

Spurred by local tragedy, Nebraska Board leads campaign to improve municipal park structures

In Nebraska, a deadly accident at a city park led the state's Board of Engineers and Architects to launch a campaign to identify and repair long-neglected park structures throughout the state.



Alexa Foster

The accident, which occurred May 19, 2004, killed 8-year-old Alexa Foster, who was celebrating the last day of third grade with family and friends at a park in the small town of Crete, about 25 miles southwest of Lincoln. Foster was refilling

squirt guns in the park's restroom with a group including her two sisters when the concrete block wall collapsed. It was later determined that the wall had not been properly anchored and was weakened by crumbling mortar.

It was an accident that could have been prevented, according to Melinda Pearson, the Nebraska Board's executive director.

"There are a lot of parks like this in Nebraska that were built during the WPA [Works Progress Administration] in the 1930s and haven't been inspected in years," said Pearson. "We considered this an issue of public safety, so we got involved."

News of the accident also got the attention of state lawmakers.

"It was incredible that there was no standard in place for public park structures," said the Honorable DiAnna Schimek, the Nebraska state senator who sponsored a study group to investigate possible legislation. One proposal included posting 5- by 8-foot signs on public structures to indicate the date of most recent inspection.

The study group, which included Pearson and several consultants and structural engineers, concluded that legislation would not solve the problem and that a public-awareness campaign would be more effective.

Pearson then worked with the group—along with Roger Foster, Alexa's father—to draft a brochure for what became known as the Alexa Check. The brochure encourages the public to investigate the structures at public parks and recreation areas and includes tips for visually inspecting structures and reporting concerns.

"We basically took the engineering terms out of it and wrote very common-sense suggestions for visual inspection of park structures," said Pearson.

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The inspections include checking concrete block walls for cracks, deterioration, and lack of anchoring. The brochure instructs people observing defects to notify the property owner and to contact a licensed engineer in the area using the board's online directory.

"The work of the state board was the key to the whole project," said Schimek. She added that the League of Nebraska Municipalities worked with the group to compile a database of public recreation areas throughout the state. Volunteers distributed 10,000 copies of the Alexa Check brochure in these areas.

"The tragedy is that these are one-day stories that get lost in the news cycle. We have to work to keep the issue in the public," said Schimek.

To further promote the Alexa Check, Governor Dave Heineman recently proclaimed May 19 Alexa Check Day in Nebraska. A group including Foster and Nebraska Board

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*DiAnna Schimek
Nebraska State Senator*

Alexa Check (continued from page 1)

representatives were in attendance for the signing ceremony. There also is a Web site (www.thealexacheck.com) that provides downloadable brochures and posters as well as news updates on the awareness campaign.

According to both Schimek and Pearson, park structures in other states are likely to suffer from the same type of neglect that caused the accident in Crete.

Pearson said the study group charged with investigating potential state legislation found

no other states that had laws requiring regular inspections of municipal park structures by licensed engineers.

“With a lack of funding for improvements, it really is the responsibility of every citizen to pay attention to the safety of the buildings in our public parks and to report any potential structural defects.”

*Doug McGuirt
NCEES Editor*

The following is excerpted from the Alexa Check brochure, which is available for download at www.thealexacheck.com.

THE ALEXA CHECKLIST

We’re asking community members to visit local park restrooms and other structures and check the free-standing masonry walls (partial height screen walls, toilet partitions, dividing walls, etc.).

IF YOU ANSWER YES TO ANY OF THE FOLLOWING QUESTIONS, immediately contact the owner of the building or any architect or engineer in your community and, if possible, close off access to the area in which the wall is located.

LOOK FIRST—DOES THE WALL APPEAR UNSTABLE IN ANY WAY? Is the wall leaning? Is the wall bowing? Are there cracks in the blocks or the mortar joints? Are the mortar joints soft? Can mortar be removed by poking with a screwdriver? Is the surface of the blocks flaky or powdery?

CHECK FOR POSITIVE WALL ATTACHMENTS. Does the wall lack brackets or support braces from the top of the wall to the ceiling/roof structure, or at wall corners? Does the wall appear to have moved in any way?

IF YOU ANSWERED YES TO ANY PART OF QUESTIONS 1 OR 2, DO NOT CONTINUE CHECKING, BUT REPORT YOUR OBSERVATIONS IMMEDIATELY.

CHECK THE WALL STABILITY. If the wall looks stable and is attached at the ceiling and edges, then check for stability. Does the wall move when you push against the middle or the top with your hands? If not, check more forcefully. Does the wall move when you lean against it and exert force with your shoulder? If a door is attached to a partition wall, does the wall move while exerting force on the door?



MESSAGE

Raimondi looks back on 2006–07

My long involvement with NCEES has led me to better appreciate the challenges facing the engineering and surveying professions as well as the vital role the Council and its Member Boards play in meeting these challenges. With that in mind, I feel we have accomplished a lot this year.

Exam development and administration

Examinations continue to play a large role in the everyday business of NCEES. Through various committees and task forces, the Council has worked throughout the past year to ensure that its exams remain accurate and reliable, effectively measuring competency for the engineering and surveying professions.

The Council has continued to employ inventive and effective measures to identify candidates who may be copying, colluding, or making random answer selections during exam administrations. Specially written software continues to serve as a second line of defense against exam subversion, protecting the integrity of the licensure process.

Expanded professional services

The Council also took several key steps to enhance mobility across Member Board jurisdictions. Last August, the Registered Continuing Education Providers Program began operations. RCEPP will ease the often challenging task faced by licensees seeking to obtain—and maintain—licensure in more than one jurisdiction. RCEPP, along with the Council Records program, will be at the center of a campaign that will begin later this year to inform licensees of the benefits of both of these services.

The Center for Professional Engineering Education Services began operations in September as an NCEES affiliate. The Center helps streamline the licensure process by providing Member Boards with credential evaluations for engineers with non-ABET accredited engineering degrees. In less than a year, the Center has already received materials from well over a thousand applicants from all over the world, including many from the

United States. Their evaluations focus on identifying fraudulent credentials and providing thorough analysis of candidates' educational backgrounds so that Member Boards can make informed decisions on licensure eligibility.

Promotion of licensure

This year marks 100 years since the passage of the first U.S. engineering licensure law. The Council has used this occasion to celebrate licensure's role in protecting the public health, safety, and welfare. In June, NCEES and NSPE published a special issue of *PE* magazine commemorating the anniversary. Member Boards also requested gubernatorial proclamations to recognize this important milestone.

The centennial of engineering licensure has provided an excellent opportunity to continue the Council's efforts to reach out to the public and to future generations of engineers. NCEES signed on as a major sponsor of the new PBS show *Design Squad*, which introduces middle school students to the exciting challenges of engineering. In addition, more professional engineers and surveyors, aided by NCEES Speaker's Kits, are speaking to university-level students about the advantages of becoming licensed in the profession.

As licensed engineers and surveyors, it is our duty to promote our professions. I'm sure that many of you can testify to how rewarding a career in engineering or surveying can be. Judging from my experiences meeting so many dedicated, intelligent individuals during my time as NCEES president, I certainly can.

Leadership changes

Finally, I would like to communicate a change in leadership at Council headquarters. Betsy Browne retired as NCEES executive director effective July 13. The Board has appointed Jerry Carter to serve as acting executive director. I know that the Board can count on your full support of Jerry as he makes this transition. You can read more about Jerry's position and his professional background on the back page of this issue.

Louis A. Raimondi, P.E., L.S.
NCEES President



Louis A. Raimondi, P.E., L.S.
NCEES President

The Center—one year later

They arrive from all corners of the globe: transcripts, diplomas, course descriptions—a flotilla of original education documents.

Some feature Persian or Arabic script, while others bear the insignia of Soviet-era educational institutions. The documents are sent to support applications for engineering credential evaluations through the Center for Professional Engineering Education Services, the NCEES affiliate in Miami, Florida.



Center Director Eva-Angela Adán

“We’ve been very busy, and we’re seeing more and more applications come in,” said Center Director Eva-Angela Adán, gesturing toward a stack of completed evaluations awaiting her approval. Adán said the Center, which began business operations last September, has already completed more than 400

credential evaluations, a number greater than originally anticipated.

The applications come from engineers seeking licensure whose bachelor’s degrees are not from engineering programs accredited by ABET, Inc. The majority of these applicants received their degrees outside the United States.

The evaluation process

Typically, applicants initiate the evaluation process by completing an online form at the Center’s Web site, www.cpees.org, and submitting payment electronically. After that, the Center sends electronic verification to the applicant along with a letter outlining the documents needed to complete the application. These documents include original transcripts and diplomas, with official translations if they are not in English.

After receiving and verifying the applicant’s educational documentation, the Center then compares the applicant’s degree program to criteria established by the Engineering Accreditation Commission of ABET. The evaluation indicates whether or not the applicant’s education is equivalent to that of

an engineering bachelor’s degree from an ABET-accredited program, and if not, details the areas of coursework deficiency. The results of the evaluation are sent to the applicant and to the Member Board to which the applicant is applying to take the licensing exam. The Member Board then uses this information when deciding whether to allow the applicant to proceed with the licensure process.

A diverse, multilingual staff

Because the Center works with applicants representing more than 80 nations (and counting), it relies on a staff with extensive language abilities and intercultural experience. The Center’s staff consists of Adán, three credential evaluators, and two administrative assistants.

“For this kind of work, credential evaluators need very specific skills. They need proficiency in at least two or three languages, research and analytical skills, knowledge of foreign educational systems, and strong writing ability,” said Adán. “There are some very special characteristics about Miami that have allowed us to create this office here.”

The Center itself is in many ways a reflection of Miami. Located on the campus of Florida International University in a neighborhood dotted by ethnic restaurants and stores with signs written in Spanish, the Center has a staff capable of evaluating education documents written in any of a number of languages, including Spanish, French, Portuguese, Mandarin, Cantonese, and Russian.

Protecting Member Boards from fraudulent applications

Credential evaluations are in demand thanks in part to the rise of diploma mills, which produce fake education credentials such as diplomas, transcripts—even class rings—for a fee. Although most of these fake documents are easy to identify, some employ high levels of technological sophistication, said Adán. The rapid ascent of emerging economies in various parts of the globe has spurred the growth of this shadowy industry, further increasing demand for evaluators who have the knowledge and expertise to root out fraudulent degrees.

Each document sent to the Center in support of an application is inspected carefully to ensure authenticity, and institutions, degree programs, and course information are researched. The Center's credential evaluators often refer to a library of annual reports detailing countries' accredited institutions and degree programs. In some cases, Adán goes so far as to smell documents that are more than a few years old. "If a document that is supposed to be 15 or 20 years old doesn't smell like it is old, it's likely to be fake," she said.

When questions arise about certain documents or countries, Adán often turns to a large network of professional contacts she has developed over her more than 25 years in the field of comparative educational systems, a career that includes directing international activities at ABET. Adán recently used these contacts when the Center reviewed several diplomas earned at an institution in Mosul, Iraq; they were determined to be fraudulent. Because of the country's political instability and lack of infrastructure, the Center currently does not accept applications from engineers with degrees earned in Iraq.



Larry Li is one of three credential evaluators at the Center

A growing database

The Center maintains a database that holds detailed information about educational institutions, degree programs, and coursework. New information is added to the database every time an evaluation is completed, making the process more efficient for future evaluations. The database also includes information from

non-ABET-accredited engineering programs in the United States, which the Center evaluates as long as they are attached to institutions accredited by agencies recognized by the Council for Higher Education Accreditation and the U.S. Department of Education.

The Center will continue to grow as more and more Member Boards refer

candidates lacking degrees from ABET-accredited programs to the Center for credential evaluations. Regarding the future of the Center, Adán has a clear goal: "I would like to see the Center become the clearinghouse for information about engineering education in the United States. That's a big goal, but we've come a long way in one year."

*Doug McGuirt
NCEES Editor*

2007–08 Board of Directors nominees and incoming zone VPs

The Council will vote for president-elect at the 2007 Annual Meeting on Friday, August 24. The Committee on Nominations received the Southern Zone's recommendation—Henn Rebane, P.E.—and submitted it as a nomination for the Council's consideration.

The Council will also vote for treasurer at the Annual Meeting. The treasurer will serve a two-year term. The Committee on Nominations received two recommendations for nominees and nominated two candidates for the position: current treasurer Gregg E. Brandow, Ph.D., P.E., S.E., and L. "Larry" Robert Smith, P.E.

Delegates have the privilege of making nominations for president-elect from the floor. Such nominations must be seconded by at least four Member Boards, and the nominees must meet constitutional requirements for office.

The terms of the Southern and Northeast Zone vice presidents expired this year, and the zones elected candidates to fill the positions at their interim meetings this spring. The Committee on Nominations was advised that Gene L. Dinkins, P.E., P.L.S., of the South Carolina Board was elected Southern Zone vice president and Leonard J. "Joe" Timms Jr., P.E., of the West Virginia Board was elected Northeast Zone vice president. Western Zone Vice President David L. Whitman, Ph.D., P.E., and Central Zone Vice President Donald E. Rathbone, Ph.D., P.E., are beginning the second year of their two-year terms.

Nominee for President-Elect Henn Rebane, P.E.

Chair, Florida Board of Professional Engineers; NCEES committee chair, Advisory Committee on Council Activities (2005–07); NCEES committee member, Licensure Promotion Task Force (2000–01), Committee on Nominations (2001–02), Education/Accreditation Task Force (2003–04), Fire Protection/Design-Build Task Force (2003–04), ACCA (2004–05); secretary-treasurer, NCEES Southern Zone; fellow and past president, Florida Engineering Society;



past president, Florida Institute of Consulting Engineers; director, NSPE Florida; member, NSPE Steinman Council; three-time chair, St. Petersburg (Fla.) Planning Commission; chair, St. Petersburg Historical Preservation Board; member, International Code Council, National Fire Protection Association, Construction Specifications Institute.

What do you plan to focus on during your term as president-elect/president? What are your goals for the next two years?

My two-year program includes learning more about and working to implement the long- and short-term goals and objectives already in place. I admire the dedication and intellect of the engineers and surveyors who volunteer in NCEES. Working on the initiatives already in place, not to mention what is yet to be decided, will ensure that my term in NCEES leadership will be very busy.

Licensure is important for public safety, but there are large gaps in coverage. There are two areas I'd especially like to address. One involves making licensure relevant to emerging disciplines in engineering and surveying. The other involves encouraging licensure among engineering educators who teach design courses.

This office allows me to take a pet peeve national: the lack of use of the P.E. designation. I cringe when I see lists of committee members, authors, and interviewees displaying their names, only to find upon further reading that they are licensed engineers. I tend not to pay attention to articles on engineering matters when the author is not a P.E. Maybe there are many of us who feel that way.

Last year, the Council approved Model Law language that increases the education requirements for licensure beginning in 2015. What is your opinion about the new bachelor's plus 30 requirement?

I am committed to supporting this *Model Law* provision. However, I am from Florida, where the profession believes that the negatives override the positive impacts, so I realize that we have to work to convince our constituencies to be ready to have it in place nationally by the year 2015. This concept has the support of the major technical societies, and this fact should

encourage ABET to revise its accreditation standards to conform to these new requirements. To that end, I will work to provide support from NCEES when invited by any Member Board that could use assistance in implementing the bachelor's plus 30 requirement within its jurisdiction.

Within the past year, the Board of Directors has decided to reevaluate the potential of computer-based testing (CBT). A new 2007–08 task force will be charged with investigating the feasibility of implementing CBT for the Council's exams. What thoughts do you have regarding CBT?

I am looking forward to seeing this task force established, and I will look forward to receiving its report as it addresses this question. I trust the task force deliberations will consider the opinion of engineering students who did not like CBT as presented to them several years ago. The discussions leading up to the formation of this task force identified many practical impediments to CBT implementation. These will have to be overcome by clearly demonstrated benefits before I would endorse NCEES signing on to CBT for its examinations.

At this year's Annual Meeting, the Governance Task Force will recommend doing away with the current system of rotating the presidency among the zones. Under the new system, any zone other than the one currently holding the office of president-elect would be eligible to nominate a candidate for the office. Are you in favor of this recommendation?

I favor the status quo. The charge to the Governance Task Force was to provide for a nomination process for the office of president-elect in the event the zone in line to nominate a candidate is unable to provide a candidate who is sufficiently qualified and experienced in the business of the Council. I think this situation is highly unlikely to occur, since the current rotation allows each zone to prepare well in advance for its turn and put forth a qualified candidate. Actually, the task force recommendation to have candidates from three zones competing for the office would likely have overriding negative effects. Fewer candidates will want to subject themselves to run at large, the preparation time for assuming the office of president-elect will be reduced, and it will place a burden on NCEES headquarters staff to influence the outcome. Each zone is in the best position to observe the dedication of members from its zone and then select the appropriate candidate based on that personal observation.

Serving as president-elect/president requires a large commitment from you in terms of time and travel. Why have you chosen to pursue a position on the NCEES Board of Directors?

I love being an engineer and solving problems with engineers. My many years of involvement with engineering have shown me that in the final analysis, to improve the profession, the trail clearly leads to NCEES. This is why I am so looking forward to be part of NCEES leadership. My employers encouraged and supported me by providing time and resources when I was involved in engineering organizations in Florida, with ACEC, with NSPE, and lately with the Florida Board. It also takes a proper alignment of the moon and stars to be nominated for the NCEES Board. Spending the time serving in NCEES leadership will be a pleasure as long as I can serve the profession. My wife, Norma Jean, and I love to travel, so that aspect of the job will fit. Chores at home and my stamp collection remain on hold, as they have been ever since I "retired."

**Nominee for
Treasurer
Gregg E. Brandow,
Ph.D., P.E., S.E.**



Member, California Board of Registration for Professional Engineers and Land Surveyors; treasurer, NCEES; board liaison, Committee on Finances, Structural Exam Task Force; chair, NCEES Structural Engineering Examination/Recognition Task Force (2001–04); member, Structural Engineers Association of Southern California, ASCE, Earthquake Engineering Research Institute, American Institute of Timber Construction, Consulting Engineers and Land Surveyors of California, Seismological Society of America, Rotary International; recipient, 1990 Engineering Alumnus Award for Outstanding Achievement from University of Southern California; president, Brandow & Johnston Associates; adjunct professor, University of Southern California.

If elected treasurer, what plans do you have for your term?

My plan is to see that the level of diligence that the Council staff has maintained continues. Jeannie van der Zalm (the Council's director of finance) and the Council staff do an excellent job in managing Council finances. NCEES has been financially sound, with

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MISSION

The Mission of NCEES is to coordinate with domestic and international organizations to promote licensure of all engineers and surveyors.

NCEES Strategic Plan

revenues exceeding expenses more than was anticipated in the budgeting process. NCEES takes all of the standard measures of financial reporting required by applicable laws and prints operating summaries in each issue of *Licensure Exchange*. It also hires independent auditors to review the accuracy of all financial statements.

Each year, the budget is carefully scrutinized by the Council's chief financial officer along with the NCEES president, president-elect, and treasurer. Each cost center within the Council prepares a departmental budget largely based on information from the previous year. These are compiled by the director of finance and then reviewed by Board officers and the Committee on Finances. Line items with unusually large expenses are carefully scrutinized.

In addition to the standard financial reporting, I have also attended each of the zone meetings and Board Presidents' Assemblies to report on Council finances and provide feedback for those who have questions about the financial activities of the Council.

In recent years, NCEES has voluntarily adopted measures required by the Sarbanes-Oxley Act, which was passed in response to financial scandals at several publicly traded companies. One such measure has been the creation of a board audit committee, of which the treasurer is a member. In an additional term as treasurer, how would you work to ensure that NCEES remains fiscally sound?

The role of the treasurer is to know as much as possible about the finances of the Council. Asking questions and scrutinizing changes in expenses are the primary duties. This includes seeing that the Council's funds are invested conservatively according to the investment policies in place.

Another function is to ensure that the Council maintains a sufficient level of reserves. For the past few years, the Council's revenues have been higher than budgeted, and expenses have been lower than budgeted. This surplus revenue has allowed the Council to raise its level of reserves. The goal in recent years has been to boost reserves to the level of three-fourths of budgeted annual revenue. We are very close to reaching that goal, which means the Council is in a good position to weather an unexpected event such as a drastic downturn in the economy or an exam breach.

How will your past experience as a member of the Board of Directors be useful in an additional term as NCEES treasurer?

Experience is a great asset. As in any leadership position, it takes time to learn about the details of the organization to be effective. I hope to use my experience as the current treasurer to be even a better treasurer for another two years.

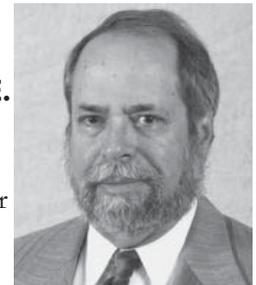
Serving as treasurer requires a large commitment from you in terms of time and travel. Why have you chosen to pursue a position on the NCEES Board of Directors?

I have chosen to commit most of my time for the profession to the California Board and to NCEES. I serve because I feel that I can make a positive contribution to the profession as the NCEES treasurer, a member of the Board of Directors, and as liaison to the Committee on Finances and the Structural Exam Task Force. There is a wonderful group of people who commit their time to NCEES and thus to the engineering profession. They set an example that is worthy of following.

Nominee for Treasurer

L. Robert Smith, P.E.

Member and two-time chair, Rhode Island Board of Registration for Professional Engineers; vice president, NCEES Northeast Zone; board liaison, UPLG Committee and MBA Networking Group; NCEES committee chair, Examinations for Professional Engineers (2001–03), Examination Policy and Procedures Committee (2004–05); NCEES committee member, Committee on Professionalism and Ethics (1994–95, 1996–97), EPP Committee (1996–97), EPE Committee (1997–2001), Committee on Nominations (2000–02), Education/Accreditation Task Force (2003–04); past president and senior advisor, Rhode Island section of ASCE; past president, RISPE; member, NSPE Licensure and Qualifications Committee; recipient, Lifetime Achievement Award and Humanitarian Award, Providence Engineering Society; recipient, ASCE of Rhode Island Faithful Service Award; fellow, ASCE and NSPE; recipient, NSPE Professional Engineers in



Private Practice Merit and Outstanding Service awards; member, Order of the Engineer.

If elected treasurer, what plans do you have for your term?

I would strive to make our accounting system more transparent. It sometimes seems that funds are parceled out as expenses to different profit centers. If someone presently wanted to know, for example, what NCEES is paying a consultant, then that number should appear in our expenses. It does not at present. I also want to look into our policy of investing in mutual funds. Everything I have read and been told advises that this is not a good investment policy if the amount invested is over \$150,000–\$250,000. NCEES has much more than that invested in mutual funds. This means we are paying a financial adviser one fee and then the mutual funds a second fee. Beyond the extra fees, the policy should be scrutinized because stock choices are often duplicated from one fund to another. It is quite possible to inadvertently get overloaded on a particular stock because it is in many of the funds we might own. I would look into whether it makes more sense to have a financial advisor put together a portfolio of straight stocks and bonds.

In recent years, NCEES has voluntarily adopted measures required by the Sarbanes-Oxley Act, which was passed in response to financial scandals at several publicly traded companies. One such measure has been the creation of a board audit committee, of which the treasurer is a member. As treasurer, how would you work to ensure that NCEES remains proactive and fiscally sound?

I think we should have a complete review of the Council fiscal plan by a qualified tax consultant to guarantee that none of our policies—including the running of ELSEs and the Center—conflict with our current tax-exempt status. Although things are reviewed on a piecemeal basis as they are created or added, I think it's important to periodically have the entire financial operation reviewed to make sure all the pieces fit.

As to fiscal soundness, I think that can be best accomplished by watching the expense side of the budget. I believe the full Council needs to be involved in decisions for large expenditures. We are and should be a member-run organization.

How will your past experience as a member of the Board of Directors be useful as treasurer?

The treasurer is an active voting member of the Board of Directors. In my tenure as the Northeast Zone vice president, I tried to have the boards in the Northeast Zone be more active and informed. Before each Board of Directors' meeting, I contacted either the Member Board administrator or a board member from each of the boards in my zone. I would like to keep that line of communication open and, if anything, expand it.

I also believe that the Council should utilize Member Board administrators to a greater degree. As boards change and evolve, the administrators are becoming our institutional memory and seem to be the constant at zone meetings and the Annual Meeting. I served as board liaison to the MBA Networking Group this past year. If elected treasurer, I would seek to remain in this position.

Serving as treasurer requires a large commitment from you in terms of time and travel. Why have you chosen to pursue this office?

I waited until I had sold my business and retired before I ran for national office in NCEES. I wanted to make sure that I could devote the necessary time to do the position justice. I feel that I have assisted in making the Board of Directors more responsive to the Member Boards. If elected to the position of treasurer, I would use my place on the Board of Directors to continue this work.

**Incoming
Southern Zone Vice
President
Gene L. Dinkins,
P.E., P.L.S.**

Vice Chair, South Carolina Board of Registration for Professional Engineers and Land Surveyors; member, NCEES Advisory Committee on Council Activities (2005–07); member, Colonial States Boards of Surveyors' Registration, GIS/Photogrammetry Exam Generation for South Carolina; member, NSPE, ASCE, NSPS; member, South Carolina Society of Professional Engineers, South Carolina Society of Professional Surveyors,



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Midlands Chapter (S.C.) of Professional Land Surveyors; member, Kiwanis International; member, Midlands Technical College Engineering Advisory Committee; past chairman, Richland County (S.C.) Planning Commission; past chairman, City of Columbia (S.C.) Planning Commission; guest lecturer, University of South Carolina School of Law and College of Engineering; president, Cox and Dinkins, Inc.

What do you plan to focus on as vice president? What are your goals for the next two years?

Our country as a whole needs more professional engineers and professional surveyors now and will need even more in the future as we compete in a global economy. The Southern Zone is very fortunate in that we have many very active engineers and surveyors from many states. I would like to see the Council work more toward promoting engineering and surveying licensure. This must be done locally by actually making contact with engineering and surveying students (and prospective students) in our schools and colleges. I have personally taken on this effort and actively participate in career fairs and educational programs with high school students. I have also initiated a program to make students aware of potential job opportunities for licensed engineers and surveyors. I would like to see initiatives such as these spread to other states and other zones.

Another goal that I have for the next two years is to make the NCEES Board of Directors more accessible, more open, and more accountable to all of our Council members. The key to this effort will be maintaining open lines of communication with every member of every board in the Southern Zone. I encourage board members to contact me at any time if a Council issue arises.

Last year, the Council approved Model Law language that increases the education requirements for licensure beginning in 2015. What is your opinion about the new bachelor's plus 30 requirement?

I strongly support requiring more education for licensure. We all realize that the body of knowledge has expanded rapidly while the academic credits required for graduation have steadily decreased. The additional credits earned under the bachelor's plus 30 requirement will, in my opinion, be the most

valuable education that an engineer receives. However, there are many difficult hurdles that must be overcome before the first state enacts legislation adopting the proposed *Model Law* language. The Board must, therefore, continue to study the issues and work to facilitate all options.

Within the past year, the Board of Directors has decided to reevaluate the potential of computer-based testing (CBT). A new 2007–08 task force will be charged with investigating the feasibility of implementing CBT for the Council's exams. What thoughts do you have regarding CBT?

The Council needs to continue to study and move toward the implementation of computer-based testing. CBT has numerous advantages over the current system. It would not only allow for more frequent administration and accelerated scoring but would also eventually provide for greater exam security. Other professions have made the transition, and I am confident that NCEES will also. The Council and the Board of Directors need to start working quickly to solve issues (such as security, facilities, and expenses) that would stand in the way of implementation.

At this year's Annual Meeting, the Governance Task Force will recommend doing away with the current system of rotating the presidency among the zones. Under the new system, any zone other than the one currently holding the office of president-elect would be eligible to nominate a candidate for the office. Are you in favor of this recommendation?

I served on the Governance Task Force that made the recommendation. In general, I support any proposal that would help to procure the best person for the office of president-elect. However, I would also strongly support an amendment to this proposal that would maintain the rotation for president-elect among the zones but allow for an open election if a particular zone were unable to have a qualified candidate in any given year. After the year of the open election, the zone rotation would continue as it has in the past.

Serving as vice president requires a large commitment from you in terms of time and travel. Why have you chosen to pursue a position on the NCEES Board of Directors?

I chose to get involved both with the South Carolina Board and with the NCEES Board 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 almost 30 years, and I believe my perspective as president of an engineering and surveying consulting firm will be beneficial to the NCEES Board. I realize that serving as Southern Zone vice president will require a large commitment in time and travel, and I am ready to make this commitment in order to promote the advancement of the engineering and surveying professions.

Incoming Northeast Zone Vice President Leonard J. Timms Jr., P.E.



President, West Virginia State Board of Registration for Professional Engineers; NCEES committee member, Computer-based Testing Oversight Group (2000–01), Committee on Finances (2002–03), Committee on Law Enforcement (2004–07); chairman, Davis and Elkins College Board of Trustees; board of directors, BSI International; adjunct professor of management, Salem-Teikyo University; past chairman, Southern Gas Association, West Virginia Oil and Gas Association; past director, Interstate Natural Gas Association of America; member, ASCE, NSPE; member, Visiting Committee, West Virginia University College of Minerals and Energy; director, Coal and Energy Research Center at West Virginia University, Harrison County Chamber of Commerce, Harrison County Association for Industrial Development, Benedum Airport Authority; trustee, West Virginia Public Theatre; former president, CNG (Dominion) Transmission; former mayor, City of Bridgeport, W.Va.; managing partner, L.J. Timms, Jr. LLC.

What do you plan to focus on as vice president? What are your goals for the next two years?

During the early part of my term as Northeastern Zone vice president, I hope to learn as much as I can about the internal organization and operation of the staff and management at NCEES headquarters. Of immediate concern are the budget, mission creep, and staff turnover and their impact on the efficiency and effectiveness of the organization.

Last year, the Council approved Model Law language that increases the education requirements for licensure beginning in 2015. What is your opinion about the new bachelor's plus 30 requirement?

As everyone knows, the number of academic credits required to receive an engineering degree from an accredited institution has been drastically reduced over the last 20 or 30 years. This has resulted in a decline of the breadth and depth of knowledge that is required for graduating with a bachelor's degree in engineering. While most professions are increasing education requirements, the engineering profession has gone in the opposite direction. Ideally, we should return to the former credit requirements for engineering bachelor's degrees, but practically this will not happen. Because of this, I must agree with the Council's vote to require additional academic credit hours to pursue licensure. One concern involves explaining the new requirements to state legislators in order to adjust state licensing laws. I think they would understand a master's degree requirement, as this has been imposed on groups such as CPAs and physical therapists, but the bachelor's plus 30 requirement is likely to cause confusion. The requirement is also likely to cause some confusion among Member Boards. I'm confident that the committee working on this issue will come up with some solid proposals that will work for the good of the profession.

Within the past year, the Board of Directors has decided to reevaluate the potential of computer-based testing (CBT). A new 2007–08 task force will be charged with investigating the feasibility of implementing CBT for the Council's exams. What thoughts do you have regarding CBT?

I served for a year on the first committee that oversaw the Council's CBT policy. Some of the major problem areas we saw at that time were questions related to exam security, testing facilities, and the lack of computer-based testing within university engineering programs. There have possibly been some advancements in these areas, and it is good that we are returning to look at this practice.

At this year's Annual Meeting, the Governance Task Force will recommend doing away with the current system of rotating the presidency among the zones. Under the new system, any zone other than the one currently holding the office of president-elect would be

Continued on page 12

Council researches exam cut scores

In response to a motion to delegates at the 2006 Annual Meeting, NCEES will conduct a study in December to determine if item writers and reviewers can also serve as impartial judges on cut score workshop panels. Currently, to avoid any potential bias, the cut score panel is comprised only of volunteers who have no previous exposure to the exam being scored. This requirement rules out almost all existing exam committee volunteers. Cut score panel members must be trained quickly about important concepts—such as minimum competence—that are already familiar to exam committee members.

The Cut Score Task Force argued for strengthening the cut score process and understanding the need to use the highest-quality, best-trained volunteers. NCEES is currently funding research to determine if exam development volunteers could also be used in the cut score process. Therefore, this December's Petroleum cut score panel will be made up of two groups of volunteers: a traditional cut score panel and a second group of volunteers previously involved in the item writing/reviewing process. This study will establish whether these two groups can recommend the same cut score. If it is determined that no bias exists, exam development volunteers could be included in future cut score panels.

This change would allow panels to use exam development volunteers' experience and remove the difficulty in recruiting an extra 12 to 14 volunteers who had no involvement in

the exam-writing process. If this new concept is deemed sound, it could particularly help smaller, society-sponsored Group II exam committees, which often have difficulty assembling cut score panels.

Beginning with the Petroleum cut score panel in December, all future cut score panels will incorporate other motions passed at the 2006 Annual Meeting that concern the training of cut score panelists, subcommittee members, and auditors. The Cut Score Task Force recommended more training for these groups prior to cut score panel workshops.

Working with an independent psychometrician, NCEES has developed a Web-based tutorial, which potential panelists will complete prior to the workshop, to explain the cut score process. A series of questions following the tutorial will give feedback on users' understanding of the material covered.

As recommended by the task force, the cut score subcommittee and auditors will also complete the initial online training, observe the cut score workshops, and review the complete panel report and history before assigning the final cut score. These measures are intended to give subcommittee members and auditors a better understanding of the cut score process and provide a broader view of the panel's recommendations.

Jennifer Minchin
NCEES Associate Editor

2007–08 Board of Directors Q&A.
(continued from page 11)

eligible to nominate a candidate for the office. Are you in favor of this recommendation?

Ideally, you would want the best person for the job. Practically and politically, I'm not sure that the organization would approve any plan that does not allow the presidency to rotate among the zones.

Serving as vice president requires a large commitment from you in terms of time and travel. Why have you chosen to pursue a position on the NCEES Board of Directors?

Any time you take a job in a volunteer organization you find out very early that it takes more time and effort than advertised.

I volunteered because I think that my experience, which includes 30-plus years of working in private industry, 8 years as an elected official, 10 years of teaching strategic management, and numerous years of working in and with large nonprofit organizations, gives me a unique perspective on this position. In the past year, I have shed myself of many obligations to concentrate on actively working with NCEES. I strongly believe that we are at a critical stage in the life of the organization and the profession.

April 2007 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 takers (%)	Repeat takers (%)
Chemical	85	46
Civil	76	36
Electrical	69	19
Environmental	81	35
Industrial	61	26
Mechanical	80	33
General	77	29

General exam only

Examinee degree discipline	First-time takers (%)	Repeat takers (%)
Aeronautical	85	64
Agricultural	73	33
Architectural	67	33
Biological	78	25
Biomedical	82	48
Chemical	82	29
Civil	71	26
Computer	60	30
Electrical	58	22
Eng. Mechanics	64	32
Eng. Physics	81	15
Environmental	83	33
General Eng.	82	26
Geological	68	38
Industrial	47	21
Mechanical	84	41
Mining and Mineral	59	27
Naval Arch./Marine	87	67
Nuclear	85	100
Petroleum	57	50
Structural	74	38
Ocean	84	33
Other	75	28

Principles and Practice of Engineering

Examination	First-time takers (%)	Repeat takers (%)
Agricultural*	75	44
Architectural	66	26
Chemical	81	27
Civil	67	34
Control Systems*	80	49
Electrical and Computer	66	27
Environmental	73	35
Fire Protection*	42	34
Industrial*	69	40
Mechanical	64	30
Metallurgical*	55	54
Mining and Mineral*	84	35
Naval Arch./Marine	89	100
Nuclear*	80	80
Petroleum*	93	33
Structural I	38	25
Structural II	51	37

**These PE exams are offered only in the fall. Rates are shown for the October 2006 administration.*

Surveying

Examination	First-time takers (%)	Repeat takers (%)
FS	63	29
PS	66	29

NEWS

Arizona

- ◆ Susan Schaefer Kliman is a new appointee to the board. The term of Gary J. Nelson has expired.

Colorado

- ◆ Charles H. Adams is the new Member Board administrator for the Colorado State Board of Licensure for Architects, Professional Engineers, and Professional Land Surveyors. His e-mail address is Charlie.Adams@dora.state.co.us.

Delaware LS

- ◆ Frank Szczuka is a new appointee to the board. The term of Theodore Ressler has expired.

Guam

- ◆ Sonny P. Perez, P.E., is a new appointee to the board. The term of Miguel C. Bordallo, P.E., has expired.

Hawaii

- ◆ Paul Murray, Richard Misumori, and Roberto Yumol are new appointees to the board. The terms of Randall M. Hashimoto, L.S., Peter Dyer, and Shaun Ushiyima have expired.

Illinois PE

- ◆ Philip M. Corlew, P.E., and Charles R. Rayot, P.E., are new appointees to the board. The term of Don Tijunelis, P.E., has expired.

Missouri

- ◆ Michael C. Freeman, P.L.S., is a new appointee to the board. The term of Thomas J. Mathis III, P.E., L.S., has expired.

New York

- ◆ Roman H. Figler III, P.L.S., is a new appointee to the board. The term of Daniel Bower, P.L.S., has expired.

North Dakota

- ◆ Dean R. Wieland, P.E., is a new appointee to the board. The term of James R. Jorgenson, Ph.D., P.E., has expired.

Oklahoma

- ◆ Glen W. Smith, P.E., P.L.S., is a new appointee to the board. The term of Jon D. Nelson, P.E., has expired.

Pennsylvania

- ◆ The terms of Robert De Sousa, Theodore Tesler, and Joseph Resta have expired.

Puerto Rico

- ◆ Edgar Muñiz Berrios, P.E., and Félix Laboy Vásquez, P.E., are new appointees to the board. The term of Alberto Sanchez Brignoni, P.E., has expired.

South Carolina

- ◆ Mitchell S. Tibshirany Jr., P.E., is no longer on the board.

Vermont LS

- ◆ Jonathan Richard Abts, L.S., is a new appointee to the board.

EVENTS

DATE	EVENT	LOCATION
August 21	Board of Directors' Meeting	Philadelphia, Pa.
August 22–25	Annual Meeting	Philadelphia, Pa.
August 25	Board of Directors' Informational Meeting	Philadelphia, Pa.
September 28–29	Board of Directors' Orientation	Clemson, S.C.
October 26–27	Exam Administrations	
October 28	JPEC Exam Administrations	Tokyo, Japan
November 2–3	Board of Directors' Meeting	Palm Springs, Calif.
February 22–23	Board of Directors' Meeting	Naples, Fla.

Send letters to *Licensure Exchange* editor at NCEES, PO Box 1686, Clemson, SC 29633 or dmcguirt@ncees.org.

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Jerry T. Carter
Acting Executive Director
Clemson, South Carolina

Board of Directors names Carter acting executive director



Jerry T. Carter
Acting Executive Director

The NCEES Board of Directors recently named Jerry T. Carter acting executive director, giving him the full duties, responsibilities, and authority of the executive director position.

In this position, Carter is serving as secretary of the Board of Directors, with responsibility for preparing minutes for Board meetings, authenticating all

corporate records, and executing documents on behalf of the Council and as directed by the Board. He also serves as the Council's chief employed officer, with full authority for the management of Council affairs, subject to the Board of Directors and Council policies.

Prior to being named acting executive director, Carter served as associate executive director at the Council. He has been employed by NCEES since 2001. Before joining NCEES, Carter was the executive director of the North Carolina Board of Examiners for Engineers and Surveyors in Raleigh, N.C., from 1992–2001.

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