

## BOARD OF PROFESSIONAL ENGINEERS

### CHAPTER 61G15-18 ORGANIZATION AND PURPOSE

- 61G15-18.001 Purpose. (Repealed)
- 61G15-18.002 Board of Organization and Officers. (Repealed)
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- 61G15-18.015 Education Advisory Committee.

#### **61G15-18.005 Probable Cause Determination.**

(1) Probable cause determination as to a violation of Chapter 471, or 455, F.S., and rules promulgated pursuant thereto shall be made by a probable cause panel of three (3) board members or two (2) board members and one (1) past board member. Said members shall be appointed as a standing probable cause committee at the first board meeting of each calendar year and shall serve for a period of one (1) year. All proceedings of the probable cause panel shall be conducted in accordance with Chapters 120 and 455, F.S.

(2) Notwithstanding the procedure outlined in subsection (1) above, the Board hereby delegates to the Department the determination of probable cause when the only charge that otherwise would go before the probable cause panel is that of failure to comply with the Board's final order pursuant to Section 471.033(1)(k), F.S., and paragraph 61G15-19.001(6)(o), F.A.C. Should an investigation support charges in addition to the failure to comply with the Board's final order, the case shall be presented to the probable cause panel for a determination of probable cause.

*Specific Authority 455.225 FS. Law Implemented 455.225 FS. History—New 1-8-80, Amended 4-5-81, Formerly 21H-18.05, 21H-18.005, Amended 11-15-94, 1-6-02.*

#### **61G15-18.0071 Attendance at Board Meetings, Unexcused Absences.**

(1) Board members shall attend all regularly scheduled Board meetings unless prevented from doing so by reason of court order, subpoena, business with a court which has the sole prerogative of setting the date of such business, conflict with other scheduled business of the Board, conflicting business previously authorized by the Board, death of family member, illness of the Board member, hospitalization of the member's immediate family, unavoidable travel delays or cancellations, or other extraordinary circumstances as approved by the Board.

(2) Three consecutive unexcused absences or absences constituting 50 percent or more of the board's meetings within any 12-month period shall cause the board membership of the member in question to become void, and the position shall be considered vacant. No Board member may be absent from three consecutive regularly scheduled Board meetings unless the absence is excused for one of the reasons stated in subsection (1) of this rule. An absence for any reason other than the reasons stated in subsection (1) constitutes an unexcused absence for the purpose of

declaring a vacancy of the Board. An otherwise excused absence is not excused if the Board member fails to notify the Board's Administrator and Chairperson of the impending absence 48 hours prior to the regularly scheduled Board meeting at which the absence will occur or unless the failure to notify the Board's Administrator and Chairperson is the result of circumstances surrounding the reason for the absence which the Board itself excuses after the absence has occurred. The reason for the absence from a meeting shall be made part of the minutes of that meeting.

(3) "Family" consists of immediate family, nieces, nephews, cousins, and in-laws.

(4) "Immediate family" consists of spouse, child, parents, parents-in-law, siblings, grandchildren, and grandparents.

*Specific Authority 455.207(3) FS. Law Implemented 455.207(3) FS. History--New 1-6-02.*

#### **61G15-18.008 Adoption of Model Rules of Procedure.**

Except as hereinafter provided all administrative proceedings of the Board shall be conducted in accordance with Chapter 120, F.S. and Chapter 28, F.A.C. (Model Rules of Administrative Procedure).

*Specific Authority 120.54(5) FS. Law Implemented 120.54(5) FS. History--New 1-8-80, Formerly 21H-18.08, 21H-18.008.*

#### **61G15-18.010 Approved Schools and Colleges.**

A list of the approved degree programs of schools and colleges acceptable to the Board, both as education and as experience, for admittance to the examination shall be maintained by the Board as an official record of the Board with such additions or deletions as the Board may determine by official act from time to time.

*Specific Authority 1471.008, 471.013 FS. Law Implemented 471.013 FS. History--New 1-8-80, Formerly 21H-18.10, 21H-18.010.*

#### **61G15-18.011 Definitions.**

As used in Chapter 471, F.S., and in these rules where the context will permit the following terms have the following meanings:

(1) "Responsible Charge" shall mean that degree of control an engineer is required to maintain over engineering decisions made personally or by others over which the engineer exercises supervisory direction and control authority. The engineer in responsible charge is the Engineer of Record as defined in subsection 61G15-30.002(1), F.A.C.

(a) The degree of control necessary for the Engineer of Record shall be such that the engineer:

1. Personally makes engineering decisions or reviews and approves proposed decisions prior to their implementation, including the consideration of alternatives, whenever engineering decisions which could affect the health, safety and welfare of the public are made. In making said engineering decisions, the engineer shall be physically present or, if not physically present, be available in a reasonable period of time, through the use of electronic communication devices, such as electronic mail, videoconferencing, teleconferencing, computer networking, or via facsimile transmission.

2. Judges the validity and applicability of recommendations prior to their incorporation into the work, including the qualifications of those making the recommendations.

3. Approves the inclusion of standard engineering design details into the engineering work. Standard engineering design details include details mandated or directed to be contained in engineering documents by governmental agencies (such as the Florida Department of Transportation); and details contained in engineering design manuals and catalogues that are generally accepted as authoritative in the engineering profession. In order to approve the inclusion of such details the Engineer of Record must conduct such reasonable analysis of the content of the standard detail(s) as is necessary in the sound professional judgment of the Engineer of Record to be assured that the inclusion of such detail(s) into the engineering work is acceptable engineering practice.

(b) Engineering decisions which must be made by and are the responsibility of the Engineer of Record are those decisions concerning permanent or temporary work which could create a danger to the health, safety, and welfare of the public, such as, but not limited to, the following:

1. The selection of engineering alternatives to be investigated and the comparison of alternatives for engineering works.

2. The selection or development of design standards or methods, and materials to be used.

3. The selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing.

4. The development and control of operating and maintenance procedures.

(c) As a test to evaluate whether an engineer is the Engineer of Record, the following shall be considered:

1. The engineer shall be capable of answering questions relevant to the engineering decisions made during the engineer's work on the project, in sufficient detail as to leave little doubt as to the engineer's proficiency for the work performed and involvement in said work. It is not necessary to defend decisions as in an adversary situation, but only to demonstrate that the engineer in responsible charge made them and possessed sufficient knowledge of the project to make them. Examples of questions to be answered by the engineer could relate to criteria for design, applicable codes and standards, methods of analysis, selection of materials and systems, economics of alternate solutions, and environmental considerations. The individuals should be able to clearly define the span and degree of control and how it was exercised and to demonstrate that the engineer was answerable within said span and degree of control necessary for the engineering work done.

2. The engineer shall be completely in charge of, and satisfied with, the engineering aspects of the project.

3. The engineer shall have the ability to review design work at any time during the development of the project and shall be available to exercise judgment in reviewing these documents.

4. The engineer shall have personal knowledge of the technical abilities of the technical personnel doing the work and be satisfied that these capabilities are sufficient for the performance of the work.

(d) The term "responsible charge" relates to engineering decisions within the purview of the Professional Engineers Act and does not refer to management control in a hierarchy of professional engineers except as each of the individuals in the hierarchy exercises independent engineering judgement and thus responsible charge. It does not refer to administrative and personnel management functions. While an engineer may also have such duties in this position, it should not enhance or decrease one's status of being in responsible charge of the work. The phrase does not refer to the concept of financial liability.

(2) "Engineering Design" shall mean that the process of devising a system, component, or process to meet desired needs. It is a decision-making process (often iterative), in which the basic sciences, mathematics, and engineering sciences are applied to convert resources optimally to meet a stated objective. Among the fundamental elements of the design process are the establishment of objectives and criteria, synthesis, analysis, construction, testing and evaluation. Central to the process are the essential and complementary roles of synthesis and analysis. This definition is intended to be interpreted in its broadest sense. In particular the words "system, component, or process" and "convert resources optimally" operate to indicate that sociological, economic, aesthetic, legal, ethical, etc., considerations can be included.

(3) The term "evaluation of engineering works and systems" as used in the definition in the practice of engineering set forth in Chapter 471.005(4)(a), F.S., includes but is not limited to services provided by testing laboratories involving the following:

(a) The planning and implementation of any investigation or testing program for the purpose of developing design criteria either by an engineering testing laboratory or other professional engineers.

(b) The planning or implementation of any investigation, inspection or testing program for the purpose of determining the causes of failures.

(c) The preparation of any report documenting soils or other construction materials test data.

(d) The preparation of any report offering any engineering evaluation, advice or test results, whenever such reports go beyond the tabulation of test data. Reports which document soils or other construction materials test data will be considered as engineering reports.

(e) Services performed by any entity or provided by a testing laboratory for any entity subject to regulation by a state or federal regulatory agency which enforces standards as to testing shall be exempt from this rule except where the services otherwise would require the participation of a professional engineer.

(4) "Certification" shall mean a statement signed and/or sealed by a professional engineer representing that the engineering services addressed therein, as defined in Section 471.005(6), F.S., have been performed by the professional engineer, and based upon the professional engineer's knowledge, information and belief, and in accordance with commonly accepted procedures consistent with applicable standards of practice, and is not a guaranty or warranty, either expressed or implied.

(5) "FEMC" shall mean the Florida Engineers Management Corporation, created in Section 471.038(3), F.S.

(6) The term "principal officer(s) of the business organization" as used in Section 471.023(1), F.S., means the (a) President, Vice President, Secretary or Treasurer of the Corporation, or Limited Liability Company (LLC); or (b) any other officer who has management responsibilities in the corporation or LLC, as documented by the corporate charter or bylaws so long as such documentation provides that such officer is empowered to bind the corporation or LLC in all of its activities which fall within the definition of the practice of engineering as that term is defined in Section 471.005(7), F.S.

*Rulemaking Authority 471.008, 471.013(1)(a)1., 2. FS. Law Implemented 471.003(2)(f), 471.005(7), 471.005(6), 471.013(1)(a)1., 2., 471.023(1), 471.025(3), 471.033(1)(j) FS. History—New 6-23-80, Amended 12-19-82, 11-22-83, Formerly 21H-18.11, Amended 1-16-91, 4-4-93, Formerly 21H-18.011, Amended 12-22-99, 4-19-01, 10-16-02, 9-15-04, 6-5-08, 6-2-09.*

#### **61G15-18.012 Other Board Business for Which Compensation is Allowed.**

The following are considered to be other business involving the Board as required by Section 455.207(4), F.S.:

(1) All joint Board or Committee meetings required by statutes, Board rule or Board action.

(2) Meetings of Board members with FEMC staff or contractors of FEMC at FEMC's or the Board's request.

Any participation or meeting of members noticed or unnoticed will be on file in the Board office.

(3) Where a Board member has been requested by the Secretary of the Department to participate in a meeting.

(4) Probable Cause Panel Meeting.

(5) Any telephone conference calls.

(6) All activity of Board members, if authorized by the Board, when grading, proctoring or reviewing examinations given by FEMC.

(7) All participation in Board authorized meetings with professional associates of which the Board is a member or invitee. This would include all meetings of national associations of registration Boards of which the Board is a member as well as Board authorized participation in meetings of national or professional associations or organizations involved in educating, regulating or reviewing the profession over which the Board has statutory authority.

(8) Any and all other activities which are Board approved and which are necessary for Board members to attend in order to further protect the public health, safety and welfare, through the regulation of which the Board has statutory authority.

*Specific Authority 455.207 FS., Ch. 81-302, § 28, Laws of Florida. Law Implemented 455.207 FS., Ch. 81-302, § 28, Laws of Florida. History— New 11-2-81, Formerly 21H-18.12, 21H-18.012.*

#### **61G15-18.015 Education Advisory Committee.**

The Board shall appoint an Educational Advisory Committee which shall be composed of not less than one (1) member of the Board. The committee shall be advised by expert consultants retained by FEMC Said consultants shall be individuals who have knowledge and experience of curricula of engineering schools and colleges and of national accreditation standards for professional degrees in engineering programs which shall have been gained either as a college faculty member or as a professional engineer. The Educational Advisory Committee shall examine and review applications for examination or licensure by endorsement made to the Board under the provisions of Rule 61G15-20.006, F.A.C., to insure that the engineering curricula and applicants' degree programs meet required standards of accreditation. The Educational Advisory Committee shall make recommendations to the Board as to whether an applicant shall be approved for admittance to the examination or for licensure by endorsement.

*Specific Authority 471.008 FS. Law Implemented 471.008, 471.013 FS. History—New 8-18-87, Amended 2-18-88, Formerly 21H-18.015.*

**CHAPTER 61G15-19**  
**GROUNDS FOR DISCIPLINARY PROCEEDINGS**

61G15-19.001 Grounds for Disciplinary Proceedings.

61G15-19.002 Payments of Fine.

61G15-19.003 Purpose.

61G15-19.004 Disciplinary Guidelines; Range of Penalties; Aggravating and Mitigating Circumstances.

61G15-19.005 Citations. (Repealed)

61G15-19.0051 Notice of Noncompliance.

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61G15-19.007 Notice of Noncompliance. (Repealed)

61G16-19.0071 Citations.

61G15-19.008 Confidentiality of Investigations.

**61G15-19.001 Grounds for Disciplinary Proceedings.**

(1) Pursuant to Section 471.033(2), F.S., the Board, to the extent not otherwise set forth in Florida Statutes, hereby specifies that the following acts or omissions are grounds for disciplinary proceedings pursuant to Section 471.033(1), F.S.

(2) A professional engineer shall not advertise in a false, fraudulent, deceptive or misleading manner. As used in Section 471.033(1)(f), F.S., the term “advertising goods or services in a manner which is fraudulent, false, deceptive, or misleading in form or content” shall include without limitation a false, fraudulent, misleading, or deceptive statement or claim which:

(a) Contains a material misrepresentation of facts;

(b) Omits to state any material fact necessary to make the statement in the light of all circumstances not misleading;

(c) Is intended or is likely to create an unjustified expectation;

(d) States or implies that an engineer is a certified specialist in any area outside of his field of expertise;

(e) Contains a representation or implication that is likely to cause an ordinary prudent person to misunderstand or be deceived or fails to contain reasonable warnings or disclaimers necessary to make a representation or implication not deceptive;

(f) Falsifies or misrepresents the extent of his education, training or experience to any person or to the public at large, tending to establish or imply qualification for selection for engineering employment, advancement, or professional engagement. A professional engineer shall not misrepresent or exaggerate his degree of responsibility in or for the subject matter of prior assignments;

(g) In any brochure or other presentation made to any person or to the public at large, incident to the solicitation of an engineering employment, misrepresents pertinent facts concerning a professional engineer’s employer, employees, associates, joint ventures, or his or their past accomplishments with the intent and purpose of enhancing his qualifications and his works.

(3) A professional engineer, corporation or partnership shall not practice engineering under an assumed, fictitious or corporate name that is misleading as to the identity, responsibility or status of those practicing thereunder or is otherwise false, fraudulent, misleading or deceptive within the meaning of subsection 61G15-19.001(2), F.A.C. When an individual is practicing engineering as a sole proprietor under a combination of his own given name, and terms such as “engineering,” “and associates” or “and company,” then said person is practicing engineering under a fictitious name, and must obtain a certificate of authorization pursuant to Section 471.023(2), F.S. The name of a corporation or partnership, if otherwise authorized, may include the name or names of one or more deceased or retired members of the firm, or of a predecessor firm in a continuing line of succession. An engineering firm may not offer services to the public under a firm name which contains only the name of an individual not licensed as a professional engineer, registered architect, land surveyor, landscape architect, or professional geologist, in any state.

(4) A professional engineer shall not be negligent in the practice of engineering. The term negligence set forth in Section 471.033(1)(g), F.S., is herein defined as the failure by a professional engineer to utilize due care in performing in an engineering capacity or failing to have due regard for acceptable standards of engineering principles. Professional engineers shall approve and seal only those documents that conform to acceptable engineering standards and safeguard the life, health, property and welfare of the public.

Failure to comply with the procedures set forth in the Responsibility Rules as adopted by the Board of Professional Engineers shall be considered as non-compliance with this section unless the deviation or departures therefrom are justified by the specific circumstances of the project in question and the sound professional judgment of the professional engineer.

(5) A professional engineer shall not be incompetent to practice engineering. Incompetence in the practice of engineering as set forth in Section 471.033(1)(g), F.S., shall mean the physical or mental incapacity or inability of a professional engineer to perform the duties normally required of the professional engineer.

(6) A professional engineer shall not commit misconduct in the practice of engineering. Misconduct in the practice of engineering as set forth in Section 471.033(1)(g), F.S., shall include, but not be limited to:

(a) Expressing an opinion publicly on an engineering subject without being informed as to the facts relating thereto and being competent to form a sound opinion thereupon;

(b) Being untruthful, deceptive, or misleading in any professional report, statement, or testimony whether or not under oath or omitting relevant and pertinent information from such report, statement or testimony when the result of such omission would or reasonably could lead to a fallacious conclusion on the part of the client, employer or the general public;

(c) Performing an engineering assignment when not qualified by training or experience in the practice area involved;

1. All professional engineer asbestos consultants are subject to the provisions of Sections 455.301-.309, F.S., Chapter 471, F.S., and Rule 61G15-19, F.A.C., and shall be disciplined as provided therein.

2. The approval of any professional engineer as a "special inspector" under the provisions of Chapter 553, F.S., does not constitute acceptance by the Board that any such professional engineer is in fact qualified by training or experience to perform the duties of a "special inspector" by virtue of training or experience. Any such professional engineer must still be qualified by training or experience to perform such duties and failure to be so qualified could result in discipline under this chapter or Chapter 471, F.S.;

(d) Affixing a signature or seal to any engineering plan or document in a subject matter over which a professional engineer lacks competence because of inadequate training or experience;

(e) Offering directly or indirectly any bribe or commission or tendering any gift to obtain selection or preferment for engineering employment with the exception of the payment of the usual commission for securing salaried positions through licensed employment agencies;

(f) Becoming involved in a conflict of interest with an employer or client, without the knowledge and approval of the client or employer, but if unavoidable a professional engineer shall immediately take the following actions:

1. Disclose in writing to his employer or client the full circumstances as to a possible conflict of interest; and

2. Assure in writing that the conflict will in no manner influence the professional engineer's judgment or the quality of his services to his employer or client; and

3. Promptly inform his client or employer in writing of any business association, interest or circumstances which may be influencing his judgment or the quality of his services to his client or employer;

(g) Soliciting or accepting financial or other valuable considerations from material or equipment suppliers for specifying their products without the written consent to the engineer's employer or client;

(h) Soliciting or accepting gratuities directly or indirectly from contractors, their agents or other parties dealing with the professional engineer's client or employer in connection with work for which the professional engineer is responsible without the written consent of the engineer's employer or client;

(i) Use by a professional engineer of his engineering expertise and/or his professional engineering status to commit a felony;

(j) Affixing his seal and/or signature to plans, specifications, drawings, or other documents required to be sealed pursuant to Section 471.025(1), F.S., when such document has not been personally prepared by the engineer or prepared under his responsible supervision, direction and control;

(k) A professional engineer shall not knowingly associate with or permit the use of his name or firm name in a business venture by any person or firm which he knows or has reason to believe is engaging in business or professional practices of a fraudulent or dishonest nature;

(l) If his engineering judgment is overruled by an unqualified lay authority with the results that the public health and safety is threatened, failure by a professional engineer to inform his employer, responsible supervision and the responsible public authority of the possible circumstances;

(m) If a professional engineer has knowledge or reason to believe that any person or firm is guilty of violating any of the provisions of Chapter 471, F.S., or any of these rules of professional conduct, failure to immediately present this information to FEMC;

(n) Violation of any law of the State of Florida directly regulating the practice of engineering;

(o) Failure on the part of any professional engineer or certificate holder to obey the terms of a final order imposing discipline upon said professional engineer or certificate holder;

(p) Making any statement, criticism or argument on engineering matters which is inspired or paid for by interested parties, unless the professional engineer specifically identifies the interested parties on whose behalf he is speaking, and reveals any interest he or the interested parties have in such matters;

(q) Sealing and signing all documents for an entire engineering project, unless each design segment is signed and sealed by the professional engineer in responsible charge of the preparation of that design segment;

(r) Revealing facts, data or information obtained in a professional capacity without the prior consent of the professional engineer's client or employer except as authorized or required by law.

(7) A professional engineer who performs building code inspector or plans examiner duties in accordance with Section 471.045, F.S., or Sections 468.603(6), (7), F.S., shall be subject to disciplinary action for commission of the following:

(a) Violating or failing to comply with any provision of Chapter 471, F.S., or the rules of the Board of Professional Engineers;

(b) Having been convicted of a crime in any jurisdiction which directly relates to the practice of building code inspection or plans examination;

(c) Making or filing a false report or record, inducing another to file a false report or record, failing to file a report or record required by state or local law, impeding or obstructing such filing, or inducing another person to impede or obstruct such filing.

(8) A professional engineer shall not be negligent in the practice of engineering while performing duties as a special inspector. Negligence is herein defined as the failure by a professional engineer to utilize due care in performing in an engineering capacity or failing to have due regard for acceptable standards of engineering and special inspection principles. Failure to comply with the procedures set forth in the Responsibility Rules for Professional Engineers Providing Threshold Building Inspection, as adopted by the Board of Professional Engineers, shall be considered non-compliance with this section unless the deviation or departures therefrom are justified by the specific circumstances of the project in question and the sound professional judgment of the engineer.

*Specific Authority 471.033(2) FS. Law Implemented 471.025(1), 471.033(1)(f), (g), (2) FS. History--New 1-8-80, Amended 6-23-80, 3-23-81, 6-4-85, Formerly 21H-19.01, Amended 5-14-86, 4-23-87, 11-8-88, 1-11-89, 7-3-90, 11-9-92, Formerly 21H-19.001, Amended 11-27-94, 5-20-02.*

#### **61G15-19.002 Payments of Fine.**

All fines imposed by the Board for violations of Section 471.033, F.S., shall be paid within a period of thirty (30) days from the date of the final order entered by the Board. This time limit may be modified by the Board at its discretion in order to prevent undue hardship to the public.

*Specific Authority 455.227(2) FS. Law Implemented 455.227(2), 471.033(3)(c) FS. History--New 8-19-80, Formerly 21H-19.02, 21H-19.002.*

**61G15-19.003 Purpose.**

To comply with the purpose of Chapter 471, F.S., which is to safeguard life, health, and property to promote the public welfare and to maintain a high standard of integrity and practice, the Board of Professional Engineers has developed Grounds for Disciplinary Proceeding. These rules shall be binding on every person holding a license to offer or perform engineering services in this State. All persons registered under Chapter 471, F.S., are required to be familiar with Chapter 471, F.S., and the rules promulgated thereto. The Grounds for Disciplinary Proceedings delineate specific obligations which must be met by a professional engineer.

*Specific Authority 471.033(2) FS. Law Implemented 471.001, 471.033 FS. History–New 5-14-86, Formerly 21H-19.003.*

**61G15-19.004 Disciplinary Guidelines; Range of Penalties; Aggravating and Mitigating Circumstances.**

(1) The Board sets forth below a range of disciplinary guidelines from which disciplinary penalties will be imposed upon practitioners (including holders of certificate of authorization) guilty of violating Chapter 471, F.S. The purpose of the disciplinary guidelines is to give notice to licensees of the range of penalties which will normally be imposed upon violations of particular provisions of Chapter 471, F.S. The disciplinary guidelines are based upon a single count violation of each provision listed. Multiple counts of violations of the same provision of Chapter 471, F.S., or the rules promulgated thereto, or other unrelated violations contained in the same administrative complaint will be grounds for enhancement of penalties. All penalties at the upper range of the sanctions set forth in the guidelines, i.e., suspension, revocation, etc., include lesser penalties, i.e., fine, probation or reprimand which may be included in the final penalty at the Board’s discretion. All impositions of probation as a penalty shall include successful completion of the Engineering Law and Rules Study Guide, completion of a Board-approved course in Engineering Professionalism and Ethics, and an appearance before the Board at the option of the Board at the end of the probationary period. Other terms may be imposed by the Board at its discretion.

(2) The following disciplinary guidelines shall be followed by the Board in imposing disciplinary penalties upon licensees for violation of the below mentioned statutes and rules:

VIOLATION	PENALTY RANGE	
	FIRST VIOLATION	SECOND AND SUBSEQUENT VIOLATIONS
(a) Violating any provision of Section 455.227(1), 471.025 or 471.031, F.S., or any other provision of Chapter 471, F.S., or rule of the Board or Department (Sections 471.033(1)(a) and 455.227(1)(b), (q), F.S)	Reprimand and \$1,000 fine, to One (1) year suspension, two (2) years probation and \$5,000 fine	One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation
1. Failure to sign, seal or date documents (Section 471.025(1), F.S.)	Reprimand to one (1) year probation	Reprimand and one (1) year probation to Revocation
2. Sealing any document after license has expired or been revoked or suspended, or failure to surrender seal if the license has been revoked or suspended (Section 471.025(2), F.S.)	Suspended license: Revocation and \$1,000 fine  Revoked license: Referral to State’s Attorney’s office	Suspended license: Revocation and \$5,000 fine  Revoked license: Referral to State’s Attorney’s office
3. Signing or sealing any document that depicts work the licensee is not licensed to perform or which is beyond his or her profession or specialty therein or practicing or offering to practice beyond the scope permitted by law or accepting and performing responsibilities the licensee is not competent to perform (Sections 471.025(3), 455.227(1)(o), F.S., paragraphs	Reprimand, one (1) year probation and \$1,000 fine; to \$5,000 fine, one (1) year suspension and two (2) years probation	Reprimand, \$5,000 fine, one (1) year suspension and two (2) years probation to Revocation

61G15-19.001(6)(c), (d), F.A.C.)		
4. Firm practicing without certificate of authorization (Section 471.023, F.S. and subsection 61G15-19.001(3), F.A.C.)	Reprimand, \$1,000 fine to one (1) year suspension and \$5,000 fine	Reprimand, one (1) year suspension and \$5,000 fine to Revocation
5. Failure to complete continuing education (Section 471.017(3), F.S. and Rule 61G15-22.001, F.A.C.)	Reprimand and \$1,000 fine, to Suspend until licensee demonstrates compliance	Suspend until licensee demonstrates compliance to Revocation
6. Practicing engineering without a license or using a name or title tending to indicate that such person holds an active license as an engineer (Sections 471.031(1)(a), (b), F.S.)	\$1,000 fine to \$5,000 fine	\$5,000 fine to \$10,000 fine to referral to State Attorney's Office
7. Presenting as his or her own the license of another (Section 471.031(1)(c), F.S.)	\$1000 fine to \$5,000 fine	\$5,000 fine to \$10,000 fine and referral to State Attorney's Office
8. Giving false or forged evidence to the Board or concealing information relative to violations of this chapter (Sections 471.031(1)(d), (g), F.S.)	\$1,000 fine to \$5,000 fine and suspension	Reprimand and \$5,000 fine to Revocation
9. Employing unlicensed persons to practice engineering or aiding, assisting, procuring, employing unlicensed practice or practice contrary to Chapter 455 or 471, F.S. (Sections 471.031(1)(f) and 455.227(1)(j), F.S.)	\$1,000 fine and reprimand; to \$5,000 and suspension	Reprimand and \$5,000 fine to Revocation
10. Having been found liable for knowingly filing a false complaint against another licensee (Section 455.227(1)(g), F.S.)	\$1,000 fine and reprimand; to \$5,000 per count and suspension	Reprimand and \$5,000 fine to Revocation
11. Failing to report a person in violation of Chapter 455, Chapter 471, F.S., or the rules of the Board or the Department (Section 455.227(1)(i), F.S.)	Reprimand to \$5,000 and suspension for one (1) year	Reprimand and \$5,000 fine to Revocation
12. Failing to perform any statutory or legal obligation (Section 455.227(1)(k), F.S.)	Depending on the severity of the offense, from a Reprimand to Revocation	Depending on the severity of the offense, from a Reprimand to Revocation
13. Exercising influence on a client for financial gain (Section 455.227(1)(n), F.S.)	Reprimand to one (1) year suspension and \$5,000 fine	Reprimand and \$5,000 fine to Revocation
14. Improper delegation of professional responsibilities (Section 455.227(1)(p), F.S.)	\$1,000 fine and probation for one (1) year, to suspension	Reprimand and \$5,000 fine to Revocation
15. Improperly interfering with an investigation or	\$1,000 fine and probation for	Reprimand and \$5,000 fine to

inspection or disciplinary proceeding (Section 455.227(1)(r), F.S.)	one (1) year; to suspension	Revocation
(b) Attempting to procure a license by bribery, fraudulent misrepresentation, or error of the Board or Department (Sections 471.033(1)(b) and 455.227(1)(h), F.S.)	One (1) year suspension and \$1,000 fine, to Revocation if licensed; if not licensed, denial of license and referral to State Attorney	Revocation and \$5,000 fine if licensed; if not licensed, denial of license and referral to State Attorney
(c) Having a license to practice engineering acted against or denied by another jurisdiction (Sections 471.033(1)(c) and 455.227(1)(f), F.S.)	Same penalty as imposed in other jurisdiction or as close as possible to penalties set forth in Florida Statutes	Same penalty as imposed in other jurisdiction or as close as possible to penalties set forth in Florida Statutes
(d)1. Being convicted or found guilty of, or entering a plea of nolo contendere to a crime which relates to the practice or ability to practice (Sections 471.033(1)(d) and 455.227(1)(c), F.S.)	Depending on the severity of the crime, from Reprimand \$1,000 fine, and one (1) year probation, to Revocation	Depending on the severity of the crime, from One (1) year suspension with 2 years probation to Revocation
2. Conviction of crime related to building code inspection or plans examination (paragraph 61G15-19.001(7)(a), F.A.C.)	Reprimand \$1,000 fine, and one (1) year probation	One (1) year suspension with 2 years probation to Revocation
(e) Knowingly making or filing a false report or record, failing to file a report or record required by law, impeding or obstructing such filing (Sections 471.033(1)(e), 455.227(1)(l), F.S. and paragraph 61G15-19.001(7)(c), F.A.C.)	Reprimand and \$1,000 fine to one (1) year suspension, two (2) years probation	One (1) year suspension, 2 years probation, and \$1,000 fine, to Revocation and \$5,000 fine
(f) Fraudulent, false, deceptive or misleading advertising (Sections 471.033(1)(f), F.S. and subsection 61G15-19.001(2), F.A.C.)	Reprimand to one (1) year probation and \$5,000 fine	One (1) year probation and \$5,000 fine to Revocation
(g) Fraud, deceit, negligence, incompetence or misconduct (Sections 471.033(1)(g) and 455.227(1)(a), (m), F.S.)		
1. Fraud or deceit	Reprimand, two (2) years probation and \$1,000 fine, to one (1) year suspension and \$5,000 fine	One (1) year suspension and \$5,000 fine to Revocation
2.a. Negligence (subsection 61G15-19.001(4), F.A.C.)	Reprimand, two (2) years probation and \$1,000 fine, to \$5,000 fine, five (5) year suspension and ten (10) years probation	Two (2) years probation and \$1,000 fine, to \$5,000 fine and Revocation

b. Negligence in procedural requirements (subsections 61G15-30.003(2),(3) and (5), F.A.C.; Rules 61G15-30.005 and 61G15-30.006, F.A.C.)	Reprimand to two (2) years probation and \$1,000 fine	Two (2) years probation and \$1,000 fine, to \$5,000 fine and Revocation
c. As a special inspector	Reprimand, two (2) years probation and \$1,000 fine, to \$5,000 fine	Two (2) years probation and \$1,000 fine, to \$5,000 fine and Revocation
3. Incompetence (subsection 61G15-19.001(5), F.A.C.)	Two (2) year probation to Suspension until ability to practice proved followed by two (2) year probation	Suspension until ability to practice proved followed by two (2) year probation, to Revocation
4. Misconduct (subsection 61G15-19.001(6), F.A.C.)	Reprimand and \$1,000 fine to one (1) year suspension	One (1) year suspension to Revocation and \$5,000 fine.
a. Expressing an opinion publicly on an engineering subject without being informed as to the facts and being competent to form a sound opinion (paragraph 61G15-19.001(6)(a), F.A.C.)	Reprimand and \$1,000 fine to one (1) year suspension	One (1) year suspension to Revocation and \$5,000 fine
b. Being untruthful, deceptive or misleading in any professional report, statement or testimony or omitting relevant and pertinent information from such report, statement or testimony when the result or such omission would or reasonably could lead to a fallacious conclusion (paragraph 61G15-19.001(6)(b), F.A.C.)	Reprimand and \$1,000 fine to one (1) year suspension	One (1) year suspension to Revocation and \$5,000 fine
c. Offering directly or indirectly any bribe or commission or tendering any gift to obtain selection or preferment for engineering employment other than the payment of the usual commission for securing salaried positions through licensed employment agencies (paragraph 61G15-19.001(6)(e), F.A.C.)	Reprimand, \$5,000 fine per count and suspension for five (5) years, to Revocation	Five (5) years suspension to Revocation
d. Soliciting or accepting gratuities without client knowledge (paragraphs 61G15-19.001(6)(g), (h), F.A.C.)	Reprimand, one (1) year probation and \$1,000 fine, to one (1) year suspension, two (2) years probation and \$5,000 fine	One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation
e. Failure to preserve client's confidence (paragraph 61G15-19.001(6)(r), F.A.C.)	Reprimand, one (1) year probation and \$1,000 fine, to one (1) year suspension, two (2) years probation (if pecuniary benefit accrues to engineer)	One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation
f. Professional judgment overruled by unqualified person	Reprimand, one (1) year	One (1) year suspension, two (2)

(paragraph 61G15-19.001(6)(i), F.A.C.)	probation and \$1,000 fine, to one (1) year suspension, two (2) years probation and \$5,000 fine	years probation and \$5,000 fine to Revocation
g. Use of name/firm in fraudulent venture (paragraph 61G15-19.001(6)(k), F.A.C.)	Reprimand, one (1) year probation and \$1,000 fine, to \$5,000 fine, one (1) year suspension and two (2) years probation	One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation
h. Undisclosed conflict of interest (paragraphs 61G15-19.001(6)(f), (p), F.A.C.)	Reprimand, \$1,000 fine and two (2) years probation, to Revocation and \$5,000 fine	One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation
(h) Violating any provision of Chapter 455, F.S. (Sections 471.033(1)(h) and 455.227(1)(q), F.S.)	Depending on the severity of the violation, Reprimand and \$1,000 fine per count, to \$5,000 fine and revocation	Depending on the severity of the violation, One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation
(i) Practicing on a revoked, suspended, inactive or delinquent license (Sections 471.033(1)(i) and 471.031(1)(e), F.S.)		
1. Delinquent license	Fine based on length of time in practice while inactive; \$100/month or \$1,000 maximum, renewal of license or cease practice	
2. Inactive license	Fine based on length of time in practice while inactive; \$100/month or \$1,000 maximum, renewal of license or cease practice	
3. Suspended license	Revocation and \$1,000 fine	
4. Revoked license	Referral to State Attorney	Referral to State Attorney
(j) Affixing or permitting to be affixed his or her seal, name, or digital signature to any documents that were not prepared by him or her or under his or her responsible supervision, direction or control (Section 471.033(1)(j), F.S. and paragraphs 61G15-19.001(6)(j), (q), F.A.C.)	Reprimand, one (1) year probation and \$1,000 fine, to \$5,000 fine, one (1) year suspension and two (2) years probation	One (1) year suspension, two (2) years probation and \$5,000 fine to Revocation

(k) Violating any order of the board or department (Sections 471.033(1)(k), 455.227(1)(q), F.S. and paragraph 61G15-19.001(6)(o), F.A.C.)	Depending on the severity of the violation, from Suspension until compliant with the order of the Board and \$1,000 fine, to Revocation and \$5,000 fine	Depending on the severity of the violation, Suspension until compliant with the order of the Board and \$1,000 fine, to Revocation and \$5,000 fine
(l) Aiding, assisting, procuring, employing unlicensed practice or practice contrary to Chapter 455 or 471, F.S. (Section 455.227(1)(j), F.S.)	\$1,000 fine and probation for one (1) year, to \$5,000 fine and suspension	Reprimand and \$5,000 fine to Revocation
(m) Failing to report in writing a conviction or plea of nolo contendere, a crime in any jurisdiction (Section 455.227(1)(t), F.S.)	Reprimand to \$5,000 fine	Six (6) month suspension to \$5,000 fine and Revocation

(3) The board shall be entitled to deviate from the above-mentioned guidelines upon a showing of aggravating or mitigating circumstances by clear and convincing evidence presented to the board prior to the imposition of a final penalty. The fact that a Hearing Officer of the Division of Administrative Hearings may or may not have been aware of the below mentioned aggravating or mitigating circumstances prior to a recommendation of penalty in a Recommended Order shall not obviate the duty of the board to consider aggravating and mitigating circumstances brought to its attention prior to the issuance of a Final Order.

(a) Aggravating circumstances; circumstances which may justify deviating from the above set forth disciplinary guidelines and cause the enhancement of a penalty beyond the maximum level of discipline in the guidelines shall include but not be limited to the following:

1. History of previous violations of the practice act and the rules promulgated thereto.
2. In the case of negligence; of the magnitude and scope of the project and the damage inflicted upon the general public by the licensee's misfeasance.
3. Evidence of violation of professional practice acts in other jurisdictions wherein the licensee has been disciplined by the appropriate regulatory authority.
4. Violation of the provision of the practice act wherein a letter of guidance as provided in Section 455.225(3), F.S., has previously been issued to the licensee.

(b) Mitigating circumstances; circumstances which may justify deviating from the above set forth disciplinary guidelines and cause the lessening of a penalty beyond the minimum level of discipline in the guidelines shall include but not be limited to the following:

1. In cases of negligence, the minor nature of the project in question and lack of danger to the public health, safety and welfare resulting from the licensee's misfeasance.
2. Lack of previous disciplinary history in this or any other jurisdiction wherein the licensee practices his profession.
3. Restitution of any damages suffered by the licensee's client.
4. The licensee's professional standing among his peers including continuing education.
5. Steps taken by the licensee or his firm to insure the non-occurrence of similar violations in the future.

*Rulemaking Authority 455.227, 471.008, 471.031, 471.033 FS. Law Implemented 455.227, 471.031, 471.033 FS. History—New 1-7-87, Formerly 21H-19.004, Amended 11-27-94, 5-22-01, 11-15-01, 5-20-02, 11-21-06, 2-21-10.*

**61G15-19.0051 Notice of Noncompliance.**

(1) As an alternative to investigation and prosecution, when a complaint is received, FEMC shall provide a licensee with a notice of noncompliance for an initial offense for the following violations:

- (a) Failure to date documents when affixing signature and seal.
- (b) Practice with an inactive or delinquent license less than one month.
- (c) Firm practicing without a current certificate of authorization less than one month.

(d) Failing to report a criminal conviction or plea of nolo contendere, regardless of adjudication, pursuant to Section 455.227(1)(t), F.S., if the conviction or plea occurred prior to July 1, 2009. This subparagraph shall remain in effect until July 1, 2012.

(2) A second offense shall result in issuance of a citation pursuant to Rule 61G15-19.0071, F.A.C.

*Rulemaking Authority 455.225 FS. Law Implemented 455.224 FS. History--New 4-2-00, Amended 5-5-10.*

#### **61G15-19.006 Mediation.**

Pursuant to Section 455.2235, F.S., the Board designates the following areas as appropriate for mediation for a first offense:

- (1) Practice with an improper seal. (See Rule 61G15-23.001, F.A.C.).
- (2) Failure to date documents when affixing signature and seal.

*Specific Authority 455.2235 FS. Law Implemented 455.2235 FS. History--New 2-20-95, Amended 10-20-96, 4-2-00.*

#### **61G15-19.0071 Citations.**

(1) As used in this rule, "citation" means an instrument which meets the requirements set forth in Section 455.224, F.S., and which is served upon a licensee or certificateholder for the purpose of assessing a penalty in an amount established by this rule.

(2) In lieu of the disciplinary procedures contained in Section 455.225, F.S., FEMC is hereby authorized to dispose of any violation designated herein by issuing a citation to the subject within six months after the filing of the complaint that is the basis for the citation. If a violation for which a citation may be issued is discovered during the course of an investigation for an unrelated violation, the citation must be issued within 6 months from the discovery of the violation and filing of the uniform complaint form by the investigator.

(3) The following violations with accompanying fines may be disposed of by citation:

(a) An engineer who has practiced or offered to practice engineering through a corporation, partnership, or fictitious name which has not been duly certified. The fine shall be \$100 for each month or fraction thereof of said activity, up to a maximum of \$5,000. (See Sections 455.227(1)(j), 471.023, and 471.033(1)(a), F.S.)

(b) Practice with an inactive or delinquent license more than one month or if a Notice of Noncompliance has previously been issued for the same offense. The fine shall be \$100 for each month or fraction thereof. (See Section 471.033(1)(i), F.S.)

(c) Firm practicing without a current certificate of authorization more than one month or if a Notice of Noncompliance has previously been issued for the same offense. The fine shall be \$100 for each month or fraction thereof. (See Section 471.023, F.S.)

(d) Failure to notify the Board of a change in the principal officer of the corporation or partner in a partnership who is the qualifying professional engineer for said corporation or partnership within one month of such change. The fine shall be \$500. (See Section 471.023(4), F.S.)

(4) If the subject does not dispute the matter in the citation in writing within 30 days after the citation is served by personal service or within 30 days after receipt by certified mail, the citation shall become a final order of the Board of Professional Engineers. The subject has 30 days from the date the citation becomes a final order to pay the fine and costs. Failure to pay the fine and costs within the prescribed time period constitutes a violation of Section 471.033(1)(k), F.S., which will result in further disciplinary action. All fines and costs are to be made payable to "Florida Engineers Management Corporation – Citation."

(5) Prior to issuance of the citation, the investigator must confirm that the violation has been corrected or is in the process of being corrected.

(6) Once the citation becomes a final order, the citation and complaint become a public record pursuant to Chapter 119, F.S., unless otherwise exempt from the provisions of Chapter 119, F.S. The citation and complaint may be considered as aggravating circumstances in future disciplinary actions pursuant to Rule 61G15-19.004, F.A.C.

(7) Subsequent violation(s) of the same rule or statute shall require the procedure of Section 455.225, F.S., to be followed. In addition, should the offense for which a citation could be issued occur in conjunction with violations not described herein, then the procedures of Section 455.255, F.S., shall apply.

*Specific Authority 455.224, 455.225 FS. Law Implemented 455.224, 455.227, 471.023, 471.033 FS. History–New 4-2-00, Amended 9-26-05.*

**61G15-19.008 Confidentiality of Investigations.**

(1) In accordance with Section 455.225, F.S., investigation records are confidential until an investigation ceases to be active. An investigation ceases to be active when the case is dismissed prior to a finding of probable cause and the board has not exercised its option to pursue the case, or ten (10) days after the Board makes a determination regarding probable cause. However, in accordance with Section 471.038(6), F.S., in response to an inquiry about the licensure status of an individual, the management corporation shall disclose the existence of an active investigation if the nature of the violation under investigation involves the potential for substantial physical or financial harm to the public.

(2) The following violations have been deemed to involve the potential for substantial physical or financial harm to the public: Negligence, as defined in subsection 61G15-19.001(4), F.A.C., or misconduct, as defined in subsection 61G15-19.001(6), F.A.C., involving threshold buildings as defined in Section 553.71(7), F.S.

*Specific Authority 471.038(6) FS. Law Implemented 471.038(6) FS. History–New 5-20-02.*

**CHAPTER 61G15-20**

**APPLICATION FOR LICENSURE, EDUCATION REQUIREMENTS AND EXPERIENCE**

- 61G15-20.001 Definitions.
- 61G15-20.0010 Application for Licensure by Examination.
- 61G15-20.0015 Application for Licensure by Endorsement.
- 61G15-20.0016 Laws and Rules Examination.
- 61G15-20.0017 Application for Retired Status.
- 61G15-20.002 Experience.
- 61G15-20.004 Notification of Intention to Qualify for Examination Under 10 Year Engineering Cycle Pursuant to Section 471.013(3), F.S. (Repealed)
- 61G15-20.005 Rules Governing Candidates Qualifying Under the Provisions of 471.013(1)(a)3., F.S.
- 61G15-20.006 Educational Requirements.
- 61G15-20.007 Foreign Degrees.

**61G15-20.001 Definitions.**

As used hereinafter in this chapter the following words or phrases shall be defined as follows:

(1) “Year” shall mean 12 months of full-time employment or a full-time academic year of graduate or undergraduate college education.

(2) “Board approved engineering programs” shall mean:

(a) Engineering programs accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc. (EAC/ABET), or

(b) In the case of an applicant who did not graduate from an approved program as set forth in paragraph (2)(a) above, and who holds a baccalaureate degree from an engineering program that is not accredited by EAC/ABET, provided the applicant meets the educational requirements set forth in subsection 61G15-20.007(1), F.A.C., or

(c) In the case of an applicant who holds a post-baccalaureate degree from a school or college in the United States which has an EAC/ABET accredited engineering program in a related discipline at the baccalaureate level, provided the applicant meets the educational requirements set forth in subsection 61G15-20.007(1), F.A.C., or

(d) Programs which have been approved by the Board of Professional Engineers under the provisions of Section 455.11(3), F.S.

*Rulemaking Authority 471.008, 471.013(1)(a)3., 471.015(7) FS. Law Implemented 471.013, 471.015 FS. History–New 1-8-80, Amended 4-15-80, 7-7-83, 9-13-83, Formerly 21H-20.01, Amended 4-20-86, 8-3-86, 5-20-92, 2-2-93, Formerly 21H-20.001, Amended 11-19-03, 3-13-05, 4-9-07, 1-31-08, Amended 10-15-09.*

**61G15-20.0010 Application for Licensure by Examination.**

(1) Any person desiring to be licensed as a professional engineer shall submit a completed application to the Board. The instructions and application Form FBPE/001(06-01), entitled, "Application For Licensure By Examination", which is hereby incorporated by reference, effective 9-27-01, copies of which may be obtained from the Board office. The Board shall certify as eligible to take the licensure examination only those applicants who have completed the application form, remitted the application and examination fee required by Chapter 61G15-24, F.A.C., and who have demonstrated to the Board that they:

(a) Are graduates of a "Board approved engineering program" as defined by subsection 61G15-20.001(2), F.A.C., and

(b) Have four (4) years of acceptable engineering experience as defined by Rule 61G15-20.002, F.A.C.

(2) Any person desiring to take an examination for the purpose of determining whether he or she is qualified to practice as an engineering intern in this state shall submit a completed application to the Board. There are two engineer intern applications from which to choose, the instructions and application Form FBPE/003 (06-01), entitled, "Application for Engineer Intern", which is hereby incorporated by reference, effective 9-27-01, copies of which may be obtained from the Board office, or the instructions and application Form FBPE/004 (06-01), entitled "Application for Foreign Engineer Intern", which is hereby incorporated by reference effective 9-27-01, copies of which may be obtained from the Board office. The Board shall certify as eligible to take the Fundamentals examination only those applicants who have completed the application form, remitted the application and examination fee required by Chapter 61G15-24, F.A.C., and who have demonstrated to the Board that they are in the final year of, or have graduated from, "a Board approved engineering program" as defined by subsection 61G15-20.001(2), F.A.C.

*Specific Authority 471.008, 471.013, 471.015 FS. Law Implemented 471.013, 471.015 FS. History—New 9-27-01, Amended 11-19-03.*

**61G15-20.0015 Application for Licensure by Endorsement.**

(1) Any person desiring to be licensed as a professional engineer by endorsement shall submit a completed application form to the Board. The instructions and application Form FBPE/002(06-01), entitled "Application For Licensure By Endorsement", which is hereby incorporated herein by reference, effective 9-27-01, copies of which may be obtained from the Board office. The Board shall certify as eligible for licensure by endorsement applicants who have completed the application form, remitted the application fee for licensure by endorsement required by Chapter 61G15-24, F.A.C., and who have demonstrated to the Board that:

(a) The applicant meets the current criteria listed in Section 471.013, F.S., (the burden of proving the equivalency of any examination shall rest with the applicant); or

(b) The applicant holds a valid license to practice engineering issued by another state or territory of the United States, provided that the criteria for issuing the license was substantially the same as the licensure criteria which existed in Florida at the time the license was issued.

(2) If an applicant for licensure by endorsement satisfies any one of the conditions found in Section 471.015(5)(a)1., 2., or 3., F.S., then the Board shall deem that the applicant has passed an examination substantially equivalent to part I, fundamentals, of the engineering examination. If an applicant for licensure by endorsement satisfies the conditions found in Section 471.015(5)(b), F.S., then the Board shall deem that the applicant has passed an examination substantially equivalent to part I, fundamentals, and part II, principles and practice, of the engineering examination.

(3) An applicant for licensure by endorsement who has taken and failed either the fundamentals or the principles and practice examinations more than five (5) times after October 1, 1992, and/or more than three (3) times after July 1, 2004, must document compliance with Rule 61G15-21.007, F.A.C., as a condition of eligibility for licensure by endorsement.

(4) An applicant for licensure by endorsement whose only educational deficiency under subsection 61G15-20.007(2), F.A.C., involves humanities and social sciences and who has held a valid license and practiced in another state or territory of the United States for two (2) years or more shall be deemed to have satisfied that requirement.

(5) The Board shall deem that an applicant for licensure by endorsement who has an engineering degree that is not EAC/ABET accredited has demonstrated substantial equivalency to an EAC/ABET accredited engineering program, as required by Rule 61G15-20.007, F.A.C., when such applicant has held a valid professional engineer's license in another state for 15 years and has had 20 years of continuous professional-level engineering experience.

(6) An applicant for licensure by endorsement who previously held licensure in the State of Florida and whose license became null and void because of non-renewal must meet all current requirements for initial licensure. Such applicants, if otherwise eligible, shall be subject to disciplinary sanctions as a condition of licensure if it is demonstrated that they practiced engineering during any period their license was delinquent and/or null and void.

*Rulemaking Authority 471.008, 471.013, 471.015 FS. Law Implemented 471.013, 471.015 FS. History—New 9-27-01, Amended 4-9-07, 10-15-09.*

#### **61G15-20.0016 Laws and Rules Examination.**

All applicants for licensure shall successfully complete an examination in the Laws and Rules applicable to the practice of engineering in Florida as a condition of licensure. The Board hereby designates the "Laws and Rules Study Guide and Questionnaire" as the examination. A copy of said examination shall be provided to every applicant free of charge, and each applicant shall complete and submit said examination to the Board office. The examination shall consist of multiple choice questions concerning Chapter 471, F.S., and Rule Chapter 61G15, F.A.C. A passing score of 90% or more is required.

*Specific Authority 455.217(7) FS. Law Implemented 455.217(7) FS. History—New 2-11-01.*

#### **61G15-20.0017 Application for Retired Status.**

(1) A person wishing to apply for Retired Status shall submit a completed application to the Board. The instructions and application Form FBPE/005(06-01), entitled "Application For Retired Status", which is incorporated by reference, effective 9-27-01, copies of which may be obtained from the Board office. The Board shall certify as eligible for Retired Status any applicant who has completed the application form and who has chosen to relinquish or not to renew his or her license.

(2) Engineers who have been approved for Retired Status shall be carried on the records of the Board as "P.E., Retired."

(3) Engineers on Retired Status may use the term "Professional Engineer, Retired" or "P.E., Retired;" however, such engineer shall refrain from the active practice of engineering and the use of his or her seal. Any engineer in Retired Status who wishes to become active shall make application for licensure and meet the licensure criteria in effect at the time of application.

*Specific Authority 471.008, 471.013, 471.015 FS. Law Implemented 471.005(10), 471.013, 471.015, 471.017(3) FS. History—New 9-27-01.*

#### **61G15-20.002 Experience.**

(1)(a) In order to meet the prerequisites for entry into the engineering examination, an applicant is required to have four years of acceptable experience in engineering at the time of application and four years of acceptable educational qualifications. In determining whether an applicant's experience background is sufficient to meet the requirements set forth in subsections 471.013(1)(a)1. and 2., F.S., the Board has determined that an individual must have the requisite number of years of acceptable engineering experience gained through education and through the requisite amount of full-time employment in engineering. The type of employment which shall be acceptable must principally involve activities in the field of engineering as defined in subsection 471.005(7), F.S. The Board may accept engineering experience in foreign countries if such experience is properly verified by the Board from evidence supplied by the applicant to be equivalent to that accepted as experience by the Board as to any state or territory.

(b) Because the evaluation of experience is a complex and subjective matter, the Board establishes the following guidelines which shall be generally applicable absent extraordinary evidence and documentation supporting a departure therefrom:

1. The acquisition of acceptable engineering experience should logically follow and constitute an application of the engineering education previously obtained.

2. Engineering experience obtained prior to the completion of the engineering degree is usually of a subprofessional nature. Such experience, if deemed acceptable and properly verified, may be awarded experience credit at 25% of the actual time. If the experience is obtained after the completion of a substantial number of engineering design courses, and involves matters of average or above average complexity, experience credit may be awarded at up to 50% of actual time. In any event, the total engineering experience credit allowable for pregraduation experience shall not exceed 12 months.

3. Experience credit is based on a 40 hour per week full-time basis. No additional credit is allowable for overtime work, or for part-time work experience obtained while pursuing engineering education on a full-time basis, or for the part-time pursuit of a masters or doctorate degree while obtaining full-time work experience.

4. Experience must be progressive on engineering projects to indicate that it is of increasing quality and requiring greater responsibility.

5. Experience must not be obtained in violation of the licensure act.

6. Experience gained in the armed services, to be creditable, must be of a character equivalent to that which would have been gained in the civilian sector doing similar work. Normally, it would be expected that the applicant while in the armed services served in an engineering or engineering-related group.

7. Experience should be gained under the supervision of a licensed professional engineer or, if not, an explanation should be made showing why the experience should be considered acceptable.

8. For sales experience to be creditable, it must be demonstrated that engineering principles were required and used in gaining the experience.

9. Teaching experience, to be creditable, must be in engineering or engineering-related courses at an advanced level in a college or university offering an engineering program of four years or more that is approved by the Board.

10. Experience gained in engineering research and design projects by members of an engineering faculty where the program is approved by the Board is creditable.

11. Experience may not be anticipated. The experience must have been gained by the time of the application.

12. Experience in construction, to be creditable, must demonstrate the application of engineering principles.

13. Experience should include demonstration of a knowledge of engineering mathematics, physical and applied science, properties of materials, and the fundamental principles of engineering design.

14. Experience should include demonstration of the application of engineering principles in the practical solution of engineering problems.

(2) In order to verify an applicant's experience record, the Board will require evidence of employment from employers or supervisors who are employed in the engineering profession or are professional engineers, who shall set forth the quality and character of the applicant's duties and responsibilities. In addition to the employer verification, an applicant must list three personal references who are professional engineers. Should the Board find the information submitted by the applicant is insufficient or incomplete, the Board may require the applicant to supply additional references or evidence regarding the applicant's experience and background or both so that an intelligent decision may be made on whether admittance to the examination is allowable.

The Board will accept as equivalent to one year's experience a masters degree in engineering from a college or university from a Board approved engineering program as defined in subsection 61G15-20.001(2), F.A.C. The Board will also accept as equivalent to one year's experience a doctorate in engineering from a college or university from a Board approved engineering program as defined in subsection 61G15-20.001(2), F.A.C.

*Specific Authority 471.013(1)(a) FS. Law Implemented 471.005(6), 471.013(1)(a) FS. History--New 1-8-80, Amended 3-11-80, 6-23-80, 7-7-83, 9-13-84, Formerly 21H-20.01, Amended 8-18-87, 12-4-91, Formerly 21H-20.002, Amended 12-26-94, 5-20-02, 4-5-04.*

**61G15-20.005 Rules Governing Candidates Qualifying Under the Provisions of Section 471.013(1)(a)3., Florida Statutes.**

(1) The rules governing approval of candidates qualifying under Section 471.013(1)(a)3., F.S., shall be those

rules of the Board of Professional Engineers in effect as of April 1, 1984.

(2) Compliance with the above does not indicate automatic acceptance for examination, nor does it exempt said applicant from meeting the criteria set forth in Sections 471.001 through 471.045, F.S., and Chapter 61G15, F.A.C. Each application filed will be reviewed and acted upon by the Board of Engineers on an individual basis.

*Specific Authority 471.008 FS. Law Implemented 471.013(1)(a)3. FS. History—New 10-25-84, Formerly 21H-20.05, 21H-20.005, Amended 10-19-97, 11-19-03.*

#### **61G15-20.006 Educational Requirements.**

(1) The evaluation of curricula and standards of accreditation for approval of degree programs required by Section 471.013, F.S., shall be made by the Education Advisory Committee and shall be based upon an overview of engineering programs within the United States accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc., (EAC/ABET), and an evaluation of such programs and schools, following the definition of the practice of engineering set forth in Section 471.005(7), F.S. Acceptable curricula requirements and degree programs shall conform to the criteria for accrediting engineering programs set forth by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc., (EAC/ABET) and found in the applicable Annual Report of EAC/ABET.

(2) A non-EAC/ABET accredited engineering degree program (hereinafter “engineering program”) which seeks approval pursuant to Section 471.013(1)(a), F.S., shall submit the following to the Board:

(a) A completed application form “Request for Evaluation” [FBPE/007 (11-07)] and “Self-Study Report” [FBPE/008 (1-08)] hereby incorporated by reference (which may be obtained from the Board by writing to: Executive Director, Florida Board of Professional Engineers, 2507 Callaway Road, Suite 200, Tallahassee, Florida 32304);

(b) A current catalog and student and faculty handbook.

(3) The Board’s survey and evaluation of an engineering program shall consist of two elements:

(a) A review of the documents submitted by the applicant. The purpose of the review is initially to determine if the application is complete. The applicant will be notified if the application is not complete. If the application is complete, the Board will begin the survey and evaluation of the engineering program and will provide the documents to any outside consultants which the Board may retain to survey and evaluate the engineering program.

(b) A visit to the engineering school, including visits to facilities at locations other than the main campus, at the expense of the applying engineering program. This site visit will encompass all elements of the standards for approval set forth in this rule. A site visit is an essential requirement in the review of an engineering program seeking certification, without which no approval may be granted by the Board.

(4) The Meaning of Approval.

(a) Purpose.

1. Approval of an engineering program is the responsibility of the Board and is based on standards established by the Board. The same standards as are applied in the accreditation of engineering programs by EAC/ABET will be applied for approval of an engineering program.

2. In practical terms a graduate of an engineering program that has been certified by the State of Florida will be eligible for the Fundamentals and Principles and Practice examinations, or for licensure by endorsement.

3. Application for approval is entirely voluntary on the part of the school.

(b) Standards.

1. To be approved, engineering programs must meet the standards set forth by the Board in this rule as judged by the Board. These standards are sometimes stated in a fashion that is not susceptible to quantification or to precise definition because the nature of the evaluation is qualitative in character and can be accomplished only by the exercise of professional judgment by qualified persons.

2. In these standards, the words “must” and “should” have been chosen with care. Use of the word “must” indicates that Florida considers meeting the standard to be absolutely necessary if the program is to be certified. Use of the word “should” indicates that Florida considers an attribute to be highly desirable and makes a judgment as to whether or not its absence may compromise substantial compliance with all of the requirements for approval.

(5) Objectives.

(a) An essential objective of a program in engineering education leading to a BSE degree must be to meet the standards herein described for approval that its graduates will be prepared to qualify for licensure, to provide competent engineering services and to have the educational background necessary for lifelong learning. An engineering program may establish additional objectives consistent with its available resources. Objectives must be defined in writing and made known to faculty and students. While recognizing the existence and appropriateness of diverse institutional missions and educational objectives, the Board subscribes to the proposition that local circumstances do not justify approval of a program that fails to meet the standards as set forth in this rule.

(b) Approval is granted on the basis of evidence of an appropriate balance between the size of the enrollment in each class and the total resources of the program, including the faculty, physical facilities, curricular time and methods of instruction, and the budget. If there is to be substantial change in any of the above functions, the Board must be notified in writing so that reevaluation may be instituted.

(6) Governance.

(a) Preferably an engineering school should be a component of a university that has other graduate and professional degree granting programs. The environment of a university fosters intellectual challenge, the spirit of inquiry, the seeking of new knowledge and the habit of lifelong learning.

(b) The engineering school must be accredited by an accrediting organization recognized by the U.S. Department of Education.

(7) Administration.

(a) General.

1. Administrative officers and members of an engineering school faculty must be appointed by, or on the authority of, the governing body of the engineering school.

2. If the engineering school is part of a university, the dean must have ready access to the university chief executive officer and to such other university officials as may be necessary to fulfill the dean's responsibilities. If the engineering school is not part of a university, the dean must have ready access to the chief officer of the governing body.

3. The dean must be qualified by education and experience to provide leadership in engineering education, in scholarly activity and research, and in the practice of professional engineering. The dean should have the assistance of such professional associates and staff as are necessary for administration of admissions, student affairs, academic affairs, business affairs, physical facilities and other activities normally associated with the office of the dean.

4. The manner in which the engineering school is organized, including the responsibilities and privileges of administrative officers, faculty, students and committees must be formally set forth in writing. It is through committee structure and function that faculty and at times students and others become involved in decisions concerning admissions, promotions, curriculum, library, research, etc. The number and composition of committees may vary among engineering programs.

5. A budget, showing available revenue sources and expenditures must be prepared for the engineering school at regular and specified periods. To facilitate effective planning, each engineering program should know in advance a reasonable estimate of its available operating resources.

(b) Geographically Separated Campuses.

1. If components of the program are conducted at sites geographically separated from the main campus of the engineering school, the administration of the engineering school must be fully responsible for the conduct, and maintenance of the quality of the educational experiences offered at these sites and for identification of the faculty at all sites. In order to ensure that all educational components of the school's program are equivalent in quality, the principal academic officer of each geographically separated site must be administratively responsible to the chief academic officer of the engineering school conducting the certified program. Similarly, the faculty in each discipline, in all sites, must be functionally integrated by administrative mechanisms that ensure comparable quality of the geographically separated segments of the program.

2. A large number of program sites or a significant distance between sites may require extra academic and administrative controls in order to maintain the quality of the entire program.

(c) Design and Management.

1. The program's faculty must be responsible for the design, implementation, and evaluation of the educational program. A faculty committee should undertake this responsibility with full support of the chief academic officer and staff. The curriculum of the program leading to the professional engineering degree must be designed to provide a general professional education, recognizing that, this alone, is insufficient to prepare a graduate for independent, unsupervised practice throughout a professional lifetime.

2. The committee responsible for curriculum should give careful attention to the impact on students of the amount of work required. The committee should monitor the content provided in each discipline in order that objectives for education of an engineer are achieved without attempting to present the complete, detailed, systematic body of knowledge in that discipline. The objectives, content, and methods of teaching and learning utilized for each segment of the curriculum, as well as for the entire curriculum, should be subjected to periodic evaluation. Undue repetition and serious omissions and deficiencies in the curriculum identified by these evaluations should be corrected. Review and necessary revision of the curriculum is an ongoing faculty responsibility.

(d) Content.

1. The engineering faculty is responsible for devising a curriculum that permits the student to learn the fundamental principles of engineering, to acquire skills of critical judgment based on evidence and experience, and to develop an ability to use principles and skills wisely in solving engineering problems. In addition, the curriculum must be designed so that students acquire an understanding of the scientific concepts underlying engineering. In designing the curriculum, the faculty must introduce current advances in the basic engineering sciences.

2. The curriculum cannot be all-encompassing. However, it must include the sciences basic to engineering and ethical, behavioral, and socioeconomic subjects pertinent to engineering. There should be presentation of material on engineering ethics and human values. The faculty should foster in students the ability to learn through self-directed, independent study throughout their professional lives.

3. The required subjects which must be offered are probability and statistics, differential calculus, integral calculus, and differential equations; general chemistry and calculus-based general physics, with at least a two semester (or equivalent) sequence of study in either area. Additional courses may include linear algebra, numerical analysis, and advanced calculus, life sciences (biology), earth sciences (geology), and advanced chemistry or physics.

4. The curriculum should provide grounding in the body of knowledge represented in the disciplines that support the fundamentals of engineering practice, such as, mechanics, thermodynamics, electrical and electronic circuits, and materials science. Courses in engineering design stress the establishment of objectives and criteria, synthesis, analysis, construction, testing, and evaluation. In order to promote breadth, at least one engineering course outside the major disciplinary area is required.

5. The faculty committee responsible for curriculum should develop, and the chief academic officer should enforce, the same rigorous standards for the content of each year of the program leading to the BSE. The final year should complement and supplement the curriculum of the individual student so that each student will acquire appropriate competence in general engineering care regardless of subsequent career specialty.

6. The curriculum should include elective courses designed to supplement the required courses and to provide opportunities for students to pursue individual scholarly interests. Faculty advisors must be available to guide students in the choice of elective courses. If students are permitted to take electives at other institutions, there should be a system centralized in the dean's office to screen the student's proposed extramural program prior to approval and to ensure the return of a performance appraisal by the host program. Another system, devised and implemented by the dean, should verify the credentials of students from other schools wishing to take courses at the school, approve assignments, maintain a complete roster of visiting students, and provide evaluations to the parent schools.

(e) Evaluation of Student Performance.

1. The faculty must establish principles and methods for the evaluation of student performance and make decisions regarding promotion and graduation. The varied measures utilized should determine whether or not students have attained the school's standards of performance.

2. The faculty of each discipline should set the standards for performance by students in the study of that

discipline. The faculty should review the frequency of examinations and their scheduling, particularly when the students are enrolled in several subjects simultaneously. Schools should develop a system of evaluation that fosters self-initiated learning by students rather than frequent tests which condition students to memorize details for short-term retention only. Examinations should measure cognitive learning, mastery of basic engineering skills, and the ability to use data in realistic problem solving. If geographically separated campuses are operated, a single standard for promotion and graduation of students should be applied.

3. The engineering school must publicize to all faculty members and students its standards and procedures for the evaluation, advancement, and graduation of its students and for disciplinary action. The school should develop and publish a fair and relatively formal process for the faculty or administration to follow when taking any action that adversely affects the status of a student.

4. The institutions must maintain adequate records. These records should include summaries of admission credentials, attendance, measurement of the performance and promotion of the student, and the degree to which requirements of the curriculum have been met. Evaluation of each student in each course should be part of the record.

5. Academic Counseling. The chief academic officer and the directors of all courses must design and implement a system of evaluation of the work of each student during progression through each course. Each student should be evaluated early enough during a unit of study to allow time for remediation. Course directors and faculty assigned to advise students should consider this duty a primary responsibility. All course directors or departmental heads, or their designates, should serve as expert consultants to the chief academic officer for facilitation of performance of both students and faculty.

(8) Resources for the Educational Program.

(a) Finances. The cost of conducting a certified educational program leading to the BSE must be supported by sufficient financial resources. Dependence upon tuition must not cause schools to seek enrollment of more students than their total resources can accommodate and provide with a sound education experience.

(b) Faculty.

1. Members of the faculty must have the capability and continued commitment to be effective teachers. Effective teaching requires knowledge of the discipline, and an understanding of pedagogy, including construction of a curriculum consistent with learning objectives, subject to internal and external formal evaluation. The administration and the faculty should have knowledge of methods for measurement of student performance in accordance with stated educational objectives and national norms.

2. Persons appointed to faculty positions must have demonstrated achievements within their disciplines commensurate with their faculty rank. It is expected that faculty members will have a commitment to continuing scholarly productivity, thereby contributing to the educational environment of the engineering school.

3. In each of the major disciplines basic to engineering sciences, a sufficient number of faculty members must be appointed who possess, in addition to a comprehensive knowledge of their major disciplines, expertise in one or more subdivisions or specialties within each of these disciplines.

4. In addition, engineers practicing in the community can make a significant contribution to the educational program of the engineering school, subject to individual expertise, commitment to engineering education, and availability. Practicing engineers appointed to the faculty, either on a part-time basis or as volunteers, should be effective teachers, serve as role models for students, and provide insight into contemporary engineering methods.

5. There must be clear written policies for the appointment, renewal of appointment, promotion, retention and dismissal of members of the faculty. The appointment process must involve the faculty, the appropriate departmental heads and the dean. Each appointee should receive a clear definition of the terms of appointment, responsibilities, line of communication, privileges and benefits.

6. The education of engineering students requires an academic environment that provides close interaction among the faculty members so that those skilled in teaching and research in the basic sciences can maintain awareness of the relevance of their disciplines to engineering problems.

7. The dean and a committee of the faculty must determine engineering school policies. This committee

typically consists of the heads of major departments, but may be organized in any manner that brings reasonable and appropriate faculty influence into the governance and policymaking processes of the school. The full faculty should meet often enough to provide an opportunity for all to discuss, establish, or otherwise become acquainted with engineering school policies and practices.

(c) Library.

1. The engineering school library should be a major component of the school's program of teaching and learning. Attitudes of lifelong learning can only be instilled by instruction in the production, storage and retrieval of new knowledge. Use and importance of the library can be imparted to students by example of faculty.

2. The engineering students and faculty must have ready access to a well-maintained and catalogued library, sufficient in size and breadth to support the educational programs offered by the institution. The library should receive the leading national and international engineering periodicals, the current numbers of which should be readily accessible. The library and any other learning resources should be equipped to allow students to learn new methods of retrieving and managing information, as well as to use self-instructional materials. A professional library staff should supervise the library and provide instruction in its use.

3. If the library serving the engineering school is part of a university library system, the professional library staff must be responsive to the needs of the engineering school, the faculty, resident staff and students who may require extended access to a journal and reference book collection, some of which may be virtual. The librarian should be familiar with the methods for maintaining relationships between the library and national library systems and resources, and with the current technology available to provide services in non-print materials. If the faculty and students served by the library are dispersed, the utilization of departmental and branch libraries should be facilitated by the librarian and by the administration and faculty of the school.

(9) Site Visit.

(a) The site visit team shall consist of the Educational Advisory Committee and individual(s) designated by the Board who are or have been engineering educators and practitioners experienced in engineering program evaluation. The applicant must assist the Board in making all necessary arrangements for the site visit, including the opportunity to meet trustees, owners or their representatives, administrators, faculty, students, and any others connected with the program.

(b) Following the site visit, the Educational Advisory Committee will report its findings to the Board.

(10) Board Approval.

(a) Upon receipt of a report from the Educational Advisory Committee, the Board will notify the applicant of its intent to grant or deny approval. Approval must be denied if deficiencies found are of such magnitude as to prevent the students in the school from receiving an educational base suitable for the practice of engineering.

(b) If the Board gives notice of its intent to deny the application for approval, the notice shall include a specific list of deficiencies and what the Board will require for compliance. The Board shall permit the applicant, on request, to demonstrate by satisfactory evidence, within 90 days, that it has remedied the deficiencies specified by the Board.

(c) If the Board gives notice of its intent to approve the application, it shall specify which type it intends to grant: provisional or full approval.

(d) Provisional approval may be granted where deficiencies exist but are not of such magnitude to warrant denial entirely. The Board shall determine the period of provisional approval, not to exceed three years, based on the nature of the deficiencies found, and an estimate of the reasonable period of time which may be necessary to remedy the deficiencies. Failure to remedy the deficiencies within the time specified by the Board may be grounds for denial of approval. The Board may, however, extend the period within which deficiencies may be remedied, if there is good cause to do so. A site visit may be required by the Board if it deems it necessary to determine whether the deficiencies have been adequately remedied and whether any other conditions may have changed during the period of provisional approval.

(e) Full approval will be granted to an engineering school which is in substantial compliance with all of the standards set forth in this rule. The school shall submit to the Board evidence of continued compliance annually.

(f) Periodic surveys and evaluations of all approved schools shall be made at least every four years.

(g) Renewal applications will be evaluated on the basis of standards existing at the time renewal is acted upon

by the Board. A site visit may be required as an element of the evaluation.

*Specific Authority 471.013(1)(a)3. FS. Law Implemented 471.013(1)(a)3., 471.005(6) FS. History—New 8-18-87, Formerly 21H-20.006, Amended 12-26-94, 4-10-08.*

#### **61G15-20.007 Demonstration of Substantial Equivalency.**

(1) Applicants having engineering degrees from programs that are not accredited by EAC/ABET must demonstrate:

(a) 32 college credit hours of higher mathematics and basic sciences.

1. The hours of mathematics must be beyond algebra and trigonometry and must emphasize mathematical concepts and principles rather than computation. Courses in probability and statistics, differential calculus, integral calculus, and differential equations are required. Additional courses may include linear algebra, numerical analysis, and advanced calculus.

2. The hours in basic sciences, must include courses in general chemistry and calculus-based general physics, with at least a two semester (or equivalent) sequence of study in either area. Additional basic sciences courses may include life sciences (biology), earth sciences (geology), and advanced chemistry or physics. Computer skills and/or programming courses cannot be used to satisfy mathematics or basic science requirements.

(b) 16 college credit hours in humanities and social sciences. Examples of traditional courses in this area are philosophy, religion, history, literature, fine arts, sociology, psychology, political science, anthropology, economics, professional ethics, social responsibility and no more than 6 credit hours of languages other than English or other than the applicant's native language. Courses such as accounting, industrial management, finance, personnel administration, engineering economics and military training are not acceptable. Courses which instill cultural values are acceptable, while routine exercises of personal craft are not.

(c) 48 college credit hours of engineering science and engineering design. Courses in this area shall have their roots in mathematics and basic sciences but carry knowledge further toward creative application. Examples of approved engineering science courses are mechanics, thermodynamics, electrical and electronic circuits, materials science, transport phenomena, and computer science (other than computer programming skills). Courses in engineering design stress the establishment of objectives and criteria, synthesis, analysis, construction, testing, and evaluation. In order to promote breadth, at least one engineering course outside the major disciplinary area is required.

(d) In addition, evidence of attainment of appropriate laboratory experience, competency in English, and understanding of the ethical, social, economic and safety considerations of engineering practice must be presented. As for competency in English, transcripts of course work completed, course content syllabi, testimonials from employers, college level advanced placement tests, Test of English as a Foreign Language (TOEFL) scores of at least 550 in the paper-based version, or 213 in the computer-based version, will be accepted as satisfactory evidence.

(2) The FBPE Educational Advisory Committee shall make the final decision regarding equivalency of programs and shall make recommendations to the Board as to whether an applicant shall be approved for admittance to the examination or for licensure by endorsement.

(3) The applicant with an engineering degree from a foreign institution must request an evaluation of substantial equivalency of his or her credentials to EAC/ABET standards through either Engineering Credentials Evaluation International, 111 Market Place, #171, Baltimore, Maryland 21202; Center for Professional Engineering Education Services, P.O. Box 720010, Miami, Florida 33172; or Joseph Silny & Associates, Inc., P.O. Box 248233, Coral Gables, Florida 33124. The applicant with an engineering degree from a domestic engineering program not accredited by EAC/ABET must request such an evaluation from Josef Silny & Associates, Inc., or Center for Professional Engineering Education Services.

(4) Any applicant whose only educational deficiency under subsection (2) involves humanities and social sciences shall be entitled to receive conditional approval to take the Fundamentals examination. Such an applicant shall not become eligible for the Principles and Practice examination until satisfactory completion and documentation of the necessary hours in humanities and social sciences as provided in subsection (2).

*Specific Authority 471.008 FS. Law Implemented 471.013, 471.015 FS. History—New 7-20-95, Amended 6-5-96, 4-16-98, 1-17-*

99, 7-28-99, 1-6-02, 6-13-02, 6-30-02, 10-2-03, 6-16-04, 3-13-05, 5-1-05, 6-11-06, 1-29-07, 4-9-07, 1-31-08.

## **CHAPTER 61G15-21 EXAMINATIONS**

- 61G15-21.001 Written Examination Designated; General Requirements.
- 61G15-21.002 Areas of Competency and Grading Criteria. (Repealed)
- 61G15-21.003 Grading Criteria for the Essay Portion of Examination. (Repealed)
- 61G15-21.004 Passing Grade.
- 61G15-21.005 Engineer Intern Examination. (Repealed)
- 61G15-21.006 Exam Review Procedure. (Repealed)
- 61G15-21.007 Re-examination.
- 61G15-21.008 State of Florida, Security Policies, Procedures and Guidelines. (Repealed)
- 61G15-21.009 Endorsement. (Repealed)

### **61G15-21.001 Written Examination Designated; General Requirements.**

(1) The Florida Board of Engineers hereby determines that a written examination shall be given and passed prior to any applicant receiving a license to practice as a professional engineer, or as an engineer intern in the State of Florida except as provided in Section 471.015, F.S. The examination shall be provided by the National Council of Examiners for Engineers and Surveyors (NCEES). The examination consists of two parts, each of eight hours. The engineer intern examination is defined to be Part One of the written examination provided by the NCEES. Candidates are permitted to bring certain reference materials and calculators. A list of approved reference materials and calculators will be provided to all candidates prior to each examination. National examination security requirements as set forth by the NCEES shall be followed throughout the administration of the examination.

(2) Applicants for licensure by examination must be graduates of a Board-approved engineering program as defined in Rule 61G15-20.001, F.A.C. Acceptance into the engineering intern examination, either in Florida or elsewhere, does not indicate automatic acceptance for the professional engineers examination, nor does it exempt said applicant from meeting the criteria set forth in Chapter 471, F.S. and Chapter 61G15, F.A.C.

*Specific Authority 455.217(1) FS. Law Implemented 455.217(1), 471.015 FS. History—New 1-8-80, Formerly 21H-21.01, Amended 10-5-92, Formerly 21H-21.001, Amended 11-15-94, 10-14-02, 3-9-04, 2-3-05.*

### **61G15-21.004 Passing Grade.**

- (1) The passing grade for the Engineering Fundamentals Examination is 70 or better.
- (2) The passing grade for the Principles and Practice Examination is 70 or better.

*Specific Authority 455.217(1)(c), 471.013 FS. Law Implemented 455.217(1)(c), 471.03 FS. History—New 1-8-80, Amended 3-23-81, 8-25-81, 2-21-84, 1-20-85, Formerly 21H-21.04, 21H-21.004, Amended 3-9-04.*

### **61G15-21.007 Re-examination.**

If an applicant fails three times to pass the examination, the applicant must take additional courses in order to reapply for examination. The applicant must submit to the Board of Professional Engineers transcripts for the enrollment and completion of twelve (12) college credit hours, with grades no lower than a “C” or its equivalent, of college level courses in the applicant’s area of deficiency. For applicants to take Part I of the engineer examination, such additional courses shall be undergraduate college courses in higher mathematics, basic sciences or engineering as described in paragraphs 61G15-20.007(1)(a), (b) and (c), F.A.C. For applicants to take Part II of the engineer examination, such additional courses shall be upper level or higher courses in engineering, as defined in paragraph 61G15-20.007(1)(c), F.A.C.

*Specific Authority 455.217(2) FS. Law Implemented 455.217(2), 471.011, 471.013, 471.015 FS. History—New 1-8-80, Amended 8-25-81, Formerly 21H-21.07, 21H-21.007, Amended 2-14-95, 5-22-01, 12-10-02, 2-3-05, 4-10-08.*

**CHAPTER 61G15-22**  
**LICENSE RENEWAL, CONTINUING EDUCATION**

- 61G15-22.0001 Renewal of Active Licenses.
- 61G15-22.0002 Renewal of Inactive Licenses.
- 61G15-22.0003 Exemption from Renewal Requirements for Spouses of Members of the Armed Forces of the United States.
- 61G15-22.001 Continuing Education Requirements.
- 61G15-22.002 Definitions.
- 61G15-22.003 Qualifying Activities for Area of Practice Requirement.
- 61G15-22.004 Conversion of Education Units to PDH.
- 61G15-22.005 Non-Qualifying Activities.
- 61G15-22.006 Demonstrating Compliance.
- 61G15-22.007 Noncompliance.
- 61G15-22.008 Record Keeping.
- 61G15-22.009 Exemptions.
- 61G15-22.010 Qualifying Activities for Laws and Rules Requirements.
- 61G15-22.0105 Approval of Continuing Education Courses in Laws and Rules.
- 61G15-22.011 Board Approval of Continuing Education Providers.
- 61G15-22.012 Obligations of Continuing Education Providers.
- 61G15-22.013 Evaluation of Providers.
- 61G15-22.014 Duration of Provider Status.

**61G15-22.0001 Renewal of Active Licenses.**

To renew an active license, the licensee must remit to FEMC the biennial renewal licensure fee for active licenses, and a statement certifying that the licensee has completed the eight (8) hours of approved continuing education which were required during the last biennium.

*Specific Authority 471.017(2) FS. Law Implemented 471.017(2) FS. History--New 8-1-02.*

**61G15-22.0002 Renewal of Inactive Licenses.**

To maintain an inactive license on inactive status, the licensee must remit the biennial renewal fee for inactive status to FEMC and a statement certifying that the licensee has neither practiced engineering nor violated any of the provisions of Section 471.033, F.S., since the date on which the license was first placed on inactive status.

*Specific Authority 471.017(2) FS. Law Implemented 471.017(2) FS. History--New 8-1-02.*

**61G15-22.0003 Exemption from Renewal Requirements for Spouses of Members of the Armed Forces of the United States.**

Spouses of members of the Armed Forces of the United States are exempt from licensure renewal provisions, but only in cases of absence from the state because of their spouses' duties with the Armed Forces. Copies of the military orders requiring the change in duty station must be sent to the Board office in order to qualify for the exemption. Upon receipt of the military orders by the Board office confirming exemption eligibility, the spouse's license will be placed on inactive status with no fee required. Reactivation of the inactive license will not require payment of the fee set forth in paragraph 61G15-24.001(2)(m), F.A.C. The license will remain in inactive status for up to two renewal cycles at which time the licensee must either renew this exemption, before expiration, by submitting a current set of orders establishing eligibility for the exemption or reactivate the license. The licensee may reactivate the license by submitting an application for change of status from inactive to active and will not be required to pay the fee set forth in paragraph 61G15-24.001(2)(l), F.A.C., nor be required to comply with any rules setting conditions for reactivation of licensure, including continuing education requirements imposed by Section

455.271(10), F.S. If a license is not reactivated nor the exemption renewed by the expiration date, the license shall become delinquent. Reactivation of the delinquent license will not require payment of the fee set forth in paragraph 61G15-24.001(2)(f), F.A.C.

*Specific Authority 455.02(2) FS. Law Implemented 455.02(2) FS. History—New 6-8-03.*

#### **61G15-22.001 Continuing Education Requirements.**

(1) Each licensee shall complete eight professional development hours during each license renewal biennium as a condition of license renewal. Four hours shall relate to the licensee's area(s) of practice and four hours shall relate to Chapter 471, F.S., and the rules of the Board, Chapter 61G15-22, F.A.C.

(2) There shall be no carryover of hours permitted from one licensure renewal biennium to the next.

(3) A license that has been inactive for more than one year may be reactivated upon application to FEMC and demonstration to the Board by the licensee of having completed twelve hours of engineering related education per inactive year, or portion thereof, in excess of one year. The education shall be related to the licensee's area of practice. In addition, the licensee shall have completed four hours of education that shall involve the law and rules governing the practice of engineering in a course approved by the Board. Licensees who can demonstrate that they have continued the active practice of engineering during the inactive period, either through an active license to practice in another state or through practice in an exempt setting during that period, shall only be required to comply with the laws and rules requirement.

*Specific Authority 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 415.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 8-19-80, Formerly 21H-22.01, Amended 5-14-86, Formerly 21H-22.001, Amended 6-22-99, 6-13-00, 2-22-01, 9-16-01.*

#### **61G15-22.002 Definitions.**

(1) Area of Practice: An engineering discipline for which a Principles and Practice of Engineering examination is offered by the National Council for Examiners of Engineering and Surveying (NCEES).

(2) Professional Development Hour (PDH): A time measurement requiring a minimum of 50 minutes instruction or presentation per hour. The PDH is the common denominator for other units of credit.

(3) Continuing Education Unit (CEU): Unit of credit customarily used for continuing education courses. One continuing education unit equals 10 hours of class in an approved continuing education course.

(4) College/Unit Semester/Quarter Hour: Credit for course in ABET-approved programs or other related engineering college course.

(5) Course/Activity: Any qualifying course or activity with a clear purpose and objective which will maintain, improve, or expand the skills and knowledge relevant to the licensee's area of practice.

(6) Commercial educator: An individual or business organization trained in teaching and offering education courses for a profit.

*Specific Authority 455.213(6), 455.2177, 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008 FS. History—New 9-16-01, Amended 8-1-02, 7-30-03.*

#### **61G15-22.003 Qualifying Activities for Area of Practice Requirement.**

(1) Successful completion of college courses.

(2) Successful completion of continuing education courses, successful completion of correspondence, televised, Internet, videotaped, and other short courses/tutorials or attending seminars, workshops, or professional and technical presentations at meetings, conventions or conferences presented/sponsored by a provider approved under Rule 61G15-22.011, F.A.C.

(3) Teaching or instructing in subsection (1) or (2) above. However, teaching credit is valid for teaching a course or seminar for the first time only. Teaching credit does not apply to full-time faculty.

(4) Authoring published papers, articles, books, or accepted licensee examination items for NCEES.

(5) Patents.

(6) Active participation in professional or technical societies. Civic or trade organizations do not qualify under this provision. Credit for this activity requires that the licensee serve as an officer of the organization. PDH credits are not earned until the end of each year of completed service.

*Specific Authority 455.213(6), 455.2177, 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01, Amended 5-14-06.*

**61G15-22.004 Conversion of Education Units to PDH.**

- (1) One (1) college or unit semester hour credit is equal to 15 PDH.
- (2) One (1) college or unit quarter hour credit is equal to 10 PDH.
- (3) One (1) continuing education unit is equal to 10 PDH.
- (4) One (1) contact hour of professional development in course work, seminars, or professional or technical presentations made at meetings, conventions, or conferences is equal to 1 PDH or, if teaching, 2 PDH.
- (5) Each published paper, article, or book is equal to 10 PDH.
- (6) Authoring accepted licensee examination items for NCEES is equal to 2 PDH.
- (7) Each patent is equal to 10 PDH.
- (8) Active participation in professional and technical societies as described in subsection 61G15-22.003(6), F.A.C. Each hour of participation is equal to 1 PDH, with a maximum credit of 2 PDH for each organization.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01.*

**61G15-22.005 Non-Qualifying Activities.**

Activities that do not qualify as Professional Development Hours include but are not limited to the following:

- (1) Self-generated courses, that being courses generated and presented by the licensee to himself or herself for continuing education credit.
- (2) Personal self-improvement courses.
- (3) Equipment demonstrations or trade show displays.
- (4) Enrollment without attendance.
- (5) Repetitive attendance or teaching of the same course.
- (6) Tours of buildings, structures, schools, museums and such unless there is a clear objective to maintain and strengthen competency in a technical field.
- (7) Regular employment.
- (8) Personal, estate or financial planning.
- (9) Courses the content of which is below the level of knowledge and skill that reflects the responsibility of engineer in charge.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01, Amended 6-3-07.*

**61G15-22.006 Demonstrating Compliance.**

In order to demonstrate compliance, licensees must execute a signed statement at any time during the biennium and submit said statement to the Board office at that time or by accompanying their renewal form with said statement and return it to the Board office with their renewal. For each qualifying activity listed, the following information must be included on the statement:

- (1) Title of activity and a description.
- (2) The date, location and provider of the activity.
- (3) The area of practice to which the activity applies.
- (4) The number of PDH credits claimed for each activity.

In addition, the Board shall use attendance information submitted by the provider to determine whether licensees can demonstrate compliance.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01, Amended 7-13-04.*

**61G15-22.007 Noncompliance.**

In accordance with Section 471.017, F.S., completion of the required professional development hours is a condition of licensure renewal. No license will be renewed until the requirement is satisfied. If, after renewal, it is found that the licensee did not comply with these requirements, disciplinary proceedings will be initiated.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017, 471.019 FS. History—New 9-16-01.*

**61G15-22.008 Record Keeping.**

It is the licensee's responsibility to maintain sufficient records to demonstrate completion of qualifying professional development hours for at least two licensure cycles (four years).

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01.*

**61G15-22.009 Exemptions.**

(1) New licensees who have achieved licensure by examination, pursuant to Section 471.013, F.S., shall be exempt for their first renewal period.

(2) Any licensee whose license is placed in retired status shall be exempt thereafter.

(3) Any licensee whose license is placed in inactive status, for so long as it remains inactive.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01.*

**61G15-22.010 Qualifying Activities for Laws and Rules Requirements.**

(1) In order to comply with the provisions of Section 471.017(3), F.S., licensees shall demonstrate professional competency relative to Chapter 471, F.S., and the Board's rules, by:

(a) Either completing a continuing education course, as detailed in subsection (2) below,

(b) By serving as a board member, as detailed in subsection (3) below, or

(c) By approval of the Board as a consulting engineer providing assistance to the Board in the performance of its duties, as detailed in subsection (4) below.

(2) Successful completion of a course of continuing education for laws and rules of the Board which must consist of a minimum of four (4) PHD's in laws and rules of the Board.

(3) Members of the Board of Professional Engineers shall receive four (4) PDH's in laws and rules of the Board for their service as board members.

(4) All consultant engineers used by the Board in the resolution of Board business, including rule making and prosecution of discipline cases and complaints, shall receive credit for four (4) PDH's in laws and rules of the Board by specific approval of the Board of a written list of such consultants during each biennium.

*Rulemaking Authority 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01, Amended 9-4-02, 1-16-03, 8-10-09.*

**61G15-22.0105 Approval of Continuing Education Courses in Laws and Rules.**

Each course provider approved by the Board to conduct courses in Florida Laws and Rules must meet the requirements of Rule 61G15-22.011, F.A.C., and shall submit an application for approval of a continuing education course in Laws and Rules. The application shall be submitted on the course approval application provided by the Board and shall include the following:

(1) Course materials, including the course syllabus and a detailed outline of the contents of the course;

(2) The total number of classroom or interactive distance learning professional development hours; and

(3) Course content that includes:

- (a) Rules adopted, amended or repealed during the immediately preceding biennium;
- (b) Changes to Chapters 455 and 471, F.S., made by the legislature during the preceding biennium;
- (c) Case law concerning Chapter 471, F.S.;
- (d) A list of resources used to develop the course content;
- (e) Application of the provisions of Chapter 471, F.S., to individual disciplinary cases and unlicensed practice cases during the immediately preceding biennium.

(4) Qualifications of the instructor(s), including a curriculum vitae of the instructor(s), which must demonstrate knowledge of the subject matter and one of the following:

- (a) Licensure as a professional engineer;
- (b) Licensure as an attorney in the State of Florida.

(5) A provider making application to offer interactive distance learning must also submit documents indicating the following:

(a) The means by which the course will demonstrate the ability to interact between the student and course provider by providing answers to inquiries within two business days. The interaction must promote student involvement, and demonstrate that the course measures learning and addresses comprehension of content at regular intervals;

(b) The means by which the course provider is able to monitor student enrollment, participation and course completion;

(c) The means by which the course provider will be able to satisfactorily demonstrate that stated course hours are consistent with the actual hours spent by each student to complete the course;

(d) The means by which the provider will assure qualified instructor(s) will be available to answer questions and provide students with necessary support during the duration of the course; and

(e) That the student will be required to complete a statement that indicates that he/she personally completed each module/session of instruction.

(6) Continuing education course approval is valid for the biennium during which it was approved, provided no substantial change is made in the course and the approval status of the provider has not expired or been suspended or revoked. Substantial changes made in any course will require a new approval of that course. A provider must reapply for course approval ninety (90) days prior to the date of the end of the biennium which would be the expiration of course approval in order to prevent a lapse in course approval.

(7) If a course is approved, the board shall assign the course a number. The course provider shall use the course number in the course syllabus, in all other course materials used in connection with the course and in all written advertising materials used in connection with the course.

*Specific Authority 455.2123, 455.213, 455.2179, 471.017(3), 471.019 FS. Law Implemented 455.2123, 455.213, 455.2179, 471.017(3), 471.019 FS. History--New 4-8-07, Amended 4-28-08.*

#### **61G15-22.011 Board Approval of Continuing Education Providers.**

(1) Applicants for continuing education provider status must either be registered as a continuing education provider with the National Council for Examiners of Engineering and Surveying (NCEES) or meet the requirements of subsection (2) of this rule to demonstrate the education and/or the experience necessary to instruct professional engineers in the conduct of their practice.

(2) To demonstrate the education and/or the experience necessary to instruct professional engineers in the conduct of their practice for continuing education credit, an applicant for continuing education provider status must be a regionally accredited educational institution, a commercial educator, a governmental agency, a state or national professional association whose primary purpose is to promote the profession of engineering, an engineer with a Florida license to practice engineering who is not under disciplinary restrictions pursuant to any order of the Board, or an engineering firm that possesses an active certificate of authorization issued by the Board pursuant to Section 471.023, F.S.

(3) To allow the Board to evaluate an application for continuing education provider status, the applicant must submit the following:

(a) The name, address and telephone number of the prospective provider; and

(b) Proof of registration as continuing education provider with NCEES, or if the applicant is not registered as a continuing education provider with NCEES, the applicant must submit the following:

1. A description of the type of courses or seminars the provider expects to conduct for credit;
2. A description of the staffing capability of the applicant;
3. A sample of intended course materials;
4. A list of anticipated locations to conduct the courses;
5. A complete course curriculum for each course the applicant intends to offer;
6. A description of the means the applicant will use to update the course in response to rule or law changes;
7. A description of the means the applicant will use to evaluate the licensee's performance in the course;
8. A fee of \$250.

(4) No engineer may conduct continuing education courses or seminars for credit upon the engineer's receipt of any disciplinary order from any professional regulatory board in any jurisdiction. Rather, the engineer must notify the Board office within ten (10) days of the engineer's receipt of any such order.

(5) Should the Board determine that the provider has failed to provide appropriate continuing education services, it shall request that the Department of Business and Professional Regulation issue an order requiring the provider cease and desist from offering any continuing education courses and shall request that the Department revoke any approval of the provider granted by the Board.

(6) No provider may allow an engineer to conduct any course or seminar offered by the provider if that engineer has been disciplined and has not been released from the terms of the final order in the disciplinary case. Upon receipt of notice that an instructor is under discipline, the provider shall, within seven (7) days, write to the Board office and confirm that the engineer is no longer conducting any course or seminar offered by the provider. For the purpose of this subsection, a letter of guidance or a reprimand shall not constitute "under discipline."

(7) The Board retains the right and authority to audit and/or monitor programs and review records and course materials given by any provider approved pursuant to this rule. The Board shall request that the Department of Business and Professional Regulation revoke the approved status of the provider or reject individual programs given by a provider if the provider disseminated any false or misleading information in connection with the continuing education programs, or if the provider fails to conform to and abide by the rules of the Board. Licensees will not lose credit for attending courses offered by approved providers that are later rejected or stopped by the Board.

(8) Members of the Board of Professional Engineers or the Florida Engineers Management Corporation Board of Directors are prohibited from being a continuing education provider.

(9) The following providers shall be approved as providers, and the Board shall accept their courses for continuing education credit:

- (a) Educational Institutions teaching college level courses;
- (b) Federal and State Governmental Agencies that establish rules, regulations, guidelines, or otherwise have an impact on the practice of engineering; and
- (c) State and National Engineering Professional Associations approved by the Board.

*Rulemaking Authority 455.213(6), 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01, Amended 9-4-02, 12-21-03, 8-8-05, 6-11-06, 1-29-07, 6-3-07, 8-10-09.*

#### **61G15-22.012 Obligations of Continuing Education Providers.**

To maintain status as a continuing education provider, the provider must:

- (1) Provide courses or seminars designed to enhance the education of engineers in the practice of engineering;
- (2) Require each licensee to complete the entire course or seminar in order to receive a certificate of completion;
- (3) Furnish each participant with an individual certificate of attendance. An attendance record shall be maintained by the provider for four years and shall be available for inspection by the Board and the Florida Engineers Management Corporation. Providers must electronically provide to the Florida Engineers Management Corporation a list of attendees taking a course within five (5) business days of the completion of the course. The list shall include the provider's name, the name and license number of the attendee, the date the course was completed, the course number and the total number of professional development hours successfully completed. All information

or documentation, including electronic course rosters, submitted to the Board or to FEMC shall be submitted in a format acceptable to the Board and to FEMC. Failure to comply with time and form requirements will result in disciplinary action taken against the provider. If the instructor is receiving credit as set forth in subsection 61G15-22.003(3), F.A.C., the instructor shall be listed with the same information required above. Providers shall maintain security of attendance records and certificates. For correspondence study courses, the provider must electronically supply the list of those individuals successfully completing the course by the fifth of the month following the calendar month in which the provider received documentation and was able to determine the successful completion of the course by the individual.

(4) Ensure that all promotional material for courses or seminars offered to professional engineers for credit contain the provider number.

(5) Allow only one PDH for each hour of classroom, audio or video instruction, an "hour of classroom, audio or video instruction" being a minimum of 50 minutes instruction or presentation.

(6) Allow only one PDH for each "hour of correspondence study." The "hour of correspondence study" must be based on the average completion time of each course as established by the provider.

(7) Provide a written examination to each participating licensee in correspondence study courses. In order to complete the course, the licensee must sign and date the examination and receive a minimum grade of seventy percent (70%). If a licensee fails the examination, they will be permitted to take the examination again in order to achieve a passing grade.

(8) Notify the Board within fourteen (14) days of any change in the address or telephone number of the provider.

(9) Allow FEMC's and the Board's designee to have access to information concerning courses or seminars conducted by the provider for continuing education credit.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01.*

#### **61G15-22.013 Evaluation of Providers.**

(1) The Board, or its designee, reserves the right to evaluate continuing education courses or seminars offered to engineers for credit by the following methods:

(a) Observing such courses or seminars; and

(b) Reviewing the files of the provider to gain information about any course or seminar offered to professional engineers for credit.

(2) The Board shall not revoke the continuing education credit given to any professional engineer for completion of any continuing education course or seminar about which the professional engineer registers a complaint with the Board.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01.*

#### **61G15-22.014 Duration of Provider Status.**

(1) Continuing education providers are approved only for the biennium during which they applied and must reapply for provider status at the beginning of each biennium. The biennium for continuing education providers ends on May 31st of each odd-numbered year.

(2) A provider must reapply for approval ninety (90) days prior to the date of expiration of provider status in order to prevent a lapse in provider status.

*Specific Authority 455.213(6), 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. Law Implemented 455.213(6), 455.2177, 455.2178, 455.2179, 471.008, 471.017(3), 471.019 FS. History—New 9-16-01.*

**CHAPTER 61G15-23**

**SEALS**

61G15-23.001 Seals Acceptable to the Board.

61G15-23.002 Seal, Signature and Date Shall Be Affixed.

61G15-23.003 Procedures for Signing and Sealing Electronically Transmitted Plans, Specifications, Reports or Other Documents.

**61G15-23.001 Seals Acceptable to the Board.**

(1) Pursuant to Section 471.025, F.S., the Board hereby establishes as indicated below the forms of seals which are acceptable to the Board.

(a) Any seal capable of leaving a permanent ink representation or other form of opaque and permanent impression which contains the information described herein is acceptable to the Board.

(b) Said seal shall be a minimum of 1 7/8 inches in diameter and shall be of a design similar to those set forth below.



(c) The type of seal in the center may be used only by registrants who are in good standing under both Chapters 471 and 472, F.S.

(d) The seal may contain an abbreviated form of the licensee’s given name or a combination of initials representing the licensee’s given name provided the surname listed with the Board appears on the seal and in the signature.

(2) Embossing impression seals which otherwise comply with these provisions and which do not provide an opaque and permanent impression or permanent ink representation are also acceptable to the Board.

*Rulemaking Authority 471.008, 471.025 FS. Law Implemented 471.025 FS. History—New 1-8-80, Amended 6-23-80, Formerly 21H-23.01, 21H-23.001, Amended 4-1-97, 2-5-04, 8-8-05, 11-16-09.*

**61G15-23.002 Seal, Signature and Date Shall Be Affixed.**

(1) A professional engineer shall sign by hand the licensee’s handwritten signature (facsimiles are not acceptable) and affix the licensee’s seal:

(a) To all final drawings, specifications, plans, reports, or documents prepared or issued by the licensee and being filed for public record; and

(b) To all final documents provided to the owner or the owner’s representative;

(c) In addition, the date that the signature and seal is affixed as provided herein shall be entered on said plans, specifications, reports, or other documents immediately adjacent to the signature of the professional engineer.

(d) In order to comply with the requirements of this rule, a licensee is not required to seal, sign and date documents other than those referenced in paragraph (a) or (b). This provision does not obviate any requirement of any public entity or any provision of contract which may require the sealing, signing and dating of additional original documents.

(2)(a) Every sheet of plans and prints which must be sealed under the provisions of Chapter 471, F.S., shall be sealed, signed and dated by the professional engineer in responsible charge.

(b) When an engineer must seal, sign and date engineering specifications or calculations under the provisions of Section 471.025, F.S., and subsection (1) of this rule, an index sheet for engineering specifications and calculations may be used. The index sheet must be signed, sealed and dated by those professional engineers in responsible charge of the production and preparation of each section of the engineering specifications or calculations, with sufficient information on index sheet so that the user will be aware of each portion of the specifications or calculations for which each professional engineer is responsible. In addition, the index sheet shall include at a minimum:

1. The name, address and license number of each engineer in responsible charge of the production of any portion of the calculations or specifications.

2. Identification of the project, by address or by lot number, block number, section or subdivision and city or county.

3. Identification of the applicable building code and chapter(s) that the design is intended to meet.

4. Identification of any computer program used for engineering the specifications or calculations.

(c) Engineering reports which must be signed, sealed and dated under the provisions of Section 471.025, F.S., and subsection (1) of this rule shall be sealed, signed and dated by utilizing a signature page or cover letter that is sealed, signed and dated by each professional engineer who is in responsible charge of any portion of the report.

(3)(a) A title block shall be used on each sheet of plans or prints and shall contain the printed name, address, and license number of the engineer who has sealed, signed and dated the plans or prints.

(b) If the engineer sealing, signing and dating engineering plans or prints is practicing through a duly authorized engineering business, the title block required by paragraph (2)(a) shall contain the name, address and certificate of authorization number of the engineering business.

(c) If the licensee(s) sealing signing and dating engineering specifications, calculations or reports is practicing through a duly authorized engineering business, the name, address and certificate of authorization number of the engineering business shall be placed on the index sheet, signature page or cover letter incorporated into or accompanying all engineering specifications, calculations or reports.

(4) Engineers working for local, State or Federal Government agencies shall legibly indicate their name and license number, and shall indicate the name and address of the agency on all documents that are required to be sealed, signed and dated.

(5) A professional engineer may only seal an engineering report, plan, print or specification if that professional engineer was in responsible charge, as that term is defined in subsection 61G15-18.011(1), F.A.C., of the preparation and production of the engineering document and the professional engineer has the expertise in the engineering discipline used in producing the engineering document in question.

(6) A professional engineer shall not seal original documents made of mylar, linen, sepia or other materials which can be changed by the entity with whom such document(s) are filed unless the professional engineer accompanies such document(s) with a signed and sealed letter making the receiver aware that copies of the original document as designed by the professional engineer have been retained by the professional engineer and that the professional engineer will not be responsible for any subsequent changes to the reproducible original documents.

(7) A professional engineer shall not seal plans, reports or other documents which are not final documents unless the professional engineer clearly notes any limitations on the use of the documents or plans on the face of the documents or plans, by using terms such as "Preliminary," "For Review Only," "Not for Construction," or any other suitable statement which denotes that the documents are for limited use, are not final and are not intended for permit, construction, or bidding purposes.

(8) Engineers who wish to sign and seal electronically transmitted plans, specifications, reports, final bid documents, or other documents shall follow the procedures set forth in Rule 61G15-23.003, F.A.C.

*Rulemaking Authority 471.025 FS. Law Implemented 471.025 FS. History—New 1-8-80, Amended 1-20-85, Formerly 21H-23.02, Amended 5-14-86, Formerly 21H-23.002, Amended 11-15-94, 8-18-98, 2-3-00, 2-22-01, 2-5-04, 1-31-08, 5-6-09.*

**61G15-23.003 Procedures for Signing and Sealing Electronically Transmitted Plans, Specifications, Reports or Other Documents.**

(1) Engineering work which must be sealed under the provisions of Section 471.025, F.S., may be signed electronically or digitally as provided herein by the professional engineer in responsible charge. As used herein, the terms “digital signature” and “electronic signature” shall have the meanings ascribed to them in Sections 668.003(3) and (4), F.S. The affixing of a digital or electronic signature to engineering work as provided herein shall constitute the sealing of such work.

(a) A scanned image of an original signature shall not be used in lieu of a digital or electronic signature.

(b) The date that the electronic signature file was created or the digital signature was placed into the document must appear on the document in the same manner as date is required to be applied when a licensee uses the manual sealing procedure set out in Rule 61G15-23.002, F.A.C.

(2) A professional engineer utilizing a digital signature to seal engineering work shall assure that the digital signature is:

(a) Unique to the person using it;

(b) Capable of verification;

(c) Under the sole control of the person using it;

(d) Linked to a document in such a manner that the electronic signature is invalidated if any data in the document are changed.

(3) A professional engineer utilizing an electronic signature to seal engineering work shall create a “signature” file that contains the engineer’s name and PE number, a brief overall description of the engineering documents, and a list of the electronic files to be sealed. Each file in the list shall be identified by its file name utilizing relative Uniform Resource Locators (URL) syntax described in the Internet Architecture Board’s Request for Comments (RFC) 1738, December 1994, which is hereby adopted and incorporated by reference by the Board and can be obtained from the Internet Website: <http://ftp.isi.edu/in-notes/rfc1738.txt>. Each file shall have an authentication code defined as an SHA-1 message digest described in Federal Information Processing Standard Publication 180-1 “Secure Hash Standard,” 1995 April 17, which is hereby adopted and incorporated by reference by the Board and can be obtained from the Internet Website: <http://www.itl.nist.gov/div897/pubs/fip180-1.htm>. The licenses shall then create a report that contains the engineer’s name and PE number, a brief overall description of the engineering documents in question and the authentication code of the signature file. This report shall be printed and manually signed, dated, and sealed by the professional engineer in responsible charge. The signature file is defined as sealed if the signature file’s authentication code matches the authentication code on the printed, manually signed, dated and sealed report. Each electronic file listed in a sealed signature file is defined as sealed if the listed authentication code in the signature file matches the electronic file’s computed authentication code.

*Rulemaking Authority 471.025(1), 668.006 FS. Law Implemented 471.025 FS. History—New 8-18-98, Amended 9-4-05, 5-6-09.*

**CHAPTER 61G15-24  
FEES**

61G15-24.001 Schedule of Fees.

61G15-24.002 Unlicensed Activity Fee. (Repealed)

61G15-24.003 Change of Status Fee. (Repealed)

**61G15-24.001 Schedule of Fees.**

(1) Pursuant to Sections 471.011, 471.019, F.S., the Board hereby establishes the following fees for

applications, licensing and renewal, temporary registration, late renewal, licensure by endorsement, reactivation fee, and replacement of certificate.

- (2) Engineering licensure fees (individuals and firms):
  - (a) Application fee for licensure by examination or endorsement – \$125.00 non-refundable.
  - (b) Initial license fee – \$100.00.
  - (c) Biennial renewal fee – \$125.00.
  - (d) Delinquency fee – \$100.00.
  - (e) Temporary license (individual) – \$25.00.
  - (f) Temporary Certificate of Authorization (firm) – \$50.00.
  - (g) Application fee for a Certificate of Authorization (firm) – \$125.00 non-refundable.
  - (h) Initial fee for Certificate of Authorization – \$125.00.
  - (i) Biennial Renewal fee for Certificate of Authorization (firm) – \$125.00.
  - (j) Inactive Status fee – \$125.00.
  - (k) Reactivation fee – \$150.00.
  - (l) Duplicate Certificate – \$25.00.
  - (m) Verification of Licensure – \$25.00.
  - (n) Special Inspector Certification fee – \$100.00.
  - (o) Application fee for Special Inspector Certification – \$125.00.
  - (p) Engineer Intern Endorsement fee – \$100.00.
  - (3) Engineer Intern application fee – \$30.00.

*Specific Authority 455.213, 455.217(3), 455.219, 455.271, 471.011, 471.019 FS. Law Implemented 119.07(1)(a), 455.217(3), (7), 471.011, 471.019 FS. History–New 1-8-80, Amended 8-26-81, 12-19-82, 6-2-83, 2-28-84, Formerly 21H-24.01, Amended 3-10-86, 12-11-86, 3-10-87, 4-12-88, 12-21-88, 1-10-90, 8-15-90, 1-6-93, Formerly 21H-24.001, Amended 11-15-94, 8-10-98, 6-16-99, 5-8-00, 11-15-01, 2-21-02, 9-16-02, 5-9-04, 6-5-05, 3-5-06.*

## **CHAPTER 61G15-26 SUPERVISION STANDARDS**

61G15-26.001 Standards for Supervision of Governmental Employees by Professional Engineers.

### **61G15-26.001 Standards for Supervision of Governmental Employees by Professional Engineers.**

(1) As required by Section 471.003(2)(b)2., F.S. employees of governmental entities must act under the responsible charge of professional engineers as defined in subsection 61G15-18.011(1), F.A.C., whenever they are performing engineering as that term is defined in Section 471.005(7), F.S. The supervision exercised over such employees by the professional engineer in responsible charge must be of such a quality as to be equivalent to that required of private firms. Further, all documents or reports which would be equivalent to those requiring a professional engineer's seal when filed for public record in the private sector will require the seal, signature and date of the supervising professional engineer when such documents or reports are filed or promulgated on behalf of a governmental entity. This rule shall prohibit non-professional employees governed by this rule from overriding, or approving, accepting or rejecting, or modifying engineering documents prepared by professional engineers unless such actions are concurred in by a professional engineer in responsible charge of the employee and that said professional engineer takes full responsibility for such a decision.

(2) No individual may be entitled or act in the capacity of "municipal", "city" or "county engineer" unless that individual is licensed as a professional engineer in this State.

*Specific Authority 471.003(2)(b)2. FS. Law Implemented 471.003(1), (2)(b)2., (e), 471.005(6), 471.025(1), 471.023(1), 471.031(1)(b) FS. History–New 4-2-87, Formerly 21H-25.001.*

**CHAPTER 61G15-27  
PROCEDURES FOR THE ADOPTION OF ANOTHER’S WORK**

61G15-27.001 Procedures for a Successor Professional Engineer Adopting As His Own the Work of Another Engineer.

**61G15-27.001 Procedures for a Successor Professional Engineer Adopting As His Own the Work of Another Engineer.**

(1) A successor professional engineer seeking to reuse already sealed contract documents under the successor professional engineer's seal must be able to document and produce upon request evidence that he has in fact recreated all the work done by the original professional engineer. In other words, calculations, site visits, research and the like must be documented and produceable upon demand. Further, the successor professional engineer must take all professional and legal responsibility for the documents which he sealed and signed and can in no way exempt himself from such full responsibility. Plans need not be redrawn by the successor professional engineer; however, justification for such action must be available through well kept and complete documentation on the part of the successor professional engineer as to his having rethought and reworked the entire design process. A successor professional engineer must use his own title block, seal and signature and must remove the title block, seal and signature of the original professional engineer before reusing any sealed contract documents.

(2) Prior to sealing and signing work a successor professional engineer shall be required to notify the original professional engineer, his successors, or assigns by certified letter to the last known address of the original professional engineer of the successor's intention to use or reuse the original professional engineer's work. The successor professional engineer will take full responsibility for the drawing as though they were the successor professional engineer's original product.

*Specific Authority 471.033(2) FS. Law Implemented 471.033(1)(j), 471.005(6) FS. History--New 8-25-87, Amended 4-21-88, 8-3-88, Formerly 21H-27.001.*

**CHAPTER 61G15-29  
CERTIFICATION**

61G15-29.001 Certification Definition, Procedures, Prohibitions.

**61G15-29.001 Certification Definition, Procedures, Prohibitions.**

(1) The term “Certification” as used herein shall be as set forth in Rule 61G15-18.011(4), F.A.C.

(2) When an engineer is presented with a certification to be signed and/or sealed, he or she should carefully evaluate that certification to determine if any of the circumstances set forth in subsection (3) would apply. If any of these circumstances would apply, that engineer shall either: (a) modify such certification to limit its scope to those matters which the engineer can properly sign and/or seal, or (b) decline to sign such certification.

(3) Engineers who sign and/or seal certifications which: (a) relate to matters which are beyond the engineer’s technical competence, or (b) involve matters which are beyond the engineer’s scope of services actually provided, or (c) relate to matters which were not prepared under engineer's responsible supervision, direction, or control; would be subject to discipline pursuant to Rule 61G15-19.001(6), F.A.C.

*Specific Authority 471.008 FS. Law Implemented 471.025(3), 471.033(1)(j) FS. History--New 1-16-91, Formerly 21H-29.001.*

**CHAPTER 61G15-30  
RESPONSIBILITY RULES COMMON TO ALL ENGINEERS**

61G15-30.001 Purpose.

61G15-30.002 Definitions Common to All Engineer’s Responsibility Rules.

61G15-30.003 Engineering Document Classification.

61G15-30.004 Engineering Document Submittal to Public Agencies. (Repealed)

61G15-30.005 Request for and Review of Delegated Engineering Documents.  
61G15-30.006 Delegated Engineer's Responsibility.  
61G15-30.007 Prime Professional's Responsibility.  
61G15-30.008 Use of Computer Software and Hardware.  
61G15-30.009 Retention of Engineering Documents.

**61G15-30.001 Purpose.**

The Board has adopted these responsibility rules pursuant to Section 471.033(2), F.S., to safeguard the life, health, property and welfare of the public by promoting proper conduct in the practice of engineering and due care and regard for acceptable engineering principles and standards. The Board considers that professional engineers may avoid disciplinary actions by observing the procedures set forth herein. Failure to comply with these rules may be considered as noncompliance with subsection 61G15-19.001(4), F.A.C., unless the deviation or departure therefrom is justified by the specific circumstances of the project in question. Furthermore, these rules are intended to apply as general guidelines where no contractual relationship exists between the parties addressed herein. These rules are not intended to take precedence over contractual relationships developed between the parties addressed herein, so long as those contractual relationships do not violate Chapter 471, F.S., or the stated purpose of these responsibility rules. These responsibility rules shall apply to every person holding a certificate of registration as a professional engineer, every certified engineer intern, and every holder of a certificate of authorization, as appropriate. A professional engineer's practices, education, training, experience, qualifications, technical competence, conduct, and responsibilities in connection with his authorized engineering practice, services, and creative work are subject to regulation solely by the Board of professional engineers, the courts, and local jurisdictions.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1) FS. History—New 1-26-93, Formerly 21H-30.001, Amended 11-13-08.*

**61G15-30.002 Definitions Common to All Engineer's Responsibility Rules.**

(1) Engineer of Record. A Florida professional engineer who is in responsible charge for the preparation, signing, dating, sealing and issuing of any engineering document(s) for any engineering service or creative work.

(2) Prime Professional. A Florida professional engineer or a duly qualified engineering corporation or partnership, who is engaged by the client to provide any planning, design, coordination, arrangement and permitting for the project and for construction observations in connection with any engineering project, service or creative work. The prime professional engineer may also be an engineer of record on the same project.

(3) Delegated Engineer. A Florida professional engineer who undertakes a specialty service and provides services or creative work (delegated engineering document) regarding a portion of the engineering project. The delegated engineer is the engineer of record for that portion of the engineering project. A delegated engineer usually falls into one of the following categories:

(a) An independent consultant.

(b) An employee or officer of an entity supplying components to a fabricator or contractor, so long as the engineer acts as an independent consultant or through a duly qualified engineering corporation.

(c) An employee or officer of a fabricator or contractor, so long as the engineer acts as an independent consultant or through a duly qualified engineering corporation.

(4) Engineering Documents. Engineering documents are designs, plans, specifications, drawings, prints, reports, or similar instruments of service in connection with engineering services or creative work that have been prepared and issued by the professional engineer or under his responsible supervision, direction or control.

(5) Delegated Engineering Documents. Delegated engineering documents are those engineering documents that are prepared by a delegated engineer.

(6) Public Record. An engineering document is "filed for public record" when said document is presented with the engineer of record's knowledge and consent to any federal, state, county, district, authority, municipal or other governmental agency in connection with the transaction of official business with said agency.

(7) "Engineering Documents Prepared for Public Record" are those documents filed for public record with the Authority Having Jurisdiction (AHJ) to determine compliance with Codes and Standards and to be used for execution of the project. These documents are required to be signed and sealed.

(8) Shop Drawings: Drawings depicting installation means and methods, catalog information on standard products, prepared by a contractor, manufacturers, or professional engineers for incorporation into the project which are prepared based on engineering direction contained in Engineering Documents. Shop drawings do not require the signature, date and seal of a professional engineer.

(9) Record Documents: Documents that are a compiled representation of the constructed project. If the engineer is relying on information provided by others not under the direct supervision and control of the engineer, then the engineer shall not be required to sign, date and seal these Documents. If relying on information by others, as a minimum, the following shall be included on the Documents:

(a) Statement that the documents are a compiled representation of the constructed project.

(b) Listing of the sources and basis of information used in the preparation of the Documents.

(c) Statement that the Documents are believed to be correct to the best of the engineer's knowledge, and that the accuracy of the information cannot be guaranteed.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1), 471.023, 471.025 FS. History--New 1-26-93, Formerly 21H-30.002, Amended 11-13-08.*

#### **61G15-30.003 Minimum Requirements for Engineering Documents.**

(1) Engineering Documents are prepared in the course of performing engineering services. When prepared for inclusion with an application for a general building permit, the Documents shall meet all Engineer's Responsibility Rules, set forth in Chapters 61G15-31, 61G15-32, 61G15-33, and 61G15-34, F.A.C., and be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the Florida Building Code, adopted in Section 553.73, F.S., and applicable laws, ordinances, rules and regulations, as determined by the AHJ. The Documents shall include:

(a) Information that provides material specifications required for the safe operation of the system that is a result of engineering calculations, knowledge and experience.

(b) List Federal, State, Municipal, and County standards, codes, ordinances, laws, and rules, with their effective dates, that the Engineering Documents are intended to conform to.

(c) Information, as determined by the Engineer of Record, needed for the safe and efficient operation of the system.

(d) List engineering design criteria; reference project specific studies, reports, and delegated Engineering Documents.

(e) Identify clearly elements of the design that vary from the governing standards and depict/identify the alternate method used to ensure compliance with the stated purpose of these Responsibility Rules.

(2) Engineers shall legibly indicate their name and business address, on engineering documents. Engineering documents which are issued for preliminary or conceptual use, shall clearly note the intended purpose of such documents.

(3) When elements of the project are shown on an engineering document only for information or clarification and the Engineer does not intend to accept responsibility for the elements, the engineer shall clearly note on the documents the extent of his responsibility.

(4) Engineering drawings shall be legible and clearly define and delineate the work in the project. They must also comply with Chapter 61G15-23, F.A.C., Seals.

(5) Engineers shall clearly note on any preliminary engineering documents that such documents are not in final form, but are being transmitted to the public agency to receive agency reviews, comments and interpretations. The documents may subsequently be revised by the engineer to reflect resolution of issues with the public agency prior to final action by the agency. Changes, revisions and modifications to a project may prompt additional document

submittal for agency approval action on the same project.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g), 471.025(3) FS. History--New 1-26-93, Formerly 21H-30.003, Amended 11-13-08.*

**61G15-30.005 Delegation of Engineering Documents: Obligations of the Engineer of Record.**

(1) An engineer of record who delegates a portion of his responsibility to a delegated engineer is obligated to communicate in writing his engineering requirements to the delegated engineer.

(2) An engineer of record who delegates a portion of his design responsibility to a delegated engineer shall require submission of delegated engineering documents prepared by the delegated engineer and shall review those documents for compliance with his written engineering requirements and to confirm the following:

(a) That the delegated engineering documents have been prepared by an engineer.

(b) That the delegated engineering documents of the delegated engineer conform with the intent of the engineer of record and meet the written criteria.

(c) That the effect of the delegated engineer's work on the overall project generally conforms with the intent of the engineer of record.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-30.005.*

**61G15-30.006 Delegation of Engineering Documents: Obligations of the Delegated Engineer of Record.**

(1) It is the delegated engineer's responsibility to review the Engineer of Record's written engineering requirements and authorization for the delegated engineering document to determine the appropriate scope of engineering.

(2) The delegated engineering document shall comply with the written engineering requirements received from the engineer of record. They shall include the project identification and the criteria used as a basis for its preparation. If a delegated engineer determines there are details, features or unanticipated project limits which conflict with the written engineering requirements provided by the engineer of record, the delegated engineer shall timely contact the engineer of record for resolution of conflicts.

(3) The delegated engineer shall forward the delegated engineering document to the engineer of record for review. All final delegated engineering documents require the impressed seal and signature of the delegated engineer and include:

(a) Drawings introducing engineering input such as defining the configuration and structural capacity of structural components and/or their assembly into structural systems.

(b) Calculations.

(c) Computer printouts which are an acceptable substitute for manual calculations provided they are accompanied by sufficient design assumptions and identified input and output information to permit their proper evaluation. Such information shall bear the impressed seal and signature of the delegated engineer as an indication that said engineer has accepted responsibility for the results.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-30.006.*

**61G15-30.007 Prime Professional's Responsibility.**

It is the responsibility of the prime professional engineer, where one exists, to retain and coordinate the services of such other professionals as needed to complete the services contracted for the project.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-30.007, Amended 11-13-08.*

**61G15-30.008 Use of Computer Software and Hardware.**

The engineer shall be responsible for the results generated by any computer software and hardware that he or she uses in providing engineering services.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-30.008.*

**61G15-30.009 Retention of Engineering Documents.**

At least one copy of all documents displaying the licensee’s signature, seal, date and all related calculations shall be retained by the licensee or the licensee’s employer for a minimum of three years from the date the documents were sealed. These documents shall be maintained in hardcopy or electronic format

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033(1)(g), (j) FS. History–New 5-9-04, Amended 11-13-08.*

**61G15-30.010 Energy Conservation Compliance.**

The engineer who prepares the compliance calculations, and certifies the accuracy thereof, shall verify that the building construction documents conform to compliance calculations. Data used in calculations shall be under the signature, date and seal of the responsible design professionals. The Engineer of Record for energy conservation compliance calculations shall retain the signed, dated and sealed data as provided for in Rule 61G15-30.009, F.A.C., Retention of Engineering Documents.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033(1)(g), (j) FS History–New 11-13-08.*

**CHAPTER 61G15-31  
RESPONSIBILITY RULES OF PROFESSIONAL ENGINEERS CONCERNING THE DESIGN OF  
STRUCTURES**

- 61G15-31.001 General Responsibility.
- 61G15-31.002 Definitions.
- 61G15-31.003 Design of Structures Utilizing Prefabricated Wood Trusses.
- 61G15-31.004 Design of Cast-in-Place Post-Tensioned Concrete Structural Systems.
- 61G15-31.005 Design of Structures Utilizing Precast and Prestressed Concrete Components.
- 61G15-31.006 Design of Structural Systems Utilizing Open Web Steel Joists and Joists Girders.
- 61G15-31.007 Design of Pre-Engineered Structures.
- 61G15-31.008 Design of Foundations.
- 61G15-31.009 Design of Structural Steel Systems.

**61G15-31.001 General Responsibility.**

The engineer of record for a structure is responsible for all structural aspects of the design of the structure including the design of all of the structure’s systems and components. As noted herein the engineer of record for a structure may delegate responsibility for the design of a system or component part of the structure to a qualified delegated engineer. In either case the structural documents shall address, as a minimum, the items noted in the following subsections covering specific structural systems or components. Both the engineer of record for the structure and the delegated engineer, if utilized, shall comply with the requirements of the general responsibility rules, and with the requirements of the more specific structural responsibility rules contained herein.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History–New 1-26-93, Formerly 21H-31.001.*

**61G15-31.002 Definitions.**

(1) Engineer of Record for the Structure. The Florida registered professional engineer who develops the structural design criteria and structural framing concept for the structure, performs the analysis and is responsible for the preparation of the structural construction documents.

(2) Structural Component. An individual structural member designed to be part of a structural system.

(3) Structure. The entity to be built.

(4) Structural System. A portion of a structure comprising an assembly of structural components.

(5) Structural Engineering Documents. The structural drawings, specifications and other documents setting forth the overall design and requirements for the construction, alteration, modernization, repair, removal, demolition, arrangement and/or use of the structure, prepared by and signed and sealed by the engineer of record for the structure. Structural engineering documents shall identify the project and specify design criteria both for the overall

structure and for structural components and structural systems. The drawings shall identify the nature, magnitude and location of all design loads to be imposed on the structure. The structural engineering documents shall provide construction requirements to indicate the nature and character of the work and to describe, detail, label and define the structure's components, systems, materials, assemblies, and equipment.

(6) Structural Submittals. Submittals required by the structural engineering documents which do not require the seal of a professional engineer, such as:

(a) Drawings prepared solely to serve as a guide for fabrication and installation and requiring no engineering input such as reinforcing steel shop drawings, structural steel, and steel joist and joist girder erection drawings.

(b) Catalog information on standard products not fabricated for a specific project.

(7) Structural Delegated Engineering Documents. Documents prepared by a delegated engineer to whom the engineer of record for the structure has delegated responsibility for the design of a structural component or system.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g), (j) FS. History—New 1-26-93, Formerly 21H-31.002, Amended 10-19-97.*

### **61G15-31.003 Design of Structures Utilizing Prefabricated Wood Trusses.**

(1) When a Structural Engineer of Record and a Delegated Engineer exist as may be determined by applicable Florida law, the apportionment of responsibilities between the Structural Engineer of Record and a Delegated Engineer shall be as set forth in Chapter 2 of ANSI/TPI 1-1995, wherein the Structural Engineer of Record is the Building Designer and the Delegated Engineer is the Truss Designer as those terms are defined in said standard.

(2) The Structural Engineer of Record shall provide design requirements in writing to the Delegated Engineer and shall review the design documents of the delegated engineer for conformance to his written instructions in accordance with Rule 61G15-30.005, F.A.C.

(3) For the purposes of this rule, the following definitions shall apply:

(a) "Truss System" shall mean an assemblage of trusses and truss girders, together with all bracing, connections, and other structural elements and all spacing and locational criteria, that, in combination, function to support the dead, live and wind loads applicable to the roof of a structure with respect to a Truss System for the roof, and the floor of a structure with respect to a Truss System for the floor. A Truss System does not include walls, foundations, or any other structural support systems.

(b) "Truss System Engineer" shall mean an engineer who designs a Truss System.

(c) "Truss Design Engineer" shall mean an engineer who designs individual trusses, but does not design a Truss System.

(4) An engineer is a Truss System Engineer if he designs a Truss System. Each of the drawings in the Truss System design package for the Truss System shall include a title block bearing the printed name, address, and license number of the Truss System Engineer and the date of the drawing. The design documentation prepared by the Truss System Engineer shall also include a truss placement plan for the Truss System, showing the location and designation of each truss. Said design documentation for the Truss System shall be signed and sealed by the Truss System Engineer. The cover or index sheet of the Truss System design package may be signed and sealed in lieu of signing and sealing each individual sheet, provided that the cover or index sheet contains the following information:

(a) The name, address and license number of the Structural Engineer of Record, if there is one, and the name, address and license number of the Truss System Engineer.

(b) Identification of the project, by address or by lot number, block number, section or subdivision and city or county.

(c) Identification of the applicable building code and chapter(s) that the Truss System design is intended to meet, the engineering design criteria relied upon in designing the Truss System and the truss design loading.

(d) Identification of any computer program used for engineering the Truss System.

(e) An index of the attached Truss System design drawings. The naming and numbering system utilized for the drawings shall be clear as to how many drawings there are in the set and the date and sequence number of each of these drawings shall be included.

(5) An engineer is a Truss Design Engineer if he designs individual trusses, but does not design the Truss

System. Each of the drawings in the truss design package for individual trusses shall include a title block bearing the printed name, address, and license number of the Truss Design Engineer and the date of the drawing. The Truss Design documents prepared by the Truss Design Engineer shall be signed and sealed by the Truss Design Engineer. The cover or index sheet of the truss design package may be signed and sealed in lieu of signing and sealing each individual sheet, provided that the cover or index sheet contains the following information:

(a) The name, address and license number of the Structural Engineer of Record, if there is one, and the name, address, and license number of the Truss Design Engineer.

(b) Identification of the project, by address or by lot number, block number, section or subdivision and city or county.

(c) Identification of the applicable building code and chapter(s) that the truss design is intended to meet, the engineering design criteria relied upon in designing the trusses and the truss design loading.

(d) Identification of any computer program used for engineering the trusses.

(e) An index of the attached truss design drawings. The naming and numbering system utilized for the drawings shall be clear as to how many drawings there are in the set and the date and sequence number of each of these drawings.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-31.003, Amended 6-16-99, 3-21-01, 4-30-03.*

#### **61G15-31.004 Design of Cast-in-Place Post-Tensioned Concrete Structural Systems.**

(1) Structural engineering documents shall show the magnitude and location of all prestressing forces and all design assumptions.

(2) If the engineer of record for the structure elects to delegate the responsibility for preparation of calculations and installation drawings to a delegated engineer for the post-tensioning system(s), he shall require the submission of installation drawings for review by the engineer of record for the structure. Calculations shall also be submitted which show sufficient information to confirm that the number and size of tendons provided are adequate to provide the prestressing forces shown on the structural engineering documents. Installation drawings shall provide full details of materials to be used including necessary accessories and instructions for construction and shall identify the specific project. The installation drawings and calculations shall bear the impressed seal and signature of the delegated engineer who prepared them.

(3) It is the responsibility of the engineer of record for the structure to review the post-tensioning system installation drawings so that the drawings are coordinated with reinforcing steel shop drawings.

(4) The effect of post-tensioning on other parts of the building is the responsibility of the engineer of record for the structure.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-31.004.*

#### **61G15-31.005 Design of Structures Utilizing Precast and Prestressed Concrete Components.**

(1) Structural engineering documents shall indicate the configuration of precast and prestressed components and shall include details of supports, anchors and connections for those components.

(2) The engineer of record for the structure may delegate responsibility for the design of precast or prestressed concrete components, or systems utilizing those components, to a delegated engineer. In that case the engineer of record for the structure shall require structural delegated engineering documents for his review as an indication that his intent has been understood and that the specified criteria have been used. Structural delegated engineering documents shall bear the impressed seal and signature of the delegated engineer.

(3) Structural delegated engineering documents shall include component details, calculations, and fabrications and erection drawings. All such submittals shall identify the specific project. The effect of precast and prestressed concrete members on other parts of the building is the responsibility of the engineer of record for the structure.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History--New 1-26-93, Formerly 21H-31.005.*

**61G15-31.006 Design of Structural Systems Utilizing Open Web Steel Joists and Joist Girders.**

(1) The Engineer of Record shall indicate on the Structural Engineering Documents the steel joist and joist girder designations from the 1997 Steel Joist Institute's Specifications and load tables and shall indicate the appropriate standards for joist and joist girder design, layout, end supports, anchorage, bridging requirements, etc., including connections to walls. These documents shall indicate special requirements for concentrated loads, non-uniform loads, openings, extended ends, and resistance to uplift loads.

(2) The steel joist and joist girder manufacturer shall design the steel joist and joist girder members in accordance with the 1997 Steel Joist Institute Specifications and load tables to support the loads per the Engineer of Record's specified joist and joist girder designations and/or special loading diagrams, as set forth in Structural Engineering Documents. The Engineer of Record may require the submission of the steel joist and joist girder design calculations as an indication of compliance. When required to submit the steel joist and joist girder calculations, the steel joist and joist girder manufacturer shall submit a cover letter along with the steel joist and joist girder design calculations. The cover letter shall bear the seal and signature of a Florida registered professional engineer responsible for design of the steel joist and joist girders.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g), (j) FS. History—New 1-26-93, Formerly 21H-31.006, Amended 10-19-97.*

**61G15-31.007 Design of Pre-Engineered Structures.**

(1) Structural engineering documents for pre-engineered structures shall indicate the necessary measures for adapting the structures to the specific site. They shall indicate all openings, concentrated loads and other special requirements. Foundation conditions assumed in the design shall be indicated as well as the location and magnitude of building reactions on that foundation under all design conditions.

(2) The engineer of record for the structure may delegate responsibility of the design of pre-engineered structures to a delegated engineer requiring submittal of structural delegated engineering documents.

(3) Structural delegated engineering documents shall identify the project and list loading other design criteria. Structural delegated engineering documents shall include fabrication and erection drawings which indicate in detail the construction of the standard structure used or as modified to comply with the requirements of the particular project. They shall indicate all connection details, openings and other special details. They shall show the magnitude and location of building reactions on the foundation under all design conditions. Calculations supporting the design shall be submitted not only for the standard structure but for modifications and for related components requiring structural design.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History—New 1-26-93, Formerly 21H-31.007.*

**61G15-31.008 Design of Foundations.**

(1) The structural engineering documents shall designate the foundation capacity and shall include data indicating the nature of the foundation material anticipated.

(2) Site preparation requirements, necessary to provide the foundation capacity, shall be specified in the structural engineering document(s).

(3) The foundation capacity shall be determined on the basis of scientific analysis utilizing investigations, tests or studies conducted or provided by the engineer of record for the structure or by a delegated engineer.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History—New 1-26-93, Formerly 21H-31.008.*

**61G15-31.009 Design of Structural Steel Systems.**

(1) The engineer of record for the structure is responsible for all aspects of the structure's design including the design of components and connections.

(2) The engineer of record for the structure may detail all structural connections on the structural engineering documents and require fabrication and erection in accordance with these details.

(3) Alternately, the engineer of record for the structure may specify criteria for the design of the structural connections and identify the nature, magnitude, and location of all design loads to be supported by the connections

in his structural engineering documents. The engineer of record for the structure may then delegate design responsibility for the selection or modification of the structural connections to a delegated engineer and require delegated engineering submittal.

(4) The structural engineering documents may assign to the fabricator responsibility for implementing the design as specified and for maintaining fabrication and erection tolerances and for ensuring the fit and erectability of the structure.

(5) The fabricator shall forward fabrication and erection drawings for review by the engineer of record for the structure.

*Specific Authority 471.033(2), 471.008 FS. Law Implemented 471.033(1)(g) FS. History–New 1-26-93, Formerly 21H-31.009.*

## **CHAPTER 61G15-32 RESPONSIBILITY RULES OF PROFESSIONAL ENGINEERS CONCERNING THE DESIGN OF FIRE PROTECTION SYSTEMS**

- 61G15-32.001 General Responsibility.
- 61G15-32.002 Definitions.
- 61G15-32.003 Common Requirements to All Fire Protection Engineering Documents.
- 61G15-32.004 Design of Water Based Fire Protection Systems.
- 61G15-32.005 Design of Gas Agent Fire Suppression Systems.
- 61G15-32.006 Design of Foam and Foam Water Fire Suppression Systems.
- 61G15-32.007 Design of Dry Chemical and Miscellaneous Fire Suppression or Control Systems.
- 61G15-32.008 Design of Fire Alarms, Signalling Systems and Control Systems.
- 61G15-32.009 Design of Fine Water Spray (Mist) Fire Suppression and Control Systems.

### **61G15-32.001 General Responsibility.**

Fire protection engineering documents shall be prepared in accordance with applicable technology and the requirements of the authority having jurisdiction. The documents shall identify the Engineer of Record for the project. Both the Engineer of Record for the fire protection system and the delegated engineer, if utilized, shall comply with the requirements of the general responsibility rules, Chapter 61G15-30, F.A.C., and with the requirements of the more specific rules contained herein. The Engineer of Record for the Fire Protection System(s) shall provide design requirements in writing to the delegated engineer if one is used and shall review the design documents of the delegated engineer for conformance with his written instructions in accordance with Rule 61G15-30.005, F.A.C. Any Fire Protection Delegated Engineering Documents must be included in the final set of documents filed for permit.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History–New 5-19-93, Formerly 21H-32.001, Amended 3-26-09.*

### **61G15-32.002 Definitions.**

(1) Engineer of Record for the Fire Protection System(s): The Florida Registered Professional Engineer who develops the Fire Protection System(s) design criteria; performs analysis as required; and is responsible for the preparation of the Fire Protection System Engineering Documents.

(2) Fire Protection Component: Any individual part, subsystem or device to be incorporated in a Fire Protection System.

(3) Fire Protection System: Any assembly of Fire Protection components, materials, equipment, which require design to form a fully functional fire protection system.

(4) Listed: A fire protection component tested by a nationally recognized fire protection equipment testing organization. Recognized organizations include Underwriters Laboratories, Inc. and Factory Mutual Research Corporation.

(5) Fire Protection System Engineering Documents: The fire protection system engineering drawings,

specifications, prescriptive and performance criteria, water supply analysis and other materials or representations, which are submitted with the general construction documents pursuant to Section 553.79(6), F.S., that set forth the overall design requirements and provide sufficient direction for the contractor to layout the construction, alteration, demolition, renovation, repair, modification, permitting and such, for any public or private fire protection system(s), which are prepared, signed, dated and sealed by the Engineer of Record for the Fire Protection System(s).

(6) Fire Protection System Layout Documents: Layout drawings, hydraulic calculations, catalog information on standard products, and other construction data prepared by the licensed contractor or Engineer of Record that provides detail on the location of risers, cross mains, branch lines, sprinkler heads, sizing of pipe, hanger locations, and hydraulic calculations and also serves as a guide for fabrication and installation of a fire protection system. Fire Protection System Layout Documents are based upon engineering direction provided in the Fire Protection System Engineering Documents and require no additional engineering input. These documents do not require the seal of a Florida registered engineer.

(7) Codes and Standards: Those nationally recognized codes and standards adopted directly or by reference in Chapter 633, F.S., Florida Building Code (2007) and Florida Fire Prevention Code set forth in Chapter 69A-60, F.A.C. Applicable codes and standards also include those promulgated by State and local authorities having jurisdiction. In the event the codes and standards fail to cover or address a specific protection requirement, alternative research, test results, and engineering data may be utilized, relying on the Engineer of Record for Fire Protection to make an informed engineering decision. This definition is not intended to preclude the use of new technologies when said technology has been demonstrated to provide equivalent or improved protection above that of published National Fire Protection standards.

(8) Material Deviation: Any deviation from the design parameters established and documented by the Engineer of Record.

(9) Layout: The location of risers, cross mains, branch lines, sprinkler heads, sizing of pipe, hanger locations, and hydraulic calculations based on engineering documents.

(10) Fire Protection Delegated Engineering Documents. Fire Protection System Engineering Documents prepared by a delegated engineer to whom the Engineer of Record for the Fire Protection System has delegated responsibility for the design of a fire protection component or system and which are signed, sealed and dated by the delegated engineer. These documents shall be included in the final set of documents submitted to the owner to be filed for a building permit and Fire Marshal approval.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.005(7), 471.033(2) FS. History—New 5-19-93, Formerly 21H-32.002, Amended 4-2-00, 6-26-01, 3-26-09.*

### **61G15-32.003 Common Requirements to All Fire Protection Engineering Documents.**

(1) The Fire Protection System Engineering Documents shall provide the engineering requirements to be used in the preparation of the Fire Protection System Layout Documents and to indicate the nature and scope of the work, and to describe, detail, dimension, label and define the Fire Protection Components, System(s), materials, assemblies, equipment and its structural and utility support system(s), insofar as they involve the safeguarding of life, health or property.

(2) The Fire Protection System Engineering Documents shall specify the applicable requirements for the acceptance testing of the fire protection system and components, which shall be based upon applicable codes and standards, where available.

(3) The occupancy of the area or description of a specific hazard being protected by the Fire Protection System(s) shall be shown on the Fire Protection System Engineering Documents.

(4) The applicable code and standard to be used in the preparation of the Fire Protection System Layout Documents shall be shown on the Fire Protection System Engineering Documents. When codes and standards are not available or applicable, and said layout documents are to be based on engineering judgment, any reasons and assumptions made to develop the fire protection concept shall be identified on the Fire Protection System Engineering Documents.

(5) Structural support and structural openings required by the Fire Protection System shall be shown on the Fire

Protection System Engineering Documents and shall be referenced on structural engineering documents.

(6) When layout documents contain material deviation from the Engineer of Record's Fire Protection System Engineering Document, such layout documents are not compliant unless they are accompanied by revised Engineering Documents made and sealed by the Engineer of Record for the Fire Protection System.

(7) Requirements for activation control systems, sequence, operating parameters, interlocks, safety related devices, indicators and alarms, shall be shown on the Fire Protection System Engineering Documents, unless shown on other related documents.

(8) Any information deemed appropriate by the Engineer of Record to assist the authority having jurisdiction in understanding the owner's intended use and proposed protection of the building or facility and to provide sufficient direction to the installation contractor or other interested parties regarding the layout of the system(s), shall be included in the Fire Protection System Engineering Documents.

(9) Fire Protection Electrical Engineering Documents shall additionally meet the requirements of Rule 61G15-30.003, F.A.C., Engineering Documents.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.005(7), 471.033(2) FS. History—New 5-19-93, Formerly 21H-32.003, Amended 4-2-00, 6-26-01, 3-26-09.*

#### **61G15-32.004 Design of Water Based Fire Protection Systems.**

(1) Water Based Fire Protection Systems include, but are not limited to, automatic sprinkler systems of wet, dry, fine water spray (mist), manual, and deluge valve controlled types, pumping systems, standpipes, fire water mains and dedicated fire protection water sources.

(2) To ensure minimum design quality in Fire Protection System Engineering Documents, said documents shall include as a minimum the following information when applicable:

(a) The Point of Service for the fire protection water supply as defined by Section 633.021(18), F.S.

(b) Applicable NFPA standard to be applied, or in the case where no such standard exists, the engineering study, judgments, and/or performance based analysis and conclusions.

(c) Classification of hazard occupancy for each room or area.

(d) Design approach, which includes system type, densities, device temperature rating, and spacing for each separate hazard occupancy.

(e) Characteristics of water supply to be used, such as main size and location, whether it is dead-end or circulating; and if dead-end, the distance to the nearest circulating main, as well as its minimum duration and reliability for the most hydraulically demanding design area.

(f) When private or public water supplies are used, the flow test data, including date and time of test, who conducted test or supplied information, test elevation, static gauge pressure at no flow, flow rate with residual gauge pressure, hydrant butt coefficient, and location of test in relation to the hydraulic point of service.

(g) Valving and alarm requirements to minimize potential for impairments and unrecognized flow of water.

(h) Microbial Induced Corrosion (MIC). The Engineer of Record shall make reasonable efforts to identify water supplies that could lead to Microbial Induced Corrosion (MIC). Such efforts may consist of discussions with the local water purveyor and/or fire official, familiarity with conditions in the local area, or laboratory testing of water supplies. When conditions are found that may result in MIC contamination of the fire protection piping, the engineer shall design corrective measures.

(i) Backflow prevention and metering specifications and details to meet local water purveyor requirements including maximum allowable pressure drop.

(j) Quality and performance specifications of all yard and interior fire protection components.

(3) Contractor submittals which deviate from the above minimum design parameters shall be considered material deviations and require supplemental engineering approval and documentation.

(4) In the event the Engineer of Record provides more information and direction than is established above, he or she shall be held responsible for the technical accuracy of the work in accordance with applicable codes, standards, and sound engineering principles.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.005(7), 471.033(2) FS. History—New 5-19-93, Formerly 21H-32.004, Amended 4-2-00, 6-26-01.*

**61G15-32.005 Design of Gas Agent Fire Suppression Systems.**

(1) Gas Agent Fire Suppression Systems include, but are not limited to, CO<sub>2</sub>, Halon, inerting and purge gases, and all other gaseous formulations and multi-phase agents released for the purpose of fire control or extinguishment.

(2) The Fire Protection System(s) design specifications shall be based on applicable NFPA standards when available, or alternative engineering sources and good engineering practice when required.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 5-19-93, Formerly 21H-32.005.*

**61G15-32.006 Design of Foam and Foam Water Fire Suppression Systems.**

(1) Foam and Foam Water Fire Suppression Systems include local application, total flooding, high and low expansion foams, and foam-water sprinkler systems.

(2) The Fire Protection System design specifications shall be based on applicable NFPA standards, when available, or alternative engineering sources and good engineering practice when required.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 5-19-93, Formerly 21H-32.006.*

**61G15-32.007 Design of Dry Chemical and Miscellaneous Fire Suppression or Control Systems.**

(1) Dry chemical and miscellaneous systems include, but are not limited to, dry chemical systems, explosion control systems, and fire control structures.

(2) The Fire Protection System design specifications shall be based on applicable NFPA standards, when available, or alternative engineering sources and good engineering practice when required.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 5-19-93, Formerly 21H-32.007.*

**61G15-32.008 Design of Fire Alarms and Detection Systems.**

(1) Fire alarms and detection systems include fire protection supervision, emergency alarm circuits, activation of life safety system controls and remote signaling of emergency conditions.

(2) The design specifications shall be based on the Florida Building Code (2007), the Florida Fire Prevention Code, or as required by the local authority having jurisdiction.

(3) For fire alarm plans on small systems below the threshold requirements for mandatory use of professional engineering services, the Engineer of Record shall specify the minimum system requirements.

(4) To ensure minimum design quality of Fire Alarm and Detection Systems Engineering Documents, said documents shall include as a minimum the following information when applicable:

(a) The plans shall be clear, with a symbols legend, system riser diagram showing all initiation and notification components, and cabling requirements. Indicate locations where fire ratings are required as determined by the system's survivability requirements. Identify the general occupancy of the protected property, and for each room and area unless it is clear from features shown.

(b) Locate initiation and notification devices and connections to related systems on the floor plans and sections when needed for clarity. Related systems include elevator controls smoke control systems, dampers, and doors.

(c) Strobe intensity and speaker output ratings for all notification devices.

(d) Identify the Class and Style of circuits as listed in the NFPA 72.

(e) Identify the functions required by the alarm and control systems including the transmission of emergency signals being monitored or annunciated.

(f) Indicate whether the fire alarm is conventional or addressable, and indicate all zoning.

(g) Locate surge protective devices and required protective features.

(h) Locate system devices that are subject to environmental factors, and indicate requirements for the protection of equipment from temperature, humidity or corrosive atmospheres, including coastal salt air.

(i) The plans shall include a site plan of the immediate area around the protected building, structure or equipment when alarm devices are required outside the structure.

(j) In buildings where smoke detection will be obstructed by walls, beams or ceiling features, the Engineer of Record shall provide applicable design and details to direct the installer to mitigate the obstructions. In buildings with smoke detection under a pitched roof, the plans shall indicate the roof pitch and a building section shall be provided as part of the Engineering Design Documents.

(k) Fire detection systems utilizing smoke detection in situations where smoke stratification is anticipated, the design shall provide the necessary criteria to mitigate the detection problems.

(l) Systems designed using Performance Based criteria shall be identified and referenced to design guides or standards approved by the local authority having jurisdiction consistent with standards adopted by the Florida Fire Prevention Code and the Florida Building Code (2007).

(m) The system design must indicate if the system is to provide a general evacuation signal or a zoned evacuation for all high-rise buildings or multi-tenanted properties as defined in the Florida Building Code (2007).

(n) Wiring requirements for underground, wet locations, campus style wiring, protection against damage and burial depth shall be specified or indicated on the engineering design documents.

(o) Requirements for operations and maintenance procedures, manuals, system documentation, and instruction of Owner's operating personnel, as needed to operate the systems as intended over time.

(5) In the event that the Engineer of Record elects to specify specific equipment and to show the required wiring, battery and voltage drop (circuit analysis) calculations shall be completed. The calculations shall be completed using the equipment manufacturer's data and applicable NFPA 72 procedures.

(6) System test requirements shall be noted on the Engineering Design Documents.

(7) When the engineer determines that special requirements are required by the owner, insurance underwriter or local fire code amendments these requirements shall be documented or referenced on the Engineering Design Documents.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History--New 5-19-93, Formerly 21H-32.008, Amended 3-26-09.*

#### **61G15-32.009 Design of Fine Water Spray (Mist) Fire Suppression and Control Systems.**

(1) Fine water spray (mist) systems include water based fire suppression and control systems based on NFPA 750.

(2) The fire protection system(s) shall be based on applicable NFPA standards when available or on alternative engineering sources including full scale fire testing and good engineering practice when no applicable standard exists.

(3) Design of fine water spray systems requires specific knowledge of hazards, physical containment and fire dynamics. A "pre-engineered" listed system shall be installed only after the engineer of record has evaluated the project specific protected hazard.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.005(6), 471.033(2) FS. History--New 4-2-00.*

### **CHAPTER 61G15-33**

#### **RESPONSIBILITY RULES OF PROFESSIONAL ENGINEERS CONCERNING THE DESIGN OF ELECTRICAL SYSTEMS**

- 61G15-33.001 General Responsibility.
- 61G15-33.002 Definitions.
- 61G15-33.003 Design of Power Systems.
- 61G15-33.004 Design of Lighting Systems.
- 61G15-33.005 Design of Communications Systems.
- 61G15-33.006 Design of Alarm Systems.
- 61G15-33.007 Design of Lightning Protection Systems.
- 61G15-33.008 Design of Grounding Systems.
- 61G15-33.009 Design of Instrumentation and Control Systems. (Repealed)

#### **61G15-33.001 General Responsibility.**

Electrical Engineering documents shall be prepared in accordance with applicable technology and with the requirements of the authority having jurisdiction. The documents shall identify the Engineer of record for the electrical systems project. Electrical Engineering documents shall demonstrate compliance with the requirements of the applicable codes and standards as defined herein. The Engineer of Record is responsible for determining the applicability of appropriate codes and standards to a given project. In the event the codes and standards fail to cover or address a specific requirement or situation, alternative research, test results, engineering data, and engineering calculations shall be utilized. New technology may be utilized when said technology has been demonstrated to provide equivalent or improved performance. Construction documents shall indicate the nature and character of the electrical work and shall describe, label and define the required electrical systems components, processes, equipment and material and its structural utility support systems. Both the Engineer of Record for the electrical system and the delegated engineer if utilized, shall comply with the requirements of the general responsibility rules, Chapter 61G15-30, F.A.C., and with the requirements of the more specific rules contained herein. The Engineer of Record for the Electrical System(s) shall provide design requirements in writing to the delegated engineer if one is used and shall review the design documents of the delegated engineer for conformance to his written instructions in accordance with Rule 61G15-30.005, F.A.C. Any Electrical Delegated Engineering Documents must be included in the final set of documents filed for permit.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 5-19-93, Formerly 21H-33.001, Amended 11-13-08.*

#### **61G15-33.002 Definitions.**

(1) Engineer of Record for the Electrical Systems. The Florida professional Engineer who develops the electrical system design criteria or performs the analysis and is responsible for the preparation of the Electrical documents for the project.

(2) Electrical Component. An individual electrical device to be part of an electrical system.

(3) Electrical. Any device or mechanism that operates due to the action of electricity.

(4) Electrical System. Any system, assembly of electrical components, materials, utilities, equipment, work system, machines, products or devices which require electrical energy in order to perform its intended function.

(5) Electrical Engineering Documents. All electrical drawings, specifications, reports, calculations, data and other documents utilized to establish the overall design and requirements for the construction, alteration, modernization, repair, demolition, arrangement, and/or use of the electrical system, or analysis or recommendations, as prepared by the Engineer of Record for the Electrical System. Electrical Engineering Documents shall additionally meet the requirements of Rule 61G15-30.003, F.A.C., Engineering Documents.

(6) Electrical Submittals. Submittals, catalog information on standard products or drawings prepared solely to serve as a guide for fabrication and installation and requiring no engineering input. These submittals do not require the seal of a Florida professional engineer.

(7) Codes and Standards. Those nationally recognized Codes and Standards adopted directly or by reference in the Florida Building Code (including Florida Energy Efficiency Code, Chapter 13) and Florida Fire Prevention Code, in Chapter 69A-60, F.A.C.

(8) Electrical Delegated Engineering Documents. Electrical Engineering Documents prepared by a delegated engineer to whom the Engineer of Record for the Electrical System has delegated responsibility for the design of an electrical component or system and which are signed, sealed and dated by the delegated engineer.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 5-19-93, Formerly 21H-33.002, Amended 11-13-08.*

#### **61G15-33.003 Design of Power Systems.**

(1) Power systems convey or distribute electrical energy. Items to be included in the design and analysis of these systems are: steady state and transient loads, short circuit analysis and protection (design and analysis), load flow, voltage drop, harmonics and protective device coordination.

(2) Electrical Engineering Documents applicable to power systems shall at a minimum indicate the following:

- (a) Power Distribution Riser Diagram with short circuit values.
- (b) Conductor Ampacities (sizes) and insulation type.
- (c) Circuit interrupting devices and fault current interrupting capability.
- (d) Location and characteristics of surge protective devices.
- (e) Main and distribution equipment, control devices, locations and sizes.
- (f) Voltage drop calculations for the feeders and customer-owned service conductors are required. Additionally, the documents shall state the reasons why the two percent limit for feeders and customer-owned service conductors are not being met, if applicable.
- (g) Circuitry of all outlets, equipment and devices.
- (h) Load computations.
- (i) Electrical legends.
- (j) Grounding and bonding.
- (k) Instrumentation and control where required.
- (l) Record documents applicable to power systems shall, at a minimum, contain information as required by Florida Building Code.
- (m) Installation and testing requirements of required emergency and standby power systems.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History–New 5-19-93, Formerly 21H-33.003, Amended 11-13-08.*

#### **61G15-33.004 Design of Lighting Systems.**

- (1) Lighting systems convert electrical energy into light. Items to be included in the lighting design and analysis are: Average illuminance, Equivalent spherical illuminance, Uniformity ratios, Visual comfort probability, special purpose lighting, impact of light intrusion, trespass and safety and the requirements of the Florida Energy Efficiency Code, Chapter 13, Florida Building Code.
- (2) Electrical Engineering documents for lighting systems shall, at a minimum, indicate the following:
  - (a) Lighting fixture performance specifications and arrangements.
  - (b) Emergency Lighting, egress and exit lighting.
  - (c) Exit Lighting.
  - (d) Lighting control and circuiting.
  - (e) Calculated values to demonstrate compliance with the Florida Energy Code for Building Construction.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History–New 5-19-93, Formerly 21H-33.004, Amended 11-13-08.*

#### **61G15-33.005 Design of Communications Systems.**

- (1) Communications systems are utilized to convey voice and data. Items to be included in the design documents or analysis of these systems are: Human factors engineering, cabling requirements, installation requirements, performance requirements, backup power requirements, the interrelationship of the various systems and applicable standards and regulatory requirements.
- (2) Electrical Engineering documents for communications systems shall, at a minimum, indicate the following:
  - (a) System riser diagram for each cabling system.
  - (b) Equipment legend.
  - (c) Cabling type and performance data of the transmission.
  - (d) Device type and locations.
  - (e) Backup power sources where applicable.
  - (f) Installation, identification and testing requirements.
  - (g) Characteristics and locations of surge protective devices.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History–New 5-19-93, Formerly 21H-33.005, Amended 11-13-08.*

#### **61G15-33.006 Design of Alarm and Signaling Systems.**

(1) Alarm and signaling systems include motor control systems, emergency alarm circuits, activation of life safety system controls and remote signaling of emergency conditions (See Rule 61G15-32.008, F.A.C., for Fire Alarm Systems), surveillance and access control systems, temperature control, and systems related to energy conservation and facility management systems. The design documents shall be based on standards set forth in NFPA 72, the Florida Building Code, the Florida Fire Prevention Code, or as required by the local authority having jurisdiction.

(2) The Electrical Engineering Documents for alarm and signaling systems construction documents shall at a minimum indicate the following:

- (a) Description of the control system functions, or a functional diagram.
- (b) Equipment legend.
- (c) System riser diagram.
- (d) Cabling and conductor types and requirements.
- (e) Installation, identification and testing requirements.
- (f) Back-up power.
- (g) Location and characteristics of surge protective devices.
- (h) Details and requirements indicated by Rule 61G15-32.008, F.A.C.
- (i) Complete requirements for operations and maintenance procedures, manuals, system documentation, and instruction of Owner's operating personnel, as needed to operate the systems as intended over time.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History--New 5-19-93, Formerly 21H-33.006, Amended 11-13-08.*

#### **61G15-33.007 Design of Lightning Protection Systems.**

(1) Lightning Protection Systems are passive systems used to protect building and structures from damage caused by lightning and static discharges. Items to be considered in the design or analysis of this system include the requirements of NFPA-780.

(2) Electrical Engineering documents for lightning protection systems shall indicate:

- (a) Lightning Risk Assessment.
- (b) Air terminals height and spacing.
- (c) Corrosion protection measures.
- (d) Arrangement of Main and Down conductors.
- (e) Grounding points and spacing.
- (f) Conductor type and size.
- (g) Legend.
- (h) Testing requirements of grounds.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History--New 5-19-93, Formerly 21H-33.007, Amended 11-13-08.*

#### **61G15-33.008 Design of Grounding Systems.**

(1) Grounding Systems are passive systems used to establish an electrical potential reference point in an electrical system for the proper dissipation of energy in case of abnormal or transient conditions.

(2) Electrical Engineering Documents for grounding systems shall indicate at a minimum the following:

- (a) Type and location of grounding electrodes.
- (b) Bonding requirements.
- (c) Testing requirements.
- (d) Conductor material type, size and protection requirements.
- (e) Connections of separate grounding systems, bonded, and use requirements.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History--New 5-19-93, Formerly 21H-33.008, Amended 11-13-08.*

**61G15-33.010 Certification of Electrical Systems of Public Interest.**

(1) The Engineer of Record shall be required, as required by the Authority Having Jurisdiction, to demonstrate compliance.

(2) Verifications from Electrical Engineering Documents warranted by codes and ordinances shall include when applicable:

(a) Energy efficiency and conservation tabulations, statements or calculations.

(b) Lighting levels included in the design that show intrusion, trespass, dark sky, safety or that show/preserve natural habitat tendencies.

(c) Light /noise /product specifications that indicate conformance with community, county, or state standards, codes or ordinances.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.03 FS. History–New 11-13-08.*

**CHAPTER 61G15-34  
MECHANICAL SYSTEMS**

- 61G15-34.001 General Responsibility.
- 61G15-34.002 Definitions.
- 61G15-34.003 Design of Heating Ventilation and Air Conditioning Systems.
- 61G15-34.004 Design of Process and Fluid Flow Systems.
- 61G15-34.005 Design of Heat and Energy Transfer Systems.
- 61G15-34.006 Design of Material and Human Transfer Systems.
- 61G15-34.007 Design of Plumbing Systems.
- 61G15-34.008 Design of Mechanical Machines and Motion Systems.
- 61G15-34.009 Design of Instrumentation and Control Systems.

**61G15-34.001 General Responsibility.**

Mechanical Engineering Documents shall be prepared in accordance with the applicable technology and with the requirements of the authority having jurisdiction. The documents shall identify the Engineer of Record for the mechanical systems project. Mechanical Engineering documents shall demonstrate compliance with the requirements of the applicable codes and standards as defined herein. The Engineer of Record is responsible for determining the applicability of appropriate codes and standards for a given project. In the event the codes and standards fail to cover or address a specific requirement or situation, alternative research, test results, engineering data, and engineering calculations shall be utilized. New technology may be utilized when said technology has been demonstrated to provide equivalent or improved performance. Construction documents shall indicate the nature and character of mechanical work and shall describe, label and define the required mechanical systems components, processes, equipment and material and its structural utility support systems. Both the Engineer of Record for the Mechanical System and the Delegated Engineer if utilized, shall comply with the requirements of the general responsibility rules, Chapter 61G15-30, F.A.C., and with the requirements of the specific rules contained herein. The Engineer of Record for the Mechanical System(s) shall provide design requirements in writing to the delegated engineer if one is used and shall review the design documents of the delegated engineer for conformance to his written instructions in accordance with Rule 61G15-30.005, F.A.C. Any Mechanical Delegated Engineering Documents must be included in the final set of documents filed for permit.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History–New 11-16-94, Amended 11-13-08.*

**61G15-34.002 Definitions.**

(1) Engineer of Record for the Mechanical Systems. The Florida Professional Engineer who is in responsible charge for the preparation, signing, dating, sealing and issuing of any engineering document(s) for mechanical systems design criteria or performs the analysis and is responsible for the preparation of the mechanical documents for the project.

(2) Mechanical Component. Any individual device to be part of a mechanical system.

(3) Mechanical. Any device or mechanism that operates due to the action of the material forces in nature acting on bodies or masses.

(4) Mechanical System. Any assembly of mechanical components, materials, equipment, work systems, machines, products or devices which require design in accordance with mechanical engineering standards in order to perform its intended function.

(5) Mechanical Engineering Documents. All mechanical drawings, specifications, reports, calculations, data and other documents utilized to establish the overall design and requirements for the construction, alteration, modernization, repair, demolition, arrangement, and/or use of the mechanical system(s) or analysis or recommendations, as prepared by the Engineer of Record for the mechanical system. Mechanical Engineering Documents shall additionally meet the requirements of Rule 61G15-30.003, F.A.C., Engineering Documents.

(6) Mechanical Shop Drawings. Submittals, catalog information on standard products, or drawings prepared solely to serve as a guide for fabrication and installation and requiring no engineering input. These submittals do not require the seal of a Florida professional engineer.

(7) Codes and Standards. Those nationally recognized Codes and Standards adopted directly or by reference in Florida Building Code (including Florida Energy Efficiency Code, Chapter 13) and Florida Fire Prevention Code set forth in Chapter 69A-60, F.A.C.

(8) Mechanical Delegated Engineering Documents. Mechanical Engineering Documents prepared by a delegated engineer to whom the Engineer of Record for the Mechanical System has delegated responsibility for the design of a mechanical component or system and which are signed, sealed and dated by the delegated engineer.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94, Amended 2-5-96, 11-13-08.*

**61G15-34.003 Design of Heating, Ventilation and Air Conditioning Systems.**

(1) Heating, Ventilating and Air Conditioning (HVAC) Systems include those systems that control the temperature, humidity, or mechanical ventilation of a particular space or building.

(2) All HVAC systems shall be designed in accordance with the Florida Codes, and reference standards as adopted by the authority having jurisdiction.

(3) The Engineer of Record shall determine the level of detail shown on plans for an HVAC system for mechanical engineering plans pertaining to HVAC systems exempted by the threshold requirements for mandatory use of professional engineering services. All such plans shall provide a clear understanding of the minimum system requirements expected to be installed by the contractor.

(4) For Mechanical Engineering Documents pertaining to HVAC systems that exceed the threshold requirements for mandatory use of professional engineering services, the plans shall indicate the following:

(a) Demonstrate and provide adequate information for the AHJ to determine compliance with codes and ordinances. These may include test methods and results; data and tabulations for Energy Conservation that are results of the design.

(b) Equipment selection schedule for each piece of mechanical equipment. All equipment shall have capacities listed including efficiencies, electrical or fuel requirements, static pressure and fan air quantities as applicable to the system, fluid flow and pressure head quantities as applicable to the system, and heat transfer capacities.

(c) Floor plans; site plans; and building and mechanical system elevations as appropriate.

(d) Outside (fresh) air make-up conditions.

(e) Cooling coil requirements based on sensible heat, latent heat and total heat gains.

(f) Heating equipment requirements.

(g) Outside and inside design dry and wet bulb conditions.

- (h) Exhaust riser diagrams on buildings more than three stories when ductwork travels vertically.
- (i) Outside air riser diagrams on buildings more than three stories when ductwork travels vertically.
- (j) Process flow diagrams with pipe sizes and fluid flow quantities.
- (k) Condensate discharge piping layout with pipe sizes.
- (l) Instrumentation and Control System diagrams and sequence of operation.
- (m) Ductwork layout and sizing; insulation requirements, supply, return, and exhaust inlet and outlet sizes; and outside air intake sizes. Air quantities shall be specified for inlets and outlets.
- (n) All data needed to complete the Florida Energy Code calculations as applicable.
- (o) A list of referenced NFPA Standards and layouts of all required fire protection devices and systems.
- (p) Building pressurization criteria.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94, Amended 11-13-08.*

**61G15-34.004 Design of Process and Fluid Flow Systems.**

(1) Process and Fluid Flow Systems are those systems that are designed to move fluids either by pumps, fans, or gravity as part of an industrial, commercial, or cogeneration process. Items to be included in the design of these systems are fluid type and characteristics, fluid flow quantities, fluid pressure head, pump type, fan type, piping specifications, ductwork, specifications and process type.

(2) Mechanical documents applicable to fluid flow systems shall at a minimum include the following:

- (a) Equipment schedule for each piece of mechanical equipment including fluid type and characteristics, system pressure head and flow requirements, and electrical or fuel requirements.
- (b) Floor plans, site plans, and building and system elevations.
- (c) Process flow diagrams with pipe or ductwork layout.
- (d) System piping or ductwork layout.
- (e) Specific system design requirements to allow for independent project review.
- (f) List of NFPA, ASHRAE, ASME, ANSI or other applicable design standards and requirements.
- (g) Instrumentation and Control Diagrams and sequence of operation.
- (h) Required fire protection systems and devices.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94.*

**61G15-34.005 Design of Heat and Energy Transfer Systems.**

(1) Heat and Energy Transfer Systems are those systems that are designed to transfer heat or energy from one fluid to another, as part of an industrial, commercial, or cogeneration process. Items to be included in the design of these systems are fluid type and characteristics, fluid flow quantities, fluid pressure head, pump type, fan type, heat exchanger type, piping specification, ductwork specification, and process type.

(2) Mechanical documents applicable to heat and energy transfer systems shall at a minimum include the following:

- (a) Equipment schedule for each piece of mechanical equipment including fluid type and characteristics, system pressure head and flow requirements, and electrical or fuel requirements.
- (b) Floor plans, site plans, and building and systems elevations.
- (c) Process flow diagrams with pipe or ductwork sizes.
- (d) System piping or ductwork layout.
- (e) Specific system design requirements to allow independent project review.
- (f) List of NFPA, ASHRAE, ASME, ANSI or other applicable design standards and requirements.
- (g) Instrumentation and Control Diagrams and sequence of operation.
- (h) Required fire protection systems and devices.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94.*

**61G15-34.006 Design of Material and Human Transfer Systems.**

(1) Material and Human Transfer Systems are those systems that are designed to move materials or humans

from one place to another as a part of an industrial or commercial process.

(2) Mechanical documents applicable to material and human transfer systems shall at a minimum include the following:

(a) Equipment schedule items to be included in the design of these systems are material type and characteristics, material flow quantities, material or human weight, conveyor types, elevator types, electrical and hydraulic requirements, and ventilation requirements.

(b) Floor plans, site plans, and building and system elevations.

(c) Process flow diagrams with appropriate system sizing information.

(d) System conveyor and/or elevator layout.

(e) Specific system design requirements to allow for independent project review.

(f) List of NFPA, ASHRAE, ASME or other applicable design codes, standards, and requirements.

(g) Instrumentation and Control Diagrams and sequence of operation.

(h) Required fire protection systems and devices.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94.*

#### **61G15-34.007 Design of Plumbing Systems.**

(1) Plumbing systems are those systems within a building that convey fluids and gases generally as required by building codes.

(2) Mechanical Engineering Documents applicable to Plumbing Systems shall when applicable, include but are not limited to the following:

(a) Equipment schedules for all plumbing fixtures, water heaters, boilers, pumps, grease traps, septic tanks, storage tanks, expansion tanks, compression tanks and roof and floor drains.

(b) Floor plans, site plans, and building and plumbing system elevations are appropriate.

(c) Potable Water isometric diagrams with pipe sizes and total water fixture units.

(d) Sanitary riser diagrams with pipe sizes and total sanitary waste fixture units.

(e) Storm riser diagrams with pipe sizes and cumulative drain area square footages.

(f) Cold water, hot water, sanitary, and storm drainage piping layouts.

(g) System isometrics and flow diagrams of other fluids and gases.

(h) Design data for septic tank, grease trap(s), drain field sizing, when applicable.

(i) List of ASHRAE, ASME, ASPE, ANSI and other applicable codes, design standards and requirements.

(j) Design shall be in accordance with handicap requirements adopted by the authority having jurisdiction.

(k) Instrumentation and Control Diagrams and sequence of operation.

(l) All plumbing fixtures, valves, pumps, tanks, accessories, specialties, enclosures, and such equipment shall be described and located on the drawings.

(m) Materials for all plumbing systems shall be specified.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94, Amended 11-13-08.*

#### **61G15-34.008 Design of Mechanical Machines and Motion Systems.**

(1) Mechanical Machines and Motion Systems include any and all mechanical systems, devices, machines and equipment used by the public for conveyance, amusement, transportation, or facilitation of any process. These systems would include elevators, escalators, moveable walkways, amusement park rides, etc. Items to be included in the design of these systems include Building Code and permitting requirements, electrical requirements, hydraulic requirements, gear and drive sizes and materials, instrumentation and controls, handicap requirements, structural requirements, operating dynamics requirements.

(2) Mechanical documents applicable to mechanical machines and motion systems shall at a minimum include the following:

(a) Equipment schedule for each piece of mechanical equipment including material type and characteristics, systems weight loading requirements and electrical and hydraulic requirements.

(b) Floor plans, site plans, and building and system elevations.

(c) System diagrams and schematics with appropriate system sizing information.

- (d) System layout and design requirements.
- (e) Specific system design requirements to allow for independent project review.
- (f) List of NFPA, ASHRAE, ASME, ANSI or other applicable design codes, standards, and requirements.
- (g) Instrumentation and Control Diagrams and sequence of operation.
- (h) Required fire protection systems and devices.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94.*

**61G15-34.009 Design of Instrumentation and Control Systems.**

(1) Instrumentation and Control Systems are used to automate processes, control and monitor HVAC systems, and monitor fire protection systems where applicable. Items to be included in the design of control systems are reliability of control of critical processes, design parameters of systems being controlled, safety of personnel, suitability of instruments and control devices in the environment in which they are to be installed, Building Code requirements, NFPA requirements, ASHRAE design standards for HVAC systems.

(2) Mechanical Engineering documents for instrumentation and controls shall indicate, at a minimum, the following:

- (a) A description of the control systems functions, or a functional diagram.
- (b) Specification of control instruments and their location.
- (c) Floor plans showing the location of major control components.
- (d) Control and Process System Diagrams.
- (e) Electrical requirements including conductors and cables (may be on electrical drawings).
- (f) Sequence of operation for each system.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033 FS. History—New 11-16-94.*

**CHAPTER 61G15-35**

**RESPONSIBILITY RULES OF PROFESSIONAL ENGINEERS PROVIDING THRESHOLD BUILDING INSPECTION**

61G15-35.001 General Responsibility.

61G15-35.002 Definitions.

61G15-35.003 Qualification Program for Special Inspectors of Threshold Buildings.

61G15-35.004 Common Requirements to All Engineers Providing Threshold Building Inspection Services.

**61G15-35.001 General Responsibility.**

Professional Engineers offering Threshold Building Inspection services pursuant to Section 553.79, F.S., shall provide inspections in accordance with the structural inspection plan provided by the engineer or architect of record to insure compliance with permitted documents. In addition to inspections in accordance with the structural inspection plan, the engineer shall determine that a professional engineer who specializes in shoring design has inspected the shoring and reshoring for conformance with shoring and reshoring plans submitted to the enforcing agency.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.015(7), 471.033, 471.045 FS. History—New 3-21-01, Amended 9-26-05.*

**61G15-35.002 Definitions.**

(1) Threshold Building Inspector: A registered professional engineer who meets the qualifications and standards set by this rule chapter.

(2) Authorized Representative: A representative of the Threshold Building Inspector who undertakes inspections and site visits under the responsible charge of the Threshold Building Inspector.

(3) Structural Inspection Plan: The plan filed for public record by the engineer of record to the enforcing agency to provide specific inspection procedures and schedules.

(4) Shoring and Reshoring Plan: The plan submitted to the enforcing agency regarding the shoring and reshoring of the building.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.015(7), 471.033 FS. History--New 3-21-01.*

**61G15-35.003 Qualification Program for Special Inspectors of Threshold Buildings.**

(1) The minimum qualifying criteria for Special Inspectors of Threshold Buildings, also referred to as Threshold Inspectors, established by the Board shall be as follows:

(a) Proof of current licensure in good standing as a licensed professional engineer whose principal practice is structural engineering in the State of Florida.

(b) Three years of experience in performing structural field inspections on threshold buildings.

(c) Two years of experience in the structural design of threshold buildings after having achieved licensure as a professional engineer. For the purpose of these criteria, structural design shall mean the design of all structural components of the building and shall not be limited to specific structural components only, such as foundations, prestressed or post-tensioned concrete, etc.

(d) Experience in the structural inspection and/or design of at least three threshold buildings. This experience must be within the ten calendar years preceding submission of the application.

(2) Applications.

(a) The instructions and application form for Special Inspector, Form FBPE/TBI/006(08/00) is hereby incorporated by reference, effective 4-19-01, "Special Inspector Application and Instructions". Copies of Form FBPE/TBI/006(08/00) may be obtained from the Board office or by downloading it from the internet web site [www.fbpe.org](http://www.fbpe.org).

(b) All applications for certification as a Special Inspector shall be submitted to the Board on Form FBPE/TBI/006(08/00).

(c) Applications shall contain the following basic information pertaining to the applicant:

1. Name;

2. Florida license number;

3. Educational and experience dates and sufficient description of each to clearly demonstrate that the minimum qualification criteria has been met;

4. Letters of recommendation from three registered professional engineers whose principal practice is structural engineering in the State of Florida, one of whom must be certified as a Special Inspector;

5. The signature, date and seal by the applicant attesting to the competency of the applicant to perform structural inspections on threshold buildings; and

6. Completed form FBPE/TBI/006(08/00).

(d) Upon a determination that the application contains all of the information requested by these rules, review of the application shall be scheduled for consideration by the Board. Such applications may be approved, rejected or deferred for further information by the Board. If the Board defers an application for additional information, it shall notify the applicant of the information needed. Applicants shall be notified in writing of the Board's actions as soon as practicable and, in the case of rejected applications, the Board shall set forth the reasons for such rejection.

(3) Temporary Certification. Professional engineers who have been granted temporary licensure in Florida pursuant to the provisions of Section 471.021, F.S., shall also be granted temporary certification as a Special Inspector provided the criteria set forth in these rules have been met. Such temporary certification shall be limited to work on one specific project in this state for a period not to exceed one year.

(4) Roster of Special Inspectors. The Board shall maintain a roster of all persons certified as Special Inspectors pursuant to the criteria established in these rules and the law. The roster shall be made available to interested parties upon request. The roster shall be updated on a continuing basis and additions or deletions to the latest published roster may be verified by contacting the Board office.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.015(7), 471.033 FS. History--New 4-19-01, Amended 7-7-02, 4-5-04, 11-29-04.*

**61G15-35.004 Common Requirements to All Engineers Providing Threshold Building Inspection Services as Special Inspectors.**

(1) For each Threshold Building, a notice shall be filed for public record, bearing the name, address, signature, date and seal of the Special Inspector, certifying that the Special Inspector is competent to provide the engineering services for the specific type of structure.

(2) Special Inspectors utilizing Authorized Representatives shall insure the Authorized Representative is qualified by education or licensure to perform the duties assigned by the Special Inspector. The qualifications shall include licensure as a professional engineer or architect; graduation from an engineering education program in civil or structural engineering; graduation from an architectural education program; successful completion of the NCEES Fundamentals Examination; or licensed building inspector with the Board of Building Code Administrators, Chapter 468, F.S. or licensed general contractor under Chapter 489, F.S.

(3) Special Inspectors shall be in responsible charge of the work of the Authorized Representative, including reviewing reports and spot checks.

(4) Special Inspectors shall institute quality assurance procedures to include but not be limited to requiring unscheduled visits, utilization or relevant check lists, use of a Daily Inspection Report and insuring that the Special Inspector or the Authorized Representative is at the project whenever so required by the inspection plan.

*Rulemaking Authority 471.008 FS. Law Implemented 471.015(7) FS. History—New 3-21-01, Amended 4-5-04, 5-6-09.*

**CHAPTER 61G15-36  
PRODUCT EVALUATION**

61G15-36.001 General Responsibility.

61G15-36.002 Definitions.

61G15-36.003 Common Requirements to All Product Evaluation Documents.

**61G15-36.001 General Responsibility.**

Product evaluation documents define procedures, materials, devices, fabrication and methods of construction and installation of a product or standardized group of products. The product(s) that are the subject of the product evaluation will comply with the building codes listed in the documents when used in accordance with the product evaluation documents. The evaluation shall be based upon an engineering analysis of the assembly or system consisting of tested, listed or approved components. The engineer of record and delegated engineer, if utilized, shall comply with the requirements of the general responsibility rules and the requirements of the more specific structural responsibility rules.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033, 553.842(6) FS. History—New 11-15-01.*

**61G15-36.002 Definitions.**

(1) Product. A manufactured product or system required to be approved and certified as, for the purpose intended, at least equivalent of that required by the standards specified by the Florida Building Code or by a local authority having jurisdiction.

(2) Product Evaluation Documents. Engineering documents that define procedures, materials, devices, fabrication and methods of construction and installation of a product or standardized group of products, through product evaluation or rational analysis, with the objective of obtaining approval from the authority having jurisdiction of that product for installation. Product evaluation documents shall be generic and do not include documents prepared for a site specific project.

(3) Contractor. The Florida licensed contractor who pulls the permit for construction of a project into which the product is to be incorporated. The contractor is responsible for the selection, purchase and installation of the product.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033, 553.842(6) FS. History—New 11-15-01.*

**61G15-36.003 Common Requirements to All Product Evaluation Documents.**

(1) The product evaluation for various sizes and design capacities shall be specific for each size and design capacity listed.

(2) The documents shall include engineering data presented in a manner that facilitates the application of the product at the project site. The documents shall be annotated to the effect that alterations or additions to the document are not permitted.

(3) The documents shall state under which conditions the product evaluation is suitable to be applied by the Contractor or under which conditions the product evaluation is only for use by a licensed engineer or architect acting as a Delegated Engineer. The requirements for submission of delegated engineering documents found in subsection 61G15-30.005(2), F.A.C., may be waived at the option of the engineer who prepares the product evaluation documents.

(4) The documents shall comply with Chapter 61G15-23, F.A.C., regarding seals and shall bear the original seal, signature and date or shall meet the procedure for signing and sealing electronically transmitted plans, specifications, reports or other documents.

*Specific Authority 471.008, 471.033(2) FS. Law Implemented 471.033, 553.842(6) FS. History--New 11-15-01.*

**CHAPTER 61G15-37  
FLORIDA ENGINEERS MANAGEMENT CORPORATION**

61G15-37.001 Performance Standards and Measurable Outcomes.

**61G15-37.001 Performance Standards and Measurable Outcomes.**

In order to facilitate efficient and cost effective regulation by the Florida Engineers Management Corporation (“FEMC”), the following performance standards and measurable outcomes are adopted:

(1) FEMC shall make a determination of legal sufficiency within 30 days of receipt of a complaint.

(2) Within fifteen days of receiving a complaint that is determined to be legally sufficient, FEMC shall furnish to the subject or the subject’s attorney a copy of the complaint or document that resulted in the initiation of the investigation.

(3) FEMC shall provide status reports to the Board regarding all outstanding disciplinary cases at every other regularly scheduled meeting of the Board. The status report shall include all legally sufficient disciplinary cases until entry of a final order by the Board. Upon entry of a final order, FEMC shall notify the licensee’s employer of the action taken by the Board.

(4) FEMC shall refer to the board any investigation or disciplinary proceeding not before the Division of Administrative Hearings pursuant to Chapter 120, F.S., or otherwise completed by FEMC within 1 year after the filing of a complaint.

(5) FEMC shall notify the person who filed the complaint of the status of the investigation every six months, including whether probable cause has been found, when the case is agendaed for consideration by the Board and the status of any administrative proceeding or appeal.

(6) At least 90 days before the end of a licensure cycle, FEMC shall forward a licensure renewal notification to active or inactive licensees at the licensee’s last known address of record with FEMC.

(7) At least 90 days before the end of a licensure cycle, FEMC shall forward a notice of pending cancellation of licensure to a delinquent status licensee at the licensee’s last known address of record with FEMC.

(8) Upon receipt of an application for a license, FEMC shall examine the application and, within 30 days after such receipt, notify the applicant of any apparent errors or omissions and request any additional information FEMC is permitted by law to require.

(9) Every application for a license shall be approved or denied within 90 days after receipt of a completed application.

(10) If an applicant seeks a license for an activity that is exempt from licensure, FEMC shall notify the applicant and return any tendered application fee within 30 days after receipt of the original application.

(11) FEMC shall maintain the Board’s web site at [www.fbpe.org](http://www.fbpe.org). All final orders involving disciplinary cases

shall be posted on the web site, until the terms of the final order are completed, or until the licensee becomes inactive, retires, relinquishes the license or permits the license to become null and void.

*Rulemaking Authority 471.038(3)(n) FS. Law Implemented 471.038(3)(m) FS. History—New 11-12-02, Amended 4-8-07, 9-13-09.*