Guideline for PEng Applicants

BPERB, IEB HEADQUARTERS (13TH FLOOR), RAMNA, DHAKA-1000

1. APPLICATION REQUIREMENT

The Bangladesh Professional Engineers Board registers professional engineers in different branches of engineering. A person applying for registration as a professional engineer to the BPERB is required to hold an approved degree by the Board of Accreditation of Engineering and Technical Education (BAETE) or IEB and acquired not less than seven (7) years of relevant practical experience with a minimum 2 years of experience in the responsible position. The Board does not consider qualifications obtained from distance learning, twinning programs, or programs that are not approved as meeting the prescribed requirements.

The applicant is required to submit a competence and commitment report based on his skills, experience, and independent practice. He is also required to sit and pass examinations prescribed by the Board. In addition, the applicant is required to attend an interview.

If an applicant's undergraduate degree is not listed in the IEB/BAETE list, it may consider the application for registration if the degree is supplemented by a Master's or PhD in the same branch of engineering from an institution approved by IEB.

2. EVIDENCE OF EDUCATIONAL QUALIFICATIONS

If all the latest academic certificates have not been deposited with IEB previously, certified copies of degree certificates must be provided for any qualifications as part of the submission. This must be a 'true copy of the original qualification' and should be certified by a Professional Engineer of BPERB, or an IEB Fellow. If the qualifications are not in English, certified translations must be provided. The details of the academic qualifications must be described in the online submission portal.

3. PRACTICAL EXPERIENCE AFTER GRADUATION

The practical experience should be relevant to the engineering fields in which the applicant claims expertise. The candidate should participate in various roles and activities appropriate to the engineering fields. However, their roles while they are in responsible charge of engineering work should be more focused. The summary of the current and past work experience must be described in the CV and also in submission portal. The work experience and professional competence of the candidate must be

verified by the appropriate qualified person, preferably by a practicing professional engineer.

4. A MINIMUM PERIOD IN RESPONSIBLE POSITION

A minimum practical experience of two years in a responsible position is required for the PEng application. Here, the responsible position indicates that the individual should have the work in a position where he/she could exercise independent engineering judgement. The projects in which he was involved should have had substantial duration, cost, and complexity. In addition, the applicant should have been personally accountable for their decisions. The specified period of two years may be completed within the required seven years of experience since graduation.

5. CANDIDATE COMPETENCE FOR INDEPENDENT PRACTICE AND PRACTICAL INVOLVEMENT

The applicant should develop the necessary level of practice skills and professional maturity to meet the BPERB competence criteria. The engineering competence and commitment (EC) are set following the 13 ECs of International Professional Engineers Agreement (IPEA) guideline. The assessment process focuses on the evidence of their professional competence following the set core competence of BPERB. The details of the BPERB's competences and commitments are as follows

A. Core professional competence Standards –I: Knowledge and Understanding [EC1 and EC2]

a. Comprehend and apply advanced knowledge of the widely-applied principles underpinning good practice, both generally and specifically for the jurisdiction in which the applicant practices. [EC1, EC2]

B. Core professional competence Standards –II: Design, Development and Solving Engineering Problems [EC3, EC4, EC5 and EC6]

a. Define, investigate, and analyze complex problems using data and information technologies where applicable. [EC3]

b. Design or develop solutions to complex problems, considering a variety of perspectives and taking account of stakeholder views [EC4]

c. Evaluate the outcomes and impacts of complex activities [EC5]

d. Recognize the reasonably foreseeable social, cultural, and environmental effects of complex activities and seek to achieve sustainable outcomes [EC6]

C. Core professional competence Standards –III: Responsibility, Management, and Leadership [EC7, EC9, EC12, and EC13]

a. Meet all legal and regulatory requirements and protect public health and safety in the course of activities conducted. [EC7]

b. Manage part or all of one or more complex activities [EC9]

c. Recognize complexity and assess alternatives in light of competing requirements and incomplete knowledge. Exercise sound judgment in the course of his or her complex activities [EC12]

d. Be responsible for making decisions on part or all of complex activities. [EC13]

D. Core professional competence Standards –IV: Communication and Interpersonal Skills [EC10]

a. Communicate and collaborate using multiple media clearly and inclusively with a broad range of stakeholders in the course of all activities. [EC10]

E. Core professional competence Standards –V: Personal and Professional Commitment [EC8 and EC11]

a. Conduct activities ethically [EC8]

b. Undertake CPD activities to maintain and extend competences and enhance the ability to adapt to emerging technologies and the ever-changing nature of work [EC11]

6. REQUIREMENT OF CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

The CPD should be appropriate to the area of engineering in which the applicants claim expertise. The focus of CPD should be on actively learning or refreshing knowledge and skills. CPD intends to bridge the gap between education and professional

knowledge and understanding, align with the latest IPEA professional competency profile, professional engineers' competence (EC) and five core professional competences as presented in 5. The learning outcome of the CPD should be defined and the extent to which learning has occurred evaluated at the end of the CPD activity. The candidates will submit the CPDs of at least last three years. The applicant must complete at least **50 hours** of committed time in the immediate last year to develop his knowledge and skill in the relevant field. A list of CPD activities and their corresponding activities can be found in the CPD Form prescribed by BPERB as presented in **ANNEX-A.**

7. SPONSOR'S REPORT

The candidate must select at least **Two Sponsors** to support his application and confirm his suitability for professional review examination. All sponsors must be professionally qualified by BPERB or any globally recognised institute. The sponsors must meet certain requirements and thus it's important that he sponsor) must read the BPERB guidance in the statement of support as it provides details on who is eligible to be a sponsor and what they are required to do. Sponsors must be either Professional Engineers of BPERB with a minimum of **three years of registration** tenure or IEB Fellows with a minimum of **ten years** of status. BPERB form for the sponsors to support the candidate can be found in web portal. The candidate must ask his sponsors to complete the required form with his statement before he/she submits the application online. The candidate must ensure this has been completed. Application will not be processed if the sponsor's letters are not submitted. Sponsors should provide advice on the report writing, presentation, and arrange practice interviews for the candidate.

8. CONTENT OF PROFESSIONAL REVIEW REPORT

The competence and commitment report should be 3000-5000 words long (body text only). Each sub-competence should be demonstrated with 2-3 pieces of evidence and within 600 words, excluding the appendices. The report should be the applicant's own work and presented in an ordered manner. The report is a vehicle for the applicant to demonstrate how he/she has met the attributes. It is important to give the reviewers a description of their activities, which will allow them to see how they have met all the attributes at the required level.

It's essential that the applicants emphasise their responsibilities and relevant experiences for each attribute. They should expand on critical decisions they made, problems they met, and occasions when they gained unusual or extensive experience and learned valuable lessons. The report should put particular emphasis on one to four projects in which the candidate played a major part. He/she should also take a lead in some or all of the elements of the project/s.

The candidates must indicate their role in the projects by giving the background to the important decisions that they were responsible for or made a significant contribution to through the decisions that they made. They must show where they have exercised independent judgement as an engineer and a practising professional. Supporting documentation such as numerical analyses, cost data, drawings, or other relevant evidence from their work should be included directly in the report or as appendices to support the content in the report. The appendices are not included in the word count. Candidates can use color, images, or drawings wherever they feel necessary, particularly in the appendices.

9. APPLICATION SUBMISSION

Candidates are required to fill up the online application form through the application submission portal of the BPERB website. Applications are taken any dates of the year. The application must include two sponsors and their statement of support and all items prescribed in the portal are required to be included in your application before upload. The candidate must complete all sections of the online application form. After online submission, the applicant will receive an automated response on screen confirming the application was uploaded. If the applicant experiences any problem or difficulty in the submission, he/she may send email to info@beperb.org.

BPERB checks every application for completeness of the submission and, if necessary, requests any missing documents. BPERB is unable to continue processing the applications until all the information has been received. To avoid delays, the candidates are requested to ensure that all of the items are included with the application.

A pre-assessment of the application and report will also then be undertaken by the BPERB assessors. Successful candidates will be called for the written examinations. The written examination of the professional review is held in person at IEB complex.

The frequency of the examination is 4 times in a year; i.e, once in an every three months (March, June, September and December). The candidates must submit the document at least two months before the written exam. As an example, anyone wish to sit for March, he/she must submit all required document before 2400 hrs of 31st January of the year.

Candidates are given approximately 2 weeks' notice of the exact timing of the written examination. The assessment of the written examination usually takes two weeks. After the written examination, successful candidates are further notified for the professional review interview. Under any circumstances, candidates are not allowed to contact their potential reviewers directly or indirectly.

Deferring the examination

The candidate may request the deferral of his/her Professional Review at any time after submitting the application. However, the applicant must submit an application the chairman of BPERB explaining his/her situation with evidences.

10. THE PROFESSIONAL ENGINEER'S EXAMINATION

Professional Exam will be held in two steps. In the first step, there will be written examination based on the demonstration of the evidence of the ethical commitment and communication skill of the candidate. The details of the examination can be found in the BPERB manual. After the successful completion of the written exam, candidates are required for an interview with the assessor who evaluated the candidate's competence report and written exam scripts. There will be at least two assessors having expertise in the similar area of the candidates for the interview of the candidate. In the first phase of the interview, there will be a brief presentation to the assessor demonstrating the knowledge, skill, and experience matches with the required core competences of BPERB. To be successful, both assessors must be satisfied on the day, that you have met all attributes at the required level. Note that there may be an observer at the review exam; however, he /she will not participate in the assessment.

Therefore, the Professional Review Exam comprises:

a. **_BPERB Core Competence Report_**
b. **_Written Exam_**
   A written Ethical Commitment and Communication Task
c. **_An interview with Assessors_**

A presentation to your assessors

Presentation

The Professional Review interview will begin with a 15-minute presentation delivered to your reviewers based on an aspect of the core competence report. The presentation content should expand upon an aspect of your report. It should not cover all the attributes, nor should it be a summary of the applicant's CV or the report.

The applicants are encouraged to use visual aids to illustrate their presentations. They will be able to present these onscreen. The candidates are permitted to use their own laptop, and an external power supply may be provided on request. If the candidate takes longer than 15 minutes, assessors may stop the candidate so that the interview can proceed.

Interview

After the presentation, the assessors will then interview the candidates, who will seek to confirm, from the responses during the interview, that they have achieved the required level of competence in all the attributes. The presentation and interview usually last for 60-90 minutes for each candidate. Suppose the candidate hasn't demonstrated sufficient evidence of meeting a particular attribute in the report. In that case, the assessor will pose specific questions to try to draw out your knowledge and experience in that area. All mobile devices must be switched off before the start of the interview. The recording of the interview is also prohibited.

11. TRAINING PROGRAM FOR THE APPLICANTS

There are several ways that the applicants are getting training and support. First of all, the sponsors of each applicant are like their mentors. Mentors help the applicant through their experience in the professional review exam. They usually guide the applicants on how to write a professional review report, demonstrate their attributes, prepare for the interview, and write a communication and commitment report. BPERB conducted a training program for the prospective professional engineers on various topics. Each topic is usually 3 hrs 3-hour session. Some training sessions are as follows

a.   Professional Review Application
b.   PEng Written Examination
b.   Core Competence: Knowledge and Understanding

c.   Core Competence: Design, Development, and Solving Engineering Problems

d.   Core Competence: Responsibility, Management, and Leadership

e.   Core Competence: Communication and Interpersonal Skills

f.   Core Competence: Personal and Professional Commitment

g.   PE Interview

h.   Presentation Preparation for Interview

12. APPLICATION FEE

Payment must be made before completing the online submission of your application. You may pay through mobile banking or a credit card. Alternatively, the candidate may pay through bank transfer. In that case, the deposit bank receipt must be uploaded to the submission platform.

ANNEX-A

BANGLADESH PROFESSIONAL ENGINEERS REGISTRATION BOARD (BPERB)

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

REQUIREMENT FOR REGISTERED PROFESSIONAL ENGINEER (PEng)

CPD Activities and Weight Factor

Sl No.	CPD Activities	Unit/ Period of Activities	Weight factor
1	Convention/ Conference/ Seminar/ Symposium/ Meeting on Technical Issues	Each Hour in the Audience/ Attending	0.5-hour CPD
		Each Hour in Imparting/ Presenting	1-hour CPD
2	Training/ Workshop/ Short Course/ Technical Meeting Attending, Conduction & Contributing to Technical Issues	Each Hour Attending	1-hour CPD
		Each Hour in Imparting/ Presenting/ Conducting & Contributing	2-hour CPD
3	Preparation and Presentation of Technical Paper/ Professional Lecture	Each Paper Each Class	3-hours CPD (Equally divided among authors)
4	Publications in Technical conference proceedings	Each Paper	2-day CPD (Equally divided among authors)
5	Publication in recognized technical journals or publishing technical books	Each Paper/ Book	3-day CPD (Equally divided among authors)
6	Graduation Courses/ Tertiary Courses	Each Credit hour (i.e. 12-14 hours/ semester)	2-day CPD
7	Self-study on a particular topic or area for professional development	A maximum of 20 hrs CPD can be claimed as self-study, subject to the approval from the BPERB assessors.	