

## ARE THEY GEOLOGIC SERVICES? OR ENGINEERING SERVICES?

Some of our members have asked about the licensing distinction between geologic services, including engineering geology, and civil/soil engineering services.

While there is not a specific yes/no list provided by BPELSG, the respective Geologist and Professional Engineers Act and Regulations do give general guidance.

We have extracted some key paragraphs which summarize how geologic and engineering services are generally defined, but for more information go to the full Acts/Regulations on the website, [www.bpelsg.ca.gov](http://www.bpelsg.ca.gov) (go to Publications, then to Laws & Regulations). Review it all, it is enlightening, and will help keep your practice within bounds.

### GEOLOGIST AND GEOPHYSICIST ACT

#### **(Business and Professions Code 7800-7887)**

##### **7802. "Geology" defined**

"Geology," as used in this chapter, refers to that science which treats of the earth in general; investigation of the earth's crust and the rocks and other materials which compose it; and the applied science of utilizing knowledge of the earth and its constituent rocks, minerals, liquids, gases and other materials for the benefit of mankind.

##### **7839 Prohibition against offering or practicing civil engineering**

This chapter shall not empower a geologist or geophysicist registered under this chapter to practice or offer to practice civil engineering and any of its various recognized branches.

##### **7838. Exemption for civil engineers and petroleum engineers**

A civil engineer empowered to practice civil engineering in this state, and a petroleum engineer registered in this state, under provisions of Chapter 7 (commencing with Section 6700) of Division 3 of this code insofar as they practice civil engineering in its various branches or petroleum engineering, respectively, are exempt from registration under the provisions of this chapter.



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## REGULATIONS RELATING TO THE PRACTICES OF GEOLOGY AND GEOPHYSICS

### **(California Code of Regulations Title 16, Division 29)**

#### 3003(b) Definitions

(b) "Engineering Geology" means the application of geologic data, principles and interpretation so that geologic factors and processes affecting planning, design, construction, maintenance, and vulnerability of civil engineering works are properly recognized and utilized.

#### 3041 (a)(2)

- (2) Have a knowledge of:
  - (A) Geology of the State of California.
  - (B) Geologic factors relating to Civil Engineering problems typically encountered in the State.



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## PROFESSIONAL ENGINEERS ACT

### **(Business and Professions Code 6700-6799)**

#### Definitions

#### **6704. Defines who may use engineer titles**

(a) In order to safeguard life, health, property, and public welfare, no person shall practice civil, electrical, or mechanical engineering unless appropriately licensed or specifically exempted from licensure under this chapter, and only persons licensed under this chapter shall be entitled to take and use the titles “consulting engineer,” “professional engineer,” or “registered engineer,” or any combination of those titles or abbreviations thereof, and according to licensure with the board the engineering branch titles specified in Section 6732, or the authority titles specified in Sections 6736 and 6736.1, or the title “engineer-in-training.”

#### **6730. Requirement for licensure to practice civil engineering, electrical engineering, and mechanical engineering**

In order to safeguard life, health, property and public welfare, any person, either in a public or private capacity, except as in this chapter specifically excepted, who practices, or offers to practice, civil engineering, electrical engineering or mechanical engineering, in any of its branches in this state, including any person employed by the State of California, or any city, county, or city and county, who practices engineering, shall submit evidence that he is qualified to practice, and shall be licensed accordingly as a civil engineer, electrical engineer or mechanical engineer by the board.

#### **6731. Civil engineering defined**

Civil engineering embraces the following studies or activities in connection with fixed works for irrigation, drainage, waterpower, water supply, flood control, inland waterways, harbors, municipal improvements, railroads, highways, tunnels, airports and airways, purification of water, sewerage, refuse disposal, foundations, grading, framed and homogeneous structures, buildings, or bridges:

(a) The economics of, the use and design of, materials of construction and the determination of their physical qualities.



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- (b) The supervision of the construction of engineering structures.
- (c) The investigation of the laws, phenomena and forces of nature.
- (d) Appraisals or valuations.
- (e) The preparation or submission of designs, plans and specifications and engineering reports.
- (f) Coordination of the work of professional, technical, or special consultants.
- (g) Creation, preparation, or modification of electronic or computerized data in the performance of the activities described in subdivisions (a) through (f).

Civil engineering also includes city and regional planning insofar as any of the above features are concerned therein.

Civil engineers registered prior to January 1, 1982, shall be authorized to practice all land surveying as defined in Chapter 15 (commencing with Section 8700) of Division 3.

[NOTE: The last registration number issued to a civil engineer registered before January 1, 1982 was 33,965.]

### **6731.3 Authority to practice or offer construction project management services**

A registered civil engineer may also practice or offer to practice, either in a public or private capacity, construction project management services, including, but not limited to, construction project design review and evaluation, construction mobilization and supervision, bid evaluation, project scheduling, cost-benefit analysis, claims review and negotiation, and general management and administration of a construction project.

### **6734. Practice of civil engineering**

Any person practices civil engineering when he professes to be a civil engineer or is in responsible charge of civil engineering work.

### **6736.1. Use of title “Soil Engineer,” “Soils Engineer,” or “Geotechnical Engineer”**

(a) No person shall use the title, “soil engineer,” “soils engineer,” or “geotechnical engineer,” or any combination of these words or abbreviations thereof, unless he or she is a licensed civil engineer in this state and files an application to use the appropriate title with the board and the board determines the applicant is qualified to use the requested title.

(b) The board shall establish qualifications and standards to use the title “soil engineer,” “soils engineer, or “geotechnical engineer.” However, each applicant shall demonstrate a



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minimum of four years qualifying experience beyond that required for licensure as a civil engineer, and shall pass the examination specified by the board.

(c) For purposes of this section, “qualifying experience” means proof of responsible charge of soil engineering projects in at least 50 percent of the major areas of soil engineering, as determined by the board.

(d) Nothing contained in this chapter requires existing references to “soil engineering,” “soils engineering,” “geotechnical engineering,” “soil engineer,” “soils engineer,” or “geotechnical engineer,” in local agency ordinances, building codes, regulations, or policies, to mean that those activities or persons must be registered or authorized to use the relevant title or authority.

#### **6787. Acts constituting a misdemeanor**

Every person is guilty of a misdemeanor:

(a) Who, unless he or she is exempt from licensure under this chapter, practices or offers to practice civil, electrical, or mechanical engineering in this state according to the provisions of this chapter without legal authorization.

### **BOARD RULES AND REGULATIONS RELATING TO THE PRACTICES OF PROFESSIONAL ENGINEERING & PROFESSIONAL LAND SURVEYING**

#### **(California Code of Regulations Title 16, Division 5)**

**404** (nn) “Soil engineering,” as it relates to the authorization to use the title “soil engineer,” is the investigation and engineering evaluation of earth materials including soil, rock, groundwater and man-made materials and their interaction with earth retention systems, structural foundations and other civil engineering works. The practice involves application of the principles of soil mechanics and the earth sciences, and requires a knowledge of engineering laws, formulas, construction techniques and performance evaluation of civil engineering works influenced by earth materials.

The terms “geotechnical engineer” and “soils engineer” are deemed to be synonymous with the term “soil engineer.”

#### **404.1. Responsible Charge– Professional Engineering.**



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(a) As used in the Professional Engineers Act, the term “responsible charge” directly relates to the extent of control a professional engineer is required to maintain while exercising independent control and direction of professional engineering services or creative work and to the engineering decisions which can be made only by a professional engineer.

(1) Extent of Control. The extent of control necessary to be in responsible charge shall be such that the engineer:

(A) Makes or reviews and approves the engineering decisions defined and described in subdivision (a)(2) below.

(B) In making or reviewing and approving the engineering decisions, determines the applicability of design criteria and technical recommendations provided by others before incorporating such criteria or recommendations.

(2) Engineering Decisions. The term “responsible charge” relates to engineering decisions within the purview of the Professional Engineers Act.

Engineering decisions which must be made by and are the responsibility of the engineer in responsible charge are those decisions concerning permanent or temporary projects which could create a hazard to life, health, property, or public welfare, and may include, but are not limited to:

(A) The selection of engineering alternatives to be investigated and the comparison of alternatives for the project.

(B) The selection or development of design standards or methods, and materials to be used.

(C) The decisions related to the preparation of engineering plans, specifications, calculations, reports, and other documents for the engineered works.

(D) The selection or development of techniques or methods of testing to be used in evaluating materials or completed projects, either new or existing.

(E) The review and evaluation of manufacturing, fabrication or construction methods or controls to be used and the evaluation of test results, materials and workmanship insofar as they affect the character and integrity of the completed project.

(F) The development and control of operating and maintenance procedures.

(3) Reviewing and Approving Engineering Decisions. In making or reviewing and approving engineering decisions, the engineer shall be physically present or shall review and approve through the use of communication devices the engineering decisions prior to their implementation.