Significant Structures

Suggested Language for Partial Practice Restrictions

By Kristin Killgore, P.E., S.E., PMP

he Structural Engineering Licensure Coalition (SELC) consists of representatives from the Council of American Structural Engineers (CASE) of the American Council of Engineering Companies (ACEC), the National Council of Structural Engineers Associations (NCSEA), the Structural Engineering Institute (SEI) of the American Society of Civil Engineers (ASCE), and the Structural Engineering Certification Board (SECB). SELC has developed a document that provides a model definition for the term "significant structures," which is used in structural engineering licensure legislation in several states and is being considered by several others to define partial practice restrictions. The national discussion and state-by-state adoption of structural engineering licensure have spurred the need to articulate to the public and Authorities Having Jurisdiction (AHJs) the best practices and industry intent when AHJs work to define partial practice restriction legislation. SELC worked to provide broad guidance with the understanding that each licensing board will be required to judge for itself the definition that best serves its jurisdiction.

The development of professional engineering legislation in the early 1900s established the precedent used by state and local jurisdictions through the ensuing decades to develop laws to protect the public health, safety, and welfare. The licensing of professional engineers serves as a public statement that individuals practicing engineering meet required standards and seeks to prevent incompetent or unethical persons from practicing. As industry and education advance, so do the needs of the profession to adapt to these new circumstances.

The National Council of Examiners for Engineering and Surveying (NCEES) was formed in 1920 to improve the uniformity of laws and to promote mobility of licensure across state lines. To summarize the NCEES mission, they strive to provide outstanding nationally normed examinations, provide uniform model laws and rules for adoption by the member boards, and to promote professional ethics among all engineers. NCEES provides a platform for state licensing boards to interact with the profession and develop a uniform policy that can be adopted by all states as a standard of competence. Nevertheless, statespecific legislation and rules continue to exist.

Practicing engineers are forced to navigate each state's statutes and rules as they apply to their education, examination, and experience.

The history and development of the PE Structural Engineering (SE) exam is a direct response to the need for jurisdictions to distinguish licensed structural engineers from other professional engineers. As a result, professional organizations, such as NCSEA, CASE, ASCE, SEI, and SECB with interest in this topic, collaborate to assist their members with understanding how licensure and legislative policy affects practice. They work to disseminate information to fill the gaps in messaging between the different entities involved.

The NCSEA Structural Licensure Committee has collected the legislative language and policies adopted by each state for the practice of Structural Engineering, either as a licensed SE or PE. They include full practice restriction, partial practice restriction, title restriction, and roster designation. Some states have full practice restriction language that allows only engineers who have passed the NCEES 16-hour PE Structural Engineer exam (SE) to seal structural documents. Other states have a partial practice restriction that stipulates an SE license is required for "significant structures." The title restriction language defines who can use the title of "Structural Engineer, S.E." Finally, roster designation is a provision in statutes, rules, or licensing board procedures recognizing every licensee's discipline, usually based on NCEES examinations passed by the licensee. Roster states keep a public database of all licensed engineers and their assigned disciplines.

Partial practice restriction language stipulates a licensed Professional Engineer with an SE designation is required for designing "significant structures," and the language differs between jurisdictions. As more states adopt "significant structure" language, SELC has become concerned it is not uniformly defined. The challenge of establishing a uniform definition of "significant structures" is complicated because different jurisdictions have differing needs. For instance, the high seismic states use partial practice restrictions because they require more sophisticated engineering applications due to increased risks from earthquakes. Each jurisdiction reviews its needs, risks, and political atmosphere, and then creates policy to protect the built environment. These statutes

and rules generally follow a similar concept and potential application, though their language varies. More states are looking to adopt the NCEES Model Law and Rules, including the credentials for the Model Law Engineer and Model Law Structural Engineer, because they are seeking greater uniformity. Moreover, more applicants are choosing to take the PE Structural exam with a desire to practice across state lines. The shared goal is health, safety, and welfare protection of the public.

The SELC Significant Structure Model Recommendations are intended to be a guideline. SELC worked to represent general conditions that are currently adopted by AHJs and conditions that are being considered by AHJs who have begun the process of implementing structural engineer licensure. The recommendations cover a wide range of structure types, all of which have specific code requirements and risk implications. The International Building Code (IBC) and ASCE/ SEI7, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, were the basis in conjunction with various existing statutes and rules. The document addresses both vertical and horizontal structures.

SELC envisions this document being used in multiple ways by AHJs, legislatures, practicing engineers, educators, and students with the general idea of providing a format for uniformity in understanding what a "significant structure" is. A person reading and trying to apply this document to his or her practice can personally decide if gaining the additional credential of S.E. is required. Structural Engineers Associations (SEAs) and other local groups must work with their state licensing boards to review the proposed guidelines and develop rules addressing the relevant needs and challenges by selecting or adapting the specific provisions that best address them.

To review the document, please go to www.selicensure.org.

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