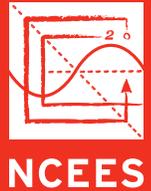


Licensure EXCHANGE

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IAN MARQUAND

MONTANA BOARD OF
PROFESSIONAL ENGINEERS
AND PROFESSIONAL LAND
SURVEYORS EXECUTIVE
OFFICER



FEATURE STORY

MODEL LAW IN MONTANA: FROM CONCEPT TO LEGISLATION

February 12, 2015—A small group of legislators, agency staff, and private sector professionals stand behind a table in the State Capitol Building as Governor Steve Bullock takes up his pen to sign the first bill to reach his desk from the 64th session of the Montana Legislature.

HB 63 becomes effective upon the governor's signature, "modernizing and clarifying" various aspects of law related to engineers and land surveyors.

The journey to that moment began 18 months earlier, on August 1, 2013, when the nine members of the Montana Board of Professional Engineers and Professional Land Surveyors gathered in the capital city of Helena for their scheduled summer meeting. Among the topics: the board's repeatedly voiced frustration over the vagaries of the licensing laws it must enforce. As it happened, new Montana Commissioner of Labor and Industry Pam Bucy had come before the board for a conversation about related subjects. As a result of that exchange (and

with the commissioner's endorsement), the board voted to create a new Model Law Committee to investigate the potential adoption of the NCEES *Model Law* to govern the board's work. The board then directed staff to prepare draft legislation for the committee's review, with the goal of introducing a bill in the 2015 Montana Legislature.

The Model Law Committee held its first meeting on November 7, 2013. It consisted of five board members, four of whom already served on the board's Rules Committee. The committee set about creating a work plan that would include a full-scale review of all Montana statutes relating to the board and its work, a comparison of those laws with the NCEES *Model Law*, and the creation of a legislative proposal—all to be accomplished within six months.

Two decisions aided the committee in its work. First, the members agreed that the committee would focus initially on licensing statutes and the qualifications for licensure included within them. Only after that work was substantially complete would the committee turn to other areas of the law. Second, the committee adopted a staff-proposed format for reviewing the statutes—a three-column spreadsheet with the Montana statutes on the left side, the *Model Law* counterpart in the center, and comments and proposed new language on the right. These sheets would be printed, bound, and mailed to the members in advance of each meeting.

On December 2, 2013, the committee began its review of statutes for the licensing of professional engineers and professional land surveyors (both by exam and by comity) and the certification of engineer interns (E.I.s) and land surveyor interns (L.S.I.s). In some cases, the committee simply eliminated duplicative or confusing language from statutes.

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DENNIS D. TRUAX, PH.D., P.E.

ADVISORY COMMITTEE ON COUNCIL
ACTIVITIES CHAIR

ACCA considers structural engineering regulation

OVER THE PAST FEW YEARS, SEVERAL ORGANIZATIONS representing the structural engineering community have proposed that the practice of structural engineering relating to certain types of structures be regulated at a higher level of qualifications than currently reflected in the laws and rules of most licensure jurisdictions. Their position is based on the premise that engineers working on certain structures, termed “significant” or “essential,” require a higher level of expertise due to the structures’ complexity and high potential for harm to the health, safety, or welfare of the public in the event of failure.

NCEES has been considering this issue for a couple of years. This year, the Advisory Committee on Council Activities was charged to review structural engineering practice and regulation in the United States, engage the structural engineering community, and consider making recommendations for revision of the *Model Law* or *Model Rules*.

ACCA found that there are essentially five different approaches to regulating the practice of structural engineering related to significant structures in the United States:

- Generic P.E. licensure, as currently reflected in the *Model Law* and *Model Rules*
- Generic P.E. licensure plus a protected S.E. title, as found in a few jurisdictions where additional requirements are imposed on P.E.s before they can use the title “structural engineer” or “S.E.”
- Generic P.E. licensure plus protected S.E. title and restricted S.E. practice, which restricts not only the use of the S.E. title but also imposes certain restrictions on who can actually practice structural engineering relative to significant structures. This approach has two variations:
 - P.E. plus S.E.—Requires structural engineers to obtain a P.E. license first and then obtain an S.E. designation by meeting additional experience requirements and taking the 16-hour SE exam

- S.E. only—Allows individuals to meet the requirements for the S.E. designation without having to meet the requirements for generic P.E. licensure first and restricts them to practice related only to significant structures
- Discipline-specific licensure, with individuals licensed by specific discipline (for example, civil engineer or mechanical engineer) and restricted to practice only within their designated discipline
- Separate S.E. licensure, in which the practice of structural engineering is regulated by statutes and rules completely separate from those regulating other disciplines of engineering

ACCA agreed that a higher level of regulation for engineering practice associated with significant structures could be a positive approach to mitigate the threat to the health, safety, and welfare of the public posed by these structures. Also, with 11 jurisdictions having a level of greater regulation on structural engineers, the committee felt this further provided merit for the Council to consider a change to the *Model Law* and *Model Rules*.

The committee’s consideration for each of these approaches is detailed in its report, which will be published in the *Action Items and Conference Reports* in July. ACCA feels that the best option is to augment the generic P.E. license with a protected S.E. title and restricted S.E. practice. This solution protects the S.E. title and regulates structural engineering practice, thus providing better safeguards for the health, safety, and welfare of the public regarding structures that pose an elevated threat. While in some ways equivalent to discipline-specific licensure for one segment of the engineering profession, it maintains a connection with generic licensure, and the provisions can be embedded in the statutes and rules of most of the jurisdictions.

The committee recommends including both variations for this approach: the P.E. plus S.E. and the S.E. only. Those individuals

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FROM THE PRESIDENT



DAVID WIDMER, P.L.S.
NCEES PRESIDENT

Task force gets discussion started on future of surveying

WHEN I FORMALLY ANNOUNCED THE CREATION OF THE Future of Surveying Task Force last August, I qualified my comments by stating that I had no expectation of immediate results. To my surprise, we did get results, some good and some less so. My goal was to get vested parties talking, and that is the positive thing. Additionally, with the recent decision to move the Principles and Practice of Surveying (PS) exam to computer-based testing (CBT) in October 2016, the timing could not have been better.

President-Elect Michael Conzett, P.E., has agreed to extend the task force for another year and get more people at the table to discuss barriers for initial surveying licensure and licensure by comity. The newly formed Emerging Engineers and Surveyors Group (see page 6), which will meet in August, should give us new insights into impediments to licensure for individuals just entering the profession.

This year, I charged the Future of Surveying Task Force, under the leadership of Donna Sentell, to think outside the box. Some people took from my challenge that I am for the total elimination of state-specific exams. I don't believe I ever said that, but let's talk about it at least. I recently came back from the Central/Northeast Zone interim meeting, where there was a lively discussion about the state-specific exams, but we came away feeling that nobody wants to give an inch on their own exam. We are a member-driven organization, and if that is the will of the Council, so be it.

That being said, NCEES is moving the PS exam to CBT, which will offer year-round testing opportunities at Pearson Vue test centers. It also means that the organization will not be administering state-specific exams for member boards after April 2016. For some jurisdictions, this is not a problem; many states administer their state-specific exams outside the current PS April and October exam administrations, and others already have a state CBT exam. We are looking at long-term solutions that NCEES can offer to help boards that need it. It will take time for change, but that is fine. We just need to make sure it's the correct change.

It will take time for change, but that is fine. We just need to make sure it's the correct change.

While it's not feasible for NCEES to convert all of the state-specific exams to CBT and administer them with the PS exam, perhaps regional exams would open up more options. At one time, the Colonial States Boards of Land Surveyor Registration administered an exam throughout the colonial states that certainly stood the test of time for those of us in the original 13 colonies (plus a few others). It was a good exam but a regional one. I am confident that this exam could be resurrected if states would agree to accept it in lieu of their own two-hour state-specific exam.

South Dakota has a unique idea: it uses a take-home state-specific exam. This format puts the focus on applicants looking for answers so that they are familiar with the state statutes, not just on memorization. This option seemed to spur discussion at the Central/Northeast Zone meeting, and as I said before, this is good.

While boards consider long-term solutions, NCEES is offering a short-term fix for boards for which it administers the Principles and Practice of Engineering exam. NCEES can offer space at the pencil-and-paper exam sites (in April and October) at no cost to allow these boards to administer their state-specific surveying exam. Each member board would register candidates for the state-specific exam and take charge of providing notifications and instructions to candidates, as well as providing staff to administer the exam. Member board administrators have already received details on this option and other possible longer-term solutions.

The Future of Surveying Task Force has put much effort into addressing the issues facing the surveying profession, and it has a lot of work ahead of it. Where the task force will end up is anybody's guess, but the great news is that people are talking about the issues before us. Keep up the good work.



GREGG BRANDOW, PH.D., P.E., S.E.
CALIFORNIA BOARD FOR PROFESSIONAL
ENGINEERS, LAND SURVEYORS,
AND GEOLOGISTS EMERITUS MEMBER

100 years of structural engineering licensure

Look back, looking forward

GROWING UP WITH A FATHER WHO WAS A STRUCTURAL engineer, I learned at an early age about the impressive buildings in Los Angeles that he was responsible for engineering, but never put much thought into his professional title, “S.E.” Following in his footsteps, I quickly learned the academic requirements, and soon after completed the examination and experience that it took to put S.E. after my own name. The phrase, “protecting the public,” and the challenges of designing structures to withstand “nature’s fury,” especially earthquakes in California, put the responsibility that goes with holding the title of structural engineer into perspective.

My structural engineering practice began as a kid when I would lay a wooden plank over the wash to serve as a bridge. Fortunately, the public did not use my bridges, because sometimes they would fail. Nobody said that I had to be licensed to engineer my bridge. The same problem occurred in Wyoming back in 1907, when water and irrigation required engineering, and anybody could provide such services. From this unruly situation came the first state law to regulate the practice of engineering. Today, every state has statutes that protect the public by regulating the practice of engineering in the built environment and the use of the title of professional engineer (P.E.).

As I look back and look forward, I realize that I am part of a profession that is well established in some states, in desperate need of recognition in other states, and embraces licensure that varies significantly from state to state.

Looking back

The history of structural engineering dates back to at least the time of the Egyptian pyramids, where structural form and stable construction were planned and achieved. For the next 4,000 years, engineers built large and impressive structures without beam theory, Euler’s equation, or the computer software that

we have today. The 20th-century structural engineer became equipped with new tools, such as moment distribution, and began to refine more elegant and taller buildings and longer bridges.

Illinois Structural Engineers’ Act of 1915

The first efforts to regulate the practice of structural engineers started in 1908 when the Western Society of Engineers began negotiations with the Illinois branch of the American Institute of Architects and the Illinois Society of Architects to support and establish a state building code and provide a licensing law for structural engineers. The architects had been successful in creating the 1897 Architectural Act in Illinois, which gave them the exclusive right to design and supervise building construction. However, in 1913, efforts to establish a state building code failed to gain enough support. Architects’ support for engineering laws waned, and it took another two years of bitter debate before passage of the new Structural Engineers’ Act in 1915.

The motivation to regulate the practice of structural engineering in Illinois was the rapid growth of downtown Chicago, which resulted in the construction of “skyscrapers” like the world had never seen before. These taller, more complex and higher-occupancy buildings drew the attention of the state legislature, which saw a need to regulate the profession responsible for designing them. As the late Gene Corley related to me, the legislature was compelled to keep “the fools and rascals from building unsafe structures.” As we begin 2015, we celebrate 100 years of structural engineering licensure that began with the first Structural Engineers’ Act in Illinois. The skyline of Chicago is a testament to the accomplishment of structural engineers over that century.

California Title Authority of 1931

In California, the cities of San Francisco and Los Angeles were growing and developing their own skylines, and the structural engineering profession was faced with the additional challenges of building on ground that was susceptible to violent shaking.

The great 1906 San Francisco Earthquake and the 1925 Santa Barbara Earthquake were very destructive. Civil engineers managed to get a Civil Engineering Registration Law passed in the California legislature in 1929, but structural engineers were unsuccessful in achieving a separate practice act. They tried to gain the support of architects, but in 1931 amended the Civil Engineering Registration Law to include regulation of the title of “structural engineer” or “S.E.” without restricting any class of buildings to the exclusive purview of those authorized to use it.

The 1933 Long Beach Earthquake caused widespread damage to, and the collapse of, many masonry school buildings throughout Southern California. If this earthquake had occurred during school hours, it could have resulted in an unimaginable loss of life. The legislature passed the Riley Act, which required seismic design, and the Field Act, which required that school buildings be engineered by licensed structural engineers. Years later, hospitals were added. Even without the legislative requirement, the vast majority of California’s significant structures are designed today by a licensed structural engineer.

Progress in enacting legislation recognizing and regulating structural engineers in other states has been slow. Only a handful have structural engineering practice restrictions within the P.E. practice acts, while a few have separate structural engineering practice acts, and a few more have structural engineering title restrictions.

NCEES Model Law Structural Engineer

In 2001, NCEES established the Structural Engineering Examination/Recognition Task Force (SEERTF) to address issues regarding structural engineering licensure. The NCEES president, Ted Fairfield from California, saw this national effort as a way to enhance public recognition of structural engineering and to standardize the requirements for professional practice.

The national structural engineering organizations—the Structural Engineering Institute (SEI), the National Council of Structural Engineers Associations (NCSEA), and the Council of American Structural Engineers (CASE)—and NCEES have all recognized that structural engineering lacks national recognition, uniformity of requirements, and a means to facilitate comity and mobility. In addition, the NCEES national two-day competency exam for structural engineers was not used uniformly—for example, some states used only the first

day—and the states of California, Oregon, and Washington used different additional examinations.

I served as chair for SEERTF, and we recognized that no uniformity existed in the states that recognized structural engineers. In response, SEERTF created the Model Law Structural Engineer (MLSE), a standard for experience, education, and examination requirements. To facilitate comity and mobility, NCEES established a Records program for MLSEs. Structural engineers can now establish MLSE records with NCEES, and this information can be used to apply for comity in states that recognize structural engineers.

NCEES 16-hour Structural Engineering exam

SEERTF recognized the need for a single national exam with the adoption of the International Building Code (IBC) in all states. SEERTF convinced NCEES to develop a new exam based on the new IBC, which replaced the three previous national building codes that had been adopted in various states. A subsequent NCEES task force developed a test plan and exam format, and created and implemented a new NCEES 16-hour Structural Engineering (SE) exam that all states agreed would be the standard for minimum competency for structural engineering licensure. All states that recognize structural engineers adopted this new exam, and most of the other states allow engineers to take this exam.

SELC unites structural engineers

The Structural Engineering Licensure Coalition (SELC) was created in 2012 to be a single voice for structural engineers to advocate the advancement of structural engineering licensure. According to its position statement, its goal is protection of the public through the implementation of minimum standards for the practice of structural engineering in every jurisdiction by enacting the national minimum standards (MLSE) and using the minimal competency 16-hour NCEES SE exam with a consistent licensure format in each state.

SELC is a coalition of SEI, NCSEA, the Structural Engineering Certification Board, and CASE. SELC recognizes that the missing piece of the puzzle is to establish a structural engineering licensure format—practice restriction, title restriction or partial practice restriction—that can be adopted by NCEES as a standard and a guide for states to use.

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HEADQUARTERS UPDATE



JERRY CARTER
NCEES CHIEF EXECUTIVE OFFICER

Emerging leaders to provide perspectives on licensure

NCEES MEMBER LICENSING BOARDS ARE MOSTLY MADE UP of professionals who have years of experience and either own their own businesses or hold management positions in their firms. While the organization greatly benefits from their experience, the NCEES board of directors wanted to get the opinions of individuals who are just starting in their careers. The board developed the Emerging Engineers and Surveyors Group to provide feedback on the licensure process and to discuss issues relevant to the future of the engineering and surveying professions.

The group is made up of 12 individuals—all under the age of 35—who represent the following categories:

- Full-time senior engineering students
- Full-time senior surveying students
- Certified engineer interns or have passed the Fundamentals of Engineering exam
- Certified surveyor interns or have passed the Fundamentals of Surveying exam
- Licensed professional engineers
- Licensed professional surveyors

We accepted applications on the NCEES website from late February to April 1. The 605 applications that we received included great diversity in terms of gender, ethnicity, region of the country, and disciplines of engineering. President-Elect Michael Conzett, P.E., reviewed the applications and selected the group members.

The group will be funded to attend this year's annual meeting in Williamsburg, Virginia, and will participate in a focus group with the NCEES board on Tuesday prior to the official start of the annual meeting. This will provide the opportunity for an exchange between the group members and the board of directors and set the stage for the group's work for the coming year. This group will function

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as an NCEES task force; it will receive charges from President-Elect Conzett and hold at least one face-to-face meeting in 2015–16.

The focus group will be held before the annual meeting, but we are inviting the group members to attend the rest of the meeting. For participants who are able to stay, we will reach out to their respective member boards to identify mentors who we can pair with participants and answer any questions about NCEES, the member board, or how the annual meeting fits into our work.

The board of directors believes that we can learn much from this group, such as why the participants are pursuing licensure, why their contemporaries are not, impediments experienced during the intern/licensure process, and general ideas about how NCEES can promote licensure in a manner that best resonates with the younger generation.

We look forward to working with them at the annual meeting and in the year ahead.



RICK HUETT

ALABAMA STATE BOARD OF LICENSURE FOR
PROFESSIONAL ENGINEERS AND SURVEYORS
INVESTIGATOR

Due process important even before charges filed

HOW DOES DUE PROCESS IMPACT INVESTIGATIONS concerning allegations of competency or misconduct? I recently had an occasion to discuss due process in one of our investigations.

When investigating competency-related complaints, the Alabama board submits sanitized copies of the questioned documents to an expert for review. The expert's review is then submitted to the respondent to allow him or her to respond to the review or provide additional information. That response is then submitted to our expert, who determines if it is adequate to explain any questions from the original review.

In this recent case, the respondent provided a 40-page response to our expert's initial review. The expert's review of that response was simply added to the case file, not resubmitted to the respondent.

The investigation eventually led to the filing of formal charges against the respondent, and when discussing the case file, our investigative committee members' opinions differed on whether the respondent should have been provided the expert's second response. The committee asked if, by not doing so, we had failed to provide a complete due process. From the investigative perspective, the committee questioned, how many times do you go back and forth between the expert and the respondent at this stage of the investigation? Some committee members felt the back and forth should continue until there is nothing further to add from either side, even in the early stage of an investigation when no charges have been contemplated or filed. Once charges are filed, of course, the respondent would be provided the expert's final report in the discovery process.

At the end of its discussion, the committee determined that efforts should be made to ensure fairness to the respondent, and this includes providing the respondent all of the expert's reports during the investigative process.

The Fifth and 14th Amendments to the U.S. Constitution guarantee that an individual cannot be deprived of life, liberty, or property without appropriate legal procedures and safeguards.

Guidance for due process

Due process—a fundamental principle of fairness—is a key concern in all legal matters. The Fifth and 14th Amendments to the U.S. Constitution guarantee that an individual cannot be deprived of life, liberty, or property without appropriate legal procedures and safeguards.

The NCEES *Investigation and Enforcement Guidelines* addresses the issue of due process of law in Chapter 6. In part, it says,

In all cases, any thorough and effective enforcement program must take into consideration the fact that the accused, whether one of the board's licensed professionals or a non-licensed person, has certain inalienable civil rights which must be observed. ...

At the outset, it must be borne in mind that the initial complaint received by a board charging the subject with an alleged violation is at most an unsubstantiated accusation and therefore must be verified or disproved through investigation before action warranted by a board can be determined.

I take from these last two sentences that the investigation must gather all applicable information in order to provide the reviewing committee sufficient evidence to verify or disprove the allegation. This would include providing the respondent with all of the expert's reports regarding the review of the questioned documents and/or responses, even at the early stage of an investigation.

In the end, for me, it comes down to not wanting just the appearance of fairness in an investigation but, rather, evident fairness.

FEATURE STORY

continued from cover

But it also made substantive changes, including

- Adding the *Model Law* requirement that most P.E. applicants must be registered as E.I.s
- Adding the *Model Law* P.E. pathway that included a Ph.D. in engineering, E.I. registration, and two years' experience

In January 2014, the committee took its first top-to-bottom look at all aspects of Montana law and the *Model Law*, from board composition through disciplinary procedures. The review showed that in many instances, the *Model Law* could not apply because of executive branch or department statutes that covered all Montana licensing boards. In other instances, the committee determined that certain administrative statutes put in place decades earlier had been superseded by newer laws and could be repealed entirely. Committee members also took another look at licensing statutes and gave their staff carte blanche to rewrite them as necessary.

By the time the committee met in February, its scope of work had been narrowed to only those statutes that required amendment. That, along with the new staff-developed licensing language, allowed the committee to make huge strides toward a legislative package that included

- A complete restructuring of “licensure by exam” statutes to clarify requirements (including references) for each license type and standardize the format of each statute
- Adopting the *Model Law* requirements for E.I. and P.E. applicants with master’s degrees in engineering
- Creating specific new educational requirements for P.L.S. and L.S.I. applicants that reflect current educational programs in Montana
- Repealing separate statutes that dealt only with applicant references
- Condensing and clarifying the statutes for comity licensure of P.E.s and P.L.S.s, including specific requirements for passage of NCEES Principles and Practice exams.
- Eliminating emeritus status on October 1, 2015. Those licensees will move to inactive status for purposes of license renewal.

When the committee met again in March, its attention turned from individual licensing requirements to other topics, including the certificate of authorization (COA) for businesses. Two specific items

Over the next six months, with input from the professional community, the board made final changes to the bill, including the total removal of industry exemption language.

dominated the conversation: how to address firms with multiple offices and whether to retain industry exemption language in the COA statute. Eventually, the committee agreed on language referencing branch offices. It also decided to amend the industry exemption language and move it to the statute on exemptions to licensure.

At its May meeting, the full board adopted the *Model Law* Committee’s recommendations and instructed staff to prepare legislation. Over the next six months, with input from the professional community, the board made final changes to the bill, including the total removal of industry exemption language.

From there, the bill moved swiftly. By Christmas, the bill had been sponsored, introduced, assigned the number HB 63, and sent to the House Business and Labor Committee, all in advance of the opening of the session.

On January 5, 2015, the Legislature sat down to business. Three days later, HB 63 had its first hearing with board members, department staff, and representatives of the engineering and surveying community all speaking in favor. Nobody spoke against the bill. Five days later, it passed its final vote in the House and went to the Senate, where it again received no public opposition, passed its floor debate vote 47–0, and went to the governor for his signature.

Since the passage of HB 63, the staff of the Montana board has worked to implement the legislation. Today, the board’s applications reflect the new laws. Meanwhile, the board has begun the process of determining the effect of the bill on board rules. That effort will continue through 2015.

For those who worked on HB 63, or the “*Model Law Bill*,” the final chapter occurred at the board’s April 30 meeting, when the board officially disbanded the *Model Law* Committee, with expressions of thanks for a job well done.

COMMITTEE FOCUS

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who are content to restrict their practice to just structural engineering would only take the SE exam and meet any other requirements for SE licensure. However, if they wish to practice more broadly in addition to engineering of significant structures, they should be required to take both the PE and SE exams and maintain both licenses.

If the Council approves the recommended approach for modifying the *Model Law* and *Model Rules*, the committee recommends that the specific competency standards be reflected in the Model Law Structural Engineer designation (*Model Rules* 210.20 B3). Ultimately, individual jurisdictions will establish their definitions of significant structures and the threshold for imposing the higher-level competency standards, but the committee feels that NCEES should develop a definition for the sake of promoting uniformity. Further, the grandfathering of current practitioners

is a customary practice, and the committee recommends new regulations of structural engineering to be forward-looking, with current P.E.s who practice structural engineering being granted the new S.E. designation after a demonstration of their experience and qualifications.

I encourage member boards to read the committee's full report of this complex issue. There was good debate at the zone interim meetings in May; the committee appreciates the zones' feedback. Boards will soon be meeting to consider their positions on motions being presented at the annual meeting, so if you have any questions about the committee's report or recommendations, please let me know so that you can get those answers and have the most informed debate possible.

100 YEARS

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Looking forward

If the structural engineering profession wants to be recognized nationally and have consistent licensure requirements across the states, we need to build support both inside our profession and among those who have historically been opposed to our efforts. The next 100 years of structural engineering licensure will depend upon our efforts. Recent successes occurred in two states, Utah and Washington, where legislation was passed for partial structural engineering practice acts with the restriction that "significant structures" can only be designed by licensed structural engineers. In both of these states, provisions for transitioning professional engineers currently practicing structural design into the new S.E. license without having to take another exam was an important aspect of gaining wide support. Other states are currently undertaking similar efforts.

With 100 years of history and a lot of passion, the structural engineering profession needs to recognize that we are part of a larger community of professional engineers in many disciplines, all as dedicated as we are to the protection of the public. We

must keep this in mind as we work with NCEES to develop a consistent structural engineering licensure format, especially when interacting with organizations like the National Society for Professional Engineers, which for many years was opposed to our efforts because of their concern about fracturing the wider engineering profession. We need to convince them and others that we all have the same goals of protecting the public, and that establishing a uniform S.E. licensure program across the country will enhance the public's recognition of all engineers, whether they call themselves structural engineers or professional engineers.

I can now design a bridge across a wash or a high-rise building, and the public, seeing an "S.E." after my name, will be confident that I meet the minimum qualifications to be a structural engineer. Let us continue as a profession to promote structural engineering licensure for our second 100 years.

Reprinted with permission, Structure magazine, February 2015

PERRY VALDEZ

NEW MEXICO BOARD OF LICENSURE FOR
PROFESSIONAL ENGINEERS AND PROFESSIONAL
SURVEYORS ACTING DIRECTOR

Model Law change brings timing of PE exam into focus

DECOUPLING ENGINEERING EXPERIENCE FROM THE Principles and Practice of Engineering (PE) exam has been debated for a few years. Some states already allow candidates to take the PE exam early. The requirements for early testing vary among those state boards that allow it, ranging from requiring no experience to a minimum number of years after graduation to no experience on the condition of meeting certain qualifications. In 2014, NCEES member boards voted to remove from the *Model Law* the requirement that the four years of progressive engineering experience had to be earned before taking the PE exam. The majority of licensing boards do not allow early taking of the PE exam at this time, but with the recent change to the *Model Law*, various boards are considering how they want to deal with the issue for their jurisdictions.

State boards that are reassessing the experience requirement are exploring how their decision may impact their licensees when seeking licensure by comity in another state. The impact may be minimal, if any, since all boards agree that four years of experience in engineering are required for obtaining licensure no matter when the exam is taken.

Professional exam before professional experience?

The PE exam is considered by most to be a professional practice exam that tests candidates' engineering knowledge beyond the classroom setting. Will candidates who have not begun their career be able pass the exam? Following from that, two questions come to mind: first, what is the PE exam testing—is it testing relevancy based on experience or academic knowledge—and second, if the PE exam is taken prior to obtaining any experience, is the Fundamentals of Engineering (FE) exam necessary? These are questions to consider since some candidates may attempt the PE exam right after the FE exam. I believe the responses to these questions would not change the PE exam or make the FE exam obsolete.

The majority of licensing boards do not allow early taking of the PE exam at this time, but with the recent change to the *Model Law*, various boards are considering how they want to deal with the issue for their jurisdictions.

Consider the options

Whatever your board's choice on the matter is, there are two existing licensure processes that could work as a foundation: the Kentucky model or the New Mexico model. Kentucky's model allows candidates to apply to take the PE exam without any experience if they have passed the FE exam and met the education requirements. Once candidates pass the PE exam and obtain the required four years of experience, they can apply for licensure. New Mexico's model allows candidates to apply to take the PE exam after a minimum of two years of experience if they have passed the FE exam and met the education requirement. Once candidates pass the exam and obtain the remaining years of experience, they may apply for licensure.

The change of decoupling the PE exam from experience is a reality in some states, providing a progressive method for advancing licensure. The decoupling change opens the door to the future, where it may lead to automatic approvals to take the FE and PE exams and candidates applying for licensure after meeting all requirements. This is an issue that requires careful consideration and attention to decide the role, and importance, of the FE and PE exams and how best to deal with mobility.

UPCOMING EVENTS

June 2

Engineering Award Jury Meeting
Clemson, South Carolina

June 4-6

SE Exam Scoring Workshop
Clemson, South Carolina

June 5-8

PE Nuclear Exam Meeting
San Antonio, Texas

June 12-13

PE Mining and Mineral Processing
Exam Meeting
Clemson, South Carolina

June 12-14

PE Naval Architecture and Marine
Exam Meeting
Arlington, Virginia

June 19-20

PE Architectural Exam Meeting
Clemson, South Carolina

June 20-22

PE Agricultural and Biological
Engineering Exam Meeting
New Orleans, Louisiana

June 26-27

PE Metallurgical and Materials
Exam Meeting
PS Exam Meeting
Clemson, South Carolina

July 17-18

PE Civil Exam Meeting
Clemson, South Carolina

July 31-August 1

FE and FS Exam Meeting
Clemson, South Carolina

MEMBER BOARD NEWS

ARKANSAS

Heather Richardson is the new executive director. She is replacing Steve Haralson, who is retiring.

INDIANA PE

Ethan Manning is a new appointee.

IOWA

Laura Sievers and Lisa VanDenBerg are new appointees. Christy VanBuskirk and Marlee Walton are no longer members.

MINNESOTA

Robin Mathews and Keith Rapp are new appointees. Lisa Hanni and Bruce Johnson are no longer members.

NEW HAMPSHIRE PS

Joseph Wichert is a new appointee. Greg Brown is no longer a member.

OREGON

Board president Susan Newstetter passed away May 1. Christopher Aldridge is a new appointee.

SOUTH CAROLINA

Johnston Peebles is a new appointee.

WASHINGTON

Michael Villnave is the new executive director. He replaces George Twiss, who retired April 30.

OTHER

Edward Roche, a volunteer for the PE Chemical exam development committee, passed away April 9. An exam volunteer since 1985, Roche received the NCEES Distinguished Examination Service Award in 2014.

NCEES OUTREACH

JUNE 14-17

American Society for Engineering Education Annual Conference, Seattle, Washington

JULY 15-19

National Society of Professional Engineers Annual Meeting, Seattle, Washington

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Pennsylvania

Patty L. Mamola, P.E.
Past President
Nevada

Michael J. Conzett, P.E.
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NCEES annual meeting registration open online until July 6

Registration is now open for the 2014 NCEES annual meeting, which will be held August 19–22 in Colonial Williamsburg.

In addition to the business sessions, where Council members will convene to decide key engineering and surveying licensure issues, the annual meeting agenda includes technical workshops, forums to discuss issues of importance to the professions, and social events to network with members and staff of other licensing boards. Those attending the meeting for the first time will meet at the First-Time Attendee Luncheon to get to know NCEES and some of the organization's leaders and to learn more about the important role the annual meeting plays in advancing licensure.

Details of all of this year's workshops, business sessions, and social events are available on the MyNCEES section of ncees.org (see Board Resources, Annual Meeting). Registration will remain open online until July 6. Late registration fees will apply after this date.