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Structural Engineering Practice Acts – A Review of Existing Regulations

Some states have statutory and administrative requirements governing the practice of structural engineering. Other states are contemplating the adoption of similar regulations. The basis for these regulations is to distinguish the practice of structural engineering from professional engineering (generally civil engineering) in the interest of public safety.

The purpose of this article is to explore the language of the various rules that govern professional structural engineering in the United States.

Currently, there are title acts, full practice acts and partial practice acts. Title acts permit the use of the title “structural engineer” as a profession but do not have detailed requirements for engaging in the work. It does not limit the practice of structural engineering only to licensed structural engineers. Idaho, New Mexico, and Nebraska have title acts for structural engineers.

Partial practice acts restrict certain types of structural engineering work only to licensed structural engineers. For example, Oregon requires only structural engineers to work on buildings that are more than four stories. Nevada, Utah, Oregon, California, and Washington are states that have partial practice acts.

Full practice acts restrict all but licensed structural engineers to work on structural projects. Illinois and Hawaii have full practice acts.

For those states contemplating the initiation of a practice act, adopting language from existing statutes is a good way to start, as the text of these documents has been reviewed and approved by many interested parties.

Partial Practice Act

The following excerpts demonstrate useful language to begin crafting a partial practice act:

- 1) *An engineer may not provide engineering services for significant structures unless the engineer possesses a valid professional structural engineer certificate of registration issued by the board. (Oregon 672.107)*
- 2) *"Professional structural engineer" means a person licensed under this chapter as a professional structural engineer. (Utah 58-22-102)*
- 3) *An engineer must be registered as a structural engineer in order to provide structural engineering services for significant structures. (WA RCW 18.43.040)*
- 4) *Structural engineering is recognized as a specialized branch of professional engineering. To receive a certificate of registration in structural engineering, an applicant must hold a current registration in this state in engineering and have at least two years of structural engineering experience, of a character satisfactory to the board, in addition to the eight years' experience required for registration as a professional engineer. An applicant for registration as a structural*

engineer must also pass an additional examination as prescribed by the board. (WA RCW 18.43.040)

- 5) *Only engineers licensed as structural engineers pursuant to this chapter may structurally design:*
1. *A structure requiring special expertise, including, but not limited to, a radio tower and a sign over 100 feet. Dynamic machinery and related equipment within the scope of mechanical engineering are not included.*
 2. *A building more than three stories in height.*
 3. *A building more than 45 feet in height, using the bottom of the lowest footing as the point of reference. (Nevada - NAC 625.260).*

Full Practice Act

Here are the two excerpts from full practice acts:

- 1) The practice of Structural Engineering in the State of Illinois is hereby declared to affect the public health, safety and welfare and to be subject to regulation and control in the public interest. It is further declared to be a matter of public interest and concern that the practice of Structural Engineering as defined in this Act, merit and receive the confidence of the public, that only qualified persons be authorized to practice Structural Engineering in the State of Illinois. (225 ILCS 340/1)
- 2) No official of the State nor of any political subdivision thereof, charged with the enforcement of laws or ordinances relating to the construction or alteration of buildings or structures, shall accept or approve any plans or specifications that are not stamped with the seal of a licensed architect or with the seal of a licensed engineer who has qualified in the structural engineering branch.... (Hawaii §464-11)

The adoption of a partial practice act is likely to be more popular for the stakeholders involved because it does not restrict many professional engineers from engaging in that area of structural engineering deemed not to be “significant structures”.

Also, the process of transitioning from a current regulation to a new practice act will likely require the adoption of some sort of grandfathering clause, to avoid the disruption and loss of work for those engineers actively engaged in structural work as a licensed professional but without a structural license.

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