

GUIDELINES FOR APPLICATION FOR REGISTRATION AS SPECIALIST PROFESSIONAL ENGINEER IN GEOTECHNICAL ENGINEERING

Introduction

1. A PE in civil engineering may apply to be registered as a specialist professional engineer in geotechnical engineering if he has a valid practicing certificate and meets one of the following sets of requirements in terms of qualifications and practical experience as specified in the Fourth Schedule of the PE Rules as follows:

Set (A)

- (i) he has at least seven years of recognised practical experience in engineering after obtaining the qualifications referred to in section 15 (1) of the Act;
- (ii) he has at least four years of recognised practical experience in geotechnical engineering during the period of his practical experience referred to in paragraph (i); and
- (iii) he has a post-graduate engineering degree (such as M.Sc or PhD) majoring in geotechnical engineering from a university set out in the Schedule of the Professional Engineers (Approved Qualifications) Notification 2009; or

Set (B)

- (i) he has at least seven years of recognised practical experience in engineering after obtaining the qualifications referred to in section 15 (1) of the Act;
- (ii) he has at least five years of recognised practical experience in geotechnical engineering during the period of his practical experience referred to in paragraph (i); and
- (iii) he has sat and passed a specialist registration examination on geotechnical engineering conducted by the Board.

Report

2. An application shall be accompanied by a report on practical experience that describes in particular the geotechnical engineering experience that the applicant has acquired. It should include the tasks that the applicant has been involved in, the levels of his responsibilities, the identification of special engineering problems encountered and the demonstration of the use of engineering knowledge, experience and judgment to resolve them etc. The Report shall be about 2,000 words long and must not be a mere inventory of work done.
3. The report shall be typewritten and submitted in quadruplicate (ie one original and three photostat copies). The report must be signed by the applicant himself and verified by his employers or any registered professional engineer in Singapore. Verification by an employer should be accompanied by a stamp with name, designation and name of company. Verification by a professional engineer should be accompanied by the professional engineer's stamp.

Interview

4. The Board would require the applicant to undergo an interview. The objectives of the interview are as follows:
 - a) to determine the type and duration of practical experience in geotechnical engineering;
 - b) to assess the basic understanding, and scope and depth of the applicant's practical experience in geotechnical engineering, in particular, to establish the level of responsibility – ie, whether the applicant's nature of work is at subordinate level or at the level of making technical decisions, and to establish whether his experience is sufficient to enable him to act and take technical decisions independently.
5. In general, an applicant would be assessed based on his practical experience as illustrated in his report. These should cover various major geotechnical areas (subject to revisions) such as:
 - a) Geotechnical engineering study, site investigation and tests. (Core area)
 - b) Pile load testing and interpretation. (Core area)
 - c) Geotechnical instrumentation, monitoring and interpretation. (Core area)
 - d) Design and construction of temporary earth retaining structures (TERS) for excavation deeper than 6 m. (Core area)
 - e) Ground stabilisation or improvement works.
 - f) Protection of slope with vertical height of more than 6m.
 - g) Tunneling works of more than 2 m in diameter.
 - h) Design and testing of foundation of buildings of high rise buildings using caissons, bored piles or raft.
 - i) Foundation of marine structures.
6. The applicant could be queried on his involvement in one or more phases of a project such as planning, design & analysis, construction, and operation & maintenance in relation to the geotechnical aspects.
7. An applicant is required to demonstrate that he has substantial practical experience and knowledge as to be competent in the four major core geotechnical areas mentioned above. Where applicable, consideration could be given to his competence in the other geotechnical areas. In addition, the conduct, attitude and professionalism that the applicant displays during the interview would also be considered.
8. When registering a professional engineer in the specialised branch of geotechnical engineering, the Board may impose such conditions as it deems fit.
9. An applicant may submit an application by completing an online form with payment of fees and submitting to PEB the necessary documents.