



Certification as a Bridge to Structural Licensure

By Timothy M. Gilbert, P.E., S.E., SECB

As an engineer, I believe that our highest obligation is to provide for the public welfare. Most jurisdictions and many professional societies express this obligation in their laws, rules or bylaws. In keeping with this, the NCSEA Structural Licensure Committee believes that the public would be better protected by establishing structural licensure in all jurisdictions – legislation requiring a licensed Structural Engineer to be in responsible charge for the design of significant structures.

It will probably take several years of diligent work to achieve this goal, particularly when faced with opposition and ambivalence. In a previous article (*Opposition to Structural Licensure*, STRUCTURE®, January 2014), I explored some reasons for such resistance. In the interim, prior to achieving our goal, should we be content with the status quo? No. We have the option to take affirmative action through professional certification.

Certification is a process used by many professions to recognize proficiency within a specific field. Medical doctors might be the most familiar profession that extensively uses certification. Generally, states license doctors to practice medicine without designating a particular area of practice. The American Board of Medical Specialties certifies doctors in one or more of 37 specialties and 132 subspecialties. Since its inception in 1933, it has become the accepted standard for doctors to demonstrate their capabilities. Project managers and program managers may choose to seek one of six different certifications available through the Project Management Institute. For environmental engineers, the American Academy of Environmental Engineers and Scientists offers nine different engineering certifications, and the American Society of Civil Engineers offers certification in three areas: water resources; coastal, port and ocean engineering; and geotechnical engineering.

These are all instances where practitioners have taken it upon themselves to establish, administer and promote professional certification for the benefit of their clients and profession. Along these lines, structural engineers have two options available: the NCEES MLSE designation and SECB certification.

Members of the National Council of Examiners for Engineering and Surveying (NCEES) are from the licensing boards of the 50 states plus the District of Columbia, Guam, Puerto Rico, and U.S. Virgin Islands. NCEES develops, administers and scores engineering and surveying licensing examinations. Its unique membership gives it the status to make recommendations to the jurisdictions, and it publishes model laws and rules for their consideration. Additionally, its *Standard for Licensure as a Model Law Structural Engineer* provides structural engineers with the option, for their records, to indicate compliance with the standard. Although the Model Law Structural Engineer (MLSE) designation does not actually grant licensure in any jurisdiction, it may speed the process since many of its requirements parallel state requirements. Additionally, MLSE designation is likely to aid in obtaining a structural license in jurisdictions that choose to adopt one in the future.

Briefly, to obtain the MLSE designation, a candidate must:

- Hold an active NCEES Record;
- Obtain a degree from an EAC/ABET-accredited program including at least 18 semester hours of structural analysis and design, at least nine of which are in structural design;
- Pass the NCEES FE exam;
- Pass 16 hours of qualifying structural engineering licensure exams;
 - o NCEES 16-hour Structural exam
 - o NCEES Structural II and another NCEES Structural exam (prior to January 1, 2011)
 - o A 16-hour, state-written exam (prior to January 1, 2004)
 - o NCEES Structural II and an eight-hour, state-written exam
- Complete four years of structural engineering work; and
- Maintain a record free of disciplinary action.

More information about the MLSE designation is available at www.NCEES.org.

In 2003, NCSEA established the independent Structural Engineering Certification Board (SECB) to provide the public with a means to identify qualified structural engineers based on a common national standard. Similar to

certification bodies in other professions, SECB does not grant licenses to practice structural engineering. However, it does promote a common standard that carries more weight as the ranks of SECB-certified engineers grow. Similar to licensure, certification is based on education and examination, with experience also taken into account. An abridged summary of the SECB certification requirements is as follows:

- Successful completion of one or more specific exam combinations totaling 16 hours or more; and
- Attainment of a B.S. degree in an engineering discipline with no less than 36 semester hours in six of nine subjects significant to structural engineering.

As with many professional licenses, maintaining SECB certification requires continuing professional development through education or other professional activities; 15 hours are required annually. A more complete discussion of the requirements is available at www.secertboard.org.

Although structural licensure is not yet established in many jurisdictions, certification is an avenue for us to demonstrate our commitment to protecting the public. By obtaining, displaying and discussing these certifications, we can raise the profile of our profession and work towards the goal of structural licensure. ■

Special Opportunity

For a limited time, normal SECB exam requirements are waived for NCSEA and SEI members who are licensed professional engineers practicing structural engineering. The license must have been awarded on or before July 1, 2005 and must have remained valid continuously through the time of application. In addition, the application fee is reduced from \$350 to \$200.

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