

Committees charge forward

Their names can come across as a confusing string of acronyms: ACCA, EPP, EPE, EPS, UPLG, LQOG. But NCEES committees are anything but confused about their current goals. Their efforts are designed to meet the charges assigned by President Jon Nelson shortly after the Annual Meeting.

Committee charges determine where NCEES focuses its energies for the year. Charges build on past progress, such as continuing the efforts to ensure examination security. They break new ground, such as investigating new ways to address international issues. They ensure that the Council can properly operate, such as creating a responsible fiscal budget. Here are some of the charges that will challenge this year's committee members.

Scrutinizing exam content

The **Committee on Examinations for Professional Engineers (EPE)** and the **Committee on Examinations for Professional Surveyors (EPS)** are responsible for the content and scoring of all NCEES engineering and surveying examinations.

"The primary focus of EPE remains the engineering exams—how to continue to improve them, make them statistically repeatable in form and substance, and ensure that we are protecting the public and being fair to the applicants," says A.J.P. "Sonny" Launey, P.E., who is serving his first year as EPE chair. "We're focusing on a number of issues that deal specifically with exam content and form, as well as statistical information and how it's used both in determining the consistency of our exams and in establishing cut scores."

"EPE Charge 3 (how to use constantly changing codes and standards in the exams) and Charge 4 (investigate the possibility of using a PE reference handbook) are related," says Nelson. "The implementation of Charge 4 might solve the problem of Charge 3. Charge 3 is important because the issue can affect the credibility of our exams. Charge 4 is critical because of security concerns."

EPS will also investigate the feasibility of using a PLS reference handbook with the goal of standardizing information used by examinees and enhancing exam security. In addition, it will implement the new surveying specifications developed from the results of the recent Professional Activities and Knowledge Study.

"The major focus of an exam committee is always to produce high-quality exams on time," says Rita Lumos, P.L.S., who has served on EPS as a member or resource since 1997. This is her second year as chair. "EPS always has three versions of the exam under review to be used for the next three administrations. Because we have a new exam blueprint taking effect in October 2005, we're currently working with both the old and new specifications."

Defining minimum competency

The **Committee on Examination Policy and Procedures (EPP)** determines policies and procedures as they apply to the examination process. Committee members review the effectiveness of the examinations and recommend policies, specifications, and procedures consistent with the trends in the engineering and surveying professions.

One of this year's charges is to evaluate the level of difficulty and complexity of exam questions and provide a definition of the term "minimum competency" as it pertains to the licensure of engineers and surveyors, to compare this definition to those of other professions, and to consult with EPE and EPS as appropriate.

"The issue of defining minimum competency is one of extreme importance," says L. Robert "Larry" Smith, P.E., chair of EPP. "Some feel that the cut scores on the PE exams are too low because the exams may not be geared to determining just who are the minimally competent. If a working definition can be determined, this will be of great assistance to the exam committees."

Ensuring sound exams

The nature of the **Committee on Examination Audit** means that its charges are fairly similar from year to year. "The big thing for this committee is the audit itself," says Chuck Wallace, director of exam development and the committee liaison.

The main purpose of the committee is to ensure that recognized and accepted psychometric standards for licensing purposes continue to be used and met. This year, the committee will audit the most recent administration of the Environmental, Fire Protection, Nuclear, Structural II, Agricultural, and Mechanical PE exams.

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PURPOSE

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

Constitution Article 2, Section 201

Strengthening security

Some committee charges stem from the recent exam security audit report recommendations. One of these is for EPE and EPS to each investigate and provide recommendations for the maximum number of times an item should be used on an exam before the item is made inactive. They are also charged with recommending whether NCEES should use multiple forms or versions of exams in each administration. In addition, EPP is charged with recommending a process to conduct a cheating analysis after each administration of NCEES exams and develop rules for interpreting data from the NCEES random-guessing program.

Addressing calculator questions

A recurring security challenge is the issue of calculators in the exam room. “Among other things, we’re charged to again consider the feasibility of developing items that can be answered without the use of a calculator,” says Lumos. “The calculator issue is a very difficult one. The committee has reviewed the last few administrations of the FLS and PLS exams and discovered that those exams are not currently completely calculator dependent. A large percentage of the items relate to the legal principles of surveying and do not require a calculator. [Last year’s] committee felt very strongly that a certain percentage of each exam should require a basic scientific calculator. Security concerns have brought the issue back for further consideration.”

The **Examination Administration Task Force** will also tackle calculator issues. It will review Exam Policy 15 as amended by the Council during this year’s Annual Meeting and consider adding the words “or supplied” to the policy so that it reads “Only models of calculators as specified or supplied by NCEES are permitted in the examination room.” The task force members will also revise exam policies to minimize objects allowed in the exam room and maximize security.

“We assist the exam committees on special projects and how we can help them carry out their charges,” says Rosemary Brister, chair of this special task force. “One of our major focuses will be on exam security and how to assess ELSEs and non-ELSEs states. Another major charge is how to develop and use a centralized registration system for all examinees.”

Clarifying what it means to offer professional services

The **Committee on Uniform Procedures and Legislative Guidelines (UPLG)** is charged with the upkeep of the *Model Law* and *Model Rules*. The committee has 18 charges this year. Most are designed to keep the *Model Law/Rules* up to date with changes in the needs of the engineering and surveying communities.

Several other charges may be more controversial and require more input, according to Claude Baker, P.E., S.E., L.S., who is serving his third year on the committee and his first year as chair.

One of these is to define what constitutes the “offering of professional services” as contained in the *Model Law*. “The problem of out-of-state engineers soliciting work has been with us for a long time,” says Baker. “It’s a problem on both sides of the state line. How do you solicit legally, and how do you control it? Perhaps we can come up with some language to ease the problem.”

Defining responsible charge

UPLG will also define how responsible charge is achieved when services are performed outside the United States by nonlicensed individuals and then reviewed and certified by a professional engineer or surveyor. Many U.S. engineering firms use the services of engineering firms outside the country.

“How does an engineer in Ohio (or Utah or Texas or wherever) take responsibility for work done by an engineer in India? How is this different from ‘plan stamping’? How do you ‘supervise’ someone in an office thousands of miles away? If this is done electronically, is this any different than supervising an employee in the corner office who sends you work product only by computer?” asks Baker. “These are interesting questions, and I’m sure we’ll have some challenges with them.”

“The current model definition of responsible charge is very brief and open to many interpretations,” adds Nelson. “Also, enforcement of responsible charge has always been difficult for Member Boards. Adding the relatively new practice of off-shoring engineering activities to low-cost and nonlicensed engineers who reside halfway around the world has raised the stakes.”

Writing language for Model Law and Model Rules

Two other UPLG charges result from Licensure Qualifications Oversight Group motions that passed at the 2004 Annual Meeting. Now UPLG is tasked with providing the language for them in modifying the *Model Law* and/or *Model Rules*. The first is to allow applicants to attain credit for experience gained while working under the supervision of an unlicensed engineer in an environment that is not subject to licensure requirements.

“Most states have an industrial exemption that allows major industries to perform engineering for their own work using unlicensed engineers. Some of these large industrial firms do work that affects the public. NCEES, many professional organizations, and most licensed engineers would, of course, like to have all of these engineers licensed,” Baker says. “A problem exists, however, that when engineers from these

industries apply for a license and have work experience only under an employer who is not licensed, they have no way to obtain qualifying experience.”

UPLG will also recommend language to incorporate a waiver of the FE exam for applicants who possess a degree from an EAC/ABET program or its equivalent and a Ph.D. or doctorate in engineering from an institution that offers EAC/ABET programs. The Council passed this motion at this year’s Annual Meeting as well.

Studying the disparity issue

The **Education/Accreditation Task Force** was appointed to study the specific issues and areas of concern of the current education/accreditation system and the impact these issues have on the education requirements of the licensure process.

One of its major charges is to continue investigating factors that contributed to low pass rates of the graduates of the 28 accredited programs examined in 2003–2004 and better define the disparity issue. The task force will compare these factors with the same factors of 10 programs with a 90 percent or better pass rate and 10 programs with an 80–89 percent pass rate.

It will also review Council position statements for consistency with the definition of “or equivalent” as amended by the Council at the 2004 Annual Meeting.

Recommending additional education requirements

The **Licensure Qualifications Oversight Group** was appointed to review and assess the work product of the Engineering Licensure Qualifications Task Force and to develop recommendations for consideration by NCEES. This year, it will recommend revisions to the *Model Law* to require additional engineering education for the purpose of licensure.

“This charge is as important as it is difficult,” says Nelson. “The Council, by its 2004 vote to approve the concept, made a statement that engineering education is not heading in a direction consistent with the needs of licensure and licensed practice. Developing a clear definition of what is needed will be very difficult. ASCE has been working on this same question for civil engineers over the last four years. They have made great strides but still have a long way to go. This charge will take some time.”

Standardizing law enforcement

The **Committee on Law Enforcement** receives comments and suggestions from Member Boards in connection with state board regulatory functions such as adjudication procedures and rules of professional conduct. This year, it will study and provide recommendations for developing an enforcement reference resource that would include the *Investigation and Enforcement Guidelines* and other relevant materials.

“The charges relating to standardizing law enforcement practices are critical,” says Nelson. “The more I travel the country, the more I realize how much the enforcement activities are scrutinized by practitioners, firms, and politicians. Law enforcement is an important part of licensure, and it must be performed well if licensure is to maintain its credibility.”

Continuing Council activities

Several other committees focus on the business of keeping Council activities running smoothly. The **Committee on Finances** is one of these.

“Our committee deals with finances, which is the fuel that runs all the services the Council provides to Member Boards,” says David Cox, C.P.A., who is serving as the committee chair. “Our major focus will be the development of the recommended budget for 2005–2006. The most challenging part will be reviewing projected exam revenue and expenses for future years to determine whether or not increases in exam prices are warranted. We must balance the Council’s financial needs with those of the Member Boards and make recommendations as far in advance as possible. The key in this area and all financial areas is to avoid surprises.”

Other committees address Council policy. The **Advisory Committee on Council Activities (ACCA)** provides advice and briefing to the Board of Directors on new policy issues, problems, and plans that warrant preliminary assessment of policy choices and procedures. Two of its major charges this year deal with the Sarbanes-Oxley Act. (For more about ACCA activities related to Sarbanes-Oxley, turn to page 2.) Another significant charge is to consider actions taken by the Council during the 2004 Annual Meeting to segregate exam policies between exam development and exam administration and the need and desire for the creation of a standing committee to assume responsibility for exam administration. It will provide recommendations for Council consideration at the 2005 Annual Meeting.

Three other committees have straightforward charges relating to ongoing Council business. The **Committee on Constitution and Bylaws** develops appropriate language for recommended changes to the *Constitution and Bylaws*. The **Committee on Awards** canvasses the Member Boards for nominations for awards to be given at the Annual Meeting. The **Committee on Nominations** solicits nominations from the zones for the NCEES president-elect, treasurer, and new committee members. It will submit a slate of officers for the 2005–2006 administrative year at next year’s Annual Meeting.

NCEES Staff