



**Annual Report by the
Engineering Associates Registration Board
For the Period from 1 April 2010 to 31 March 2011**

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Executive Summary and Commentary

The Engineering Associates Registration Board (the Board) is pleased to present the annual report reviewing the activities for the year to 31 March 2011.

Shortage of Engineering Technologists

The shortage of experienced engineering technologists remained during the year in review and this is reflected in the continuing decline in the overall numbers on the register.

The rationalization of the technical engineering diploma courses and increasing efforts by a consortium of polytechnics to also promote the BEngTech 3 year degrees should result in an improvement in the availability of appropriate technical engineering courses that have consistent curricula throughout NZ. Although these developments should attract more students, the shortage of engineering technologists is likely to remain a significant problem for industry over the next five to ten years.

Review of the Act

The Government's Occupational Regulation Review, as part of the DBH portfolio, was deferred during the year with the Department's priority being given to the review of the Building Act then concentration on the statutory requirements subsequent to the Christchurch earthquakes. DBH have emphasised that the Occupational Regulation Review will remain deferred for the immediate foreseeable future.

Board Operations

At 31 March 2011 there were 1600 registered REAs, 50 less than at the same time in 2010.

The Board operations resulted in a deficit of \$3,369 for the financial year, reducing the Board's reserves to \$114,612. The annual audit by Audit NZ was completed during June 2011. The audit identified no matters of concern.

In September 2010, there were two new appointments to the Board replacing two members who retired.

Development of a Strategic Plan

The Strategic Plan initiated in February 2009 was further developed by a Technologist Registration Task Force comprising some members of the Board together with other persons from appropriate sectors. The final report from the Task Force has yet to be adopted by the Board. A Special Board meeting was arranged in February 2011 with Mr J Leech, the Executive Director of the Applied Science Technologists & Technicians of British Columbia (ASTTBC). This organization has developed a very successful operation in Canada which our Board is studying to gain useful guidelines for our future direction.

1. Legislative Context

The Board is appointed under the Engineering Associates Act 1961 (The Act) to fulfill the requirements of the Act and establish and maintain a register of those persons who apply and qualify to be registered as Engineering Associates. The Board's objectives are to encourage, support and promote excellence in engineering technology in New Zealand.

Registration as an Engineering Associate is a quality credential providing evidence that the registered individual has met specified academic and practical engineering competency standards plus supervisory experience as described in The Act.

Registered Engineering Associates (REAs) are generally senior engineering technologists employed in a wide range of disciplines such as engineering infrastructure design, implementation and maintenance or in engineering management roles within New Zealand and around the world.

The Act is administered by DBH reporting to the Minister for Building & Construction.

In the current year DBH announced that the review of Occupational Regulation had been deferred due to the work required on the Building Act combined with the necessary investigations resulting from the damage from the Christchurch earthquakes.

2. REA Credential and Registration Trends

The Board operates under the The Act. The purpose of The Act is to encourage, support and promote excellence in engineering technology 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) who have also completed a significant period of “responsible experience” in the engineering workplace and who have indicated competence in their recognized discipline. The REA credential indicates that a person is a senior engineering technologist. Most REAs are employed in infrastructure design and implementation and engineering management roles in New Zealand. There are many REAs working in the international engineering market.

The total number of registered persons continued to reduce during the 2010 year. This trend is the result of:

- Changes to engineering training during the 1990’s restructure of those government departments that traditionally employed technical engineering graduates resulting in a steady drop in numbers of persons entering this field. Although industry is now encouraging new entrants it is not keeping pace with the rate of retirement of older REAs. The Act does not include mechanisms to facilitate the Board remaining in touch with new technical engineering graduates until they meet the “10 years experience” period for new REA applicants. The Board’s Strategic Plan is likely to include proposals to provide a mechanism whereby this important early communication is able to be developed.
- Changes to engineering technologist education qualifications replacing the NZCE with a new National Diploma in Engineering (NDE) is only now gaining nationwide acceptance and it will be some years before these graduates will be eligible for registration under the current criteria.-

Registration Statistics

Registration categories under The Act:

R(a) Engineering technologists 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) Engineering technologists 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) Engineering technologists 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. The (c) applicants submit a 4,000 word written statement on an approved engineering topic, in lieu of the education qualification.

Summary of registrations during the year:-

Number registered at 31 March 2010	1650
Plus new applicants registered between 1 April 2010 & 31 March 2011	9
Less nett reduction from deceased, retired, resigned & restored	<u>59</u>
Number registered at 31 March 2011	<u>1600</u>

Categories:	R(a)	69
	R(b)	1436
	R(c)	<u>95</u>
Total		<u>1600</u>

Engineering Technologist Education and Training Standards

During the year the Board considered and approved the first candidate with one of the NDE qualifications.

Code of Ethics

The Code of Ethics for REAs issued by the Board has remained unchanged for the period under review. The Code of Ethics is published on the Board's website and is in the information pack sent out to prospective applicants for registration. It is formally issued to all new REAs.

Current Competency Assurance – REAcap

The REA competency assessed practitioner scheme (REAcap) was implemented by the Board to provide assurance to 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 are also the standards used for REAcap competency assessment including 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 ongoing competency assessment provisions within The Act disadvantages the REA credential compared with other recent occupational registration legislation.

REAcap was implemented during 2005, and at 31 March 2011 the number of REAs with REAcap validation was 114. Reassessments continue as they fall due. The Board is concerned at the low level of new applications for REAcap validations and is investigating steps to stimulate interest. The website list of REAs is regularly updated to indicate successful REAcap validations.

3. Board Business

The 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 and can be extended at the discretion of the Minister.

The Members of the Board at 31 March 2011 were:

Board Member	Position - Date Appointed	Nominating Organisation
Dr R J Dunlop QSO; FNZIM; FIPENZ; FCILTNZ; MIOD.	Chair – April 2010	Ministerial appointment
Mr G Benvenuti MNZElectIns	Member – October 2010	NZ Electrical Institute Inc
Mr A D Blackler REA; MNZIHEEM	Member – August 2006	NZ Institute of Healthcare Engineering Inc
Mr G F A Glynn MNZIRHACE	Member – October 2010	NZ Inst Refrig Htng & Air Con Engineers Inc
Mr R W Grant CEngFIMarEST(UK)	Member – April 2003	NZ Institute of Marine & Power Engineers Inc
Ms F B L Johnstone	Member - June 1999 Deputy Chair October 2006	Ministerial appointment
Mr D W Leask REA	Member – April 2010	Institute of Measurement & Control Inc
Ms W L Steadman GIPENZ	Member – August 2006	Ministerial appointment
Mr G D Wells REA; FDANZ	Member – August 2006	Design Association of NZ Inc
Mr M B Wheeler	Member – August 2006	NZ Electronics Institute Inc

The terms for all sitting Board Members were renewed in October 2010 for a further two years.

Committee Roles

- **Finance (& Audit Committee if required)** – Chair & Registrar
- **Staff Committee** – Ms F B L Johnstone & Mr R W Grant
- **Technologist Registration Task Force** – Chair Mr G D Wells

Board Remuneration (per day attendance)

Chair \$515.00; Deputy Chair \$375.00; Member \$300.00

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 is responsible for the appointment of the Registrar. The Staff Committee is responsible for the annual review of the Registrar's conditions of employment.

The Chair, Registrar and Board continue to have effective working relationships with DBH.

The Act requires the establishment of an Investigation 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.

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.

Technical Engineering Institutions Recognised in the Act

Technical Engineering Associations currently recognised under the Act are:

- Design Association of New Zealand Inc
- New Zealand Electrical Institute Inc
- New Zealand Institute of Engineering Sciences Inc
- New Zealand Institute of Marine & Power Engineers Inc
- Institute of Measurement & Control Inc
- New Zealand Institute of Healthcare Engineering 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

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.

Board Meetings

The Board held four meetings during the year - April, July, November 2010 and February 2011. The Registrar attended all Board meetings. In addition to the routine overview and approval of the registration of REAs, the Board has continued developing the Strategic Plan and the REA credential (see below).

Accountability Agreement

An Accountability Agreement between the Board and the Minister is in place for the period to 31 March 2011. This documents the Minister's expectations of the Board's performance as follows.

Governance

Conflicts of Interest Register in place and updated at the start of each meeting:-

Introduced at the April 2009 Board Meeting and continues as Appendix VI to the Minutes.

Board Self Review:-

A yearly review of the Board's performance.

Service Delivery

To determine the standards of training, experience, responsibility and technical qualifications necessary for registration as a REA. Applications considered individually on equivalency to legislative qualifications:-

Each applicant is considered individually and assessed by submission of written evidence of qualifications, experience and responsibility under a statutory declaration. During the year one overseas academic qualification was accepted by the Board as at least equivalent to NZCE and an applicant with NDE (Civil) was approved.

To determine the standards of continuing training, experience, responsibility and technical qualifications necessary for voluntary competency assessment programme (REAcap). Standards for 'Ongoing Knowledge Development', continuing experience in the applicant's discipline', and continuing responsibility in the applicant's discipline':-

Reviewed two yearly, next review scheduled to commence in July 2011.

To maintain a register of registered persons, to issue certificates of registration and to keep other essential records. Register containing relevant details available to public:-

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Projected numbers 2010/11:	Registrations:	1650	<i>Actual 1600</i>
	Nett Removals:	50	<i>Actual 59</i>
	New registrations:	15	<i>Actual 9</i>

The register is held on 'M-S Access' database, and details can be obtained on request from the Registrar. Names of current REAs, their regional location, discipline, registration No, REAcap No, and year of commencement of continuous registration are available on the Board's website.

Strategy and Capability

Maintain relationship with DBH on the progress on The Act review, undertake appropriate profile building activities to encourage increased registration with regular and appropriate communications with registrants, potential registrants and key stakeholders:-

The Board has maintained a good relationship with DBH, and provided positive contributions to the occupational regulation review prior to it being deferred. {See Promotional & Communication Activities}.

Improved awareness of REAcap:-

REAcap is promoted in the annual circular to REAs, on the Board's website, and to each new registrant.

Provide an annual report (with Financial Statements):-

Completed.

Conduct consultation process with industry and interested parties on use and value of REA credentials:-

Commenced during the year with presentations to the AGM's of some of the Associations recognized under the Act. This activity continues and will be extended to other interested parties within the Strategic Plan.

Prepare three year outlook that sets out strategic priorities for the Board and a high level three-year plan by developing a strategy including a three-year outlook:-

Completed and submitted in March 2011.

Promotional & Communication Activities

The Board continues to distribute a brochure promoting the values of the REA credential, updates the website, and ensures the REA applicants' information packs encourage registration and the REAcap scheme. The Board publishes listings in public directories, and when appropriate, makes press releases. 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. The use of email addresses of REAs for informal communications is increasing.

During the year, the Chair attended the AGM of a number of Associations recognised under The Act and gave presentations on the Board and the REA credential. This activity will be continued next year to the other Associations as well as other similar organizations which are not direct stakeholders. The Strategic Plan will also propose active approaches to engineering employers.

Website (<http://www.engineering-associates.org.nz>)

The Engineering Associates website, continues to receive a monthly average of over 10,000 'hits'. The 'List of REAs' is a feature of the website, providing web access to the list names of current REAs. Details provided include surname and initials, regional location (with non residents listed as overseas), registered engineering discipline, certificate of registration number, the commencement year for continuous registration and the applicable REAcap validation. This web listing is updated following each Board meeting.

Strategic Planning Exercise

In February 2009, the whole Board attended a full day workshop to develop a Strategic Plan for the REA credential and the Board. This led to the establishment of a Technologist Registration Task Force chaired by Board Member Mr G D Wells and comprising some Board members together with other persons from appropriate sectors. The Task Force reports progress to the Board at each meeting. Progress against the Strategic Plan has been slower than originally anticipated. The Board considered a number of alternate approaches to advance this key area, but recognized substantive progress would involve significant additional commitments of time for some Board members. Striking an appropriate balance of progress reporting and an achievable delivery scope that met the diverse expectations of the Board members, against the time availability and commitments for individual Board members was a larger challenge than expected.

A special Board meeting was held in February 2011, attended by Mr J Leech, Executive Director of (ASTTBC) and visitors from DBH. Mr Leech explained to the meeting the operation of that organization in Canada, with particular emphasis how their model could be applied to NZ and in particular to a Statutory Board with an extended regulatory scope. The discussions were wide ranging and gave the Board a useful insight on possible directions for NZ technologists and technicians. The opportunity was also taken for Mr Leech, the Chair and a Board Member to visit the Minister.

The current Occupational Regulation Review being undertaken by DBH was one of the elements contained in the Terms of Reference of the Task Force but any respective findings are being reconsidered. The Task Force is scheduled to present its final report for adoption by the Board at the July 2011 Board meeting.

4. Financial Aspects

Auditors

The Board has contracted Audit New Zealand as its auditors.

Financial Performance

Fees charged for registration during the period to 30 September 2010 remained as gazetted in the Engineering Associates Fees Amendment Regulations 2006. From 1 October 2010 the fees were increased in accordance with the provisions of the GST Act with the increase in GST from 12.5% to 15%. The special Board Meeting with Mr Leech (ASTTBC) influenced the financial statements with extra costs of \$2,815 being incurred by the Board. The routine annual operations show a decrease of 2% in revenue and 8% increase in expenses. There was a net deficit of \$3,369 for the current financial year and the total net assets, were \$114,612 at the end of the year.

The annual audit by Audit NZ was conducted during May 2011 and completed in June 2011. The audit identified no matters of concern.

In conclusion, I would like to record my appreciation to the members of the Board and the Registrar, and to the staff of the DBH for their advice and support.

Dr R J Dunlop QSO, FNZIM, FIPENZ, FCILT NZ, MIOD.
Chair, Engineering Associates Registration Board.