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# FREQUENTLY ASKED QUESTIONS REGARDING ENGINEERING CERTIFICATION/LICENSURE REQUIREMENTS

- Q1. What are the requirements for obtaining Engineer-in-Training (EIT) certification?
- **A1**. Comply with all of the following:
  - a. Not have committed any acts or crimes, which would be grounds for denial of certification (see Question 18).
  - b. Complete three years or more of college in a Board approved engineering curriculum [any curriculum approved by the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET); http://www.abet.org], or three years or more of engineering-related experience (e.g., work of any nature with an engineering exposure, such as with a consulting engineering firm, a construction contractor, CALTRANS, the engineering division of a public utility, etc.).
  - c. Complete and submit the Board-approved EIT application form, by exactly following the accompanying directions. The application is available on the Board's website. In addition, the application may be requested from the Board office by mail, by e-mail, by telephone, by FAX, or in person, or it may be available from the Office of the Dean of Engineering at your college. Application forms are periodically updated. It is your responsibility to ensure that the current and correct form is filed. Applications will **not** be processed without a Social Security Number or an Individual Taxpayer Identification Number (ITIN). You must sign this form certifying your eligibility in accordance with a. and b. above.
  - d. Submit the application fee with your application.
  - e. Take and pass the eight-hour National Council of Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) examination.
  - f. See Question 2 for persons who have passed the EIT/FE exam in another state.
  - g. See Question 3 for exemption provisions to waive the EIT/FE exam
- Q2. If an applicant passes the EIT/FE examination in a state other than California, must the applicant pass the examination again in California to qualify for the professional engineer's examination?
- **A2**. No. Applicants will not be required to take the FE exam a second time, provided the exam was an 8-hour written EIT/FE exam. Proof of taking and passing this examination must be verifiable by the appropriate state's Engineering Board.

# Q3. Who is exempt from the requirement to pass the EIT/FE exam as a prerequisite for the professional exam or comity?

- **A3**. a. A person who has taken and passed the EIT/FE exam in another state obtained by passing an 8-hour written examination. (See Question 2).
  - b. A person who holds a valid license in another branch of professional engineering in California.

### c. <u>Board Approved Engineering Degree (ABET)</u>

- 1. A person holding a BS degree in engineering from an ABET accredited curriculum (See Question 1, part b) and has **15** or more years of qualifying work experience. Qualifying work experience is defined in Question 5, part b.
- 2. A person holding a BS and a Masters degree in engineering from an ABET accredited program and has 14 or more years of qualifying work experience, provided that the Masters degree does not overlap with the work experience.

# c. <u>Board Approved Engineering Technology Degree (ABET)</u>

- 1. A person holding a BS degree in engineering technology from an ABET accredited curriculum and has **17** or more years of qualifying work experience.
- 2. A person holding a BS degree in engineering technology and a Masters degree in engineering from an ABET accredited program, and has 16 or more years of qualifying work experience, provided that the Masters degree does not overlap with the work experience.

#### d. Non-Board Approved Engineering Degree

- 1. A person holding a BS degree in engineering from a non-ABET accredited curriculum and has **17** or more years of qualifying work experience.
- 2. A person holding a BS degree in engineering from a non-ABET accredited curriculum and a Masters degree in engineering from an ABET accredited program and has 16 or more years of qualifying work experience, provided that the Masters degree does not overlap with the work experience.

**Note:** EIT waivers **are not** available to applicants without an earned BS degree in engineering, or to applicants with a non-ABET degree in engineering technology.

- Q4. What are the steps that an applicant must take to become licensed as a Professional Engineer by examination in any branch of engineering?
- **A4**. a. For all branches of engineering, comply with <u>all</u> of the following requirements:
  - (1) Not have committed any acts or crimes which would be grounds for denial of license (see Question 18).
  - (2) Become certified as an "Engineer-in-Training" (EIT) by passing the EIT/FE exam in California or in another state, or by qualifying for a waiver thereof (see Questions 2 and 3).
  - (3) Obtain the Professional Engineer application package from the Board (available on the Board's website or by requesting a copy from the Board office).
  - Type the application and the engagement record portion of the (4) Engagement Record and Reference Forms and include evidence of sufficient qualifying experience with no gaps or overlapping engagements and with all statements made under oath. An engagement is a period of time for which engineering experience was gained without a significant change of responsibility. The use of the words "see attached" or "see NCEES record" and the inclusion of additional documents and/or a resume is not acceptable and may not be substituted for the completed engagement record portion of the forms. The engagement record portion of the forms must be completed in sufficient detail to allow the Board to determine that the nature and the extent of the engineering work claimed to have been performed by the applicant has indeed been qualifying (see Question 19 for the required amount of experience to be verified). While typing may seem to be an unreasonable requirement, the Board receives about 13,000 applications a year, all of which must be reviewed by several different people, and microfilmed. Hence, the requirement that the application and accompanying forms must be typewritten; handwritten applications and forms will not be accepted.
  - (5) Sign the application and the engagement record portion of the Engagement Record and Reference Forms under penalty of perjury. Applications will **not** be processed without a Social Security Number or an Individual Taxpayer Identification Number.
  - (6) Send the Engagement Record and Reference Forms to the required reference persons. The references must complete their portion of the form, sign the form, seal it in the envelope provided, sign across the flap, affix their seal, and return the sealed envelopes to the applicant. See Questions 7, 25, & 26 for important information about references.
  - (7) If the applicant is claiming experience credit for education, he or she should contact their college and have a <u>current</u> copy of his or her official transcript sent to him or her in a sealed envelope. **Credit will only be**

given for education if an official transcript is received in a sealed envelope, and it clearly shows the degree received and the date it was issued. If a college will not provide an official transcript, or if the college is no longer in existence, the applicant should include notarized photocopies of the transcripts in their possession. If the applicant's name as it appears on the transcript does not match the name used on the application, an explanation must be provided regarding the name change. If the original transcript or other educational document is in a language other than English, a copy of it must be accompanied by an original notarized English translation. Thus, foreign education from a non-English speaking university must be verified by certified copies of the original documents in the non-English language, and by the originals of the documents comprising the certified English translation. (Documents of this type do not need to be received in a sealed envelope.)

- (8) If the applicant wishes to be notified when his or her application has been forwarded to professional staff for review and when the review of the application is complete, the applicant should return the two postcards included in the application package with his or her name and address on the front and the <u>required postage affixed</u>.
- (9) Return the two <u>stamped</u> cards (optional), the <u>typed</u> application, the <u>typed</u> Engagement Record and Reference Forms in the sealed envelopes, and the transcript (optional) in a sealed envelope, along with the applicable filing fee, to the Board. All of the foregoing material must be returned to the Board in the envelope provided and <u>it must be postmarked or hand delivered by the final filing date</u>. If you passed the EIT/FE exam in another state, contact the state board where you passed the exam and request that they send verification directly to the California Board.
- (10) Complete and pass the take-home test on California engineering laws and the Board's rules. The test is available on the Board's website and should be submitted with the application to avoid any possible delay in issuing the applicant's license.
- (11) Pass the appropriate eight-hour professional engineer's examination.
- b. For persons seeking a **civil engineering** license:
  - (1) Comply with <u>all</u> of the steps (1) through (11) listed above.
  - (2) In addition, the applicant must pass special tests on seismic principles and on engineering surveying principles, which are given as two additional 2½-hour proctored tests on the day after the regular eight-hour professional engineer's examination.

- Q5. What type of activity constitutes qualifying experience for a professional engineer license and how many years of credit may be obtained for each type?
- **A5.** a. Credit is given toward the six-year qualifying experience requirement as follows:
  - (1) Undergraduate Education
    - (a) Four years' credit for graduation with an engineering degree from a Board approved engineering curriculum (see Question 1, part b). Canadian engineering programs accredited by the Canadian Engineering Accreditation Board entitle the graduate to four years credit. Except in very unusual circumstances, the credit will be granted as of the date indicated on the official transcript that the degree was actually awarded. This four years' credit will NOT be given to a graduate from a non-ABET approved engineering curriculum.
    - (b) Two years credit for graduation with a bachelor's level engineering technology degree, or one year credit for graduation with an associate level engineering technology degree, from a technology curriculum which has been accredited by the Technology Accreditation Commission (TAC) of ABET.
    - (c) Two years credit for graduation with an engineering degree from any school whose engineering curriculum is not Board approved (this includes <u>all</u> foreign schools). Transcripts from foreign universities must be translated if not in English.
    - (d) The Board may at its discretion give credit as qualifying experience of up to one-half year for each year of successfully completed study (not to exceed two years' maximum credit) in an engineering curriculum which did not result in a four-year engineering degree. A year of undergraduate education is equal to 32 semester units or 48 quarter units. This credit will not be granted for any education which overlaps with qualifying work experience.

#### (2) Post-Graduate Education

The Board may give a maximum of one year credit as qualifying experience for satisfactorily completed graduate work in an ABET-approved engineering curriculum. No credit will be given for foreign graduate work or graduate work done in any non-ABET approved curriculum. Completed post-graduate work is work for which a degree has been received.

Effective January 1, 2007, applicants who possess a board-approved postgraduate degree in engineering will receive 5 years of experience credit toward the 6-year experience requirement regardless of the undergraduate degree. A board-approved postgraduate degree is one

where either the undergraduate or postgraduate engineering curriculum is accredited by ABET.

## (3) Engineering Teaching

The law allows the Board to give a maximum of one year credit as qualifying experience for engineering teaching in a college curriculum, provided that an applicant is claiming no more than four years credit for education.

#### (4) Engineering Work Experience

Qualifying engineering work experience is that experience in the appropriate branch of engineering which has been gained while performing professional level engineering tasks under the direction of a person authorized to practice in the branch of engineering in which the applicant is seeking licensure. There is no limit to the amount of such qualifying experience which will be accepted by the Board, provided that the experience meets the other requirements indicated herein. Applied engineering research is considered to be an engineering task, which may constitute qualifying experience.

Work in management, proposal writing, contract administration, estimating, sales, and other peripheral areas, however, is presumed to contain little or no element of qualifying experience, and therefore an applicant must provide a detailed explanation of what portions of such work are actually qualifying and why the Board's presumption is not correct, if the applicant expects to obtain any credit for this type of work. Such peripheral experience will then be evaluated on a partial credit basis as applicable to each applicant's particular situation. Thus, the actual credit allowed may range from near zero to a substantial amount.

All civil engineering work experience must be gained while working under the direction of a licensed Civil Engineer.

For applicants claiming education credit, work experience must begin after the date of graduation, as shown on the transcripts, and be complete prior to the exam final filing date. Official school transcripts or an official letter from the College Registrar, indicating the date that all of the degree requirements were met, are the only acceptable means of verifying graduation dates. Applicants not claiming any education credit must take and pass the EIT exam and be able to verify at least six years of professional level engineering work.

Subprofessional work such as work normally performed by a drafter or a technician is not qualifying. Nor is construction inspection qualifying. However, work as a field engineer may be qualifying. The distinction is covered by Section 6703.1 of the B & P Code, which reads as follows:

"Supervision of the construction of engineering structures' means the periodic observation of materials and completed work to determine general compliance with plans, specifications, and design and planning concepts. However, `supervision of the construction of engineering structures' does not include responsibility for the superintendence of construction processes, site conditions, operations, equipment, personnel, or the maintenance of a safe place to work or any safety in, on, or about the site. For purposes of this subdivision, `periodic observation' means visits by an engineer, or his or her agent, to the site of a work of improvement."

Work between semesters while in college is not qualifying experience because (1) it is usually at a subprofessional level and (2) credit as experience cannot be given for two types of experience, which occur in the same time period. Since a full year's credit is given for two semesters or three quarters of schoolwork, giving credit for work performed during the summer would be double counting.

A problem area that often occurs with professional engineer applicants trying to use the same experience more than once. This happens because there is some degree of overlap between the various branches of engineering. Consequently, applicants often construe their experience as being all applicable to the one branch in which they are applying, so that they can gain maximum experience credit. They do not separate out different kinds of experience, but instead, they lump it altogether. The application reviewer, however, must apply a strict interpretation of the experience in each engineering branch, as determined by the statutes and the Board Rules. Thus, in such situations, the reviewer must attempt to determine from the information provided by the applicant, exactly how much of the applicant's experience can be accepted for credit toward licensure in the branch in which the person has applied, and invariably, the result is that the applicant often receives less credit than he or she expected. In situations where the applicant has verified only marginally sufficient experience, this often results in an applicant being found ineligible for lack of sufficient qualifying experience.

For instance, applicants frequently confuse what is civil engineering and what is traffic engineering. Engineering work such as traffic periodicity, street and highway capacity studies, traffic forecasting, signal placement and timing, pavement striping, parking lot layout, and other related items, are traffic engineering and do not count as civil engineering work experience. Other areas of engineering such as geometric studies which are preliminary to the design of fixed works, e.g., the planning of intersection layouts and turnouts, may be used as experience credit for either civil engineering or traffic engineering, but the same experience cannot be used for both licenses because the experience requirements are different for both disciplines.

Similar overlaps occur between electrical engineering and traffic engineering. Engineering work such as signal system design, highway lighting, the design of special highway message signs, and the design of

ramp or lane metering systems, while traffic related, is in fact electrical engineering, not traffic engineering.

Another area of overlap is piping design. The design of municipal water and sewer systems and their associated pipes is clearly civil engineering, but the design of similar piping systems which occur within a building (with the exception perhaps of nuclear power plants) is customarily considered to be mechanical engineering. Thus, as a handy rule of thumb, a building perimeter can be considered as a line of demarcation between the two disciplines when it comes to piping design.

Work experience which has been used to qualify for licensure in one branch of engineering may not be used again to qualify in another branch of engineering. Therefore, applicants who wish to qualify for licensure in more than one branch of engineering must provide evidence of sufficient qualifying experience in each branch in which they wish to seek licensure. In the situation where an applicant's professional experience includes work covered by more than one of the branches of engineering for which licensure is granted in California, the applicant should include with his or her description of their experience on a particular application a summary of only the experience which is pertinent to the branch of engineering covered by that application, and an indication of what percent of their total experience (what percent of the time for each engagement) is applicable to that branch of engineering. For instance, if a particular engagement includes some civil, electrical, and mechanical engineering work, an applicant applying for a mechanical engineer license should list the total time applicable to the entire engagement, should describe only the work experience applicable to the field of mechanical engineering, and should specify the percent of the time during that engagement that the mechanical engineering work was performed. An applicant for licensure as a Civil Engineer must have gained their work experience under the direction of a Civil Engineer legally qualified to practice in the state or country where the work was done.

Total months of qualifying experience does not include time spent in training (except in a recognized rotation program); subprofessional tasks, i.e., drafting, technician work, etc.; non-professional tasks, i.e., sales, construction, etc.; overtime (experience which consists of more than 40 hours per week); work in a second job ("moonlighting"); or engineering not in the branch for which the applicant is applying. Thus, the total months of qualifying experience accepted by the Board may be less than the total number of months the applicant has claimed to have worked.

b. Credit is given toward the qualifying experience requirement for a waiver of the EIT examination as follows:

Same as provision a. (2), (3) and (4) above; i.e., post-graduate education, engineering teaching, engineering work experience. NOTE: The education credit described in (a) above does not apply to EIT waiver applicants.

- Q6. Can an applicant receive any experience credit toward a professional engineer license by passing either the EIT/FE or LSIT/FLS examinations?
- **A6**. No.
- Q7. Must an applicant's references be licensed in the same engineering branch that the applicant is seeking licensure?
- A7. That depends. If the applicant is applying for licensure as a civil engineer, and the experience offered has taken place in the United States, all references must be licensed engineers authorized to practice civil engineering, or federal employees (see Question 26). If a civil engineer applicant has had qualifying work experience outside of the United States, the references for that experience must be from persons authorized to practice civil engineering in accordance with the laws of the country in which the experience took place. If such references are not licensed civil engineers, they must provide information, which indicates by what authority they are authorized to practice civil engineering.

If the applicant is applying for licensure as an electrical or mechanical engineer, all references must be from engineers authorized to practice in the discipline in which the applicant is seeking licensure, **by virtue of licensure or by exemption**. Since licensed civil engineers are authorized to perform supplementary electrical and mechanical engineering work, such persons may serve as references if they meet other requirements. See Question 26 for information on satisfactory references.

If the applicant is applying for licensure in any of the remaining branches of professional engineering, all references should be from engineers, scientists, or technical persons who meet the satisfactory reference requirements of Question 26. Since these other branches are not practice regulated, anyone is authorized to practice in those branches, and thus anyone can serve as a reference. However, the reference must have sufficient knowledge of the applicant's engineering specialty to be able to make knowledgeable comments about the applicant's performance on the job.

- Q8. A person is a licensed professional engineer in another state with no place of business in California. That engineer's firm has just been awarded a design job for a California location. Does the Board have a temporary license category, which will allow that engineer to practice in California?
- A8. California does not issue temporary licenses. However, California law does provide for a temporary authorization for 180 days per calendar year for one specific project. The applicant for a temporary authorization must take and pass the take-home examination and submit an application, with the temporary authorization fee, to the Board. The applicant must provide detailed information regarding the specific project for review by the Board. The applicant must also personally appear before the Board at a Board meeting and answer questions from the Board regarding his or her engineering experience and knowledge as it relates to the specific project. It is often easier for an applicant to obtain a California license through the comity process rather than to request a temporary authorization, which only allows the applicant to practice for 180 days on one specific project.

If the applicant is applying for a temporary authorization to perform **civil engineering** on a specific project in California, the applicant must demonstrate satisfactory evidence to the Board of his or her knowledge of the application of seismic forces in the design of structures or adequate knowledge in any of the other phases of civil engineering as related to the specific project for which the temporary authorization is requested.

# Q9. What steps must an applicant take to obtain the authority to use the title "Structural Engineer?"

- **A9**. The applicant must comply with <u>all</u> of the following requirements:
  - a. Not have committed any acts or crimes, which would be grounds for denial of licensure (see Question 18).
  - b. <u>Have a valid, unexpired license as a Civil Engineer in California.</u>
  - c. Obtain the Structural Engineer application package from the Board's website or by requesting a copy from the Board office.
  - d. Obtain at least three references who are authorized to use the title "Structural Engineer" by having passed the Western Zone Structural Engineer Examination and who have personal knowledge of the applicant's qualifying work experience. See Question 26, part c for information on how to obtain suitable references. These three references, taken together, must verify three full years (36 months) of responsible charge experience. Responsible charge experience does not begin until licensure as a professional or civil engineer has been obtained (in California the date used is that of the last part of the exam by which the applicant obtained his or her license. See Question 22, part d.)
  - Type the application and the engagement record portion of the Engagement e. Record and Reference Forms with all statements made under oath. The use of the words "see attached" and the inclusion of additional documents and/or a resume is not acceptable and may not be substituted for the completed engagement record portion of the forms. The engagement record portion of the forms must be completed in sufficient detail to allow the Board to determine that the nature and the extent of the structural engineering work claimed to have been performed by the applicant has indeed been qualifying. Since the space provided on each form for the description of experience is somewhat limited, it is permissible for the applicant to continue the description of his or her experience on another sheet of paper, provided however, that the experience description must begin in the space provided on the board approved form. (See Question 19 for the required amount of experience to be verified). While typing may seem to be an unreasonable requirement, the Board receives about 13,000 applications a year, all of which must be reviewed by several different people, and microfilmed. Hence, the requirement that the application and accompanying forms must be typewritten; handwritten applications and forms will not be accepted.
  - f. <u>Sign</u> the application and the engagement record portion of the Engagement Record and Reference Forms under penalty of perjury.

- g. Send the Engagement Record and Reference Forms to the reference persons. The references must complete their portion of the form (PART B), sign the form, affix their seal or stamp to the form, seal it in the envelope provided, sign across the flap and affix their seal over their signature and return the sealed envelopes to the applicant. References from persons with structural authority in states other than California must be notarized to indicate that the license which qualifies that person to be a reference is still valid and unexpired.
- h. If the applicant wishes to be notified when his or her application has been forwarded to professional staff for review, and when the review of the application is complete, the applicant should include two postcards with his or her name and address on the front and the required postage affixed.
- i. Return the two <u>stamped</u> cards (optional), the <u>typed</u> application, the <u>typed</u> Engagement Record and Reference Forms in the sealed envelopes, along with the applicable filing fee, to the Board. All of the foregoing material must be returned to the Board in the envelope provided and <u>it must be postmarked or hand delivered by the final filing date</u>.
- j. Take and pass the 8-hour NCEES Structural II examination and the 8-hour California State-Specific Structural Engineering Seismic examination. If the applicant has taken and passed the NCEES Structural II examination in another state, the applicant must submit verification from the state in which the examination was passed.

# Q10. May an applicant file for the structural authority sooner than three years after obtaining their license as a civil engineer in California?

- **A10**. Yes, under certain circumstances. The Board will consider an application submitted sooner than three years after licensure as a Civil Engineer in California by a person who meets any of the following requirements:
  - a. Has practiced under the exemption for officers and employees of the government of the United States of America; or:
  - b. Has actually practiced in responsible charge in another state (licensure in another state does not allow for responsible charge experience in California); or:
  - c. Has practiced in responsible charge in another country.

The Board will accept an applicant under any one of the above conditions <u>provided</u> that the conditions occurred prior to the time that the applicant arrived in California, <u>provided</u> that the applicant has six years of qualifying experience that can be counted toward the application for licensure as a Civil Engineer and at least three additional years experience in structural engineering work in excess of those six years required for the civil engineering license, and further <u>provided</u> that an applicant who wishes to be considered under any of these provisions so indicates to the Board at the time of filing of his or her application, and files the application <u>at least six months</u> prior to the announced final filing date for the examination for which the applicant is applying.

### Q11. What constitutes structural engineering work?

A11. Structural engineering includes, but is not limited to the application of specialized civil engineering knowledge and experience to the design and analysis of buildings (or other structures) which are constructed or rehabilitated to resist forces induced by vertical and horizontal loads of a static and dynamic nature. This specialized knowledge includes familiarity with scientific and mathematical principles, experimental research data and practical construction methods and process, and the design and analysis shall include consideration of stability, deflection, stiffness and other structural phenomena that affect the behavior of buildings (or other structures). Checking of structural plans on major projects will also be considered as qualifying structural work when done under the immediate supervision of and certified by a licensed Civil Engineer having authority to use the title "Structural Engineer."

# Q12. What type of experience is the Board looking for as it pertains to structural engineering work?

- **A12**. Structural design experience in all areas as specified in subdivisions (1)-(6) below because the stability of a structure is dependent upon the interaction of the individual structural components as well as the structure as a whole:
  - a. <u>Common Construction Materials</u> Steel, Concrete, Wood and Masonry: Be competent in the use of three of the four common construction materials of steel, concrete, wood, and masonry as they relate to the design, rehabilitation and/or investigation of buildings (or other structures);
  - b. <u>Determination of Lateral Forces</u> Have expertise regarding structural design to resist lateral forces, because the lateral stability of a building (or other structure) is critical to the safety of its occupants especially in an earthquake sensitive area such as California;
  - c. <u>Selection of Framing Systems</u> Have expertise regarding the selection of framing systems, which is the consideration of alternatives and the selection of an appropriate system for the interaction of structural components to support vertical and lateral loads;
  - d. <u>Selection of Foundation Systems</u> Have experience in the selection of foundation systems, which is the consideration of alternatives and the selection of an appropriate type of foundation system to support the structure;
  - e. <u>Application of Code Requirements</u> Be knowledgeable of all applicable local, state and federal legal requirements relating to design loads, materials, and detailing because the client (public) relies upon the engineer to ensure that the structural design meets these requirements;
  - f. <u>Multi-story Buildings or Equivalent Multi-level Structures</u> Have experience with the design and detailing for the transfer of forces between stories in multi-story buildings or multi-story structures. A multi-story building is a building, which is, more than one story in height and which is not exempted pursuant to Section 6737.1 of the Code.

# Q13. What steps must an applicant take to obtain the authority to use the title "Geotechnical Engineer?"

- **A13**. The applicant must comply with <u>all</u> of the following requirements:
  - a. Not have committed any acts or crimes, which would be grounds for denial of licensure (see Question 18).
  - b. Have a valid, unexpired license as a Civil Engineer in California.
  - c. Obtain the Geotechnical Engineer application package from the Board's website or by requesting a copy from the Board office.
  - d. Obtain <u>at least four</u> references who are licensed as civil engineers, two of which must be or must have been actively engaged in the practice of geotechnical engineering. References are **not** required to hold the authority to use the title "Geotechnical Engineer," but such references are certainly acceptable.
  - Type the application and the engagement record portion of the Engagement e. Record and Reference Forms with all statements made under oath. The use of the words "see attached" and the inclusion of additional documents and/or a resume is not acceptable and may not be substituted for the completed engagement record portion of the forms. The engagement record portion of the forms must be completed in sufficient detail to allow the Board to determine that the nature and the extent of the geotechnical engineering work claimed to have been performed by the applicant has indeed been qualifying (see Question 19 for the required amount of experience to be verified). Since the space provided on each form for the description of experience is somewhat limited, it is permissible for the applicant to continue the description of his or her experience on another sheet of paper, provided however, that the experience description must begin in the space provided on the board approved form. While typing may seem to be an unreasonable requirement, the Board receives about 13,000 applications a year, all of which must be reviewed by several different people, and are microfilmed. Hence, the requirement that the application and accompanying forms must be typewritten; handwritten applications and forms will not be accepted.
  - f. <u>Sign</u> the application and the engagement record portion of the Engagement Record and Reference Forms under penalty of perjury.
  - g. Send the Engagement Record and Reference Forms to the reference persons. The references must complete their portion of the form, sign the form, affix their seal or stamp to the form, seal it in the envelope provided, sign across the flap and affix their seal over their signature and return the sealed envelopes to the applicant. References from persons licensed in states other than California must be notarized to indicate that the license which qualifies that person to be a reference is still valid and unexpired.
  - h. If the applicant wishes to be notified when his or her application has been forwarded to professional staff for review, and when the review of the application

- is complete, the applicant should return the two postcards with his or her name and address on the front and the required postage affixed.
- i. Return the two <u>stamped</u> cards (optional), the <u>typed</u> application, the <u>typed</u> Engagement Record and Reference Forms in the sealed envelopes, along with the applicable filing fee, to the Board. All of the foregoing material must be returned to the Board in the envelope provided and <u>it must be postmarked or hand delivered</u> by the final filing date.
- j. Take and pass the eight-hour written California geotechnical engineering examination.

# Q14. To be qualifying, how much of an applicant's work experience must be in geotechnical engineering?

A14. Qualifying experience is geotechnical engineering experience satisfactory to the Board which has been gained on an equivalent full-time basis. If at least one-half of the applicant's full-time professional practice is in geotechnical engineering, credit will be given for an applicant's geotechnical engineering experience as a percentage of equivalent full-time work, except that a teacher of geotechnical engineering at an ABET accredited school of engineering will be given credit for applicable consulting work as a percentage of equivalent full-time work. Qualifying experience does not include overtime, training, management, subprofessional or non-engineering experience. Qualifying experience may be less than the total number of months worked.

### Q15. What constitutes geotechnical engineering work?

A15. Geotechnical engineering, as it relates to the authorization to use the title "Geotechnical 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."

# Q16. What type of experience is the Board looking for as it pertains to geotechnical engineering work?

A16. "Qualifying experience" means responsible charge of geotechnical engineering projects. Evidence shall be provided that the applicant has qualifying experience in the areas described in subdivisions (a), (c) and (e) herein and has demonstrated working knowledge in the areas described in subdivisions (b) and (d). At least one-half of the applicant's annual full-time professional practice shall be in geotechnical engineering, except that a teacher of geotechnical engineering and related courses at a Board approved school of engineering will be given credit for applicable consulting work as a percentage of equivalent full-time work. Applicable consulting work shall be substantiated by references and project documents.

- a. Development of programs of geotechnical investigation which includes, but is not limited to:
  - (1) Communication with other design consultants to determine their geotechnical input needs:
  - (2) Performance of literature searches, site history analyses, etc., related to surface and subsurface conditions:
  - (3) Formulation or engineering evaluation of field exploration and laboratory testing programs to accomplish the scope of the investigation;
  - (4) Preparation or engineering evaluation of proposals.
- b. Performance of geotechnical field and laboratory studies, which includes, but is not limited to:
  - (1) Direction and/or modification of field exploration programs, as required upon evaluation of the conditions being encountered;
  - (2) Classification and evaluation of subsurface conditions.
  - (3) Understanding the purposes for and being qualified to perform routine field and laboratory tests for:
    - a soil strength
    - **b** bearing capacity
    - **c** expansion properties
    - d consolidation characteristics
    - **e** soil collapse potential
    - f erosion potential
    - **g** compaction characteristics
    - h material acceptability for use in fill
    - I pavement support qualities
    - i freeze-thaw properties
    - **k** grain size
    - I permeability/percolation properties
- c. Analysis of geotechnical data and engineering computations which includes, but is not limited to:
  - (1) Analysis of field and laboratory test results regarding:
    - a soil strength
    - **b** bearing capacity
    - **c** expansion properties
    - d consolidation characteristics
    - e soil collapse potential
    - **f** erosion potential
    - **g** compaction characteristics
    - h material acceptability for use in fill

- I pavement support qualities
- j freeze-thaw properties
- **k** grain size
- I permeability/percolation properties
- **m** groundwater conditions
- **n** soil dynamic properties
- (2) Performance of computations using test results and available data regarding:
  - **a** bearing capacity
  - **b** foundation type, depth, dimensions
  - **c** allowable soil bearing pressures
  - **d** potential settlement
  - e slope stability
  - **f** retaining systems
  - **g** soil treatment
  - h dewatering/drainage
  - i floor support
  - j pavement design
  - **k** site preparation
  - I fill construction
  - **m** liquefaction potential
  - **n** ground response to seismic forces
  - o groundwater problems; seepage
  - **p** underpinning
- d. Performance or engineering evaluation of construction, post-construction and site monitoring which includes, but is not limited to:
  - (1) Performance or supervision of geotechnical testing and observation of site grading;
  - (2) Analysis, design and evaluation of instrumentation programs to evaluate or monitor various phenomena in the field, such as settlement, slope creep, porewater pressures and groundwater variations;
  - (3) Geotechnical observation during construction and/or installation, including but not limited to, spread foundations, drilled piers, piles, slurry walls, anchors, bulkheads, shoring, underpinning and subdrains;
  - (4) Engineering evaluation of soil-related distress.
- e. Preparation or engineering evaluation of geotechnical reports which includes, but is not limited to:
  - (1) Preparation of appropriate plans, logs, test results and other exhibits;
  - (2) Documentation testing and observation;

- (3) Preparation of written reports which present findings, conclusions and recommendations of the investigation;
- (4) Preparation of specifications and guidelines for achieving the intent of subdivision (e)(3), above.
- Q17. A person is a licensed Professional, Geotechnical, or Structural Engineer in another state of the United States. Can such an engineer obtain licensure in California (by comity) without retaking the regular written examinations?
- **A17**. Usually, if the engineer complies with all of the following requirements:
  - a. Provide evidence of having passed an eight-hour, written EIT/FE examination or be exempt therefrom (see Question 3 for criteria for exemption).
  - b. Provide evidence of having gained licensure in another state by passing an eight-hour written professional engineering examination [except for structural and geotechnical engineering; see (h) below]. That license must be current at the time that the application is submitted, or it must have been transferred to another state where the other state license is current. An applicant for licensure as a professional engineer in California by comity may only receive such a license in one branch of engineering, unless the applicant has passed more than one 8-hour professional engineering examination. Thus, an applicant who has obtained one license in California by comity will usually have to take the professional engineer's examination for each additional branch of engineering in which they desire licensure. Furthermore, if an applicant cannot substantiate that he or she took a branch specific eight-hour written professional engineering examination, their application will be reviewed by members of the Board prior to developing a decision whether or not to grant licensure by comity to the applicant.
  - c. For the branch of engineering in which the applicant is requesting comity with California, provide evidence that the applicant's education and experience is qualifying in conformance with California law. Thus, if an applicant's license in another state is generic (e.g., Professional Engineer) and is current, the applicant may gain licensure in the particular California branch to which his or her experience and education indicate the closest relationship, if any.
  - d. Submit the application package for the branch in which the applicant wishes to be considered. This application package is the same one as for taking the examination, so the applicant must indicate on the application that he or she desires comity. See Questions 4 and 9. Comity applicants submitting NCEES Council records must complete the Application for Licensure as a Professional Engineer form, items 1-12, including the Engagement Summary. Engagement Record and Reference Forms need not be submitted unless the NCEES council record is not current. Civil engineer applicants must have references from at least four civil engineers.
  - e. Enclose a check or money order for the application fee.

- f. Pass a take-home written test on California engineering laws and rules. In addition, to obtain a civil engineering license, an applicant must pass additional written tests on seismic principles and engineering surveying principles. See Question 4, part b.
- g. Allow approximately three months for processing, as the Board must approve the applicant's license at scheduled Board meetings, which take place approximately every six weeks.
- h. To obtain comity in structural engineering, an applicant must first become licensed as a Civil Engineer in California. For comity as a Structural Engineer, the applicant must have obtained licensure as a Structural Engineer either by taking and passing the 16-hour Western States Structural Engineer Examination; by taking and passing the 8-hour NCEES Structural II examination and the Washington state-specific structural engineering examination; or by taking and passing the 8-hour NCEES Structural II examination and the California state-specific Structural Engineering Seismic examination. At present there is no comity with other states for geotechnical engineering. (See also Question 9 for other application requirements.)

### Q18. What acts or crimes are grounds for denial of certification or licensure?

**A18**. Such acts or crimes include, *but are not limited to*, any act which, if done by a licensee, would be grounds for disciplinary action against that licensee by the Board; a violation of any provision of the Professional Engineers Act; or conviction of a crime (felony or misdemeanor) that is substantially related to the qualifications, functions, and duties of a professional engineer if, to a substantial degree, it evidences present or potential unfitness of a professional engineer to perform the functions authorized by his or her license in a manner consistent with the public health, safety or welfare.

# Q19. How much experience is required to qualify for each level of certification or licensure?

**A19**. The required experience for each level of certification or licensure is as follows:

#### a. EIT

Three years of engineering-related work experience or three years of full-time study in a Board approved engineering curriculum (see Question 1, part b).

### b. PE

With an EIT certificate, six years of professional level qualifying experience in the branch of engineering in which the applicant is seeking licensure, less applicable credit for verified education (if any).

#### c. Geotechnical

Four years of responsible charge experience in geotechnical engineering after licensure as a civil engineer, less a maximum of one year credit for post-graduate education (if not previously used).

#### d. Structural

Three years of responsible charge experience in structural engineering after licensure as a civil engineer, except for persons who have been operating under an exemption or have been practicing in another state or country.

For all applications, qualifying experience will be considered to have been obtained <u>only</u> up to the date that the application was completed unless the application was completed within 30 days of the final filing date (see Question 21). The completion date is considered to be the date indicated by the latest date on which any reference signed the reference form, or the date that the application was signed, whichever comes first.

# Q20. What constitutes satisfactory evidence of qualifying experience in engineering work related to the field of engineering in which the applicant is applying?

#### A20. a. PROFESSIONAL ENGINEERS:

- (1) For academic credit:
  - (a) An official transcript of the applicant's grades and degrees furnished by the college in a sealed envelope. If any portion of this information is in other than the English language, it must be accompanied by a certified English translation.
- (2) For work experience credit, including teaching:
  - (a) The typed summary of the applicant's experience as contained in the Engagement Record and Reference Forms, and positive recommendations by the references, including their verification of the applicants claim of qualifying experience.
  - (b) The summary of the applicant's experience should include the following:
    - (i) Tasks or activities the applicant has participated in; e.g., design, analysis, plan checking, field inspection, start up review, etc.
    - (ii) The applicant's level of responsibility; e.g., drafter, junior engineer, engineering team leader, project engineer, engineering manager, vice-president of engineering, etc.
    - (iii) Engineering decisions made in connection with (iv) below; e.g., selection of type of material or equipment to be specified, type of system to be used, etc., including acceptance criteria.
    - (iv) Type of projects the applicant has worked on; e.g., bridges, buildings, electronic circuits, HVAC, major structures, transmission lines, water treatment facilities, etc. (The applicant should provide some detail such as the size of the project, [square feet, stories, acres, etc.] level of complexity, flow rates, capacity, or other pertinent data). The description should be of a selection of projects which

indicates the breadth and depth of the experience gained. Projects do not necessarily have to be identified by name, but the description should contain sufficient technical information so that the reviewer can judge the importance of the project and/or its uniqueness.

#### b. GEOTECHNICAL ENGINEERS:

- (1) For academic credit for a postgraduate degree:
  - (a) An official transcript of the applicant's grades and degree furnished by the college in a sealed envelope. This credit will only be given if the degree was not used for credit to qualify for the applicant's civil engineering license.
- (2) For work experience credit:
  - (a) The typed summary of the applicant's experience as contained in the Engagement Record and Reference Forms, and positive recommendations by the references, including their verification of the applicants claim of qualifying experience.
  - (b) The summary of the applicant's experience should include the following:
    - (i) The extent to which the applicant has been involved with the development of programs of geotechnical investigation.
    - (ii) The extent to which the applicant has performed geotechnical field and laboratory studies.
    - (iii) The extent to which the applicant has performed an analysis of geotechnical data and engineering computations.
    - (iv) The extent to which the applicant has performed an engineering evaluation of construction, post-construction, or site monitoring activities.
    - (v) The extent to which the applicant has prepared or performed an engineering evaluation of geotechnical reports.

#### c. STRUCTURAL ENGINEERS:

- (1) There is no academic credit available to structural applicants, therefore no transcripts are required.
- (2) For work experience credit:
  - (a) The typed summary of the applicant's experience as contained in the Engagement Record and Reference Forms, and positive

recommendations by the references, including their verification of the applicants claim of qualifying experience.

- (b) The summary of the applicant's experience should include the following:
  - (i) The types of projects on which the applicant has worked (buildings, bridges, other structures, etc.).
  - (ii) The structural system which the applicant selected for each project.
  - (iii) The construction material (wood, steel, masonry, or concrete) which made up the structural system chosen for each project.
  - (iv) The size of each project (square feet, stories, height, length, etc.).

It is not required to provide this information for every project on which the applicant worked, just a relevant sample of projects which will demonstrate the length and breadth of the applicant's structural engineering experience, and how the applicant meets the licensing requirements. Applicants providing insufficient detail will be notified for additional information.

# Q21. Will the applicant be given experience credit up to the date of the examination for which the applicant has applied?

**A21**. No. Experience credit will be given only to the completion date of the application, except that if the references are signed within 30 days preceding the final filing date, the applicant will be given credit to that final filing date (see Question 19 for information concerning the completion date). In no case will experience credit be allowed for work experience which occurs after the final filing date.

Applications, which are incomplete or deficient by the final filing date will not be processed for the examination for which the applicant has applied. It is the applicant's responsibility to make sure that the application package is complete, that it contains all of the required information (Application form, Engagement Record and Reference Forms, transcripts, etc.) and that it is received by the Board by the final filing date.

# Q22. How is qualifying experience computed for the purpose of filing an application?

- **A22**. Qualifying experience is computed as follows, for each of the different levels of applicants:
  - a. <u>For an EIT applicant</u>, qualifying experience is that experience related to engineering which began no less than three years prior to the date of filing of the application.

- b. For a professional engineer applicant who does not have an engineering or engineering technology degree, or who cannot verify that degree, qualifying experience is counted from the date on which the applicant first began working at a professional level and was performing engineering tasks. For an applicant who has an engineering degree or an accredited engineering technology degree, qualifying experience is counted from the date of the first professional employment which began after the date of graduation, as shown on the transcripts.
- c. <u>For a geotechnical engineer applicant</u>, qualifying experience is counted from the date of the last part of the examination, which was passed to obtain a license as a civil engineer, either in California, or in any other state.
- d. For a structural engineer applicant whose initial license as a civil engineer was obtained in California, qualifying experience is counted from the date of the last part of the examination which was passed to obtain that license as a civil engineer. For an applicant whose initial license was obtained in another state, qualifying experience is counted from the date of the last part of the examination which was passed to obtain that license as a civil engineer.. There are certain exceptions to this provision for persons who were employees of the Federal Government, or who were practicing in another country.

Qualifying experience for all applicants is **only** counted up to the date of filing of the application, unless the reference is signed within 30 days of the announced final filing date for an examination, in which case it is counted up to that final filing date, **but no later**.

#### Q23. How much experience must be verified by the references?

**A23**. A reference form must be submitted to verify each engagement for which the applicant desires credit. Lack of a reference for any period of experience will result in that period being excluded from consideration. The total time covered by all of the satisfactory references must be sufficient to demonstrate that the applicant meets the experience requirements.

#### Q24. What does the term "responsible charge" mean?

**A24**. The term "responsible charge" is defined in the Professional Engineers Act, Business and Professions Code section 6703, which states:

The phrase 'responsible charge of work' means the independent control and direction, by the use of initiative, skill, and independent judgment, of the investigation or design of professional engineering work or the direct engineering control of such projects. The phrase does not refer to the concept of financial liability.

This term is further defined in Board Rule 404.1, as follows:

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 (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.

The term "responsible charge" does not refer to any of the following:

- (1) the concept of financial liability;
- (2) management control in a hierarchy of professional engineers except as each of the individuals in the hierarchy exercises independent engineering judgment and thus responsible charge;
- (3) such administrative and management functions as accounting, labor relations, personnel performance standards, marketing of services, or goal setting. 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 engineering.

#### Q25. How many references are required to be submitted with an application?

#### A25. a. PROFESSIONAL ENGINEERS:

Applicants for licensure as a professional engineer must submit a **minimum of four** satisfactory references from persons authorized to practice in the discipline in which the applicant is applying (see Question 26) and who have personal knowledge of the applicant's qualifying experience and who are not related by blood or marriage to the applicant. Relatives may verify work experience, but cannot count as one of the four references. **Since at least one reference must be submitted for each engagement claimed as qualifying experience, it may be necessary for an applicant to submit more than the minimum of four references.** In any case, however, it is recommended that more than the minimum number of four references be submitted when possible to avoid delays in processing the application due to reference deficiencies. Both sides of the Engagement Record and Reference Form **must** be completed in its entirety.

#### b. GEOTECHNICAL ENGINEERS:

In connection with an application for authority to use the title "Geotechnical Engineer," a minimum of four references is required. Since at least one reference must be submitted for each engagement claimed as qualifying experience, it may be necessary for an applicant to submit more than the minimum of four references. In any case, however, it is recommended that more than the minimum number of references be submitted when possible to avoid delays in processing the application due to reference deficiencies.

#### c. STRUCTURAL ENGINEERS:

In connection within an application for authority to use the title "Structural Engineer", the applicant must submit references from at least three persons authorized to use the title "Structural Engineer" in California or in a state which has a comity agreement with California and who have personal knowledge of the applicant's qualifying experience. Since at least one reference must be submitted for each engagement claimed as qualifying experience, it may be necessary for an applicant to submit more than the minimum of three references. In any case, however, it is recommended that more than the minimum number of references be submitted when possible to avoid delays in processing the application due to reference deficiencies.

#### Q26. What constitutes a satisfactory reference in connection with an application?

#### A26. a. PROFESSIONAL ENGINEERS:

For a professional engineer applicant, a satisfactory reference is one that contains a positive response from the reference person, one that is completed fully and signed by both the applicant and the reference person, one that is completed by a person who is <u>not</u> a relative of the applicant, and one which meets the additional requirements indicated herein. A "Not yet ready" response to the question, <u>"Do you consider the applicant technically qualified to be licensed as a Professional Engineer?"</u> is not considered a positive response from a reference when the application is evaluated, and will result in that reference being considered as unsatisfactory.

## (1) CIVIL ENGINEER

In general, civil engineer applicants are required to provide references from licensed civil engineers or from persons otherwise authorized to practice civil engineering. Except for applicants with qualifying experience gained while in Federal employment, all civil engineer applicants verifying California work experience must provide references from persons who are licensed as civil engineers in California. Unlicensed persons or persons not licensed in the applicant's branch of engineering, who are completing reference forms for federal employees, should indicate their educational background or other information to signify their engineering qualifications. If a civil engineer applicant has had qualifying work experience outside of the United States, the references for that experience must be from persons authorized to practice civil engineering in accordance with the laws of the country in which the experience took place. If such references are not licensed engineers, they must provide information which indicates by what authority they are (or were) authorized to practice civil engineering in that country. For civil engineering work experience which was gained in California or any other place where such work is required to be under the jurisdiction of a licensed civil engineer, at least one of the applicants licensed references must be from someone who is or was in a supervisory capacity over the applicant, for each engagement for which the applicant desires credit. An engagement not verified by a licensed civil engineer supervisor will be considered as either non-civil engineering experience, or illegal civil engineering experience, and in either case it will not be acceptable.

### (2) ELECTRICAL and MECHANICAL ENGINEER

For **electrical and mechanical engineer** applicants who have worked in situations where they were <u>not exempt</u> from all licensing requirements, and for experience which has occurred in California, <u>the reference forms</u> must be signed by licensed engineers authorized to practice in the branch in which the applicant is applying.

In California, electrical and mechanical engineering work performed by employees of the Federal Government, and employees of manufacturing, mining, public utility, research and development, or other industrial corporations **is exempt**, and thus, such employees may serve as references whether or not they are licensed as long as they are qualified to appraise the technical competency of the applicant.

Typical examples of **exempt employers** would be aerospace companies such as Boeing, or McDonnell Douglas; public utilities such as San Diego Gas & Electric or P.G.&E.; manufacturers of electrical or mechanical equipment such as Allen Bradley, Square D, Trane or Carrier, etc. Examples of **non-exempt employers** are consulting electrical or mechanical engineering firms and state and local governments.

Also, since licensed civil engineers are authorized to practice supplementary electrical and mechanical engineering, such engineers may serve as references.

If the applicant has worked in a **non-exempt** situation, and if the applicant does not know or has not worked with sufficient licensed engineers in his or her field to be able to procure the minimum number of appropriately licensed references, the applicant can solicit any appropriately licensed engineer to review her/his work samples (drawings, calculations, reports, etc.). Based on that review and a discussion with the applicant, such an engineer can then serve as a reference. The foregoing procedure is only permissible for supplementary references, and it is based on the assumption that the applicant's primary reference for an engagement is a licensed supervisor. If all else fails, the applicant should contact the Board for instructions on how to obtain licensed references. In no case, however, will references from unlicensed persons or references not licensed in the applicant's branch of engineering be accepted in lieu of references from appropriately licensed engineers, when the requirement for having licensed references applies (i.e., when the applicant has been working in a non-exempt area). Persons working in California in industry or otherwise covered by the exemptions need not submit references from licensed engineers, but must submit sufficient references to cover the required period of experience. The determination as to whether or not the employment is exempt is based on whether or not the employer is a corporation and usually, but not always, whether or not the primary business activity of the corporation is the making of a product. Unlicensed persons or persons not licensed in the applicant's branch of engineering, who are completing reference forms, should indicate their educational background or other information to signify their engineering qualifications (see Question 7, for more information).

### (3) OTHER BRANCHES OF PROFESSIONAL ENGINEERS

For applicants applying for licensure in any of the other branches of professional engineering, all references should be from engineers, scientists, or technical persons who meet the satisfactory reference requirements described herein. Since these other branches are not practice regulated, anyone is authorized to practice in those branches, and thus anyone can serve as a reference. However, the reference must have sufficient knowledge of the applicant's engineering specialty to be able to make knowledgeable comments about the applicant's performance on the job.

For an applicant verifying experience which has occurred in another state, and where the applicant's experience did not fall under any of the exemptions existing in that state, the reference forms must be signed by a professional engineer authorized to practice in the state where the experience occurred. Applicants claiming to have worked under an exemption in another state shall indicate, and provide the basis for that exemption.

The Board will accept valid references from individuals licensed outside the U.S. if the applicant has had experience in another country. Applicants verifying experience in another country should use reference persons who are authorized to practice in that country.

#### b. GEOTECHNICAL ENGINEER

For a geotechnical engineer applicant, a satisfactory reference is one that contains a positive response from the reference person, is completed by a person who is <u>not</u> a relative of the applicant, is completed fully and signed by both the applicant and reference, and meets the additional requirements indicated herein. A "No" or "Don't know" response to the question, "Do you consider the applicant technically qualified to be licensed as a Geotechnical Engineer?" is not considered a positive response from a reference when the application is evaluated, and will result in that reference being considered as unsatisfactory. References from persons licensed as civil engineers in another state may be offered in addition to the required California civil engineer references, to supplement the applicant's experience verification.

The Board will accept valid references from individuals licensed outside the U.S. if the applicant has had experience in another country. Applicants verifying experience in another country should use reference persons who are authorized to practice in that country.

#### c. STRUCTURAL ENGINEER

For a structural engineer applicant, a satisfactory reference is one from a person who holds the structural authority in California or in a state that has a structural engineering comity agreement with California, is one that contains a positive response from the reference person, is completed by a person who is not a relative of the applicant, is completed fully and signed by both the applicant and reference, and meets the additional requirements indicated herein. An "I don't know" response from a reference to the question, "Do you consider the applicant technically qualified to be licensed as a Structural Engineer?" is not considered a positive response when the application is evaluated, and will result in that reference being considered as unsatisfactory. If the applicant does not know or has not worked with sufficient licensed structural engineers to be able to procure the minimum number of appropriate references. the applicant should review the "Important Notice" instructions that come with structural engineer application package, and if necessary, contact the Board for instructions on how to obtain the required references. In no case will references from persons licensed as civil or structural engineers in another country, in states without comity agreements, or from persons who are licensed only as civil engineers in California, be accepted in lieu of the minimum of three references from appropriately licensed structural engineers. Such references may be offered in addition to the required references, however, to supplement the applicant's experience verification.

The Board will accept valid references from individuals licensed outside the U.S. if the applicant has had experience in another country. However, such references would be considered to be supplementary, and would have to be in addition to the three references from California or from Structural Engineers from states that have comity agreements with California.

In addition to whichever of the above apply, to be satisfactory, a reference person must also be able to indicate that his or her evaluation of the applicant is based upon personal knowledge, either gained by direct association in the work environment or by a review of sufficient and diverse work samples and an interview of the applicant. It is the applicants' responsibility to demonstrate their qualifications to the person who will be completing the reference form. Toward that end, in general the Board considers references in the following descending order of preference:

- (1) immediate supervisors
- (2) co-workers at equal or higher level
- (3) indirect supervisors
- (4) co-workers not closely associated with the applicant
- (5) clients/others

In the case of an applicant whose experience appears to be marginal, or where there is a conflict between reference evaluations of the applicant, more weight will be given to reference sources who were in the best position to have personal knowledge of the applicant's qualifying experience (i.e., immediate supervisor, etc.).

# Q27. What are the application fees for the various branches of engineering, and how should they be transmitted to the Board?

- **A27**. a. As of June 30, 2007, the following are the fees for certification or licensure:
  - (1) Certification as an Engineer-in-Training \$100.00
  - (2) Licensure as a Professional Engineer \$275.00
  - (3) Authority to use the title "Geotechnical Engineer" \$275.00
  - (4) Authority to use the title "Structural Engineer" \$275.00

Current fee information is always available on the Board's website and should be verified by the applicant before the application is submitted. Submittal of an incorrect fee will delay the processing of the application.

- b. All fees shall be transmitted by personal check, bank draft, or money order made payable to the Department of Consumer Affairs. If an applicant's check is returned because of insufficient funds, processing of the application will cease until and unless a valid replacement (e.g. cashiers check or money order) is received, and this may cause an applicant to miss the examination for which he or she applied.
- c. Fees and applications transmitted through the United States mail shall be deemed to have been filed no earlier than the date shown by the post office cancellation mark, unless the applicant can provide satisfactory proof that the documents were mailed on an earlier date.
- Q28. If an applicant has special needs or requirements due to physical or mental disabilities, or religious beliefs, may the applicant request special treatment?
- **A28**. Yes. An applicant may request that special arrangements to deal with his or her specific needs.

#### a. Special Accommodations under the ADA

If an applicant requires special testing accommodations for reasons falling within the ADA, he or she must complete the Questionnaire for Applicants Requesting Special Accommodations, which is available on the Board's website, and submit the form to NCEES. In order to receive special accommodations, this form must be completed and returned, along with the required supporting documentation, to NCEES by the final filing date of the examination for which the applicant is applying. Neither the form nor the supporting documentation is to be submitted to the Board. Applicants must request special accommodations for each examination administration cycle, even if none of the information has changed since the last request.

#### b. Religious Accommodations

If an applicant is unable to attend the examination on the set date due to his or her religious beliefs, he or she must complete the Religious Accommodations Request Form, which is available on the Board's website. In order to receive accommodations, this form must be completed and returned, along with the required supporting documentation, to NCEES by the final filing date of the examination for which the applicant is applying. Neither the form nor the supporting documentation is to be submitted to the Board. Applicants must request special accommodations for each examination administration cycle, even if none of the information has changed since the last request.

- Q29. When must applications be postmarked and when are examinations given in each branch of engineering?
- **A29**. The final filing dates and the examination dates are available on the Board's website.
- Q30. What happens if the Board finds that an applicant is <u>not qualified</u> to take the professional examination?
- **A30**. The Board will refund one-half of the application fee. Applications will be retained for two years. During this two-year period, the applicant must submit a new application to be processed for the next exam for which he or she wishes to apply. Unless the applicant files again within two years, references, transcripts and information submitted with the original application may not be used to complete a new application.
- Q31. May an applicant appeal if he or she is found not qualified to take the examination?
- A31. Yes. The applicant's appeal must be presented in writing to the Executive Officer within 60 days of the postmark on the denial letter and shall state reasons for the appeal. An appeal shall be supported by additional evidence, more references, affidavits and supplemental information such that the Board may be better informed of the applicants qualifications. Appeals should include a list of all documents submitted or to be submitted on the applicants' behalf. If an appeal is submitted within the specified time period but is granted too late for a particular exam, the applicant will be set for the next following exam in the branch for which the applicant has applied. Again, the best way to avoid this situation is to make sure that the application is complete and that all the requirements have been met before filing. If the application has been denied, the applicant has the right to a hearing under the Administrative Procedure Act (Government Code Section 11500 et seq.) upon submittal of a written request for such a hearing within 60 days after the postmark date of the appeal denial notice.

- Q32. How long before the examination will an applicant know if he or she is authorized to take it?
- **A32.** Applicants will receive an admission notice approximately two weeks prior to the examination date.
- Q33. What happens if, after an applicant applies for the examination and has been approved for the exam, he or she finds that they are unable to appear for the examination as scheduled?
- A33. An applicant may be given a postponement until the next examination **but only for a reasonable cause**. All postponement requests must be in writing and must be submitted no later than 10 working days after the examination. Due to workload volume, it is highly unlikely that you will receive a response to your postponement request prior to the examination.

The following are some examples of what the Board considers to be reasonable causes for postponements, and what is required in the way of documentation for each such cause:

#### a. Business commitment

- (1) Required to spend extra ordinary hours at work prior to exam and, therefore, could not study. This requires employer verification specifying length of time and number of extra hours.
- (2) Required to work on date of exam, as a result of unforeseen events, or because required by work to be out of town. **Requires employer verification.**

#### b. Medical

- (1) Sick or injured on the day of the examination. Requires verification from a doctor or other medical professional.
- (2) Serious illness, involving hospitalization, prevented attendance at examination. Requires verification from a doctor or other medical professional.
- (3) Death, serious illness, or injury, to family member prevented attendance at examination. Requires verification from a doctor or other medical professional or a death notice/obituary.

#### c. Mechanical

(1) Automobile breakdown or accident on the day of the examination. Requires verification from mechanic; or repair invoice; or police report.

#### d. Court

(1) Required court appearance on the day of the examination. Requires copy of subpoena or statement from court clerk.

#### e. Military

(1) Called to active duty. Requires copy of orders; or statement from commanding officer.

Examples of non-qualifying causes are senior or picnic day at college, divorce proceedings not requiring court appearance on the day of the exam, personal business, visiting relatives, well-baby care, and academic requirements. The above lists are not exhaustive, and each situation must be decided on a case-by-case basis.

Requests for a postponement of the examination must be postmarked not later than 10 working days after the examination.

No more than two consecutive postponements may be granted.

If the applicant does not appear for the examination, and no postponement is granted, the applicant will forfeit the application fee will be required to submit a refile application to sit for a future examination.

### Q34. What constitutes an abandoned application?

- **A34**. In the absence of special circumstances, any of the following actions by an applicant shall be considered abandonment of the application and shall result in cancellation of the application with no refund of the filing fee.
  - a. Failure to provide additional information within 90 days following the mailing of a request by the Board's staff;
  - b. Failure to complete the examination within two years from the date of filing the application;
  - c. Failure to appear for examination at the designated time and place without obtaining a postponement or after having obtained two postponements. (See Question 33.)

#### Q35. If an applicant fails an examination, how does he or she apply to take it again?

**A35**. In order to take the exam the next time it is offered, the applicant must return his or her result letter/refile form to the Board by the refile final filing date that is printed on the form with the required application fee.

### Q36. May an applicant inspect his or her graded examination?

**A36**. An applicant can inspect only the design/essay problems only for the purpose of appealing failing results. See Question 38.

#### Q37. May an applicant inspect his or her graded multiple choice exam papers?

**A37**. No. Multiple choice machine-gradable test questions are not open to review because multiple choice exams are not appealable.

### Q38. May an applicant appeal the grading of his or her examination?

- **A38**. Candidates may review their examination for the purpose of appealing failing results if it meets the following criteria:
  - Is no more than 8 points below the passing score (cutscore) on a National Council of Examiners for Engineering and Surveying Professional Engineering examination
  - b. Is no more than 15% below the passing score (cutscore) on a State Specific Professional Engineering examination

### Only the design/essay portion of an examination may be reviewed/appealed.

Candidates must review their examination in order to appeal. Requests to review an examination and the examination review/appeal fee must be submitted to the Board no later than 21 days from the date on the candidate's original notice of results. The dates and locations of review/appeal sessions are identified by the Board. No one other than the examinee and a representative of the Board shall have access to the examination papers. Candidates are allowed 8 hours to review their examination and formulate an appeal. Appeals must be submitted at the conclusion of the review/appeal session.

To assist in the formulation of an appeal, candidates are provided with copies of the examination test booklets, the candidate's solutions, and the grading criteria for each problem. The grading criteria provided at review/appeal sessions may be modified from the form used by graders for the purpose of maintaining the security of the examination item bank. No solutions will be disclosed in the grading criteria. Candidates may bring reference materials to assist in writing an appeal. Any notes taken by the candidate during the review/appeal session are collected at the conclusion of the review/appeal session.

Rescoring of a problem may result in one of the following three actions: points may be added; points may be deducted; or the score may remain the same.

If the appeal results in the application passing the examination, the full appeal fee will be refunded.

The Board's decision on an appeal is final and will not be re-evaluated.