



Report to the NCEES Participating Organizations Liaison Committee (POLC)

National Society of Professional Engineers, March 2015

Being a licensed professional engineer means more than just holding a certificate and possessing technical competence. It is a commitment to hold the public health, safety, and welfare above all other considerations. NSPE's more than 80-year history has focused on this core principle, which professional engineers in all disciplines and practice areas hold in common.

NSPE works to improve the lives of both the public and the PEs that serve it through efforts to:

- **Define** the PE license as the highest measure of professionalism and qualification to protect the public health, safety, and welfare;
- **Promote** awareness and recognition of the value and meaning of the PE license; and
- **Protect** the integrity of the profession and the welfare of the public by vigorously opposing the practice of engineering by unqualified persons; and advocating the highest standards of licensure, ethics, and professional practice.

NSPE's top licensure priorities in 2015 are outlined below:

Protecting the Integrity and Credibility of the License

NSPE's foremost priority is to serve as the advocate for licensed professional engineers, regardless of technical specialty. The Society works to promote expanding the role of licensed engineers in order to improve public safety and to protect against efforts that would have the (often unintended) result of devaluing the PE license. NSPE is currently addressing this issue on two main fronts:

Generic versus Discipline Specific Licensure

NSPE remains committed to the same concept of professional licensure that applies to law and medicine: that is, the licensing of engineers only as a "professional engineer," and it opposes licensure status by designated branches or specialties. There have been efforts in several states to introduce legislation that would establish a separate license for structural engineers. With the convening of a new legislative session in the states, we are prepared to continue to resist such efforts at eroding the PE license.

Certification versus Licensure

Specialty certifications allow professional engineers to upgrade their technical knowledge and skills, increase opportunities for career advancement, and serve a valuable role in protecting the public by empowering them to make more informed decisions on the qualifications of individual practitioners. However, when certifications are required for licensed engineers to perform work that they have already demonstrated they are qualified to do as licensed professionals or when

certifications are accepted *in place of* licensure, the integrity of engineering licensure is chipped away and the public interest is harmed.

Moreover, NSPE is concerned about the explosion in the number of certifications in the fields of engineering. While many of these credentials are solid and serve a publicly beneficial purpose, not all credentials meet necessary standards in terms of quality, academic rigor, and test validity. This plethora of credentials creates confusion for the public, who are often not equipped to assess the integrity, substance and meaning of the multitude of letters following a practitioner's name.

NSPE has been proactively working to ensure that certifications do not prevent PEs from engaging in the practice of engineering, as they are lawfully licensed to do, and to ensure that non-engineers are not allowed to engage in the practice of engineering when they are not duly licensed to do so.

Bridging the Gap from EIT to PE

NSPE is dedicated to ensuring that EITs are able to complete the pathway to PE licensure. To this end, our state societies offer programs to prepare EITs for the PE exam and the next steps in the licensure process and NSPE offers discounted options for preparatory examination classes with programs such as Kaplan.

Notwithstanding these efforts, too many EITs enter the workforce, even remain in engineering, but never return to take the PE exam. We are aggressively pursuing and interested in finding partners in our efforts to close the leaks in the licensure pipeline, which allow too many EITs to never complete the licensing process.

Educating the Engineer of the Future

NSPE has been working on multiple projects to play a critical role in the educational development of engineering students in all disciplines. In 2013, NSPE released the first edition of the Engineering Body of Knowledge (EBoK), an effort to define the knowledge, skills and attitudes required to practice engineering as a professional engineer. NSPE has presented to multiple national organizations, as well as smaller groups. The EBoK, as it is known, can be downloaded free of charge at this link:

<http://www.nspe.org/sites/default/files/resources/nspe-body-of-knowledge.pdf>

The Engineering Body of Knowledge is also playing a critical role in informing the development of the draft engineering competency model led by the AAES Lifelong Learning Working Group and the Department of Labor. This Engineering Competency Model identifies the knowledge, skills and abilities needed for engineers, regardless of technical specialty, to perform successfully in the field.

NSPE members recently provided important expertise to the Department of Labor in a webinar held on February 4th and will be actively participating in an April stakeholder meeting to finalize the document. Many of the core components of this document reflect the input of NSPE and the Engineering Body of Knowledge.

Extending Awareness and Applications of Professional Practice Standards and Ethics to Emerging Non-Legacy Engineering Fields

NSPE recognizes that the engineers' obligation to protect the public health, safety and welfare encompasses more than the traditional engineering arenas of the built environment. New engineering disciplines, such as genetic engineering and artificial intelligence, continue to emerge and develop and so too must the consideration of ethical and professional practice in this context. To this end, NSPE has given careful and thoughtful consideration to the implications of engineering and what role the NSPE Code of Ethics has to play. In response to a recent article in the *Chronicle of Higher Education*, NSPE Executive Director Mark Golden discussed the need to view the Code of Ethics as a living document that adapts to the times. NSPE will be examining this issue further at its upcoming Annual Meeting in Seattle, including a session about artificial intelligence.

Licensure Comity

General

Licensure by comity continues to be a major issue for NSPE's members. Many licensed professional engineers are licensed in multiple states. State licensure laws vary significantly by state, differing in requirements on professional experience, education and continuing professional development hours. NSPE endorses enactment of uniform licensure laws in all jurisdictions. The National Council of Examiners for Engineering and Surveying (NCEES) has developed Model Laws as guides for use by engineering licensure (registration) boards and legislatures in the interest of achieving uniform laws for the licensure of engineers in all jurisdictions. NSPE endorses the NCEES Model Law definitions of the "practice of engineering" and the "practice of land surveying" and encourages enactment of Model Law provisions.

CPC Comity

Engineers licensed in multiple states continue to report difficulty in complying with CPC requirements due to the fact that requirements vary substantially by state. NSPE advocates for conformance of requirements, forms, and renewal periods to facilitate renewals for PEs licensed in a multitude of states. This is in process within NCEES and NSPE strongly encourages it.

Collaboration

As an integrated network of organizations, operating at the national, regional, state, and local levels, and serving a multi-disciplinary constituency, NSPE is strongly committed to partnership and collaboration wherever possible. We seek to avoid the costly redundancy of multiple independent campaigns or activities serving the same stakeholders and to maximize impact addressing the needs of professional engineers by leveraging interests shared with likeminded organizations through close cooperation and support.