

## CONTENTS

	<u>Page</u>
<b>1.0 Introduction</b>	<b>2</b>
1.1 Sri Lanka's participation at the International Engineers Meeting 2003	2
1.2 IESL initiative towards introducing Registration	2
1.3 IESL Application for Provisional Membership of the EMF	2
<b>2.0 IESL Act # 17 of 1968</b>	<b>3</b>
<b>3.0 Engineers Registration Board</b>	<b>3</b>
<b>4.0 The IESL strategy for implementation</b>	<b>3</b>
<b>5.0 The Professional Engineer – Criteria &amp; Procedures</b>	<b>4</b>
5.1 Academic Qualification	4
5.2 Eligibility for independent practice within own economy, i.e. Sri Lanka	4
5.3 Practical Experience inclusive of Responsible Experience	4
5.4 Maintain Continuing Professional Development at an acceptable level	5
5.5 Competence based Assessment	5
<b>6.0 Application for registration as a Professional Engineer</b>	<b>5</b>
6.1 Documentation	5
6.1.1 Career Report	6
<b>11.0 Assessment</b>	<b>7</b>
11.1 The Assessment Panel	7
11.2 Award of PEng(Sri Lanka) – Registration	7
<b>Annexes:</b>	
Annex 1 – Core Competence Standards	
Annex 2 – Application for Registration; Form IESL/PE/01	
Annex 3 – Sponsor's Confidential Report; Form IESL/PE/02	

## **1.0 Introduction**

### **1.1 Sri Lanka's participation at the International Engineers Meeting, Rotarua 2003**

In the Corporate Plan 2001 – 2005 of the Institution of Engineers, Sri Lanka [IESL] one of the Goals was for the IESL to attain international recognition by becoming a signatory to the Washington Accord and a member of the Engineers Mobility Forum [EMF]. Having expressed interest in becoming signatories to the Washington Accord and the Engineers Mobility Forum [EMF], the IESL was invited to participate as an Observer at the International Engineers Meeting held in Rotarua, New Zealand in June 2003. The IESL made a presentation in which the role of the IESL in conducting a Professional Review to award Chartered Engineer (CEng) status in Sri Lanka was highlighted. These Chartered Engineers are regarded by both the Government and the Private sector as being at the apex of the profession and frequently secure employment with high levels of responsibility. Further it was highlighted that many Sri Lankan Chartered and graduate engineers have migrated to many countries, chiefly to the United Kingdom, Australia, New Zealand, the USA and Canada. These engineers have found ready employment in those countries and have also become Corporate Members of the engineering Institutions there.

### **1.2 IESL initiative towards introducing Registration**

Although the IESL is authorized by Act of Parliament to award the CEng status, there is at present no mechanism to regulate the practice of the profession of engineering. To overcome this deficiency the IESL is in the process of amending the legislature governing it to exclusively grant the designation of Professional Engineer to persons qualified to be so registered and to maintain and publish a register of Professional Engineers. This grade of membership will satisfy the requirements of the EMF for practice in Member countries through recognition based on confidence in the integrity of the national assessment system.

### **1.3 IESL Application for Provisional Membership of the EMF**

The first phase in the process was for the IESL to set-up a Registration Board and this was done through a Resolution passed in October 2004 at the 98<sup>th</sup> Annual General Meeting of the IESL when the House adopted the Resolution to establish the Institution of Engineers, Sri Lanka Registration Board. The IESL then drew up criteria and procedures for eligibility for registering as a Professional Engineer in keeping with the requirements stipulated in Schedule 2 of the Draft Constitution of the EMF – International Register of Professional Engineers – May 2003.

The IESL's application for Provisional Membership of the EMF was accepted at the International Engineers Meeting held in June 2005 in Hong Kong. The IESL intends applying for Full Membership of the EMF in June 2007.

The IESL is confident that the process as set out in the following pages of this document meets the requirements for cross-border practice by experienced Professional Engineers, establishing a framework for their recognition based on confidence in the integrity of the national assessment system, through continuing inspection and evaluation of those systems.

## **2.0 IESL Act # 17 of 1968**

The Institution of Engineers, Sri Lanka which is the oldest learned society dedicated to the science of engineering in Asia, was started in 1906 as the Engineering Association of

Ceylon. In 1957 its name was changed to the Institute of Engineers, Ceylon and in 1968 the Institute was incorporated by an Act of Parliament No. 17 Of 1968. In 1996 an amendment to the existing Act by Act No.3 of 1996 saw the name of the Institute changed to the Institution of Engineers, Sri Lanka (IESL), by which it is currently known.

The IESL is currently in the process of making a further amendment to Act No.17 of 1968 to empower the Institution to regulate the profession through the process of Registration of a category of engineers known as the Professional Engineer [PEng(Sri Lanka)]. This category, which will be over and above the existing grades of membership, will ensure that the PEng(Sri Lanka) grade meets the requirements of the EMF.

### **3.0. Institution of Engineers Sri Lanka Registration Board**

As mentioned earlier the IESL established the Institution of Engineers Sri Lanka Registration Board (IESLRB). The IESLRB shall function independently subject to the general policies of the Institution.

The functions of the IESLRB shall be to:

- (a) register as Engineers persons qualified, under this law, to be so registered;
- (b) to suspend, cancel or restore such registration, in accordance with the provisions of this law;
- (c) to maintain and publish a register of Professional Engineers, who will satisfy the requirements of the EMF for practice in Member countries through recognition based on confidence in the integrity of the national assessment system.

The IESLRB shall consist of engineers, academicians and professionals of eminence as set out in the IESL Act and By-laws. The powers and functions of the Board shall be as set out in the IESL Act and By-laws.

### **4.0 The IESL strategy for implementation**

The IESL already has in place a mechanism whereby an engineer can reach the level of Chartered Engineer [CEng (Sri Lanka)]. This process is the Professional Review as given in the Rules for the Professional Review 7<sup>th</sup> edition – October 2002.

The Chartered Engineer [CEng (Sri Lanka) is a professional qualification for engineers in Sri Lanka and is not automatically transferable or necessarily recognised in other jurisdictions. Within Sri Lanka the Chartered Engineer is recognised by both the State and Private sectors and is considered to be the apex of the engineering profession.

Through meeting the requirements of the IESLRB, the Professional Engineer designation, PEng(Sri Lanka), will be a quality mark for Sri Lankan engineers both within their own jurisdiction and more importantly at an international level. The benchmarks for this level of achievement would be to:

- (a) have an Degree in Engineering accredited/recognised by the IESL;
- (b) be assessed within own economy as eligible for independent practice i.e. be a Corporate Member;
- (c) have gained a further three (3) years practical experience since Corporate Membership;
- (d) of this, have spent at least two years in responsible charge of significant engineering works;
- (e) maintain continuing professional development [CPD] at a satisfactory level;
- (f) be evaluated through a competence based assessment.

## **5.0 The Professional Engineer – Criteria & Procedures**

### **5.1 Academic Qualification**

The IESL, while presently seeking Full Membership of the EMF, will later also be seeking to become a signatory to the Washington Accord. Until such time as the IESL obtains accreditation status under the Washington Accord, the following engineering qualifications will be accepted:

- i an engineering degree in respect of accredited programmes from the Faculties of Engineering of the Sri Lankan Universities;
- ii an engineering degree programme accredited by the Washington Accord;

### **5.2 Eligibility for independent practice within own economy, i.e. Sri Lanka**

As described in preceding sections, the IESL already has a scheme whereby suitably qualified and experienced engineers can become Corporate Members of the Institution and achieve recognition as Chartered Engineers in Sri Lanka, and accordingly, are acknowledged by both the State and Private sectors as being at the apex of the engineering profession. Hence such engineers having Corporate Membership of the IESL are considered eligible for independent practise of their profession in Sri Lanka.

The IESL also recognises the Corporate Membership granted by certain foreign engineering Institutions. Engineers with such qualifications will also be considered as eligible for independent practise of their profession in Sri Lanka.

### **5.3 Practical Experience inclusive of Responsible Experience**

The practical experience an engineer receives after completing the necessary academic qualification can be broadly classified as (a) training and (b) work experience with increasing degrees of responsibility. For becoming a Chartered Engineer it is necessary to have :

- Two (2) years structured training in an approved organisation under the supervision of a Chartered or Professional Engineer.
- A minimum of two (2) years Work Experience under the supervision of a Chartered or Professional Engineer. This is the experience the engineer acquires in the practice of the profession. In general it will start with the engineer having some degree of responsibility but progresses to the point where the engineer is required to shoulder much greater responsibilities.

For satisfying the requirements of the IESLRB, the Chartered Engineer the must have :

A further three (3) years of independent work experience, being in responsible charge of significant engineering works. Here the work would have required the exercise of independent judgement; the projects should have been substantial in cost, duration or complexity and the engineer personally accountable for their success or failure. An engineer may be considered as being in responsible charge of significant engineering works when he has:

- i planned, designed, coordinated and executed a small project;
- ii undertaken part of a larger project based on an understanding of the whole project;
- iii undertaken novel, complex and/or multi-disciplinary work.

## 5.4 Maintain Continuing Professional Development at an acceptable level

Continuing Professional Development (CPD) is the systematic maintenance, improvement and broadening of knowledge and skill, and the development of personal attributes necessary for the discharge of professional and technical duties throughout the engineer's working life.

CPD may be achieved by attending or undertaking :

- i Seminars, workshops, courses and lectures organised by the IESL, Employers or other professional organisations in Sri Lanka or abroad;
- ii The Annual Sessions of the IESL and other Conferences;
- iii Technical authorship or presentations for organised training events;
- iv Research and /or post-graduate studies;
- v Lecturing for those who are not regularly employed as lecturers;
- vi Distance learning using IESL approved study packages

The CPD requirement will be twenty four (24) hours for the previous twelve (12) months.

The record of CPD activities will be maintained in the CPD Record Book provided for this purpose by the IESL.

## 5.5 Competence based Assessment

To meet the minimum standards, an engineer must demonstrate that he is able to practise competently in his speciality area to the standard expected of a competent Professional Engineer. For this purpose five **Core Competence Standards** have been identified namely:

- 1 Demonstrate knowledge and understanding of engineering principles.
- 2 Demonstrate practical application of engineering knowledge and expertise.
- 3 Leadership and management.
- 4 Communication and interpersonal skills.
- 5 Professional conduct.

During the period of Training and Work Experience the engineer will be expected to develop many of the skills defined in the Core Competence Standards (Annex 1) and will be expected to demonstrate these both through the submission of the Career Report and also at the interview he will be required to undergo.

## 6.0 Application for registration as a Professional Engineer

### 6.1 Documentation

Engineers desirous of applying for registration as a Professional Engineer must submit, in English, the following documents to the Executive Secretary, IESL for processing by the IESL Committee for the award of the Professional Engineer [PEng (SL)] status.

- a. The completed and signed application form duly proposed and recommended by two (2) sponsors who are Fellows of the IESL or equivalent and have a personal knowledge of the applicant and his engineering capabilities.  
The Application Form IESL/PE/01 is given in Annex 2.
- b. The Sponsors Confidential Report – Form IESL/PE/02 is given in Annex 3.

These should be handed over to the Sponsors who after filling it, will seal it in an envelope addressed to the Executive Secretary IESL and hand the it back to the applicant for submitting together with Application and other connected documents.

- b. The Career Report which will be between 1,500 to 2,000 words and, while containing details of their career development with increasing responsibility levels, will also **highlight the core competences** which are underpinning their professional engineering development. The Career Report may also be supported by a detailed *curriculum vitae* (CV) of the applicant.
- c. Evidence of academic qualifications.
- d. Evidence of Corporate Membership of the IESL or other recognised engineering institution.
- e. Evidence of CPD followed over the past twelve (12) months.

### 6.1.1 Career Report

The Career Report will be in two parts, the first leading up to the obtaining of Corporate Membership and the second from then onwards.

The first part will chronologically trace the applicant's career starting with his training, through the work experience with increasing levels of responsibility. Too much detail here should be avoided, except to highlight the application of theoretical knowledge in solving problems encountered.

In the second part the applicant's career continues chronologically, but with emphasis and evidence of the applicant being in responsible charge of significant engineering works. The work experience here will be not less than three (3) years, of which at least two (2) years will be at a senior level of responsibility.

The Career Report is also meant to give the applicant a means of proving that he has been aware of the core competences expected of the Professional Engineer and that he has been guided by the competence standards necessary for the effective discharge of his duties. As such the following attributes should be demonstrated in the Career Report:

- A sound understanding of engineering principles.
- Apply appropriate theoretical and practical methods to the analysis and solution of engineering problems.
- Provide technical, commercial and managerial leadership.
- Use effective communication and inter-personal skills.
- Be committed to uphold and abide by the IESL's Code of Ethics, recognising obligations to society, the profession and the environment.

The Career Report is the main opportunity for the applicant to convince the assessors that he possesses and has been consistently demonstrating in his work, the required competence. It should, therefore, not simply be a narrative of work carried out by the applicant, but must describe the "why and how" of the activities. It should also indicate the applicant's involvement and the personal accountability for the success or failure of the activity.

The Career Report should be between 1,500 and 2,000 words.

## **7.0 Assessment**

The Application together with the Career Report and relevant papers are received by the Executive Secretary IESL, who will check to ensure that:

- i all documentation is as required and in order
- ii the necessary processing fees have been paid

Once satisfied that the Application is in order, the Executive Secretary will provide sets of the relevant documentation to the Assessment Panel, who will be responsible for the total evaluation of the applicant. After the Assessment Panel has reviewed the Application and relevant papers, and is satisfied that the applicant meets with the requirements for registration as a Professional Engineer, they will instruct the Executive Secretary to summon the applicant for an Interview.

The purpose of the Interview is for the Panel members to reinforce their initial opinion regarding the suitability of the applicant for registration as a Professional Engineer, or otherwise. While the Panel spends some time discussing the applicant's work experience, it is expected that the major portion of the Interview will be devoted to ascertaining the applicant's performance in respect of the core competence standards.

If from the documentation with the Assessment Panel is of the opinion that the applicant does not appear to meet the necessary requirements, the Panel could:

- i reject the application – here details of short-comings must be given to enable the unsuccessful applicant to take remedial measures before he next applies;
- ii request the applicant to make minor changes and resubmit a corrected application;
- iii decide to summon the applicant for the Interview in order to clarify any issues.

All such decisions will be conveyed to the Executive Secretary who will inform applicants accordingly.

### **7.1 The Assessment Panel**

The Assessment Panel will comprise two (2) Professional Engineers or Fellows of the IESL, who will be nominated by the IESLRB. Alternatively, one of the panel members could be a Fellow or a Professional Engineer of a foreign engineering Institution recognised by the IESL.

At least one of the Panel members will be from the same field of specialization as the candidate.

## **8.0 Award of PEng (Sri Lanka) – Registration**

On the recommendation of the respective supporters and due scrutiny and assessment by the Assessment Panel, the IESL Registration Board will circulate the names of candidates successful at the Assessment among all Corporate Members and Professional Engineers of the IESL. If no objections are received within thirty (30) days of the date of the notice, then the Board will confirm the award of the Professional Engineer for a period of five (5) consecutive calendar years and allow the use of the abbreviated title PEng (Sri Lanka) after his name.

For renewal of registration of the PEng (Sri Lanka) the candidate will be required to provide evidence of:

- i continuation in the engineering profession at the same or higher level of responsibility;
- ii a minimum of twenty four (24) hours of CPD for each of the previous five (5) years;
- iii payment of the prescribed registration fees.