

Professional Engineering Licensure in the U.S.

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William S. Howard

State Role in Licensure

- Professional Engineering Licensure in the USA is Controlled by Each State

Why Licensure

- Sets standards for the engineering profession
- Protects public safety and welfare
- Provides a mechanism for measuring individual accomplishment – career growth
- Delineates area(s) of competency
- Allows a basis for transportability

History of Licensure in the U.S.

- Wyoming was the first to enact engineering licensure laws in 1907.
- By 1947, all states had established engineering licensure laws.
- Montana was the last of the 48 states to enact a licensure program (1947)

Basic Steps to Licensure

- While each state has their own rules and regulations, there are consistent basic steps to licensure applicable to all states

Steps to Professional Licensure

- Typical milestones to becoming licensed P.E.
 1. **Education:** Bachelor's degree in engineering from an Accreditation Board for Engineering and Technology (ABET) approved university engineering program*
 2. **Examination:** Passing the Fundamentals of Engineering (FE) exam – Engineering Intern or Engineer-In-Training
 3. **Experience:** Generally 4 years (3 w/ an advanced degree) work experience under the direct supervision of a licensed P.E. – times vary by jurisdiction*
 4. **Application:** Apply to a state to take the PE Exam
 5. **Second Examination:** Passing the Principles and Practice of Engineering (PE) Exam

*variations in the types and levels of education and experience are accepted in some states.

State Laws and Regulations

- All U.S. states have licensure boards charged with administering the operational, investigative, and enforcement provisions of their respective state laws
- Some states include special requirements, such as:
 - Proficiency in a particular field (i.e. seismic design in California, permafrost considerations in Alaska)
 - Reputation (good character)
 - References
 - Proficiency in English (11 states/territories*)

➤ *District of Columbia, Florida, Illinois, Kentucky, New Jersey, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia (2003 data)

“Engineer” Restrictions

- Every state (except Washington) mandates that only licensed engineers may use the “professional engineer” title
- Twenty-seven states restrict the use of the title “engineer” solely to individuals licensed by the state.

Comity vs. Reciprocity

- **Comity:** Accepting the status of engineers licensed in other states, regardless of whether the state in question does the same.
 - Comity is requirements-based
- **Reciprocity:** An agreement between two states that allows each state to accept the licensure status of the other state's licensed engineers (an equal exchange).
 - Reciprocity is agreement-based
- All states have some comity provisions in their licensure laws, most allow comity if the applicant meets the licensure requirements in effect at the time the PE obtained the license from the primary jurisdiction
- A few states (NV, NE, ND, NH) have reciprocity agreements with Canada and a few have reciprocity agreements with Mexico

International Engineers

- Thirty-six states accept degrees earned at foreign universities as meeting the educational requirement
- Forty states adhere to the Washington Accord, an agreement between English speaking nations that recognizes their accreditation process as being equivalent.

NCEES Model Law

- National Council of Examiners for Engineering and Surveying (NCEES) – the organization comprised of state engineering licensure boards - created a draft model state licensure law in order to “*present to the states a sound and realistic guide that will provide greater uniformity of qualifications for licensure, to raise these qualifications to a higher level of accomplishment, and to simplify the interstate licensure of engineers*”
- Model law establishes a Council Records Program to address comity
- Model law is not accepted by all states

NCEES Council Records Program

- Serves as a verifying agency for an engineer or surveyor who is seeking multiple-jurisdiction licensure by comity.
- Applicants must already be licensed with at least one licensing board in the U.S. The engineer must initiate the process by making application to the NCEES.
- Under the program, NCEES verifies and maintains the recordholder's file, which contains the college transcripts, licensure information, professional engineer or surveyor references, and employment verifications.
- When licensure in additional jurisdictions is needed, a copy of the NCEES Council Record can be transmitted to other licensure authorities with a written release.

Roadblocks and Hurdles

- Lacking reciprocity or comity, the portability of professional engineering services across state borders would be severely restricted
- State licensure boards have a good deal of control over the licensure of professionals in their states. Shifting control to a national level is a huge challenge
- International framework for licensure adds complexity to the issue
- NCEES Council of Records Program is helpful, but it is not accepted by all states

Roadblocks and Hurdles

■ Firm Ownership

Many state laws require engineering firms that contract with public entities to have a presence (office) within the state or a corporate license to practice engineering in the particular state. Ownership is an issue in some states, as well –some states require a certain percentage of firm owners to be licensed engineers.

Emerging Issues

- Bachelors degree plus 30 credit hours of education is being considered as a requirement for licensure by some entities. This evolving issue is very controversial

Emerging Issues

- Continuing Education Requirements
 - Annual professional development requirements vary from state-to-state
 - More stringent requirements are raising barriers to licensure renewals
 - The debate in the U.S. over professional development mandates continues

Closing Comment

- Despite consistent concepts and similarities among state licensure laws, the U.S. has not established a countrywide licensure program and is not likely to do so in the foreseeable future.
- Best advice for anyone interested in engineering licensure is to contact the board of licensure in the particular state of interest

Questions?

Thank You

William S. Howard, P.E., FACEC

Executive Vice President

CDM

One Cambridge Place

50 Hampshire St.

Cambridge, MA 02139-1548

howardws@cdm.com

(617) 452-6000