### GUIDE TO THE ASEAN ENGINEERING REGISTER

#### INTRODUCTION

### 1.0 ASEAN Federation of Engineering Organisations (AFEO)

The ASEAN FEDERATION OF ENGINEERING ORGANISATIONS (AFEO) brings together national engineering organisations from ASEAN countries as national members. It was founded in 1980 and the Secretariat used to be rotated amongst member organisations hosting the Annual Conference of the ASEAN Federation Engineering Organisations (CAFEO). The permanent Treasurer of AFEO is at The Institution of Engineers, Malaysia in Kuala Lumpur. In 2002, at the 20<sup>th</sup> AFEO Governing Board meeting, the proposal was made in Phnom Penh to consider setting up a permanent AFEO Secretariat. This proposal was finally agreed at the 21<sup>st</sup> AFEO Governing Board meeting held on 23<sup>rd</sup> October 2003 in Jogjakarta, Indonesia. The Secretariat was to be housed in The Institution of Engineers, Malaysia.

The AFEO Governing Board at their meeting in Manila on 23<sup>rd</sup> November 1998 had agreed on the formation of ASEAN Engineers Register (AER) hereafter referred to as the "Register". The AER Secretariat was officially set up only on 3<sup>rd</sup> September 2002 at The Institution of Engineers, Malaysia. Since 23<sup>rd</sup> October 2003, a permanent AFEO Secretariat had been established and is based at The Institution of Engineers, Malaysia. The AER Secretariat was therefore to be also housed at The Institution of Engineers, Malaysia.

At the 10<sup>th</sup> Mid Term AFEO Board meeting, held on 9 June 2011 in Vientiane, Laos PDR, a proposal was put forth recommending to the Board, the formation of two additional categories into the ASEAN Engineers Register namely the ASEAN Engineering Technologists (AET) and the ASEAN Technician (AT) and their Associates.

The proposal to include the registration of ASEAN Engineering Technologist and Technician was approved at the 29<sup>th</sup> AFEO Governing Board meeting on 28 November 2011 in Bandar Seri Begawan, Brunei Darussalam. It was also at this meeting that the Register was renamed as the ASEAN Engineering Register (AER) to avoid confusion between the Register and the Grade of Membership.

## 2.0 Objectives

The objectives of establishing the Register are as follows:

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011

a. To promote recognition of ASEAN engineering profession within and outside ASEAN:

- b. To facilitate the mobility and professional practice of Engineers, Engineering Technologists, Technicians and related Associates within the ASEAN ambit by establishing a framework of mutual recognition of qualifications amongst the ASEAN member countries whereby AER registered Engineers, Engineering Technologists, Technicians and related Associates who wish to take up employment, do business and/or practice outside their home country may carry with them an approved and recognized professional/semiprofessional qualification;
- c. To safeguard and promote the professional interests of Engineers, Engineering Technologists, Technicians and related Associates;
- d. To establish a database of the capability profiles of AER registered Engineers, Engineering Technologists, Technicians and related Associates in order that prospective employers from member countries may engage their services.
- e. To uphold the quality and standing of AER registered Engineers, Engineering Technologists, Technicians and related Associates by facilitating and implementing continuous improvement through the setting, monitoring and reviewing of standards
- f. To foster high standards of formation and professional practice and regularly review them;
- g. To promote cultural and professional links among members of the engineering profession within ASEAN;
- h. To enhance the wealth creation process of ASEAN countries;
- i. To provide sufficient data regarding the formation of an individual engineer for the benefit of prospective employers;
- j. To encourage a continuous updating of the quality of engineers by setting, monitoring and reviewing standards.

In pursuit of these aims, AFEO shall maintain the Register into which individuals may be admitted provided they meet the specified minimum requirements.

## 3.0 Concept

Education and professional systems in the various ASEAN countries vary considerably. Their values are judged by the potential competence of the engineer who emerges from them.

However differing systems can co-exist.

A description of the potential competence expected by AFEO is given as follows:

### 3.1 Potential Competence

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011 Engineers, Engineering Technologists and Technicians can be aware of their professional responsibilities should strive to achieve competence in the following:

- An understanding of the engineering profession and of the registrants' responsibility to their colleagues, employers or clients, to the community at large and to the environment;
- A thorough knowledge of the principles of engineering, based on mathematics, physics and informatics, appropriate to their discipline;
- A general knowledge of good engineering practice in their field of engineering and the properties, behaviour, fabrication and use of materials components and software;
- Knowledge of the use of technologies relevant to their field of specialisation;
- Use of technical information and statistics:
- The ability to develop and use theoretical models from which the behaviour of the physical world can be predicted;
- A capacity to exercise independent technical judgments through scientific analysis and synthesis;
- An ability to work on multi-disciplinary projects;
- Knowledge of industrial relations and the principles of management, takin into account technical, financial and human considerations;
- Skills in communication, oral and written, including the ability to write clear reports;
- An ability to apply the principles of good design in the interest of ease of manufacture and maintenance, and quality at economical cost;
- An active appreciation of the progress of technical changes and of the continuing need not to rely solely on established practices but to cultivate an attitude of innovation and creativity in the exercise of the profession of engineering;
- An ability to assess conflicting and multifarious factors (e.g. cost, quality,

safety and time-scale) both in the short and long terms and to find the best engineering solution;

- An ability to provide for environmental considerations;
- The capacity to mobilise human resources;
- Fluency in one other language other than the mother tongue.

### 4.0 Minimum Requirement

The criteria stipulated below are the minimum requirements for an applicant to be admitted into the Register:

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011

- Must possess an Engineering Degree or Engineering Technologist Degree or Engineering Technologist Diploma recognised by the home country or member organization;
- Must be a full-time member of the Engineering Organisation or Technological Association and is licensed to practice in the home country or member institution;
- Must have a minimal of seven (7) years post-graduate professional working experience in an engineering environment of which a minimum of two (2) years of this experience shall involve the responsible charge of significant work;
- Must maintain his professional development at an acceptable level; and
- Must agree to be guided by the ASEAN Engineering Code of Practice.

#### 5.0 GRADE OF MEMBERSHIP AND ENGINEERING TITLES

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011 The grade of membership is therefore documented as below and they would be permitted to use the ASEAN Engineering titles as indicated:

- (a) ASEAN Engineer Register
  - (i) ASEAN Engineer (ASEAN Eng)
  - (ii Associate ASEAN Engineer (AAE)
- (b) ASEAN Engineering Technologist Register
  - (i) ASEAN Engineering Technologist (AET)

- (ii) Associate ASEAN Engineering Technologist (AAET)
- (b) ASEAN Technician Register
  - (i) ASEAN Technician (AT)
  - (ii) Associate ASEAN Technician (AAT)

## 6.0 Minimum Requirements

The criteria stipulated below are the minimum requirements for an applicant to be admitted into the Register:

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011

#### i) ASEAN ENGINEER (ASEAN Eng)

- Must possess an Engineering Degree recognised by the home country for the engineers;
- Must be a full-time member of the Engineering Organisation or Technological Association and licensed to practice engineering in the home country; and
- Must have a minimum of seven (7) years of post-graduate professional working experience in an engineering environment of which two (2) years of experience in responsible charge of significant work;
- Maintain his professional development at an acceptable level;
- To be guided by the ASEAN Engineers Code of Practice.

# mended ii) ASEAN ENGINEERING TECHNOLOGIST (AET)

- Must possess an Engineering Technologist degree recognised by the home country;
- Must be a full-time member of the Engineering Organisation or Technological Association and licensed to practice engineering in the home country; and
- Must have a minimum of seven (7) years of post-graduate professional working experience in an engineering environment of which two (2) years of experience will be of substantial charge;
- Maintain his professional development at an acceptable level;

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011 Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011 • To be guided by the ASEAN Engineers Code of Practice.

#### iii) ASEAN TECHNICIAN (AT)

- Must possess an Engineering Technologist diploma recognised by the home country; Such diploma programs must be able to meet the requirements of the Dublin Accord or equivalent;
- Must be a full-time member of the Engineering Organisation or Technological Association and licensed to practice engineering in the home country; and
- Must have a minimum of seven (7) years of post-graduate professional working experience in an engineering environment of which two (2) years of experience will be of substantial charge; or
- For candidate with a certificate in Engineering, the minimum postqualification working experience is 10 years for which two (2) years are in substantial charge
- To be guided by the ASEAN Engineers Code of Practice.

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- iv) ASSOCIATE ASEAN ENGINEER (AAE)
- v) ASSOCIATE ASEAN ENGINEERING TECHNOLOGIST (AAET)
- vi) ASSOCIATE ASEAN TECHNICIAN (AAT)
- MUST be a full time Graduate Member of the Engineering or Technical Association

#### COMPOSITION

## 7.1 ASEAN Engineering Register Commission (AERC)

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011

The Register shall be maintained by a Commission called the "ASEAN Engineering Register Commission" (AERC).

The AERC shall comprise of ten (10) Country Registrars appointed from each member organisation and a Head Commissioner.

The AERC shall review and endorse the list of approved applications before forwarding it for the information of the AFEO Governing Board.

The Register shall be maintained by the member organisation hosting the AER Secretariat.

### 7.1 AER Country Registrars

Each member organisation shall appoint its own country representative called "Country Registrar" to serve on the AERC. The Country Registrar shall be the Chairman of the National Monitoring Committee (NMC) in the home country. An alternate Country Registrar can also to be appointed to assist the Country Registrar.

#### 7.2 AER Head Commissioner

The Institution hosting the AER Secretariat shall nominate the Head Commissioner to preside over the AERC. The nomination of the Head Commissioner is to be approved by the Country Registrars and endorsed by the AFEO Governing Board.

The Head Commissioner shall attend the meeting of the AFEO Governing Board as an observer to present the list of approved applications and activities of the AER.

## 8.0 AER Executive Committee (Exco)

The Head Commissioner may establish an AER Executive Committee (Exco) to help to deal with the day-to-day operations. The members of this Exco are to be appointed by the Head Commissioner. The Exco members can be solely members of the member organization hosting the AER Secretariat or from members' organizations. The tenure serving as member of the Exco is not more than 3 years.

## 9.0 AER National Monitoring Committee (NMC)

Each member organisation shall establish a National Monitoring Committee (NMC) chaired by the Country Registrar, which will vet all applications and submit the approved applications to the AERC six weeks before an AERC Meeting. The NMC of the home country is also responsible to organize activities for the AER members, look into their interest and promote the Register within and in the ASEAN countries.

#### 10.0 AER Secretariat

The office of the Secretariat shall be located in the country of the member organisation hosting the Register. The AFEO Governing Board shall appoint the member organisation to host the AER Secretariat. The Secretariat would work under the instruction and supervision of the Head Commissioner.

## 10.1 Duties of the Secretariat

The duties of the AER Secretariat shall be to:

- Maintain the AER and document the names of the members in the different ASEAN members organisations
- Maintain and monitor the AER Website
- Implement decisions of the AERC
- Handle the day to day duties of AER and report to the AER Head Commissioner

## 10.2 Organisation Chart

The operation of the Register is as per Organisation chart in Appendix A.

#### **PROCEDURES**

## 11.0 Applications

Applications are open only to individuals from the member organisation. Applications must be made through the member organisation to their respective NMC. On-line application is acceptable by forwarding the scanned registration form subject to the original form be handed or mailed to the Secretariat eventually at a later date. Approval would be based on receipt of the original registration form.

The registration form must be completed in the English Language accompanied by the appropriate application fees.

## 11.1 Approval of Applications

The NMC of each member organization shall check that the duration of the professional engineering experience meets the minimum requirements as specified in Clauses 4.0 and 6.0

## 11.2 Application/Entrance Fees

The application fees are as given below:

a) Application/Entrance Fees

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011 All ASEAN Eng/AET/AT member organizations non

USD 15.00 or equivalent

**CLMV** 

All ASEAN Eng/AET/AT member organisations CLMV

USD10.00 or equivalent

Malaysia

RM40.00

b) Annual Subscription

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ASEAN Engineer (ASEAN Eng) ASEAN Engineering Technologist (AET) ASEAN Technician (AAT)

i) PUJA, PII, IEM, : USD20.00 per year or equivalent PTC, IES, EIT

ii) BEC, LUSEA, : USD10.00 per year or equivalent MES, VUSTA

iii) Malaysia

: RM120.00 per year

RM76.00 payment for 3 consecutive years

Amended 29<sup>th</sup> Board Meeting 28<sup>th</sup> November 2011 Associate ASEAN Engineer (AAE) Associate ASEAN Engineering Technologist (AAET) Associate ASEAN Technician (AAT)

i) PUJA, PII, IEM, PTC, IES, : USD20.00 one-time payment EIT, BEC, LUSEA, MES, VUSTA

ii) Malaysia

: RM50 one- time payment

#### RENEWAL OF REGISTRATION

#### 12.0 Certificates and Medals

The registration with the ASEAN Engineering Register is attested by a certificate issued by AER Secretariat and signed by the AER Head Commissioner and the AFEO Chairman or (if there is a need) by respective President of the member organisation and Head Commissioner; and a medallion. The different grades of membership would be given different types of certificates and medallions.

12<sup>th</sup> Mid Term 6 June 2013, Yangon Myanmar

It was necessary that the certificates and the medallions be issued solely by the AER Secretariat to maintain uniformity and to be consistent in the quality and type of medals.

## 13.0 Annual Subscriptions and Life Composition fees

A schedule of annual subscription and life composition fees payable by all AERs shall be established by the AFEO Governing Board based on the recommendation by the AERC from time to time. This also includes the need to provide the rate for conversion fee charged.

### 13.1 Renewal of Registration

The ASEAN Engineering title may be retained as long as the holder remains registered and observe the ASEAN Engineers Code of Practice.

This registration should be renewed triennially and the fees paid through the relevant NMCs. The Country Registrar or the Alternate Country Registrar shall be responsible to remit the subscription to the AER Secretariat. Collection of Outstanding subscription is also the responsibility of the Country Registrars.

## 13.2 Arrears in Subscription

Any members whose subscription is more than three (3) months in arrears shall be notified by the respective NMC.

An AER member whose subscription becomes twelve (12) months in arrears shall lose the right to receive any benefits accorded to the AER members.

The AER Secretariat shall mail a notice by post or email to the Country Registrar or to his Alternate providing the list of members in his organisation whose subscription becomes nine (9) months in arrears. The AER Secretariat shall put up the name of any members whose subscription becomes twelve (12) months in arrears and make the report to the AERC to take the appropriate action including possible removable.

The AERC will then make the decision whether to expel the defaulters from the list by deleting his name from the Register, provided however, that the AERC for cause deemed by it to be sufficient, may extend the time for payment of arrears of subscription and for the application of these penalties.

In the case of any members, whose earning capacity has been adversely affected by ill health, or other causes, the AERC may, at their discretion exempt such individual from the payment of the annual subscription or the arrears of annual subscription that may be due.

## 13.3 Extension of payment of Arrears and penalty

The AERC has the right to extend the time for payment of arrears of subscription and penalties and make this recommendation to the AFEO Governing Board.

## 13.4 AFEO Individual Honorary Member

Members or Individuals who are conferred the AFEO Individual Honorary Membership (such as Distinguished Hon Fellow, Hon Fellow or Hon Member) would automatically be conferred the status of Honorary ASEAN Engineers.

Honorary ASEAN Engineers would be exempted from the payment of Annual Subscription.

## 13.5 Life Membership

Life membership has been established with one payment on the following criteria:

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- an eligible candidate can opt to pay a one-time fee of USD200.00 or equivalent to become a Life Member (LM) of the AER.
- if a member has paid the annual subscription for the past few years, he could top up the balance to USD 200.00 or equivalent and become a Life Member
- if a member has been paying the annual subscription totalling USD200.00 or equivalent; or more, the member could be considered for conversion to life membership, upon submission of a formal application.

The Application/Entrance Fee mentioned in Clause 11.2 is not included in this amount and is required to be paid together with this Life Membership amount.

For the AER to be able to continue to maintain his Life Member status, the member would be required to fulfilled and maintain at a satisfactory level, the continuous professional development (CPD) hours. All Life membership are required to pay an entrance fee which would be decided by the AFEO Governing Board based on the recommendation of the AERC.

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 AER members who have paid for Life Membership of AER will remain a member even if he was deleted by the home institution.

## 13.6 Life Membership fee

Life membership has been established with one payment for the following category:

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| Membership  | Entrance Fee | Life Membership |         |
|---|--------------|-----------------|---------|
|   | AE/AET/AT    | AE/AET          | AT      |
| Non CLMV Countries – Brunei,<br>Indonesia, Philippines, Singapore | USD15.00     | USD200          | USD 150 |
| CLMV Countries – Cambodia,<br>Laos, Myanmar, Vietnam              | USD10.00     | USD100          | USD75   |
| Malaysia  | RM40.00      | RM660           | RM560   |

## 13.6 Conversion fee to Life Membership

A conversion fee of USD40 will be imposed. For Malaysia the conversion was fixed at RM100.00.

31<sup>st</sup> Board meeting 12<sup>th</sup> Nov. 2013

### 13.7 Allocation to Home Institution

The allocation to home institution for the Life Membership fee was agreed at 25% as an incentive pay back to the member organization. This is only applicable for the new intake and not applicable to conversion to Life Membership cases.

#### REMOVAL FROM REGISTER

### 14.0 Termination of Membership

At any time if it shall come to the notice or knowledge of the members organisations that the qualifications of any AER is not one that is recognised by the member organisations or has in some manner been wrongly admitted, then in any such case the AERC will have to recommend to the AFEO Governing Board its sole discretion to remove the member from the Register.

#### 14.1 Dismissal

The removal or dismissal of a member from the Registrar may include:

- Misconduct such as violation of any of the provisions to the Constitution or Regulations of AFEO Governing Board and are prejudicial to the best interest of the Register.
- Failure to pay the renewal annual fee
- Death/mentally retarded/criminal convicted

The AFEO Governing Board may at its sole discretion based on the AERC recommendation remove the members from the Register.

#### RESIGNATION FROM THE REGISTER

### 15.0 Resignations

### 15.1 Resignation in good standing

Any member of the Register in good standing may resign his membership by a written communication to the Country Registrar of his own member organization, who shall then present it to their individual NMC. Acceptance of any resignations shall be by the MC for their own members and notify the AER Secretariat of the resignation. Any member of the Register whose subscriptions are not in arrears and against whom no complaint or charge is pending shall be considered in good standing. A member who resigned from the Register after paying all the fees due shall have his name removed from the Register.

### 15.2 Resignation in arrears

Members who resigned due to owing in subscriptions would have the outstanding fee documented and his name is to be kept in the list of members resigned in arrears.

#### RE-INSTATEMENT TO THE REGISTER

#### 16.0 Re-instatement

Any former member of the Register may re-apply for re-admission. The re-instatement fee is fixed at USD80.00 or equivalent.

## 16.1 Re-instatement for Members resigned in good standing

For members who have resigned previously in good standing, he is only required to pay the re – instatement fee and the Life Membership fee as determined at the time or his application for re-instatement.

## 16.2 Re-instatement for Members resigned in arrears

For members who have resigned in arrears he is required to pay back the arrears in subscription he had owed prior to his request for resignation. He is also required to pay the re-instatement fee of USD80.00 or equivalent and the triennial subscription or the life Membership fee as determined at the time of his application for re-instatement.

Amendment as of 1 March 2013 Further amendment as of 28 November 2011 Recommended for amendment as of 11 November 2014