008–09), Committee on Examinations for Professional Surveyors Board Liaison (2007–08), Advisory Committee on Council Activities Member (2005–07), Governance Task Force Consultant (2006–07), Surveying Exam Development Committee Volunteer.*

#### What challenges are connected with overseeing the finances of a nonprofit organization such as NCEES?

NCEES is a powerful and dynamic organization. However, its role is different from most nonprofit organizations because its role is to protect the health, safety, and welfare of the public by administering examinations to engineers and surveyors. We can fulfill this role by making sure that the Council remains financially strong. We can accomplish this by making sure that we have adequate reserves available in case of an emergency of any kind.

We must always plan for and be prepared to deal with the unexpected. A prime example of this is the 2006 exam breach that took place in Puerto Rico. To be ready for a similar occurrence, we must have adequate reserves. I fully support and endorse the current Board of Directors' position to have

\$6.2 million in reserves in the event of an exam breach.

I also fully support the Board of Directors' position to have a reserve of 75 percent of a year's operating expenses in case of an emergency. Estimating current-year expenses and projecting a \$1 million surplus at the end of the fiscal year, we are still about \$2.8 million short of our target reserves amount. As a member of the Board of Directors for the last two years, I always voted to fully fund both our exam breach fund and the 75 percent reserves fund. If elected treasurer, I will continue to strive to have the Council reach this goal. Since the role of the Council is critical in licensing engineers and surveyors, I believe that these reserves are important in protecting the nation's economy and well-being.

#### Regarding the investment of NCEES reserves, what lessons can be learned from the recent turbulence in financial markets?

The recent turbulence in financial markets has emphasized the importance of diversification. We never know and never will know what may occur in the future. We must have our funds in multiple institutions to ensure the safety of our principal. We also must realize that the Council needs to have a long-term vision and must stay the course. I am convinced that our country and economy will successfully come out of this downturn and will be stronger in the long run. If the Council has diversified funds and accounts with solid institutions, our investments will be sound in the long term. I was very concerned when it was brought to my attention last year that the majority of the Council's funds

were in one financial institution. While on the Board of Directors, I have been very supportive of the policy change in which our accounts were taken from a single bank and divided among several other institutions.

#### What can you do as treasurer to ensure the continued financial viability of NCEES?

The role of the treasurer is to know as much as possible about the finances of the Council. As a member of the Board of Directors, I have reviewed and studied all of the financial statements very carefully. I think the best way for an organization to stay within budget is to carefully watch and control expenses. As treasurer, I will review every cost center departmental budget to see if there are ways to increase revenues or decrease expenses. In particular, there are a couple of budget items that I will analyze very carefully to see if there is any way to better control our expenses for these services.

We must also be mindful that when an organization is in a strong financial position, it is very easy to indiscriminately add funding for additional items to the budget. It is much harder to remove items in the future once they have been funded. I have been very careful in my consulting business to watch expenditures carefully and will do the same if elected treasurer. In addition, my proximity to NCEES headquarters (a two-hour drive) will allow me to make frequent, in-person trips to Council headquarters if necessary. We are a member-run organization, and we

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## Q&A: BOARD NOMINEES AND INCOMING ZONE VPs

*Gene Dinkins Q&A continued from page 7*

must stay that way. As treasurer, I will make sure that all of our financial matters are totally transparent to all Council members.

### Serving on the NCEES Board of Directors requires a considerable amount of time and travel. Why do you want to be treasurer?

The lifeline of every organization, profit or nonprofit, is the financial strength of the organization. I will utilize my 30-plus years' experience in running every aspect of a consulting engineering and surveying firm to guide me as treasurer of NCEES. I have taken a great interest in the financial matters of this organization for the last two years and have studied the financial statements and balance sheets in order to fully understand the finances of the Council. My role will be to help ensure the future viability of Council.

I chose to get involved both with the South Carolina Board and with the NCEES Board of Directors because I believe that it is important to contribute to our professions in every way possible. I have been licensed as an engineer and surveyor for over 30 years, and I believe my perspective as president of an engineering and surveying consulting firm will be beneficial as treasurer. I have traveled extensively over the last two years while serving as Southern Zone Vice President. I have structured the leadership of my firm to have qualified persons in my office while I am traveling to serve NCEES. I am ready to make the commitment as treasurer in order to promote the advancement of the engineering and surveying professions.

### NOMINEE FOR TREASURER

#### **Howard (Skip) Harclerode II, P.E., Maryland State Board for Professional Engineers**

*NCEES Experience: Northeast Zone Assistant Vice President (2007–09); Engineering Education Task Force Member (2008–09); Bachelor's Plus 30 Task Force Ex-Officio Member (2007–08); Committee on Uniform Procedures and Legislative Guidelines Consultant (2008–09), Chair (2006–08) and Member (2004–06); Fire Protection/Design Build Task Force Member (2003–04); Chemical PE Exam Development Committee Volunteer.*

### What challenges are connected with overseeing the finances of a nonprofit organization such as NCEES?

Income generated from fees that are charged for services provided must match as closely as possible the expenses incurred by NCEES to provide the specific service, whatever that might be. However, we must also remember that NCEES needs to generate a positive margin to fund many of its member services. It becomes a delicate balancing act to not add programs and expenses simply because there is money to pay for them.

The development of realistic budgets must reflect the actual expected expenditures as closely as possible. This requires a substantial effort by those individuals involved in the process to obtain the best information available to set these budgets. Of particular concern seems to be the deficit of the Council's credentials evaluations service. It is doing a good job of providing a needed service. The question is whether this can be done without

incurring deficits of one-half to three-quarters of a million dollars per year. I believe it can and that a business-like approach is needed to bring those costs under control. It is important to note that the treasurer's role also includes being one of the eight full voting members of the Board of Directors. It is important to have a treasurer whose interests and knowledge extend beyond just the financial aspects of NCEES.

A constant challenge for the treasurer of a nonprofit organization such as NCEES is to ensure that any financial activity of the organization does not jeopardize the nonprofit status of the organization. Another constant challenge for the treasurer of a nonprofit organization such as NCEES is to consistently review the requirements for reserve funds, both in total fund amounts as well as the scope of coverage of all organization activities.

### Regarding the investment of NCEES reserves, what lessons can be learned from the recent turbulence in financial markets?

With respect to the investment of NCEES reserve funds, the treasurer is responsible for obtaining the best return on investment possible for these reserve funds at the lowest possible investment risk. This involves continual monitoring and evaluation of all potential investment vehicles considered. A thorough review of financial strength and stability of investment vehicles for these reserve funds must be an ongoing process during the life of the investment to ensure the financial viability of NCEES. I believe my



$$F = Q_B \rho V_B - Q_C \rho V_C = \rho \frac{\pi D_B^2}{4} V_B^2 - \rho \frac{\pi D_C^2}{4} V_C^2$$

outside business experience has more than qualified me in these matters.

### What can you do as treasurer to ensure the continued financial viability of NCEES?

If I can adequately address the challenges described earlier and perform the expected due diligence required in investing NCEES reserve funds, I believe NCEES will continue to be financially viable. I believe there are areas in which we can save money without jeopardizing the quality of services. The treasurer needs to play a key role in matters under consideration such as computer-based testing, which could dramatically alter the NCEES revenue stream. I believe it is also necessary to further develop other services, such as the Records Program and the approved course providers program, to diversify the NCEES income stream and make it less dependent on exams and exam-related revenue.

### Serving on the NCEES Board of Directors requires a considerable amount of time and travel. Why do you want to be treasurer?

I am seeking the office of treasurer to obtain experience on the Board of Directors and serve NCEES. My present work status allows me all the time necessary to fulfill the commitment of the treasurer's position. My intention after two years as treasurer is to run for election to the office of Northeast Zone vice president in 2011 and ultimately president-elect in 2013. These two years would provide added experience with respect to finances and Board activities.

### 2009-11 NORTHEAST ZONE VICE PRESIDENT

#### David Widmer, P.L.S., Pennsylvania State Registration Board for Professional Engineers, Land Surveyors, and Geologists

*NCEES Experience: Committee on Uniform Procedures and Legislative Guidelines Member (2008-09), Committee on Nominations Member (2007-08), Governance Task Force Member (2007-08), Committee on Finances Member (1997-98).*

### In your opinion, what is the most important long-term issue NCEES will address during your term on the Board of Directors?

The most important long-term issue currently facing the Council is the additional education requirement. The issue has been debated, re-debated, and probably will be debated a few more times before we place the issue to rest one way or another. Within my own board in Pennsylvania we have never had a unanimous decision on the B+30 issues. The differences in opinion are what make NCEES a great organization.

There is no doubt that the Council has a diverse group of representatives who come from all areas of the professions. Many have advanced degrees, and some have no post-secondary education at all. This does not mean that the opinions of each and every voting delegate are any less important.

Being an employer of engineers and surveyors, I have had the honor of interviewing and hiring recent college graduates, those with a few years of experience and a master's degree, and even a few with a doctoral degree. My personal opinion is that it makes no difference what degree you have; there is no comparison to the value of a prospective employee with experience versus one without experience. The experience component is invaluable. This is not to say an advanced degree is of no value, but in the real world, an employee with a B.S. degree and experience typically will outperform an employee with an advanced degree and no experience.

The goal of all licensing boards should be to protect the public. By mandating a B+30 degree plus experience for licensure, the real question is, are we doing that?

As a member of the Board of Directors, I see my role as presenting and listening to all views and sifting them in an attempt to come up with the best model for the future. If, at this point in time, we are not satisfied with the language currently on the table, then we need to revisit the issue until we are satisfied.

I am not foolish enough to think that we will come up with language that 100 percent of the members will agree with, but I do believe if we all work at giving this issue a more workable solution, then we should do that rather than issue a deadline that we are not in favor of. We should be working toward a better solution rather than letting a deadline drive the issue.

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$$\pi_3 : M^0 L^0 T^0 = (L T^{-2})^l (M L^{-3})^j (L^2)^k M^1$$

$$M^0 L^0 T^0 = M^{j+1} L^{l-3j+2k} T^{-2l}$$

## Q&A: BOARD NOMINEES AND INCOMING ZONE VPs

David Widmer Q&A continued from page 9

### How can the Board promote greater visibility for NCEES among certain segments of the public, such as decision-makers in academia and industry?

I have been an observer on at least a dozen ABET visits within Pennsylvania, and I always ask the students if they have heard of the licensing board or NCEES. Most say they have not, unless they are currently preparing for the FE or FS exam. NCEES is not a household name and not one that most people outside of our areas of expertise deal with. The newly proposed logo should generate positive feedback, but we are far from being recognized outside our immediate circle of friends.

Advertising in a variety of publications read by contractors, professional organizations, and technical societies will go a long way toward raising awareness of NCEES.

Speaking to various organizations should be something we all are doing for the benefit of our home board as well as the Council. The Council should be willing to sponsor events and promote itself to as many organizations as the budget will permit.

### Can you discuss your professional background and any particular areas of insight you might have as a result of your experience?

As an employer of engineers and surveyors, I have seen that mobility has proven to be a double-edged sword. Not only does it make employees more valuable to a company,

it makes them believe the grass is always greener on the other side. I wrote a published paper that explored whether or not engineers and surveyors fit the mold of most employees when it comes to retention. My findings were that employee loyalty is not the same as with many other types of employees due to the high mobility of engineers and surveyors. Engineers and surveyors don't normally care about the warm and fuzzy things an employer can do for them; they are more concerned with exposure to high-profile projects and compensation.

I come from western Pennsylvania, where the steel industry was once the top employer and most employees stayed with a company for life. With the decline of the steel industry, many people were left jobless after working the same job for 20 or 30 years. Certainly mobility was never a thought during their employment.

In reviewing résumés of prospective employees, it is not uncommon to see résumés with different employers every two or three years. One can only ask if this is really a good sign. As an employer, you can only do whatever you can do and then expect that a certain percentage of employees will relocate within two to three years.

I might add that there are exceptions. Our firm has had numerous employees within our organization since the early '80s and I am grateful for this. Perhaps it is the younger generations that do not view loyalty as an attribute.

### Why do you want to serve on the Board of Directors?

When I announced my candidacy for Northeast Zone vice president, I did so because of all the good I have seen previous vice presidents do. I stated I had no hidden agenda, and I will prove that over the next few years. I also vowed that I would give 110 percent all of the time when it comes to my duties as vice president.

Many vice presidents before me gave tirelessly their time and efforts. I can only hope that upon the completion of my term, those 14 states and 21 licensing boards that make up the Northeast Zone will feel the same way about me. When I first came on the Pennsylvania Board in 1991, my first exposure with NCEES was through Haunani Sue Lin Kekuna, P.E., board president at the time. Haunani went on to serve as the Northeast Zone vice president. She was a tremendous mentor to me and instilled in me the value of the Council.

I can only hope that in my time on the Pennsylvania Board I have gained their respect by coming to all meetings prepared, engaging in debate, and not believing that my answer was the only answer to the problem at hand. I did not run to change the world but rather to be a responsible member and perform my duties with dignity and perhaps gain additional respect from those around me.

# UPDATE

## Pass Rates for April 2009

### FE EXAMINATION—ALL MODULES

| Examination Module | First-Time Takers | Repeat Takers |
|--------------------|-------------------|---------------|
| Chemical           | 83%               | 29%           |
| Civil              | 80%               | 38%           |
| Electrical         | 73%               | 26%           |
| Environmental      | 85%               | 43%           |
| Industrial         | 74%               | 37%           |
| Mechanical         | 83%               | 32%           |
| General            | 77%               | 31%           |

### FE EXAMINATION—GENERAL EXAM ONLY

| Examinees' College/University Degree Discipline | First-Time Takers | Repeat Takers |
|---|-------------------|---------------|
| Aeronautical                                    | 83%               | 33%           |
| Agricultural                                    | 81%               | 44%           |
| Architectural                                   | 68%               | 41%           |
| Biological                                      | 80%               | 46%           |
| Bio-Medical                                     | 87%               | 100%          |
| Chemical  | 80%               | 46%           |
| Civil   | 70%               | 27%           |
| Computer  | 67%               | 15%           |
| Construction                                    | 52%               | 25%           |
| Electrical                                      | 62%               | 23%           |
| Engineering Mechanics                           | 56%               | 20%           |
| Engineering Physics                             | 81%               | 36%           |
| Environmental                                   | 80%               | 40%           |
| General Engineering                             | 81%               | 27%           |
| Geological                                      | 70%               | 20%           |
| Industrial                                      | 71%               | 15%           |
| Materials                                       | 88%               | 50%           |
| Mechanical                                      | 84%               | 42%           |
| Mining/Mineral                                  | 65%               | 44%           |
| Naval Arch./Marine                              | 82%               | 80%           |
| Nuclear   | 80%               | 100%          |
| Ocean   | 71%               | 63%           |
| Petroleum                                       | 63%               | 42%           |
| Structural                                      | 79%               | 29%           |

### PE EXAMINATION

| Examination         | First-Time Takers | Repeat Takers |
|---------------------|-------------------|---------------|
| Agricultural*       | 75%               | 0%            |
| Architectural       | 66%               | 56%           |
| Chemical            | 73%               | 35%           |
| Civil               | 62%               | 32%           |
| Control Systems*    | 73%               | 28%           |
| Electrical/Computer | 63%               | 28%           |
| Environmental       | 75%               | 33%           |
| Fire Protection*    | 51%               | 32%           |
| Industrial*         | 79%               | 32%           |
| Mechanical          | 72%               | 38%           |
| Metallurgical*      | 56%               | 56%           |
| Mining/Mineral*     | 80%               | 59%           |
| Naval Arch./Marine  | 100%              | 67%           |
| Nuclear*            | 35%               | 0%            |
| Petroleum*          | 73%               | 47%           |
| Structural I        | 48%               | 25%           |
| Structural II       | 65%               | 36%           |

\*These exams are given only in October. Pass rates shown are for October 2008.

### SURVEYING EXAMINATIONS

| Examination | First-Time Takers | Repeat Takers |
|-------------|-------------------|---------------|
| FS          | 67%               | 26%           |
| PS          | 66%               | 38%           |

# NCEES begins developing two new ANSI standards

## Draft MLS and MLSE standards currently published for public review

**N**CEES, an ANSI-accredited standards developer, has published draft versions of the following standards online at [www.ncees.org/asd.php](http://www.ncees.org/asd.php). The Web page also contains a link to submit feedback.

### DS-1:MLS 2-2009 Standards for Licensure as a Model Law Surveyor

#### 1.1 Scope, Purpose, Need, and Application

The scope of the standard covers the requirements for a Model Law Surveyor. These standards have been vetted by the surveying 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 Surveyor in the practice of surveying 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 surveying practice to better assure the public that persons engaged in the making of geometric measurements and gathering related information pertaining to the physical or legal features of the earth; improvements on the earth; the space above, on, or below the earth; or providing, utilizing, or developing the same into survey products such as graphics, data, maps, plans, reports, descriptions, or projects (or any other project that requires surveying training and education) are qualified to do such work. Because surveying 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 surveying to protect the public and its trust of surveying systems. The standards are applicable in all surveying practice settings. The widespread adoption of such uniform standards will promote public safety and simplify cross-boundary and multi-jurisdictional licensure of surveyors.

#### 1.2 Specifications

This standard specifies the criteria for a Model Law Surveyor. Such criteria provide for the public safety in the practice of surveying and include standards for uniformity in the education, experience, and examination requirements of candidates for surveying licensure. The standard provides the recommended procedures and criteria for demonstrating professional competency in surveying 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 surveying practice. The standard specifies that to practice the profession of surveying as a Model Law Surveyor, the following minimum requirements must be met by each individual who is a candidate for licensure.

**Education:** A candidate must graduate from a Surveying Engineering Group program accredited by the Engineering Accreditation Commission of ABET (EAC/ABET) or a Surveying and Mapping Group program accredited by the Applied Science Accreditation Commission of ABET (ASAC/ABET). ABET, Inc., is the nationally recognized accrediting organization for engineering, surveying, and technology curricula.

**Examinations:** A candidate must pass the NCEES Fundamentals of Surveying (FS)

examination and the NCEES Principles and Practice of Surveying (PS) examination and any required state-specific examination as defined in the NCEES *Model Rules*.

**Experience:** A candidate must complete acceptable surveying experience as defined in the NCEES *Model Rules*. After completing the requirements above, 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 Surveyor, or P.S.

**Model Law Surveyor Designation:** Once an individual has obtained licensure from at least one jurisdictional licensing board, he or she is eligible for the designation Model Law Surveyor. To maintain Model Law Surveyor status, the individual must maintain a record clear of disciplinary action.

#### 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:** The National Council of Examiners for Engineering and Surveying is a national nonprofit organization composed of engineering and surveying licensing boards representing all U.S. states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. NCEES is 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 individual jurisdictional law and in legally recognized professions

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

*Model Law Surveyor:* The designation signifying a person who has been qualified through this standard and who has obtained licensure as a Professional Surveyor 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.

### DS-1:MLSE 3-2009

## Standards for Licensure as a Model Law Structural Engineer

### 1.1 Scope, Purpose, Need, and Application

The scope of the standard covers the requirements for a Model Law Structural 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 Structural Engineer in the practice of structural 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 structural engineering practice to better assure the public that persons engaged in projects that require structural engineering training and education are qualified to do such work. These projects may include defining the scope of work, reading and interpreting drawings, determining the method of analysis and applicable code requirements, using professional judgment in making design assumptions, integrating design requirements and organizing calculations, integrating analysis and design, following through from design into drawings and details, sketching details, applying quality control procedures to calculations and construction documents, and modifying structural elements as a result of coordinating with other design disciplines. Because structural 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 structural engineering to protect the public and its trust of structural-engineered systems. The widespread adoption of such uniform standards will promote public safety and simplify cross-boundary and multi-jurisdictional licensure of structural engineers.

### 1.2 Specifications

This standard specifies the criteria for a Model Law Structural Engineer. Such criteria provide for the public safety in the practice of structural engineering and include standards for uniformity in the education, experience, and examination requirements of candidates

for structural engineering licensure. The standard provides the recommended procedures and criteria for demonstrating professional competency in structural 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 structural engineering practice.

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

**Education:** A candidate must graduate from an engineering program accredited by the Engineering Accreditation Commission of ABET (EAC/ABET). ABET, Inc., is the nationally recognized accrediting organization for engineering and technology curricula. A candidate must pass a minimum of 18 semester (27 quarter) hours of structural analysis and design courses. At least 9 of the semester (14 quarter) hours must be structural design courses.

**Examinations:** A candidate must pass the NCEES Fundamentals of Engineering (FE) examination and professional structural examinations as defined in the NCEES *Model Rules*.

**Work Experience:** A candidate must complete acceptable structural engineering experience as defined in the NCEES *Model Rules*.

After completing the requirements above, 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., and/or Structural Engineer, or S.E., where required by jurisdictions.

**Model Law Structural Engineer Designation:** Once an individual has obtained licensure from at least one jurisdictional licensing

*continued on page 14*

# ANSI STANDARDS

*continued from page 13*

board, he or she is eligible for the designation Model Law Structural Engineer. To maintain Model Law Structural Engineer status, the individual must maintain a record clear of disciplinary action.

## **2. Reference 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.

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*Licensure*: The process of qualifying persons for practice as mandated by individual jurisdictional 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 Structural Engineer*: The designation signifying a person who has been qualified through this standard and who has obtained licensure as a Structural 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

**ALABAMA** Gerald Wilbanks, P.E., is a new appointee. Preston Jackson, P.E., is no longer on the board.

**ARKANSAS** Ronald Hawkins, P.E., L.S., is a new appointee. William Ruck, P.E., P.S., is no longer on the board.

**CALIFORNIA** David Brown is the board's new executive officer. Richard Lyons, P.E., is no longer on the board.

**CONNECTICUT** Edward Farrell is no longer on the board.

**DELAWARE PE** The board's address is now 92 Read's Way, Suite 208, New Castle, DE 19720. The phone number is 302-323-4588, and the fax number is 302-323-4590.

**FLORIDA PS** Howard Ehmke II, L.S., and Nickolas Fusco, L.S., are new appointees. Dennis Blankenship, L.S., Louie Bush, P.S.M., P.S., and Henry Echezabal are no longer on the board.

**GEORGIA** Daniel Bennett, P.E., is a new appointee. Charles Vickery, P.E., is no longer on the board. The board's fax number is now 866-888-9718, its e-mail address is pels@sos.ga.gov, and its Web address is www.sos.ga.gov/plb/pels.

**HAWAII** Dan Hirota and Ray Skelton are new appointees. Ken Ota and Oscar Portugal, P.L.S., are no longer on the board.

**ILLINOIS PE** Proshanta Nandi, Ph.D., is the new public member. The Web address is now www.idfpr.com/dpr/WHO/pe.asp.

**ILLINOIS PS** The Web address is now www.idfpr.com/dpr/WHO/lansv.asp.

**ILLINOIS SE** The Web address is now www.idfpr.com/dpr/WHO/se.asp.

**IOWA** Patricia Heagel is no longer on the board.

**MINNESOTA** Mary Deeg, Dave Fisher, Jim Grube, P.E., Micki Miller, Carl Peterson, and Bob Seeger are new appointees. Duane Blanck, P.E., Mary Ives, Diane Johnson, Rachelle Schoessler Lynn, Patrick Parsley, and Jerome Ritter are no longer on the board.

**MISSOURI** James Anderson, L.S., Christopher Ball, A.I.A., and Robert Shotts, L.S. are no longer on the board.

**MONTANA** Hal Jacobson is the new public member. Vic Cundy, P.E., and Archie Nunn are no longer on the board.

**NEW MEXICO** Julie Petrocco-Samora, P.E., is a new appointee. Patricio Guerrerortiz, P.E., is no longer on the board.

**NEW YORK** Kathryn Macri is no longer on the board.

**OREGON** Keith Battleson is no longer on board. The board's Web address is now www.oregon.gov/osbeels.

**PUERTO RICO** The board's shipping address is now as follows: Secretaría Auxiliar de Juntas Examinadoras, Junta Examinadora de Ingenieros y Agrimensores, Calle Rafael Cordero #154 Oficina Núm. 500 Viejo San Juan, San Juan, PR 00902-3271. The P.O. Box address is the same.

**RHODE ISLAND PE** Christopher Duhamel, P.E., P.L.S., is a new appointee. Brian Moore, P.E., is no longer on the board.

## Upcoming Events

**August 11 and 15**  
Board of Directors' Meeting  
Louisville, Kentucky

**August 12-15**  
88th NCEES Annual Meeting  
Louisville, Kentucky

**October 2-3**  
Board of Directors' Orientation  
Clemson, South Carolina

**October 23-24**  
NCEES Exam Administration

**SOUTH CAROLINA** The board has removed the word "land" from its name.

**SOUTH DAKOTA** Drake Olson is the new public member. Thomas Geraets is no longer on the board.

**TENNESSEE PE** The board's Web address is now www.tn.gov/commerce/boards/ae.

**TEXAS PS** James Childress and Robert Price are new public members. Stephen (Ty) Runyan and Kelley Neumann are no longer on the board.

**UTAH** Scott Marsell is the new public member. Kim Harris, P.E., and Charles Powell are no longer on the board. The board's phone number is now 801-530-6628, Bureau 5, and the e-mail address is www.dopl.utah.gov.

**Henn Rebane, P.E.**  
*President*  
Tampa, Florida

**David L. Whitman, Ph.D., P.E.**  
*President-Elect*  
Laramie, Wyoming

**William G. Corley, Ph.D., P.E., S.E.**  
*Immediate Past President*  
Skokie, Illinois

**L. (Larry) Robert Smith, P.E.**  
*Treasurer*  
North Providence, Rhode Island

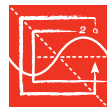
**Dale A. Jans, P.E.**  
*Vice President Central Zone*  
Sioux Falls, South Dakota

**Leonard J. (Joe) Timms Jr., P.E.**  
*Vice President Northeast Zone*  
Bridgeport, West Virginia

**Gene L. Dinkins, P.E., P.L.S.**  
*Vice President Southern Zone*  
Columbia, South Carolina

**Patrick J. Tami, P.L.S.**  
*Vice President Western Zone*  
Sacramento, California

**Jerry T. Carter**  
*Executive Director/Secretary*  
Clemson, South Carolina



**NCEES**

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## NCEES dedicates funding to new National Museum of Surveying

**A**t its June meeting, the NCEES Board of Directors approved a \$75,000 contribution to the National Museum of Surveying, which is scheduled to open this year in a new location in downtown Springfield, Illinois. This funding will be used to construct a 45-seat theater and to develop educational materials for students in grades K–12.

The theater will feature a 60-inch high-definition display that will be used to highlight the history and evolution of surveying and mapping in the United States. Video exhibits will include *Measuring the World Around Us*, which was originally funded by NCEES, and presentations on Abraham Lincoln's surveying career and the impact of surveying on the United States. The theater will also be used to host guest lectures, demonstrations, and workshops.

The educational materials will be developed in conjunction with a series of teacher workshops to be held at the museum. The museum plans to put these educational materials on its Web site ([www.nationalmuseumofsurveying.org](http://www.nationalmuseumofsurveying.org)), making them easily accessible to classrooms across the nation.

"As a leader of the engineering and surveying professions, NCEES looks for opportunities to advance the public's understanding of these professions," said NCEES Executive Director Jerry Carter. "We feel that the National Museum of Surveying has some exciting plans that will get many young minds interested in pursuing a career as a licensed surveyor, so we are happy to help them with funding."

"We feel that the National Museum of Surveying has some exciting plans that will get many young minds interested in pursuing a career as a licensed surveyor, so we are happy to help them with funding."