

Registration Requirements as Professional Engineer

Scope of PE Registration

PEB registers PEs from the following branches:

- Civil
- Electrical
- Mechanical
- Chemical (wef 1 Jan 2017)

Workplace Safety and Health (MHI) Regulations

- Workplace Safety and Health (MHI) Regulations will apply to Major Hazard Installations (MHI) with effect from **September 2017**
- The Safety Case Regime as prescribed in the WSH (MHI) Regulations requires a MHI to:
 - Proactively identify and manage Safety Health and Environment (SHE) risks
 - Demonstrate to regulators that their risks are as low as reasonably practicable.
 - Meet obligation to prevent and limit major accidents.

Need for PE (Chemical)

A Competent Person (CP) is required to perform the work stipulated under the safety case regime -

- A Professional Engineer (PE), in the Mechanical, Civil, Electrical and **Chemical** branches;
- A Chartered Engineer or equivalent, acceptable to the Commissioner for WSH; or
- A suitable person with the required knowledge, skills and experience for the appointed role in the safety case.

Core Competencies of PE (Chemical)

Areas identified as core competencies:

- Process Safety
- Process Design and Control
- Fire and Explosion Protection, Prevention and Mitigation
- Quantitative Risk Assessment (QRA)
- Research and Development in Chemical Engineering
- Industrial Production and Plant Operation
- Environment Protection and Pollution Control

Registration Requirements

- Approved qualifications
- Fundamentals of Engineering Exam (FEE) Parts 1 & 2
- Practice of Professional Engineering Exam (PPE) Parts 1 & 2
- 4 years practical experience
- Professional interview

Approved Qualifications

Applicants must have a qualification specified in :

Professional Engineers (Approved Qualifications)
Notification

Professional Engineers Registration Examination

Fundamentals of Engineering Examination (FEE)

- (a) obtained approved degree or qualification

Practice of Professional Engineering Examination (PPE)

- (a) Passed FEE
- (b) Obtained 2.5 years of practical experience

Fundamentals of Engineering Examination

Subjects	Time Allocated	Format
<u>FEE Part 1</u> Core engineering subjects in civil/mechanical/electrical engineering	*3 hours & 10 mins (9.00 am – 12.10 pm)	<ul style="list-style-type: none">• 40 Multiple Choice Questions (MCQ)
<u>FEE Part 2</u> Core/Elective subjects in civil/electrical/mechanical engineering	*3 hours & 10 minutes (2.00 pm – 5.10 pm)	<ul style="list-style-type: none">• Answer 5 out of 9 questions (civil)• Answer 5 out of 7 questions (electrical, mechanical)

Practice of Professional Engineering Examination

Subjects	Time Allocated	Format
<u>PPE Part 1</u> Common paper	2 hrs 10 mins (9.00 am – 11.10 am)	<ul style="list-style-type: none">• Answer 10 compulsory Multiple Choice Questions• Answer 3 out of 5 essay questions
<u>PPE Part 2</u> Civil/mechanical/electrical engineering	4 hrs 10 mins (1.00 pm – 5.10 pm)	<ul style="list-style-type: none">• Answer 1 compulsory question plus 4 out of 7 questions

Oral Examination For Experienced Applicants

Oral Examination: seeks to **test and establish** the applicant's **knowledge, expertise, experience and achievements** in his branch of professional engineering practice.

Experienced Applicant:

- Qualifications specified in PE (Approved Qualifications) Notification 2005 obtained before 1 Dec 2005
- 25 years practical experience
(**from award date of qualification to time of application**)
- Oral exam
- Professional interview

Professional Interview

Summary of Post-Graduate Professional Experience

Report on Post Graduate Engineering Experience

Professional Interview – 45 to 60 mins