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Standards for Licensure as a Model Law Structural Engineer

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National Council of Examiners for Engineering and Surveying
P.O. Box 1686 (280 Seneca Creek Road), Clemson, SC 29633-1686

Standards for Licensure as a Model Law Structural Engineer

Sponsored by:
National Council of Examiners for Engineering and Surveying (NCEES)

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Abstract

This standard specifies the criteria for defining competency in the practice of structural engineering and includes specifications for uniformity in requirements for education, experience, and examination for candidates to attain engineering licensure as a Model Law Structural Engineer. The standard provides the recommended procedures and assessment tools necessary for a uniform licensure process of qualifying professional competency in structural engineering practice to assure public health, safety, and welfare.

NCEES, a nonprofit organization, develops and promulgates standards in engineering practice and licensure as a public service. This standard defines best practice, provides a benchmark for public safety in engineering practice, and aids in facilitating licensure among jurisdictions. NCEES cannot be held liable or accountable for individual performance by practicing structural engineers or for the implementation of the standards.

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This standard is subject to revision and must be reviewed every five years in accordance with ANSI Essential Requirements and the NCEES Standards Development Procedures Manual approved by ANSI August 8, 2007.

Keywords

ABET	Licensed engineer	PE
EI	Licensure	Professional Engineer
EIT	Model Law Structural Engineer	Registered engineer
FE	NCEES	

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Standards for Licensure as a Model Law Structural Engineer

1.1 Scope, purpose, need, and application

The scope of the standard covers the requirements for a Model Law Structural Engineer. These standards have been vetted by the engineering community and are used to assess candidate qualification for professional licensure. It is the intention of NCEES to formalize these standards via the ANSI process.

The purpose of the standard is to provide guidance for uniform measures of competency as a Model Law Structural Engineer in the practice of structural engineering for protection of the public. The standard is formulated to facilitate adoption by regulatory bodies at the state, territory, and federal levels. Uniform guidelines for structural engineering practice are needed to better assure the public that individuals engaged in projects requiring structural engineering training and education are qualified to do such work. Structural engineering is the application of specialized engineering knowledge and experience for the design and analysis of bridges, buildings, and other structures that are constructed or rehabilitated to resist forces induced by vertical and horizontal loads of a static and dynamic nature. This specialized knowledge includes familiarity with scientific and mathematical principles, experimental research data, and practical construction methods and processes. The design and analysis shall include the consideration of stability, deflection, stiffness, and other structural phenomena that affect the behavior of the bridge, building, or other structure. Because the public uses structural engineering services and their products, it is important that the regulatory community seek comity in standards to provide uniformity in criteria for the practice of structural engineering to protect the public and its trust of structural-engineered systems. The widespread adoption of such uniform standards will promote public safety and simplify cross-boundary and multijurisdictional licensure of structural engineers.

1.2 Specifications

This standard specifies the criteria for a Model Law Structural Engineer. Such criteria provide for the public safety in the practice of structural engineering and include standards for uniformity in the education, experience, and examination requirements of candidates for structural engineering licensure. The standard provides the recommended procedures and criteria for demonstrating professional competency in structural engineering practice. Research conducted by NCEES clearly indicates that these specifications, which consist of a combination of education, experience, and examination, are needed to complete the requirements for competency in structural engineering practice.

The standard specifies that to practice the profession of structural engineering as a Model Law Structural Engineer, the following minimum requirements must be met by each individual who is a candidate for licensure.

Education

A candidate must graduate from an engineering program accredited by the Engineering Accreditation Commission of ABET, Inc. (EAC/ABET). ABET, Inc., is the nationally recognized accrediting organization for engineering and technology curricula. A

candidate must pass a minimum of 18 semester (27 quarter) hours of structural analysis and design courses. At least 9 of the semester (14 quarter) hours must be structural design courses.

Examinations

A candidate must pass the NCEES Fundamentals of Engineering (FE) examination and professional structural examinations as defined in the *NCEES Model Rules*.

Work experience

A candidate must complete acceptable structural engineering experience as defined in the *NCEES Model Rules*.

After completing the requirements above, a candidate is eligible for licensure by a jurisdictional licensing board. Once the candidate is granted licensure, he or she may use the distinguished designation Professional Engineer, or P.E., and/or Structural Engineer, or S.E., where required or permitted by jurisdictions.

Model Law Structural Engineer Designation

Once an individual has obtained licensure in at least one jurisdictional licensing board, he or she is eligible for the designation Model Law Structural Engineer. To maintain Model Law Structural Engineer status, the individual must maintain a record clear of disciplinary action.

2. Referenced publications

Users of the standard are to reference the latest editions of the following NCEES documents for updates and specifications: *Model Law, Model Rules, Manual of Policy and Position Statements*.

These publications are produced by NCEES and are available for download from its Web site (www.ncees.org); by writing to NCEES at P.O. Box 1686, Clemson, SC 29633-1686; or by phoning NCEES at 800-250-3196.

3. Definitions

NCEES: The National Council of Examiners for Engineering and Surveying is a national non-profit organization composed of engineering and surveying licensing boards representing all U.S. states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. NCEES is the ANSI-approved standards development officer (SDO) for standards in the field of professional credentialing in engineering and surveying.

Licensure: The process of qualifying persons for practice as mandated by individual jurisdictional law and in legally recognized professions

Professional Engineer: The designation legally signifying a person who has been duly licensed by a U.S. jurisdiction to offer or provide engineering services to the general public

Model Law Structural Engineer: The designation signifying a person who has been qualified through this standard and who has obtained licensure as a Structural Engineer in at least one jurisdiction

4. Metric

The metric system is used in the majority of assessments referred to in this NCEES standard. NCEES standards will use the metric system where it is compatible with the systems in effect that govern the practice of engineering.

5. Review

The ANSI Standards Task Force of NCEES has reviewed this standard and determined that it is technically sound and valid for publication to interested parties.

6. Codes

There are no codes required as reference for users of this standard.