



**Annual Report by the
Engineering Associates Registration Board
For the Period from 1 April 2006 to 31 March 2007**

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P O Box 12 – 011
Wellington 6144, New Zealand.
Telephone : (04) 472 3324.
Fax : (04) 472 3323.

6th Floor, Molesworth House,
101 Molesworth St, Wellington, NZ.
Email: registrar@engineering-associates.org.nz
Web : www.engineering-associates.org.nz

Legislative Context

The Engineering Associates Registration Board (the Board) is appointed under the Engineering Associates Act 1961 (the Act). The Board's objectives are to encourage, support and promote excellence in technical engineering in New Zealand.

Registration as an Engineering Associate (Registered Engineering Associate - REA) is a quality credential providing evidence that the person has met the required academic standards, and necessary practical competency through experience specified in the Act as required for registration.

Generally REAs are senior technical engineers, usually employed in a wide range of disciplines such as engineering infrastructure design and/or implementation as well as engineering management roles in New Zealand and internationally.

The Act is administered by the Department of Building and Housing (the Department) on behalf of the Minister for Building Issues.

Comments from the Chair

Demand for Technical Engineers

Industry demand for experienced technical engineers is not being satisfied. Practical technical engineering training collapsed following corporatisation of government departments in the 1990s, and this is evidenced by the dearth of experienced technicians replacing retiring REAs.

Graduates from the various National Diploma in Engineering (NDE) courses, designed to replace the earlier New Zealand Certificate in Engineering (NZCE), have not yet begun to present themselves for registration. The practical experience time requirements in the current Act means that it will be a few more years before the Board will be in a position to formally assess the quality of the new NDE qualification and whether the subsequent experience profile of candidates will meet the standards set out in the Act.

There are many senior technical engineers who have the qualities and experience specified in the Act, that have not seen a career need for registration. The new Licensed Building Practitioner requirements may offer an incentive to more technical engineers looking for REA as evidence of their competency for registration in a building related field.

The impact of the promotional activities undertaken by the Board in recent years to encourage experienced technical engineers to register, has not yet appeared to slow the steady decline in numbers of new REA registrations. As of 31 March 2007 there are a total of 1884 registered REAs.

Review of the Act

The Engineering Associates Act 1961 is undergoing a “greenfields” review by the Department of Building and Housing. The Board is preparing a submission and has assisted with advice and contacts of individuals and organisations to help the Department undertake this major review.

Compared with other recent professional employment-related legislation our Act is very dated and needs to be redrafted to include mechanisms to recognise ongoing competency, adherence to a Code of Ethics, and to extend its cover to include both engineering and science technologists.

The Board’s voluntary competency assessment scheme (REAcap) allows the Board to confirm that an individual REA continues to be competent in their respective discipline, and agrees to operate under the Board’s code of ethics. The Board considers that continuing competency assessment of REAs should be an essential element of any replacement Act, and has developed a voluntary REAcap scheme that offers existing REAs experience in meeting ongoing competency requirements.

The voluntary REAcap scheme received good support from REAs with over 50% of REAs declaring their interest for reassessment. As of 31 March 2007, 117 REAs had been assessed and provided with REAcap certification.

Board Operations

Increased fees were gazetted on 3 March 2006, and came into effect on 1 April 2006. This increase allowed the Board to achieve a surplus of \$24,776 for the financial year, returning the Board’s reserves to a more acceptable level of \$63,852.

Audited accounts for the Board for the year ended 31 March 2007 are appended to this report. The annual audit by Audit NZ was completed during June 2007. The audit identified no matters of concern.

Introduction

The Engineering Associates Registration Board operates under the Engineering Associates Act 1961 and its amendments (the Act). The purpose of the Act is to encourage, support and promote excellence in technical engineering in New Zealand.

The Act authorises the registration of persons with an academic-plus-practical-experience qualification, equivalent to New Zealand Certificate in Engineering (NZCE) as well as completing a significant period of “responsible experience” in the engineering environment. The Registered Engineering Associate (REA) credential indicates that a person is a senior technical engineer. Most REAs are employed in infrastructure design and implementation and engineering management roles in New Zealand. There are many REAs located in the international engineering market.

Structural changes to engineering training during the restructure of government departments in the 1990's has resulted in a steady drop in numbers of new REA registrations each year. With older REAs retiring and the “10 years experience” period for new REA applicants, specified in the Act potentially providing a barrier for new or intending applicants, the total number of registered persons has dropped over recent years.

Recent changes to technical engineering education qualifications have resulted in the replacement of the New Zealand Certificate of Engineering (NZCE) with a new National Diploma in Engineering (NDE). The new NDE qualification does not include the same requirements for completion of practical experience, which has caused the Board to reassess the experience requirements for ensuring that new REAs meet the “equivalent to NZCE” criteria specified in the Act.

Lack of funding for ITOs to support the practical training components of NZQA Level 5-and-above qualifications, has also resulted in a drop in candidates following technical engineering careers, with a flow on reduction in REA registration applicants. Recently there has been a significant change of attitude in the employment market, principally due to the lack of qualified tradespersons and technologists, and many employers have now gone off shore to fill these positions. Government and industry support for local technical engineering training initiatives has increased, but the current shortage of experienced technical engineers is likely to continue for many years.

During the year, the Department gained Ministerial approval to carry out an in-depth review of the EA Act 1961. The Board recognises that the Act is dated and needs revision. It believes that any review should include provisions to provide public assurance that individual REAs continue to meet the competency standards at least equivalent to those required for initial registration. A voluntary competency recognition system has been developed to allow the Board to offer recognition of on-going competency, although this is outside the scope of the current Act (details below). The Board is providing on-going assistance to officials in their review of the Act.

The Department identified some aspects of the EA Act that could conflict with other current legislation and some minor ‘Technical Amendments’ which have been included in the Statutes Amendment Bill (07) introduced into Parliament in February 2007. If passed, these amendments will not affect the outcome of the in-depth review of the Act.

The Act requires regulations to specify the level of fees for registration services. Following the Gazette notice dated 2 March 2006, the fees charged to REAs were increased as of 1 April 2006. See the financial section for more details.

Board Business

The Engineering Associates Registration Board continued normal operations during the year.

Members of the Board

Following a process in which the Associations and Institutes named in the Act nominate suitable individuals, the Minister appoints a Board with a range of relevant knowledge and experience. Board Members' terms of appointment are for a nominal 2 years, or at the discretion of the Minister.

The Members of the Board at 31 March 2007 were:

Board Member	Position	Nomination Body
Mr I C Shearer FIPENZ	Chair	Ministerial appointment
Mr T G Adson REA	Member	NZ Institute of Refrigeration, Heating & Air Conditioning Engineers Inc
Mr A D Blackler REA	Member	NZ Institute of Health Estate & Engineering Management Inc
Mr R W Grant	Member	NZ Institute of Marine & Power Engineers Inc
Ms F B L Johnstone	Deputy Chair	Ministerial appointment
Mr H T Knight	Member	NZ Electrical Institute Inc
Ms W L Steadman	Member	Ministerial appointment
Mr G D Wells REA	Member	Design Association of NZ Inc
Mr M B Wheeler	Member	NZ Electronics Institute Inc

The following Board Member resigned during the year, and had not been replaced by 31 March 2007.

Mr B J G Richards REA	Member	Institute of Measurement & Control Inc
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Responsibilities and Operation of the Board

The Members of the Board are accountable to the Minister for the performance of their duties including direction, oversight and implementation of the Act. The Board oversees the operations of the Registrar.

The Chair and the Registrar continue to have effective working relationships with the Department of Building and Housing. The Department is also responsible for administration of the Chartered Professional Engineers Act 2002, the Architects Act 2005 and the Building Act 2004.

The Board has a Staff Committee that meets for annual review of the Registrar's conditions of employment.

Technical Engineering Institutions Recognised in the Act

Technical Engineering Associations currently recognised under the EA Act are:

- Design Association of New Zealand Inc
- New Zealand Electrical Institute Inc
- New Zealand Institute of Engineering Sciences Inc
- New Zealand Institute of Welding Inc*
- New Zealand Institute of Marine & Power Engineers Inc
- Institute of Measurement & Control Inc
- New Zealand Inst of Health Estate & Engineering Management Inc
- New Zealand Institute of Refrigeration, Heating & Air Conditioning Engineers Inc
- New Zealand Electronics Institute Inc
- Institute of Automotive Mechanical Engineers of New Zealand Inc
- New Zealand Institution of Gas Engineers Inc
- Society of Licensed Aircraft Engineers & Technologies Inc
- Society of Automotive Engineers (Australasia) Inc*

The Board has an ongoing responsibility to keep the recognized associations informed of its activities and to encourage the advancement of technical engineering issues and standards.

**Note: In May 2004, the New Zealand Institute of Welding closed down operations as a separate association and later deregistered itself as an Incorporated Society. The Welding Institute's activities have been absorbed into the Heavy Engineering Research Association (HERA). A gazette notice was published on 27 April 2006 deleting both the NZ Institute of Welding and the Society of Automotive Engineers, which was deregistered in 2003, from the list of Institutes under the Act. Their representative Board Members have not been replaced.*

Registration Statistics

Registration categories under the Act:

- R(a) Technical engineers who have not completed a recognized technical engineering education qualification but have completed basic engineering training, and have at least 12 years of engineering experience, including 6 years in a responsible position and were born before 1 January 1936.
- R(b) Technical engineers who have completed NZ Certificate of Engineering or First Class Marine Engineer's Certificate (or an equivalent qualification), plus a basic engineering training and at least 6 years of engineering experience, including 1 year in a position of responsibility.
- R(c) Technical engineers who have not completed a recognized technical engineering education qualification but have completed a basic engineering training, and have at least 12 years of engineering experience, including 6 years in a responsible position, and are older than 40 years of age. A (c) applicant submits a 4,000 word written statement on an approved engineering topic in lieu of the education qualification.

Category	31 March 2005	31 March 2006	31 March 2007
R(a)	187	159	129
R(b)	1789	1756	1649
R(c)	115	112	106
Total	2091	2027	1884

The Act requires the establishment of an Investigations Committee (effectively a tribunal) if there are appeals against decisions of the Board. The Committee has not been required to date and there were no appeals against any decision of the Board during the year.

Board Meetings

The Board held the three routine meetings during the year - April, July and November 2006, plus a special meeting in October 2006 as an induction session for the new Board members. All Board meetings were attended by the Registrar.

Apart from the routine overview and approval for the registration of REAs, the Board has debated future industry needs for technical engineers, continued to seek mechanisms to encourage more experienced technical engineers to become REAs, and to prepare its submission to the Department on the review of the Act.

Technical Engineering Education and Training Standards

Structural changes to engineering training coinciding with the restructuring of government departments in the 1990s have resulted in a significant decline in the numbers of technical engineering trainees entering tertiary education facilities. In addition the “10 years work experience” requirement period for new REA applicants has contributed to the lower numbers of new applicants for registration.

Changes to technical education qualifications and the replacement of NZCE with a new National Diploma in Engineering (NDE) – which does not include the same requirement for practical experience in the qualification - creates a challenge to ensure that REAs meet the “equivalent to NZCE” criteria in the Act. Funding has not been provided to ITOs to replace the practical components of NZCE into new qualifications.

Code of Ethics

Last year the Board introduced the Code of Ethics for Registered Engineering Associates that has remained unchanged for the period under review. The Code of Ethics is published on the Board’s website and is in the information sent out to prospective applicants for registration.

Output Agreement

An output agreement has not yet been negotiated for the new Board appointed in 2006.

Current Competency Assurance – REAcap

The Registered Engineering Associates competency assessed practitioner scheme (REAcap) was implemented by the Board to provide assurance the public and potential engineering employers that a currently registered REA remains competent in their chosen discipline. REAcap is, at present, voluntary with competency reassessment undertaken every four years. The competency principles embedded in the Act for initial registration competency assessment are the standards used for the competency assessment review of the REAs ongoing knowledge development, experience and responsibility performance. Continuing work in the engineering industry is also a requirement for REAcap recognition.

The Board believes that, in the current engineering market, the lack of competency provisions within the Act disadvantaged the REA credential compared with other recent occupational registration legislation.

REAcap was implemented during 2005, sixty five REAs were given REAcap validation by 31 March 2006 and at 31 March 2007 the total was 117. The applications continue to flow in and the website list of REAs is regularly updated to indicate successful REAcap validations.

Promotional & Communication Activities

In an effort to arrest the drop in REA registration numbers, the Board continues to distribute a brochure promoting the values of the REA credential, has modified the website, and revised the REA applicant's information packs to help promote registration and the REAcap scheme. The impact from this promotion project will be seen in future years.

In addition the Board ran listings in public directories, and made press releases announcing such things as the List of REAs on the website.

Communication with REAs continues through the annual circular delivered with the annual fees renewal notice. This method, while cost effective, is limited to communication once per year. Reflecting today's available communication systems, the email addresses of REAs are now being added to the Register database for future communication purposes.

Website

The Engineering Associates website, <http://www.engineering-associates.org.nz>, continued to receive a monthly average of about 6,000 'hits' with a peak of 18 thousand hits in the month following issue of the annual circular.

The 'List of REAs' is a feature of the website, providing web access to the list names of currently registered Engineering Associates. Details provided include surname and initials, regional location (with non residents listed as overseas), registered engineering discipline, certificate of registration number, and commencement year for continuous registration. The list of REAs on the web is updated following each Board meeting.

Feedback indicates that the REA list has been well received by REAs and its use by employers is starting to increase. The Board is looking to develop this aspect further, and initial work has commenced on a suitable circular targeting employer organisations.

Registrar

The position of Registrar, held by Mr John V. Edgar REA, continued unchanged during the year. The EARB office remains staffed for 3 days per week.

Financial Aspects

Auditors

The Board has contracted Audit New Zealand as its audit agent.

Fees for Registration Services

Fees charged for registration during the period to 31 March 2007 were as gazetted in the Engineering Associates Fees Amendment Regulations 2006.

Audited accounts for the Engineering Associates Registration Board for the year ended 31 March 2007 are appended to this report. The annual audit by Audit NZ was completed during June 2007. The audit identified no matters of concern.

The fees increase resulted in a 33% increase in revenue, however this was less than budgeted due to fewer numbers of registered REAs. Operating expenditure was consistent with the previous year. Board Member meeting fees and expenses reflected costs for the special meeting in October.

The overall surplus of \$24,776 resulted in an increase in Total Net Assets to \$63,852 at year end. The new fee levels should ensure the Board's level of reserves remain at an acceptable level over the next few years.

Summary of Financial Statements at year end.

Income:	Fees	\$93,764	
	Interest	<u>\$ 4,436</u>	\$98,200
Expenditure:	Operating expenses		<u>\$73,424</u>
	Income less expenses		<u>\$24,776</u>

<u>Statement of Financial Position</u>			
Fixed Assets	\$ 1,693	Current Liabilities	\$ 7,028
Current Assets	<u>\$62,159</u>	Accumulated Fund	<u>\$56,824</u>
Total Assets	<u>\$63,852</u>	Total Liabilities & Equity	<u>\$63,852</u>



I C Shearer
Chair, Engineering Associates Registration Board.