

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 713 Engineers

SPONSOR(S): Regulatory Affairs Committee; Business & Professional Regulation Subcommittee; Ray and others

TIED BILLS: **IDEN./SIM. BILLS:** CS/SB 692

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Business & Professional Regulation Subcommittee	13 Y, 0 N, As CS	Brown-Blake	Luczynski
2) Regulatory Affairs Committee	17 Y, 0 N, As CS	Brown-Blake	Hamon

SUMMARY ANALYSIS

Currently, the Governor appoints members of the Board of Professional Engineering (Board) to four year terms without the input of professional or technical societies. The bill provides that professional and technical engineering societies may submit a list of recommended qualified nominees for appointment. The Governor is not required to select from the list. The bill alters the appointment of Board members by staggering Board member terms.

Current law provides that applicants for licensure as a professional engineer who have failed one of the licensure examinations three times are required to obtain 12 college course hours prior to retaking the examination. The bill permits these applicants to take a Board approved examination review course prior to retaking the examination.

Additionally, the bill provides that those applicants who are delayed in taking an examination due to reserve or active duty service in the United States Armed Forces or National Guard are allowed two additional attempts to take the examination before being required to obtain additional college course hours or examination review course credit.

Current law provides an exemption for applicants to forego taking the fundamentals examination for individuals who have held a valid professional engineer's license in another state for 15 years and has had 20 years of continuous engineering experience; holds an accredited doctorate in engineering; or holds a doctorate in engineering and has at least three years of qualified teaching experience. The bill deletes the two provisions related to applicants who hold doctorates in engineering.

Licensed professional engineers are currently required to obtain eight continuing education course hours every two years in order to renew their licenses. Of the eight hours, four hours are required to be on the laws and rules of professional engineers. The bill requires 18 continuing education course hours in order for licensed professional engineers to renew their licenses. Of the 18 hours, one must related to the laws and rules of professional engineers, one must relate to professional ethics, and four must relate to the licensee's area of practice. The remaining hours may relate to any topic pertinent to the practice of engineering. Four hours of the continuing education course hours may be obtained by being an officer for a professional or technical engineering society, or serving as a member of the Legislature or as elected state or local official.

The bill also amends rulemaking to expand the guidelines that the Board can use when adopting their rules regarding continuing education guidelines.

The bill does not appear to have a fiscal impact on state or local government.

The bill has an effective date of July 1, 2014.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

Appointment of Board Members

Section 471.007, F.S., provides that the Board of Professional Engineers (Board) shall consist of 11 members, nine of whom shall be licensed engineers and two shall be laypersons who have not been engineers or practiced in a related profession. The nine board members shall be as follows:

- Three civil engineers
- One structural engineer
- One electrical or electronic engineer
- One mechanical engineer
- One industrial engineer
- One engineering educator
- One from any discipline of engineering other than civil engineering.

Board members are appointed for a term of four years each and are not staggered,¹ so it is possible the terms of multiple Board members will expire at the same time. Board members are appointed by the Governor.² These members serve at the pleasure of the governor. There is no exception in the Florida Constitution providing for any individual or entity other than the Governor to appoint board members, regardless of the reason for or length of the vacancy.

Currently, the Governor selects Board members from individuals who apply without any input from technical or professional societies. The application for gubernatorial appointments requires the applicant to provide references and professional or organizational affiliations.³ The application process does not currently include a step for organizations to submit recommendations for board positions.

It is unconstitutional to limit the appointing power of the Governor to a specific list or group of individuals,⁴ but it is permissible for a list or group of individuals to be provided to the Governor for his consideration when making appointments to a regulatory board, so long as the Governor is not required to choose from those individuals on the list.⁵

Retaking of the Examination

Currently, an applicant for licensure as a professional engineer by examination is required to successfully pass two examinations, the fundamentals examination and the principles and practice examination, prior to obtaining licensure.⁶

Prior to being permitted to sit for the fundamentals examination, an applicant must have graduated from an approved engineering curriculum of four years or more in a Board approved school, college, or university, and have a record of four years of active engineering experience indicating competence to be in responsible charge of engineering.⁷

¹ Section 471.007, F.S.

² FLA. CONST. art. IV, s. 6.

³ Executive Office of Governor Rick Scott, Appointment's Office, *Gubernatorial Appointments Questionnaire*, available at <http://www.flgov.com/appointments/> (last viewed February 25, 2014).

⁴ *Westlake v. Merritt*, 85 Fla. 28, 95 So. 662 (1923).

⁵ *Schneider v. Sweetland*, 214 So.2d 338 (1968).

⁶ Section 471.013, F.S.

⁷ Section 471.013(1)(a), F.S.

The applicant is required to first take and successfully pass the fundamentals examination prior to being permitted to sit for the principles and practice examination.⁸

Individuals who have been deemed qualified to take either the fundamentals examination or the principles and practice examination are permitted to take either examination three times. If the applicant fails either examination three times, the Board may require that the applicant complete additional college-level courses prior to being permitted to retake the examination again.⁹

The applicant who is required to take additional courses is required to submit to the Board transcripts for the enrollment and completion of 12 college credit hours, with grades no lower than a "C" in the applicant's area of deficiency. For applicants to retake the fundamentals examination, the additional courses must be undergraduate college courses in higher mathematics, basic sciences or engineering. For applicants to retake the principles and practice examination, the additional courses shall be upper level or higher courses in engineering.¹⁰ In order to meet these requirements, the applicants must return to a college or university, often applying for reentry in order to take the necessary courses. Many colleges or universities do not permit upper level coursework to be taken by non-degree seeking students, making meeting the requirements for retaking the examination a fourth time difficult.

Exemptions to Taking the Fundamentals Examination

As stated above, applicants for licensure as a professional engineer are required to take the fundamentals examination prior to taking the principles and practice examination, both of which are required prior to being issued a license as a professional engineer. Section 471.015(5), F.S., provides three exemptions where an applicant is not required to take the fundamentals examination prior to taking the principles and practice examination. An applicant for licensure as a professional engineer is deemed to have passed the fundamentals examination in the following cases:

- Individuals who have held a valid professional engineer's license in another state for 15 years and have had 20 years of continuous professional level engineering experience.
- Individuals who have received a doctorate degree in engineering from an institute that has an undergraduate engineering degree program which is accredited by the Accreditation Board for Engineering Technology.
- Individuals who have received a doctorate degree in engineering and have taught engineering full time for at least three years at the baccalaureate level or higher after receiving their PhD.¹¹

These individuals are still required to pass the principles and practice examination and obtain the required experience prior to being issued a license to practice professional engineering.

Continuing Education Requirements

General Continuing Education Requirements

Section 471.017(3), F.S., requires licensed professional engineers to complete eight continuing education course hours for every two year renewal period. Of those eight hours, four shall relate to the laws and rules of professional engineering and four shall relate to the licensee's specific area of practice,¹² such as civil, electrical, mechanical, and chemical engineering. Florida does not require any continuing education course hours related to ethics for licensed professional engineers to renew their license.

Engineering is defined as:

⁸ Section 471.013(1)(c), F.S.

⁹ Section 471.013(1)(e), F.S.

¹⁰ Rule 61G15-21.007, F.A.C.

¹¹ Section 471.015(5)(a), F.S.

¹² Section 471.017(3), F.S.

[A]ny service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, and design of engineering works and systems, planning the use of land and water, teaching of the principles and methods of engineering design, engineering surveys, and the inspection of construction for the purpose of determining in general if the work is proceeding in compliance with drawings and specifications, any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of a mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property; and includes such other professional services as may be necessary to the planning, progress, and completion of any engineering services.¹³

Due to the technical nature of the profession and the importance that adequate practice of engineering is to the general public safety, it is imperative to ensure that engineers are adequately educated and trained. Licensed professional engineers and land surveyors work in a world of evolving technology, increased consumer expectations and other emerging issues. Practice in this changing environment requires ongoing development of knowledge and skills.¹⁴

Section 471.0195, F.S., requires licensed professional engineers who actively participate in the design of engineering works or systems in connection with buildings, structures or facilities and systems covered by the Florida Building code to take specialized or advanced continuing education courses regarding any portion of the Florida Building Code applicable to the licensee's area of practice.

Thirty-nine other states require continuing education courses for renewal of licensure as a professional engineer. Of those 39 states, Florida requires the lowest number of hours at eight hours in a biennial renewal period. The majority of the states require between 15 and 30 continuing education hours. In addition, a number of those 39 states require ethics to be included in the continuing education coursework.¹⁵

Continuing Professional Competency Guidelines

Currently, the Board has rules that are consistent with the National Council of Examiners for Engineering and Surveying (NCEES) guidelines, which are continuing education guidelines that the Board uses when approving continuing education courses. These rules are for multijurisdictional licensees to use to avoid proprietary continuing professional competency requirements.¹⁶

Effect of the Bill

Appointment of Board Members

The bill amends s. 471.007, F.S., providing that the nine Board members who are required to be licensed engineers can be selected and appointed based on qualifications to provide expertise and experience in one of the following disciplines:

¹³ Section 471.005(7), F.S.

¹⁴ New York State Education Department, *Office of the Professions, Continuing Education*, available at <http://www.op.nysed.gov/prof/pels/peceques.htm> (last viewed on February 24, 2014).

¹⁵ National Society of Professional Engineers, *State Continuing Education Requirements*, available at http://www.nspe.org/sites/default/files/resources/pdfs/education/state_ce_requirements.pdf (last viewed February 24, 2014).

¹⁶ Section 471.017, F.S.

- Civil engineering
- Structural engineering
- Electrical or electronic engineering
- Mechanical engineering
- Engineering education

The bill provides that when the Governor is required to appoint a member to a vacancy to the Board, professional and technical engineering societies may submit to the Governor a list of qualified nominees for appointment in recommendation. The Governor is not required to select from the list when determining who to appoint to the Board.

The bill further alters the appointment of Board members by staggering Board member terms. When the terms of current members expire after July 1, 2014, the terms of the immediate successors are staggered as follows:

- The first three members shall be appointed for two years;
- The next four members shall be appointed for three years; and
- The final four members shall be appointed for four years.

After the appointments used to stagger the terms above are complete, each Board member holds a term of four years.

Retaking of the Examination

Board Approved Review Course

The bill permits applicants who have failed either of the two examinations three times to take a Board approved examination review course before being permitted to take the examination again, in lieu of taking 12 credit hours of college courses. The review courses will cut the time required to comply with the reeducation requirement as the applicant will not have to take 12 credit hours over an entire semester to comply with the requirements. Instead, the applicant will be able to take a review course which can take several weeks to complete. In addition, review courses cost approximately \$1000, which can be significantly less than the cost of 12 credit hours of college course work.

United States Armed Forces or National Guard Exception

Members of the United States Armed Forces or National Guard who are delayed in taking an examination due to reserve or active duty service are allowed two additional attempts to take the examination before being required to obtain additional college course credit or examination review course credit.

Exemptions to Taking the Fundamentals Examination

The bill deletes two provisions from s. 471.015(5), F.S., that provide exemptions from the requirement for applicants to take the fundamentals examination in the following circumstances:

- Individuals who have received a doctorate degree in engineering from an institute that has an undergraduate engineering degree program which is accredited by the Accreditation Board for Engineering Technology.
- Individuals who have received a doctorate degree in engineering and have taught engineering full time for at least three years at the baccalaureate level or higher after receiving their PhD.¹⁷

As a result of the deletion from s. 471.015(5), F.S., the individuals listed above must pass the fundamentals examination prior to being permitted to take the principles and practice examination and prior to becoming licensed as a professional engineer.

¹⁷ Section 471.015(5)(a), F.S.
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Continuing Education Requirements

General Continuing Education Requirements

The bill amends s. 471.017(3), F.S., to require licensed professional engineers to obtain 18 continuing education course hours in order to renew their licenses. Of the 18 hours, one must relate to the laws and rules of professional engineering, one must relate to professional ethics, and four must relate to the licensee's area of practice. The remaining hours may relate to any topic pertinent to the practice of engineering.

The continuing education course hours may be earned as follows:

- Presenting or attending seminars, in-house or nonclassroom courses, workshops, or professional or technical presentations made at meetings, webinars, conventions or conferences.
- Up to four hours of general continuing education course hours may be earned by serving as an officer or actively participating on a committee of a Board recognized professional or technical engineering society.
- Up to two hours of laws and rules and ethics continuing education course hours may be earned by serving as a member of the Florida State Legislature or as an elected state or local official.

The bill clarifies that the continuing education course hours received pursuant to s. 471.0195, F.S., by those licensed professional engineers required to take specialized or advanced courses, may be counted towards the 18 hours required except for the two continuing education course hours related to the laws and rules of professional engineering and ethics.

Continuing Professional Competency Guidelines

The bill requires the Board to adopt rules substantially consistent with the most recent published version of the Continuing Professional Competency Guidelines of the NCEES. In addition, the bill removes that the rules are for multijurisdictional licensees for the purpose of avoiding proprietary continuing professional competency requirements. This is a modification to the present rulemaking authority which is limited to requiring rules that are consistent with narrower set of NCEES continuing education guidelines. Therefore, this expands the guidelines that the Board can reference when adopting their rules regarding continuing education guidelines.

B. SECTION DIRECTORY:

Section 1 amends s. 471.007, F.S., to clarify Board member qualifications, permit professional and technical societies to provide a list of qualified nominees to be considered for Board member appointment, and provide staggered terms.

Section 2 amends s. 471.013, F.S., to revise the requirements for an engineer license applicant who fails the examinations, and authorize applicants who are delayed in taking the examination by military service to have additional attempts to take the examination.

Section 3 amends s. 471.015, F.S., to revise requirements for obtaining licensure by endorsement.

Section 4 amends s. 471.017, F.S., to revise requirements for continuing education hours and license renewal for engineers.

Section 5 provides an effective date of July 1, 2014.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None. The bill is expected to have no impact on the Department of Business and Professional Regulation.

2. Expenditures:

None. The bill is expected to have no impact on the Department of Business and Professional Regulation.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None. The bill is expected to have no impact on local government.

2. Expenditures:

None. The bill is expected to have no impact on local government.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill permits applicants to attend an examination review course rather than returning to a college to obtain the additional education required prior to retaking an examination after failing it three times. This will increase the business of the private entities providing the examination review courses as well as save the applicants costs and time as the review courses are cheaper than most college 12 hour course programs and take less time.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not Applicable. This bill does not appear to affect county or municipal governments.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

Rule 61G15-21.007, F.A.C. would need to be amended to update the coursework requirements for applicants who fail an examination three times.

Rule 61G15-22.001, F.A.C. would need to be updated to reflect changes to the continuing education requirements.

The Board would need to adopt a rule regarding the approval of examination review courses.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

On March 4, 2014, the Business & Professional Regulation Subcommittee considered a proposed committee substitute and reported the proposed committee substitute favorably with a committee substitute.

The proposed committee substitute made the following changes to the filed version of the bill:

- Clarified that the members of the Board who are licensed engineers must be appointed based on qualifications in various disciplines of engineering;
- Clarified provision for staggered terms for members of the Board;
- Removed language permitting the Board to appoint provisional members of the Board if the Governor is unable to do so within three months of the vacancy of the seat;
- Added the National Guard to the list of individuals who are allowed additional attempts to take the examination for licensure;
- Replaced the term “professional development” with “continuing education” when referring to continuing education hour requirements;
- Split the four hours of continuing education covering rules, statutes and ethics into two hours covering rules and statutes, and two hours covering ethics;
- Clarified that all continuing education hours may be received in one of the manners listed;
- Clarified that up to four hours of continuing education hours may be received by serving in specified capacities for a Board recognized professional or technical engineering society;
- Permitted four of the continuing education hours to be obtained by serving in specified elected office; and
- Clarified that the Board adopted rules must be substantially consistent with the most recently published version of the Continuing Professional Competency Guidelines of the National Council of Examiners for Engineering and Surveying.

On March 20, 2014, the Regulatory Affairs Committee considered an amendment and reported the amendment favorably with a committee substitute.

The amendment made the following changes to the bill:

- Modifies the annual continuing education hours to 9 hours per year, 18 hours for the license renewal period.
- Requires one hour of continuing education to relate to the chapter and the rules.
- Requires one hour of continuing education to relate to ethics.
- Permits licensees to obtain continuing education hours through nonclassroom courses.
- Permits the one hour of continuing education pertaining to the chapter and rules, and the one hour pertaining to ethics to be earned as a member of the Legislature or as an elected state or local official.

The staff analysis is drafted to reflect the committee substitute.