

Professional Engineers And PEB

Roles of Professional Engineers

1 In Singapore, professional engineers play key roles in the shaping of the Singapore's built environment. They are involved in the safety, quality, effectiveness, reliability, and durability of various engineering works related to the built environment. For example, in the case of building works which require the approval of structural plans or where a permit to carry out building works is required, Building and Construction Authority would require professional engineers in the branch of civil or structural engineering to prepare the plans and make the necessary applications.

2 Similarly, other agencies like URA, LTA, SCDF, PUB, EMA, MOM etc would require professional engineers to be involved in various works under their purview. A consumer who may need the services of a professional engineer can consult the appropriate agencies on their requirements before selecting a professional engineer for his project.

Professional Engineers Act

3 While a whole range of engineering works are practised in Singapore, regulation applies currently only to practice in the following prescribed branches of professional engineering work, namely, chemical engineering, civil engineering; electrical engineering; and mechanical engineering. Under the Professional Engineers Act, a person may engage in any of the prescribed branches of professional engineering work in Singapore only if he is a professional engineer or is under the supervision of a professional engineer.

4 Besides the right to practice, the Professional Engineers Act also gives professional engineers the right to use certain titles. Only a registered professional engineer may use the words 'professional engineer' in connection with his designation, the word 'engineer' or the abbreviation 'Er.' or 'Engr.' as a title before his name, or the abbreviation 'P. Eng.' as a title after his name.

Registration as Professional Engineer

5 To register as a professional engineer in one of the prescribed branches of engineering, a person is required to have the necessary academic qualifications, acquired adequate practical experience and pass prescribed examinations. In addition, PEB would require the applicant to undergo an interview.

6 In terms of academic qualifications a person would need to have a degree or qualification as listed in the Professional Engineers (Approved Qualifications) Notification. For a person who has other qualifications, they could be considered by the PEB on a case by case basis.

7 An applicant would need to acquire not less than 4 years' of practical experience after obtaining the approved qualifications. The practical experience should be in such professional engineering work and at such level of responsibility as to be sufficiently competent for registration.

8 An applicant would also need to sit and pass the Fundamentals of Engineering Examination and Practice of Professional Engineering Examination conducted by PEB. A person may sit for the Fundamentals of Engineering Examination after he has obtained an approved degree or qualification. After he has passed that examination and acquired not less than 2 and a half years' of practical experience he may sit for the Practice of Professional Engineering Examination.

Practicing Certificate

9 For a professional engineer to engage in professional engineering work in Singapore, he would need to have a practising certificate. The practising certificate, issued by PEB and to be renewed on an annual basis, authorizes a PE to engage in professional engineering work within the branch of engineering that he is qualified to practise. As part of the process of renewing his practising certificate, a professional engineer is required to fulfill requirements relating to continuing professional development.

Continual Professional Development

10 The PE Act requires a registered professional engineer to comply with requirements relating to continuing professional development (CPD) as part of the criteria to renew his practising certificate. The objective of CPD for professional engineers is to reinforce the need for lifelong learning. It is also in line with the emerging global trend towards promoting and ensuring continuous learning by engineers and other professionals so as to maintain their competency.

11 A PE who wishes to renew his practicing certificate is required to obtain a minimum of 40 professional development units (PDUs) over a prescribed renewal qualifying period. The 40 PDUs shall comprise a minimum of 20 PDUs in structured activities, and the remainder can be obtained from either structured or unstructured activities. A structured activity refers to a course or activity that is qualified by PEB for PDUs while an unstructured activity refers to an activity that involves self-directed learning, reading, discussion or participation.

Specialist Professional Engineers

12 PEB also registers specialist professional engineers in specialized branches of engineering. PEs registered in the 4 basic branches of engineering mentioned in para 3 may apply to be registered as specialist professional engineers in 6 specialized branches of engineering: geotechnical engineering, amusement ride engineering, lift and escalator engineering, crane engineering, access platform

engineering and pressure vessel engineering.

Licensing of Businesses Supplying PE Services

13 The Professional Engineers Act provides for professional engineers to team up with allied professionals, ie registered architects and land surveyors, to form multi-discipline corporations and partnerships to supply professional engineering services in Singapore. Licence could be granted to four forms of corporations and partnerships, namely, limited corporations, unlimited corporations, licensed partnerships and limited liability partnerships.

Professional Conduct and Ethics and Disciplinary Procedures

14 Every registered professional engineer and every licensed corporation, partnership and limited liability partnership shall, when supplying professional engineering services in Singapore, comply with the PE (Code of Professional Conduct and Ethics) Rules. The main objective of the Rule is to set a high standard of conduct and ethics that meet the expectations of clients and consumers and safeguard life, property, and welfare of the public.

Professional Engineers Board

15 Regulation of the prescribed branches of professional engineering work is carried out by the Professional Engineers Board (PEB), a statutory board of the Ministry of National Development. The mission of PEB is to safeguard the life, property, and welfare of the public by setting and maintaining high standards of professional engineering practice. Its functions include the registration of professional engineers, regulating the qualifications and conduct of professional engineers, licencing of corporations and partnerships which supply professional engineering services in Singapore, promoting learning and education in connection with engineering and developing and advancing the practice of professional engineering.