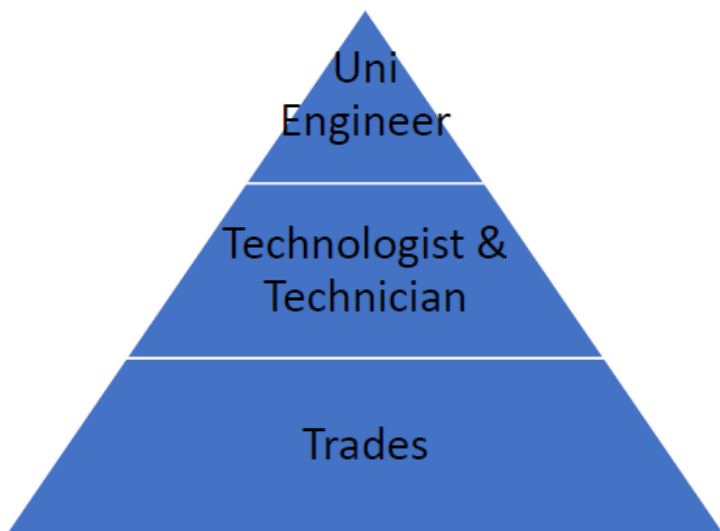


# Registered Engineering Associate



## **A Chronicle of the Credential**

**Compiled by John V Edgar**



<u>Title</u>	<u>Accord</u>	<u>NZQF</u>	<u>Regulatory</u>
"Uni Engineer"	Washington	Level 8+	CPEngNZ
"Technologist"	Sydney	Level 7 +	REA
"Technician"	= Dublin	Level 6 +	REA
"Trades"	N/A	Level 4 & 5	*

\*\*EWRB / PGDF / LBPB

## Engineering Industry Structure



# **A Chronicle of the Credential**

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**2018**



*The Minister of Works, Mr Goosman, presenting the first certificate to be issued under the Engineering Associates Registration Act to J. B. Goldie.*

# Chronicle of the REA

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# Chapter 1 – BACKGROUND

In the aftermath of World War II, NZ required considerable investment and construction to expand the nation's infrastructure such as roads, rail, housing, offices, warehouses, electricity, telecommunications, airports, forestry, paper, hospitals, farming, and eventually the provision of the television and improvements to radio broadcasting. These works commenced late in the 1940's and continued well into the 1960's and 1970's.

The predominant suppliers of these works were the various Government Departments, such as the Ministry of Works, NZ Railways, NZ Electricity Department, Post & Telegraph Department, NZ Broadcasting. Finance was provided from Government. Engineering was a core requirement of most facets of the works, and each Department had in-house engineering facilities suited to the service they provided. In many instances engineering was of such importance that the chief executives of the divisions were invariably sourced from senior professional engineers.

Engineers were required both in the design offices as well as in the field to supervise the construction, and they were to be found at the massive hydro-electric schemes, the associated distribution networks and of course the new roading construction throughout the quite severe hilly contours of NZ. Engineers were invariably educated to degree standards at Canterbury University and then additionally at Auckland University in an attempt to satisfy the demand. After a period of practical experience subsequent to graduation, registration was available in accordance with the Engineers Registration Act 1924, as well as membership of the NZ Institution of Engineers.

A report of a consultative committee on the education, training, and supply of professional engineers in NZ issued in 1949, drew attention to that *“neglected group between the ‘tradesman’ and the ‘professional man’*

*and the necessity for ordered academic training and examination”.* This report stimulated widespread interest and early in the fifties, it was generally agreed that there would be advantages in establishing a more practical engineering qualification with less emphasis on advanced theory and more tuition on the practical applications of the theory. The term “Middle Group of Engineers” was adopted to describe those engineers who operated in the industry between the levels of the tradespersons (with Trade qualifications) and the professionals (with University Degrees). The Technicians Certification Authority (TCA) was established which introduced the NZ Certificates in Engineering with the first enrolments in 1955.

At about the same time, proposals were considered to introduce a registration for the Middle Group of Engineers, following the principles of the Engineers Registration Act 1924. There was strong support from the Ministry of Works together with Ministerial agreement. They recognised that their professional engineers would benefit from having suitably trained assistants to supervise the applications of the theoretical designs, releasing them to apply their knowledge and skills more productively. However, when endeavouring to obtain wider opinion and contributions from practitioners, there were difficulties in achieving common agreement and consent from disparate sectors on the conditions for a suitable registration. There was no obvious single public organisation comparable to the NZ Institution of Engineers which was in a position to provide the network to assist in establishing the basis for an appropriate registration supported by Statute.

To compound these difficulties, disagreement surfaced over the terminology being considered, with objections to the sole use of the term ‘Technician’, as well as the sole use of the term ‘Engineer’. Middle Group Engineer was unacceptable as well as Assistant Engineer or Engineer’s Assistant. In the end ‘Engineering Associate’ became the accepted compromise.

The Engineering Associates Bill was introduced into Parliament in 1957 by the Hon W S Goosman (Minister of Works). The Select Committee process

then took a considerable time to work through the various submissions, and even the second and third readings of the Bill involved surprising debates within Parliament.

The provisions for ‘an old man’s clause’ certainly created widespread discussion and opinion, and compromise was eventually reached with a proviso that after one year of the Bill becoming law, any disadvantage experienced by prospective applicants would be considered by Parliament for amendment to the Act.

Meanwhile, a few organisations were being established usually founded on a common interest in one of the engineering disciplines within the Middle Group. These new ‘Institutes/Associations’ sought a voice on the establishment of the proposed registration, as did the long established Marine Engineers and the Structural Engineers. The latter were eventually disregarded (at the Parliamentary level) as they were adequately covered by the ER Act 1924 and the Marine Engineers were accommodated with their qualification being specified in the new Bill. The Engineering Associates Act was passed into law 24 November 1961, to be effective 1 April 1962.

The Engineering Associates Act 1961 provides for:

***“The registration of certain persons associated with or employed in engineering work and for the encouragement of better qualification in that work”***

It attempted to define and recognise the desirable qualifications of those people generally known as “Technicians” and who, without professional qualifications held positions, in many cases important and responsible positions, and to provide an aim and recognition for those who sought an engineering career based on the newly introduced NZ Certificate in Engineering.



## Chapter 2 - THE BOARD IS ESTABLISHED

The Engineering Associates Registration Board, set up under the Act, is an examining, accrediting authority, assessing an applicant's academic qualifications, training, experience and responsibilities and if to the required standard, registering the applicant under statutory requirements as a Registered Engineering Associate (REA) and issuing a Certificate of Registration.

Under the direction of the Minister and the Commissioner of Works, the Ministry of Works proceeded with the establishment of the Board. At that stage the Ministry of Works fully funded the 'Board', providing administration services and accommodation at the Departmental Building, Stout St Wellington. Under Section 7 of the Act, the Registrar's appointment was under the provisions of the Public Service Act 1912, within the Ministry of Works. The members of the Board were initially determined by the Ministry of Works and the Minister, with nominations being received from Institutes that had been involved in the preparations of the Act. Subsequent appointments to the Board followed the prescribed procedures within the Act.

In May 1962, the following appointments were announced:

Chair: C J M Choat, MIMechE; FNZIE. Ex Chief Engineer, Shell Oil (NZ) Ltd.

Ministerial Appointments: C J Tustin; I R Robinson

Association Nominations;

E R Simpson NZ Inst of Draughtsman (Design Assoc of NZ)

H V Doran NZ Inst Engineering Technicians (NZIES)

W A Scott Institute of Marine & Power Engineers.

P D Edwards Institute of Refrigeration & Aircon Eng's (IRHACE).

Registrar L C Hardie

The first meeting of the new Board was held in Wellington on 22 August 1962 and Minutes for M(1) records;

Present:	C J M Choat	Chairman	
	C J Tustin	I R Robinson	H V Doran
	W A Scott	E R Simpson	P D Edwards
	L E Earl	(Acting Registrar)	

In Attendance; Hon W S Goosman, Minister of Works.

Mr J T G Gilkinson, Commissioner of Works.

The Hon W S Goosman opened the meeting. He congratulated the Board on a long delayed victory after protracted efforts which had commenced as far back as 1954 and had been carried on against considerable opposition. He made particular mention of the stalwart support afforded by Mr F M Hanson, late Commissioner of Works. He assured the Board that the future development of New Zealand would present ample scope for the activities of Engineering Associates. This development would take new lines, embracing industries now emerging such as natural gas, iron and steel and aluminium and it would be accelerated by the flow of new arrivals from overseas. He tendered his congratulations to those present who had pressed on in spite of discouragements and whose efforts had been finally rewarded with success.

The Commissioner of Works, Mr J T Gilkinson assured the Chairman and Board Members that the Ministry of Works would be standing behind the Board. The Minister had been a strong advocate for the Act. The Ministry would continue to supply secretarial help until such time as the Board should be able to stand on its own feet. He recommended that the quorum at present established be built up by the further members as soon as possible.

## Chairman

After thanking Messrs Goosman and Gilkinson, who departed from the meeting, the Chairman opened discussion by advising that a programme of work should be the first necessity. The first registrations would be as from 1 April 1963.

- He discussed the need for a set of Regulations. These were already before Members in draft form, but he asked that Members should not press for finalisation of these for at least another year.
- Consider the detailed aims and objects of Associations represented on the Board. Recognition of additional Associations under the act and the appointment of eligible representatives to the Board. Note Electrical Supply Authorities were deemed not eligible.
- Agree to the fees for application and registration and method of collection. (Note consideration was given to a proposal for the Associations to collect the fees, but declined).
- The following Associations were requested to provide a summary of those members with regard to their nominations for membership on the Board;  
Institute of Automotive and Aeronautical Engineers  
NZ Institute of Mechanical Engineers  
NZ Hospital Engineers Association  
Society of Licensed Aircraft Engineers  
NZ Institute of Welding
- Agree to the schedule of fees and travelling allowances for Board Members as provided by the Ministry and agreed by Treasury.
- Establish the Income and Expenditure estimates – the expenditure for the first year is estimated at £2,600 to be met by the accepted scale of fees. It is noted that the application fee is to be increased from £1.10.6 to £2.2.0.
- Papers defining ‘basic engineering training’, and the education standards for those seeking registration under Section 11(1)(a).

- Registration procedures and agreeing minimum standards for;
  - (a) General education
  - (b) Technical education
  - (c) Basic education training
  - (d) Responsibility
- Application for Registration documents and form of annual Registration Certificate.
- Recording and procedures for;
  - (a) Application Register
  - (b) Register of currently registered persons
  - (c) Correspondence files
  - (d) Personal files for registered associates
  - (e) Accounting system and stationery
  - (f) Board members expense claims
- Office Accommodation

The Board then met at about two monthly intervals, establishing procedures and policies and recommendations to the Minister for the recognition of associations under the Act. By the end of 1962 the membership of the Board also included;

A H Beaver      A W Blair      R G Colvin

In December 1962, the Department of Internal Affairs ruled that the use of the Coat of Arms on Registration Certificates was not permissible and so the suggested crest was adopted together with the wording. The Register to be in the form of a 'visible card index' kept alphabetically, a '*Shannonvue*' system which remained until transferred to a 'Microsoft' computer database in 1996.

By December 1962, the following twelve Institutes had been recognised under the Act;

NZ Institute of Engineering and Science Technicians  
 NZ Institute of Marine and Power Engineers

NZ Institute of Draughtsman  
NZ Institution of Automotive & Aeronautical Engineers  
NZ Institute of Refrigeration & Air-conditioning Engineers  
NZ Institute of Heating & Ventilating Engineers  
NZ Institute of Welding  
NZ Institute of Mechanical Engineers  
NZ Hospital Engineers Association  
The Gas Institute of NZ  
The Society of Licensed Aircraft Engineers  
The NZ Institute of Plant Engineers

### 30 April 1963

At a function in Wellington, the Hon W S Goosman, Minister of Works presented the first sixteen Certificates of Registration to:

N A Ashby; R J Ball; F F Bielby; A W Blair; B D Burns; J B Campbell; S S Chadwick; R G Colvin; J B Goldie; J L Gordon; R T Higgs; A McDowell; D C R McFarquhar; C H McKeich; P D McNeil; A T Parsons.

Other initial recipients who were unable to be present were:

I Beattie; A Berry; J L Cagney; J R O Lee; A H L McDonnell; C E Sundbye; A C Whiting; G G Wood.

(Application No. 1 and Certificate of Registration No. 1 – J B Goldie)

### NZIE Journal, June 1963

{Excerpts from an article by C J M Choat entitled “Engineering Associates Registration”}

*During early discussions on the education and training of engineers, it was estimated that for balanced efficient working of a country's industry, two or three members of the ‘middle group’ are required for every professional engineer. Since the war (WWII) there has been a*

*growing demand for professionally qualified engineers, and there is now an increasing demand for qualified and registered middle group engineers. The NZ Institution of Engineers must do its part in seeing that this demand is met. The Institution is more than just a learned society and it must bear a major share in the planning for educating and training engineering staff for NZ's industry because we in NZ must not only develop industrially but must do so efficiently if we are to maintain our present living standards.*

*Whatever help the Institution and its members can give, by far the most powerful force can be applied by industry, which has already shown itself ready and willing to assist. In his presidential address to the NZIE, P L Laing said, "Many of the technician group will eventually qualify for middle and top management and there is every reason why men should train in this category. The educational authorities are doing their best and some employers are demonstrating that there is opportunity for these middle group people. The Institution is aware of the problem and must adjust its affairs to give greater encouragement. This may require generosity in our thinking."*

By July 1963, applicants had been registered by virtue of their experience in the following types of engineering:

Civil Engineering; Civil Engineering design; Civil Engineering Draughting; Civil Engineering Construction.

Structural Engineering; Structural Engineering Design.  
Irrigation.

Mechanical Engineering; Mechanical Engineering Design & Draughting;  
Mechanical Engineering Teaching.

Marine Engineering.

Automotive Engineering.

Military Mechanical & Electrical Engineering.

Naval Ordnance Engineering.

Refrigeration Engineering.

Hospital Engineering.

Gas Engineering.

Aircraft Engineering.

Metallurgical Engineering.

Welding.

Electrical Engineering; Electrical Engineering Design & Draughting; Electrical Distribution Engineering.

Railway Signals Engineering.

Telecommunications Engineering.

## Ministerial Pronouncement

At the Board Meeting 10 September 1963, it was recorded that the Commissioner of Works advised that Ministerial approval had been given to the use of 'Registered Engineering Associate' and the post nominal 'REA' to those registered under the Act.

The State Services Commission declined to change their policy to recognise the registration and would continue to recognise academic qualifications. This policy appeared to be influenced by the high proportion of registrations under Section (a).

## 31 March 1964

At the end of the first year, the Board had received 505 applications for consideration. The Board continued to operate with the full co-operation of the Ministry of Works for accommodation, secretarial services and funding.

## Chapter 3 - THE FIRST TEN YEARS OF REGISTRATION

As at 31 March 1965

Applications considered to date: 630.

Registered:

Section 11(1)(a) 344, Section 11(1)(b) 105, Total Registered : 449

October 1966

The Board began renting office accommodation within the NZIE suite in Molesworth House as well as having its Council Room for meetings instead of using whatever meeting room was available within any of the Wellington Government Departments.

March 1968 – ‘Five years of Registration’

During the first two years Board meetings were held about once a month to deal with the first flush of applications, but with established procedures for examination and assessment, the Board was then able to deal with about 140 applications a year by quarterly meetings. The position after the March 1968 meeting was:

Registered [(a) & (b)]	767
Declined, deferred, deceased, resigned etc	<u>266</u>

TOTAL APPLICATIONS AFTER 5 YEARS 1,033

In July 1968, John V Edgar was registered, Certificate No. 1061.

Later in 1968 the Act was amended by the addition of Section 11(1)(c), providing the conditions for the registration of persons who do not qualify under either of Sections (a) or (b). In brief, applicants under this Section are to provide a Written Statement of no less than 4,000 words on an engineering topic approved by the Board. Section 11(1)(a) was amended by restricting its application to those born before 1 January 1936.



From the implementation of the Act, the Ministry of Works provided active support to the registration within the Ministry of Works not only writing it into the Organisation Structure but also in statures for authorised expenditure. In the first ten years of registration, the high majority of applicants were from the public service organisations (incl local authorities, health boards, electrical authorities etc). By this time the REA became recognised as an integral step in the career structures and the respective remuneration scales of the public service. In 1971 the Board recorded the following results of a survey, (excluding the Ministry of works);

- Forestry Dept – Vacancy notices have stipulated REA as a pre-requisite for appointment to certain “Middle Group” engineering positions.
- Post Office – In 1969 the PO commended the introduction of an Engineering Associate Group to assist professional engineers, applications being called for some 200 Engineering Associate positions. For appointment to a position as Senior Engineering Associate, the REA qualification is mandatory.
- Electricity – requires Test Engineers and Assist Test Engineers to obtain REA before obtaining the merit grading or promotion beyond a certain level (Technical Officer to Engineering Officer).
- Railways – Introduced a requirement making REA mandatory for appointment to certain engineering positions.
- Broadcasting – REA is a pre-requisite for appointment to certain upper-level technical positions.
- Local Authorities – Have generally accepted REA and welcome it as a means of facilitating classification of technical staff. Some pay an increased salary to officers who are REA.

## May 1972

At the completion of 10 years of Registrations:

<u>Registrations</u>	<u>Assoc Members</u>	<u>Non Assoc</u>	<u>TOTALS</u>
R(a)	688	477	1165
R(b)	<u>273</u>	<u>171</u>	<u>444</u>
<u>TOTALS</u>	<u>961</u>	<u>648</u>	<u>1609</u>
	Declined, deferred, deceased, resigned		496
	<b><u>TOTAL APPLICATIONS TO MAY 1972</u></b>		<b><u>2103</u></b>

The 15 Associations Recognised under the Act, and their declared REA members:

NZ Institute of Engineering Technicians	325
NZ Institute of Draughtsman	145
Institute of Marine & Power Engineers	98
Electricians Institute	87
Electronics Institute	55
Institute of Motor Industry	43
Institute of Welding	41
Hospital Engineers Association	40
NZ Institute of Mechanical Engineers	34
Society of Automotive Engineers	34
Refrigeration & Air Conditioning Engineers	28
Heating & Ventilating Engineers	11
Gas Institute	9
Plant Engineers	9
Society Licensed Aircraft Engineers	2

## Registrations by branches of engineering

Mechanical 25%, Civil 24%, Electrical 19%, Telecommunications 11%, Automotive 4%, Refrig, Aircon, Heating & Ventilating 2%, Others 15%.

## Registrations by 'Industry'

	<u>%</u>
Public Service (Government Depts etc).	50
Local authorities, Utilities (Boards)	20
Dairy, shipping, Freezing, Oil, Fertiliser etc	5
Civil Engineering Consultants	1
Other private organisations	24

From the above analysis, the trend had been established for engineering technicians within the public organisations to actively seek the REA. This trend continued over the next 20 years.

## **Chapter 4 - THE NEXT TWENTY YEARS**

Meeting No.54, 28 March 1974, Mr C J Tustin replaced Mr C J M Choat who was the Board's first Chair.

Meeting No.56, 25 September 1974 Mr J V Edgar was present as an 'observer' and appointed Board Member for Meeting No. 57, 20 November 1974, on the nomination of the NZIMEchE.

### **CEA**

During the early seventies the Associations recognised under the Act created the Council of Engineering Associations Inc (CEA) in an attempt to establish a coherent 'voice' for the Middle Group Engineers. This reflected the concern at the time that the Institution of Engineers (NZIE) were the strong voice for the professional group, and that the Middle Group comprised a very disparate group. This Council survived for many years and even with the attempts of George Bridges (Ministerial Appointee Jan 1977 Sept 1989) in its later years the Institutes held fast to their separate interests and could not find any common ground or incentive to integrate into one strong coherent organisation.

At one point there was a proposal for an Engineering Practitioners Act but that fell through.

The CEA eventually dissolved without any real achievement.

### **NZIE Review of Registration Act**

In 1979 the Board accepted the invitation to join with NZIE to review the legislation for the Engineers Registration. All the Associations recognised under the EA Act were also invited to join the review, and this was accepted by some. There were doubts expressed whether Government was

interested in the review for a joint Act and indeed whether there was any real need for the review.

## GST

The Board had to observe the introduction of the new Goods & Services Tax effective 1 October 1986, and became registered as required under the taxation legislation.

## Twenty Five Years

Board Meeting 101, on 22 July 1987, was attended by the Minister of Works and Development, the Right Honourable Fraser Coleman and the Commissioner of works Mr G Shadwell. The Minister gave a short address to the Board commemorating the Board's 25 years.

## 31 March 1988

The payment of the Registrar's salary from the Works & Development Vote ceased and Section 7 of the EA Act was amended to authorise the Board for the employment of the Registrar. A Job description was prepared and agreed.

At the same time, the Board's office was relocated to the 2<sup>nd</sup> floor of Molesworth House, 101 Molesworth Street, Thorndon, Wellington.

## Chapter 5 - THE DECADE OF DISESTABLISHMENTS

### State Sector

This stage became a watershed for the EARB story when the Government decided that Parliament was better suited to administering the statutes and not in operational activities associated with infrastructure development and operation. Consequently late in 1988 the Ministry of works was disestablished and the Minister responsible for the EA Act from December 1988 was the Minister of Commerce. The administration was transferred to the Ministry of Commerce.

The operational activities within the MoW went through a progressive transfer, first to a new Corporation called the Works & Development Services Corporation, comprising Works Consultancy Services and Works Civil Construction. In 1996 the former was sold to Opus International Consultants and the other became Works Infrastructure.

Mr P E McGill was the contact within the Ministry of Commerce, who as it transpired was also the Registrar for the Engineers Registration Board which was a somewhat curious situation.

Over this decade the other Government infrastructure operational activities were disbanded and in general became either a Company or a State Owned Enterprise. One in particular needs mentioning with the adoption of the Energy Sector Reform Bill becoming the new Electricity Act (1993) where the Electrical Workers Registration Board required all Electrical REAs to register with them as a 'Qualified Engineer' if they wish to continue to carry out 'Prescribed Electrical Work', which had previously been approved for an REA.

So the extensive formal support from the State Sector for the REA was virtually eliminated during the decade.

## THE QUANGO HUNT!

### *Quasi-Autonomous Non-Governmental Organisation*

A Government enquiry to review all such organisations with the objective to reduce their numbers.

### 8 March 1989

The Chair and representatives of the Board had discussions with a Committee of the Ministry of Commerce concerning the Review of the Regulation of Engineering Associates. The discussion ranged over the purpose and need for Registration by Regulation down to individual sections of the EA Act. At the August 1989 Board Meeting a sub committee was formed to investigate the alternatives in the event that the Act was repealed, including the formation of an Incorporated Society.

At the 30 November 1989 Board Meeting, Mr Bullen Director of the Building Services Directorate, Ministry of Commerce briefed the Board on the progress of the review. It was noted that:

- The EA Act may be repealed by mid-1990.
- The Board should canvas all financial REAs to gauge support for;
  - (i) Continuation of the current Act
  - (ii) Establishment of an Incorporated Society should the Act be repealed.
- Voting papers to be despatched with reply paid envelopes by mid December 1989.
- A board meeting to be scheduled for January 1990.
- Applications for Registration to continue to be accepted.
- Constituent Associations to be advised of present position.

- Chair to seek assurance from the Minister that opportunity will be given to make representations to a Select Committee should the Government decide to proceed with the repeal of the Act.

5 December 1989, The Minister of Commerce The Hon David Butcher, advised that the EA Act would be repealed within the Law Reform (Miscellaneous Provisions) Bill then being prepared by officials.

The Building & Development Directorate of the Ministry of Commerce then advised;

1. All records of the Board and the Register should be given to the incorporated society or some other appropriate organisation, which is established to continue the essential functions of the Act. No further names are to be added or deleted after 31 March 1991.
2. All liabilities of the Board are to be paid up and the remaining assets are to be paid to the incorporated society or organisation.
3. The Minister of Commerce is to decide which organisation is to receive the assets, register and records.
4. The final accounts are to be audited by the Controller and Auditor General.
5. Any fixed assets of the Board, office furniture etc are to be given to the incorporated society or other organisation.
6. The date the Act is to come into force is to be 31 March 1991.
7. Confirmation that these provisions are sufficient and meet the needs of the Board is therefore now sought.

The Board responded that the timing was impossible and that the repeal of the Act could not proceed until mid 1990.

All current REAs were canvassed (by 15 January 1990):

- (1) Do you believe that the EA Act should be repealed (Yes/No)
- (2) Regardless of your opinion above, if the EA Act is repealed, do you believe that an Incorporated Society should be established to continue certification / qualification? (Yes/No).



Responses to both questions – Yes 93% No 7% from a 68% overall response.

At its January 1990 meeting the Board moved to actively pursue the establishment of an Incorporated Society to take over the functions of the existing Board. The proposed organisation was to be called The New Zealand Institute of Registered Engineering Associates (incorporated) and this name was tentatively accepted by the Registrar of Incorporated Societies. The functions of the Board under the Act were to continue until repealed.

The Hon David Butcher, Minister of Commerce confirmed in a letter dated 23 August 1990 that the repeal of the EA Act is scheduled for 1 April 1991. The Finance Bill (No.3) which included the proposal to repeal the EA Act was delayed and would probably be placed on the Order Papers for the next Government. In discussions with Mr Philip Burden National Party Commerce Spokesperson, he confirmed unequivocally that his party would not proceed with the Bill if elected. The Hon Philip Burden was appointed Minister of Commerce in the newly elected Government. The Board decided to defer further actions on forming an Incorporated Society.

The Minister advised in January 1991 that Cabinet had yet to consider the Finance Bill No. 3, but that the general position of the Government is to continue the process of deregulation. The Chair responded with a strong submission to retain the Act.

In October 1991 the Law Reform Division of the Department of Justice also supported the repeal of the Act. The Chair again responded refuting many of the statements reported by the Dept.

While awaiting the Government's decision, the Board had discussions with IPENZ with a view to forming an Incorporated Society within the Institution of Professional Engineers, in the event that the EA Act was repealed. It was generally agreed that such a proposal was better than forming an independent society. The proposal outlined the formation of the NZ Society

of Registered Engineering Associates within the Institution of Professional Engineers NZ.

The Minutes of the Board meeting on 25 November 1992 records the receipt of the letter from the Ministry of Commerce advising that the Government had decided not to repeal the Engineering Associates Act 1961.

## NZCE

In November 1991, the NZ Qualifications Authority made a presentation to the Board on the new NZQA Qualifications Framework. At that stage the future of the NZCE seemed secure, but industrial employment issues and the general relaxation of a rigid education regime caused reviews of the qualification. Training requirements were being tailored to suit individual organisations and general trade and industry training was being seriously diluted. Individual subject requests were eagerly met by NZQA until well into the new Millennium. It was then realised that almost 5,000 subjects was ridiculous and virtually impossible to create a meaningful qualification, and a project of rationalisation ensued.

The well-respected NZCE had its own problems with students encountering difficulties in completing the 'practical training' requirement of the qualification in a tight employment market. It was decided to cease the NZCE (over time) and allow interested tertiary providers to register and offer their own diploma/certificate as a replacement. As finance was provided in accordance with the numbers of students enrolling for courses, competition was fierce to the detriment to the quality of the courses. Over this period, the Board was faced with deciding which course was in fact to the standard of NZCE (as provided in the Act) but fortunately the uptake and completion of the various courses was not successful and the Board received few if any applications under these qualifications. This situation continued until well into the new Millennium. NZCE eventually ceased in the late nineties.

## IPENZ

The NZ Institution of Engineers was re-organised and became the Institution of Professional Engineers New Zealand, IPENZ.

## ERARC

'Engineers Registration Act Review Committee' was established primarily to review the Engineers Registration Act 1924, under the chairmanship of IPENZ. The review was expanded to;

*"To examine the possibility of incorporating into one Act the registration of professional engineers and engineering associates. (There could also be provision for further possible grades in the future)."*

*"To examine the mechanism by which the Act could provide for specialist registers to meet the requirements of other Acts or regulations made under them."*

The Board selected a subcommittee for representation on ERARC to pursue this review. The Chair reminded the Board that back in 1986 there had been initial discussions on this topic. Mr McGill (MoC) confirmed that the Ministry was In favour of investigating the possibility of a joint register.

By August 1994 IPENZ had become less enthusiastic over a joint register, and in November advised the Board that the joint investigation would not proceed. However over the next few years IPENZ endeavoured to have amendments made to the ERA.

## OTHER NEW LEGISLATION

In the mid-nineties the Privacy Act and the Employment Contracts Act were introduced. The provisions of the Privacy Act impacted on access to the Register details, so the Board issued an advice to all REAs which of their personal details were publicly available upon request to the Registrar. This advice continues to be provided to each person upon Registration and is listed in the Application Information Pack.

Upon the introduction of the Employment Contracts Act, an Employment Contract was prepared for the position of Registrar.

## REGISTER FORMAT

Mid 1996 the Board approved the purchase of a computer and an IBM with Microsoft Works software was installed. The Registrar, after some training and with the assistance of the then Chair (Norman Major) proceeded to transfer the details from the 'Shannonvue' visidex cards to the Microsoft Works Database. Once transferred, the Register was only maintained on the M-S Works database and the cards were held as the historical record of the Register to that time.

## BOARD'S OFFICE

In December 1997, the Board's office was moved to the 6<sup>th</sup> floor of Molesworth House under a different tenancy agreement with the owner of the 6<sup>th</sup> floor. Board meetings continued in the IPENZ Council Room. The Board's office has since remained at this location.

## REGISTRAR

In early 1998, the Registrar Mr Peter Reynolds gave notice that he wished to retire. The position was advertised, and after the usual interview and selection process, Mr John Edgar was appointed. After a short induction period John became the Registrar 1 September 1998. Mr Edgar resigned as a Board Member effective 30 August 1998.

## MINISTRY OF COMMERCE REVIEW OF ER & EAR ACTS

Mid 1998, Mr P E McGill (MoC) requested the Board to make submissions to the Ministry for their review of the EA Act in conjunction with their review of the ER Act. In August 1998 the Board submitted its report on the EA Act. Government decisions were not forthcoming and the review of both Acts lapsed. IPENZ had concluded that it seemed too difficult to secure acceptable amendments to the ER Act 1924 and they were to seek a new Act by means of the Parliamentary Ballot for Bills.

## Chapter 6 - THE MILLENNIUM ERA

### MINISTRY

The administration for the Act became under the jurisdiction of the new Ministry of Economic Development, with Mr P E McGill continuing as the key contact. Note, Mr McGill retired in 2003.

The Chair and Registrar met with Mr McGill in late 2000 seeking clarification on the new Ministry's policy towards the EA Act and emphasising the need to increase the fees under the Regulations. During these meetings and discussions, it was recommended that the Board make submissions to the forthcoming CPEnGNZ Bill, which may provide the opportunity for a rethink on the position of the EARB as a statutory registration (see below).

During the discussions with McGill at the November 2001 Board Meeting (see below), the Board expressed their concern over the financial situation and that current reserves did not allow for any serious investigation into options for a revised Act. McGill claimed that the Board, by not earlier indicating where the Board was heading, or considering future development, or for what the funds would be used, had not provided any justification for an increase in fees. Further presentations and discussions on the declining situation of the Board's finances ultimately required urgent consideration when the Board's reserves had reduced to below the recommended minimum of 6 months operating expenditure (\$38,000 @ 31/3/2004). Needless to say that the procrastination over the essential fees increase did not auger well with the relationship between the Board and the Ministry. During these discussions, budgets were of course submitted and a provision in one which provided a modest amount for 'Promotion' had to be removed at the request of MED. The Fees Amendment Regulations were eventually passed to be effective 1 February 2003.

## DBH

Effective November 2004 the Ministry of Housing was renamed the Department of Building and Housing and the building functions of the Ministry of Economic Development (MED) incorporated into its role. Other registration boards were included in the new Department's functions. Ms Rebecca Golledge had been appointed to administer the various occupational registration Acts within the DBH jurisdiction.

It is interesting to note that in processing a subsequent request for an increase in the Fees Regulations, DBH recommended that 'a more generous and wider approach should be adopted towards the promotion of the credential'. Somewhat a change of attitude towards the credential and the problems being encountered on diminishing numbers.

A Board 'Output Agreement' was introduced by DBH on behalf of the Minister, and with appropriate amendments generally applied to all occupational Boards reporting to DBH. One of the provisions was the requirement for an Annual Report, in conjunction with the annual audited financial statements. The first 'Annual Report' was for the 2005/06 financial year.

## REGISTER

April 2000 the Register was transferred to 'Access' within 'M-S Office 97'. In 2001 the operating system was upgraded to 'Office Windows 2000' then onto 'X-P Professional'.

## SURVEYS OF REA's & ORGANISATIONS

In response to the suggestions that the Act would be reviewed (again) following the establishment of the CPEngNZ legislation, the Board decided to survey all current REA's and the employing organisations. In 2001 a survey was conducted using both direct response into the website as well as optional manual data supplied on hard copy where internet access was not convenient.

Survey Results;

- It was regarded as considerable value to both REA's and their employers
- It was important to obtaining employment for more than 50% of REA's and employers
- 25% agreed it was important to exporting skills
- 25% found the credential understood and recognised internationally
- Statutory backing supported by 85%
- Administered by an independent body 80%
- 95% do not want the EA Act to be abolished
- If abolished, opinions divided between an Inc society, register in IPENZ, or IPENZ membership

Many negative comments were expressed about IPENZ recognition and the respective fees. More than 50% saw value in introducing competency assessments, practising certificates and a Code of Ethics for REA's.

## CHARTERED PROFESSIONAL ENGINEERS OF NZ BILL

A private members Bill, prepared by IPENZ and introduced into Parliament in 2000 by Nick Smith MP was drawn from the Ballot. It was based on the Chartered Accountants Act, to establish a register of 'Chartered Professional Engineers' under the IPENZ Board, to protect the terms 'Registered



Engineer’ and ‘Chartered Professional Engineer’, to introduce a code of ethics and discipline aspects, and to repeal the Engineers Registration Act 1924. It passed its first reading (supported by all parties) and was referred to the Commerce Select Committee.

The Board submitted recommendations to the Select Committee and the Chair and the Registrar attended the meeting to discuss their proposals. The Board supported the Bill but strongly recommended that the coverage of the proposed Chartered Professional Engineer’s Council be broadened to cover all “engineering industry related registration bodies” including EARB.

The Select Committee did not accept these suggestions when the Bill became the The Chartered Engineers of New Zealand Act 2002. Reasons given for the rejection were that there was no co-ordinated representation for the Middle Group (Technicians) and that the Select Committee (and the proposers of the Bill) were not prepared to delay the introduction of the Act to poll all the different stakeholders and parties involved with Technicians.

The Bill was enacted as the Chartered Professional Engineers of New Zealand Act 2002 effective from 1 July 2002.

## MED Review of the EA Act

At the November 2001 Board Meeting, Mr McGill (MED) was present to discuss the review of the EA Act, and stated that in their review of the existing Act they considered it could not be retained in its present form. Following the RE Act preparations it was recognised that for statutory registration there must be provision for;

- Review and progressive development of competency.
- Registrants to comply with a Code of Ethics.
- Litigation limitations.
- Restricting registration to currently practicing persons.

MED consider that there are two realistic possibilities for the future of a formal credential classification for technical engineers;

**Either** repeal the Act and arrange a system of registration under the auspices of IPENZ.

**Or** revise the current Act to include the latest approaches regarding litigation provisions, the current structure of similar Boards, and to establish compliance with on-going competency and ethical compliance. The resulting Register would only list practising persons. It was suggested that the term 'Registered Engineering Technologist' was now more appropriate. Although provision would have to be made for the transfer of existing qualifying REA's, McGill suggested that future registered persons would probably be holders of the new 3 years B. Tech degrees (for preference) but may also include holders of the new National Diploma in Engineering as well.

McGill stated that he had requested 'opinions' on the future of the EA Act from IPENZ, ACENZ, & INGENUIM (ALGENZ) and that they had all replied that they considered that the EA Act has no further real purpose and that it should be repealed. McGill stated that the only suggestion provided was that it would be better replaced with a "Register" operated by IPENZ. McGill confirmed that MED's preferred option was an arrangement for a registration system to be operated by IPENZ. The main logic presented for this opinion was that NZ, with a population similar to Melbourne, did not justify two separate systems for engineers. They appeared to accept the opinion that membership of an appropriate class of IPENZ would provide technical engineers with virtually all the practical recognition now available from the EA Act both internationally and domestically.

A suggestion that MED ask IPENZ to add provisions for a Register of Technologists into the CPEng Bill as it goes forward to its next reading in Parliament was out of the question.

Mr McGill retired March 2003. The 'review' of the EA Act effectively ceased and no further progress ensued for sometime mainly because the Building Act was the centre of the MED activities. As described above the

responsibility for the EA Act then became under the auspices of the new DBH.

## IPENZ

At the November 2002 Board Meeting, Dr Andrew Cleland (CEO IPENZ) outlined the introduction of the new CPEngNZ legislation and its register administered by IPENZ and the preparations for the introduction of competency evaluations. He then described the proposed introduction of IPENZ registers for Technicians and Technologists, neither of which would be statutory registers.

March 2003, the IPENZ CEO wrote to the Minister (Hon Lianne Dalziel Minister of Commerce) under the subject Review of the Building act & Recognition of Competent Practitioners. The recommendations were:

1. Repeal the EA Act and broaden the CPEngNZ Act to become (perhaps) the Engineering Professions Act, retaining CPEng but through regulation allowing the addition of technical engineers and perhaps associate engineers at a later date.
2. Repeal the EA Act and have the Building Act recognise and use the certification-trademarked registers for technical engineers and associate engineers that IPENZ intends to launch in 2004.
3. Repeal the EA Act only. This will mean that the only recognised option, when decisions about suitable competent engineers are made in the building regulatory environment, will be to select a CPEng, unless a completely new registration system is developed under the Building Act.

A broad-based multi-register engineers registration act would provide more public good than a Building Act specific current competence system for technical and associate engineers. Nor does IPENZ support the amendment to the EA Act to provide ongoing competence as linking to a professional

body provides a sharing of knowledge, code of practice development and ethical guidelines.

The EA Chair responded with an appropriate letter disagreeing with these proposals.

***Comment: Strange that these ideas reflect the submissions by the Board to the CPEng Bill Select Committee and which were strongly opposed at the time!***

A subsequent change of Ministers, together with a new Government Dept effectively 'buried' these proposals.

IPENZ proceeded to establish their internal registers for 'Certified Technicians' and 'Certified Technologists'. Both included criteria for meeting continuing competency assessments.

## INTERNATIONAL ACCORDS

Over the next few years IPENZ took it upon themselves on behalf of engineering in New Zealand to become signatories to the Washington, Sydney and Dublin Accords. These are international agreements between the signatories to recognise the academic qualifications scheduled for the respective countries, and to uphold the agreed specified requirements within each Accord. One of these is to be responsible for the 'registration' of the three types of engineering occupations, i.e., Professionals/Chartered, Technologist, Technician. Obviously there could be a 'conflict' under this requirement with the statutory registration for Technicians provided by the EA Act which is not administered by IPENZ.

*Note: At about this time unofficial comments surfaced that the REA (Engineering Associates Registration Board) no longer existed. This*

*'misinformation' perpetuated for a considerable period and certainly contributed to the continued reduction in the numbers of applications.*

## OTHER OCCUPATIONAL REGISTRATION LEGISLATION

The Building Act introduced the Licensed Building Practitioners scheme, and there was a new Architects Act which although following the principles of the CPEngNZ Act differed significantly in that the Architects adamantly sought a registration 'Board' completely separate from the architects' membership organisation. Due to the development of these Acts, DBH were not in a position to consider any review of the EA Act for some years.

## PROMOTIONAL BROCHURE

The Board approved the publication of a promotional brochure outlining the credential's benefits. This was distributed to all REAs, the Associations, and other interested parties. It was also distributed with one issue of the magazine 'Engineering News'. Response could only be described as modest.

## EA CODE OF ETHICS & REAcap

The new occupational legislation that had been introduced over these years invariably contained provisions for Codes of Ethics and continuing competency assessments. The EA Board and DBH agreed that these were important provisions lacking in the EA Act so in 2004/5 the Board introduced a Code of Ethics and the provision of ongoing competency assessment called REAcap (Registered Engineering Associate competency assessed practitioner). The latter was voluntary and required an REA to be assessed every four years on continuing knowledge development, engineering experience and engineering responsibility. The assessments followed the general provisions contained within the Act. The Code of Ethics was not

contained within the legislation but the Board advised every REA that observance of the Code was expected.

## EA ACT AMENDMENTS – 2007

Ms Rebecca Golledge, after inviting suggestions from the Board, proposed some 'technical amendments' to the Act to be included in the 'Statutes Amendment Bill 2006'. Any amendments must not be controversial and accepted by all Parliamentary parties. They included reducing the numbers of Board Members for a quorum, removing the age requirements relating to registration and the access to the Register.

## EA ACT REVIEW BY DBH 2006

At the November 2006 Board Meeting DBH introduced Ms N Wells to the Board, who had been appointed to carry out a review of the EA Act 1961 for the Minister for Building Issues. The proposed plan would be in accordance with the policy for reviews of occupational licensing and would include topics such as:

- Why have an Act. Is intervention by Government appropriate or will harm ensue if revoked. Prepare a risk analysis and identify the options for intervention whether compulsory or voluntary.
- Determine the future direction for the Act and develop a policy on the most appropriate direction.
- How best to regulate the occupation, eg a separate Act or combine with another Act. Identify parties affected by the Act and establish the widest possible discussion on these factors.

The timeframe is expected to take about 2 years for the first phase culminating in a report to the Minister, and the subsequent preparation of any amended legislation would be expected to take another similar period.

Meanwhile DBH arranged meetings with the Associations, REAs and other groups to discuss the review. They received an overwhelming number of offers from REAs wanting to be involved and the Dept spent many months holding workshops to extract information about the industry and the importance of the Act.

They requested the Board to prepare a submission on the review. They emphasised there needs to be a strong case for the Government to recognise the regulatory requirements in the occupation. The Board submitted a 16 page submission dated 14 November 2007 recommending a replacement of the Act. No further progress mainly due to the Department's activities in establishing the systems associated with the introduction of the LBP scheme, coupled with the appointment of Hon Maurice Williamson as Minister of Building and Construction in the new Government (2008). The new Government announced that it planned a review of all occupational regulation in 2010, and that it would be premature for a review of the EA Act to proceed further before the Government's expectations of the new reviews.

## **EARB STRATEGIC PLAN**

In February 2009 the Board held a strategic planning exercise, at a dedicated meeting under an independent Facilitator. Each member of the Board together with the Registrar were encouraged to give their views on the future of the credential and its future pathway. The Board established a Task Force to develop the ideas agreed at the Strategic Planning Session. This Task Force was obliged to also consider the possible influences from the proposed occupational regulation review announced by the Government.

## Chapter 7 - SHAKEN – BUT NOT STIRRED!

### GOVERNMENT REVIEW OF OCCUPATIONAL LICENSING

Announced late 2009, the Government tasked MED to control the review of 80 boards to cover improved consumer protection balanced with increased productivity, accountability and rationalisation where possible. The intent is to reduce costs but not at the expense of quality. DBH was tasked to review all 6 Acts it administers, ie;

- Building act 2004 (LBP)
- Chartered Professional Engineers of New Zealand Act 2002 (CPEngNZ)
- Electricity Act 1992 (provisions relating to registration of electrical workers only)
- Engineering Associates Act 1961 (REA)
- Plumbers, Gas Fitters and Drainlayers Act 2006
- Registered Architects Act 2005 (Reg Architect)

The policy will endeavour to provide suitable statutory framework(s) to cover;

- Gating criteria for entry to the accreditation
- Ongoing competency / performance
- Disciplinary procedures
- Registration administration and procedures

No pre-determined structure was envisaged and the review was to consider all practical frameworks such as an umbrella type Act to up to six individual pieces of legislation. The DBH's priority will initially concentrate on the Building Act.

In March 2010 the Board responded to the DBH request for input into the preparation for the Terms of Reference for their review. The Board's principal recommendation was a single licensing framework (see Appendix).



## EARB CHAIR

In April 2010, Dr Robin Dunlop QSO was appointed Chair replacing Ian Shearer who had resigned to take an overseas position. Dr Dunlop brought considerable public service experience, through previous positions as CEO/Secretary of Transport in NZ and CEO of Transit NZ.

IPENZ Suggestions – At a meeting of interested parties within the sector, IPENZ presented suggestions for a structure that could be applied to the engineering sector using the principles of the CPEngNZ Act within each of the ‘Architect / Design, Engineering, and Construction sectors, such as;

- ❖ **Architectural & Design** – Registered Architects & others not currently covered.
- ❖ **Engineering** – CPEngNZ, REA, & other IPENZ ‘registers’
- ❖ **Construction** – LBPs, Electrical, Plumbers, Gas Fitters & Drainlayers.

At the February 2011 Board meeting attended by DBH officials (& Mr J Leech ASTTBC see below), DBH advised that the Minister was unlikely to allocate resources to amend the EA Act and that the Ministry’s priority was focused on the Building Act. The Occupational Regulation Review had ceased and would be unlikely to be reintroduced unless it became necessary to respond to a significant risk situation.

## EARB STRATEGIC PLAN

Resulting from the Strategic Planning Session, a Board subcommittee was established entitled, **Technologists Registration Task Force (TRTF)**.

Chaired by Mr Graeme Wells (Board Member). The TRTF eventually established its Terms of Reference and commenced working on;

**‘A More Encompassing Technician / Technologist Accreditation Scheme’**

Mr Wells had located a similar organisation in British Columbia (Canada) which registered Technician/Technologist engineers, called;

“The Applied Science Technologists & Technicians of British Columbia (ASTTBC)”

The Board with the financial support of the Associations, invited Mr John Leech CEO (ASTTBC) to NZ to address the Board and possibly to meet the Minister. Mr Leech addressed the Board and DBH members at a meeting 2 February 2011. He outlined the structure operating in BC and offered some ideas that could possibly be applied in NZ. It was an interesting and enlightening discussion.

Representatives from the Board accompanied Mr Leech to meet Minister Williamson, who expressed interest in the ASTTBC operation, and of the Strategic Plan being developed by the Board. He welcomed EARB’s approach to a Strategic Plan and recommended its continued development. However he cautioned that there was no possibility of an Act change within the foreseeable future and always a change to an Act does not necessarily achieve the intended results.

One of the ‘marketing tools’ adopted by ASTTBC was the expression;

***Technology Professionals...  
Qualified  
Registered  
Accountable***

The Board adopted this expression and it is used both on the website and in the Application Pack.

The Board’s Task Force continued its proposals to create a More Encompassing Accreditation Scheme, but observing the comments from

Minister Williamson, by keeping within the confines of an unchanged EA Act.

- A proposal to change the REAcap name to RET (Registered Engineering Technologist) was considered by the Board but rejected.
- A proposal to establish a 'Building, Engineering, and Science Technicians and Technologists Association {BESTTA}. This was eventually determined to be outside the EARB jurisdiction.
- Establish a two tier registration system separately recognising Engineering Technician and Engineering Technologist Registrations. This proposal had the Board's support and the Task Force proceeded with a respective proposal.
- Establish an explanatory matrix of the occupational disciplines that were encompassed by the Act.

## MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT

MBIE - A new Ministry integrating the Ministry of Economic Development, the Ministry of Science & Innovation, the Department of Labour and the Department of Building and Housing became effective 1 July 2012.

## FIFTIETH ANNIVERSARY- 22 AUGUST 2012

To mark the 50<sup>th</sup> anniversary of the first Board Meeting of the EARB, a function was held at The Grand Hall at Parliament on 22 August 2012 hosted by the Hon Maurice Williamson, Minister for Building & Construction. About 50 guests attended including representatives from the Building & Housing Group of the Ministry of Business Innovation & Employment, the Associations recognized under the Engineering Associates Act, and members from other Occupational Licensing Boards. There were about 22 current REAs, as well as previous and present EARB Board Members.

## Board Chair

The Board Chair, Dr. Robin Dunlop welcomed everyone and mentioned that it was a significant occasion for any statutory Board to achieve. He briefly outlined the history behind the establishment of the REA credential and its development over the ensuing years with registrations reaching a peak of 3261 in 1989. The number subsequently declined through the demise of the Government Departments in the nineties, and the change of NZCE to independent tertiary provider certificates & diplomas & the number of REAs is now less than half that peak figure.

“Industry has over the years a tendency to remove the middle management tier from their structures, relying on top management to hold the qualifications & experience and the trades to assume more responsibility at the work face. The latter was further complicated by the fragmentation of the trades apprenticeship system.

The previously recognised training & understanding of the middle group to interpret the professional chartered engineer’s designs to supervise their implementation & installation to ensure the desired result is now very scarce. The economics of employing highly educated (& expensive) university graduates to try to bridge this middle ground is unproductive.

The challenge for this Board and indeed the country is to re-establish a productive arrangement in industry whereby the accepted delegation of duties is better structured to achieve improvements in more economic employment of skills appropriate to the tasks. Over the last year or so, the gap left by the demise of the NZCE has been partially closed, but it still requires a major shift in attitudes to accept that Level 6 & 7 diplomas are an attractive occupational goal coupled with many years of practical experience.

The problems in mining and cool stores, and now the huge task facing Canterbury although not directly attributable to the current shortage of

middle group technicians & technologists, is going to be all the more difficult to rectify without a larger number of people with these skills than appears to be currently available. The Board recognises these problems and is anxious to work with employers to try to assist in improving the situation and to reinforce the advantages of peer review and the recognition of ongoing knowledge and professional development”.

Hon M Williamson

The Hon M Williamson, then addressed the gathering;

“It’s quite an achievement to have reached your 50 year anniversary. I’m aware that you’ve got over 1500 members and that’s surely a testament to both the great need for the skills of senior engineering technologists, and of the benefits of registration.

It tells customers that they can depend that the work done by your members will be up to standard – and that type of quality assurance of practitioners is something I’ve been working on hard in other parts of the building and construction sector. If a customer gets work done by a Registered Engineering Associate, they can take comfort in knowing that the engineer will have met appropriate academic and practical engineering standards. In short, they can trust that they’re in the hands of an expert. And your skills are in demand. Your board’s own annual report has noted a shortage of experienced engineering technologists.

We’re here to celebrate 50 years. And in that time, I’m sure your members have seen and been part of many changes. One change you might be wondering about is the absorption of the Department of Building and Housing into the new Ministry of Business, Innovation and Employment, and how that will affect the building sector.

## Ministry of Business Innovation and Employment

I can assure you that my interest in your area remains unchanged. My portfolio responsibilities are unaffected by the new Ministry. The Government remains committed to its goals for the building and construction sector, including the Canterbury earthquake recovery. What has changed is that the importance of the building sector to New Zealand's economic and social health has been recognised. The driving goal of this change is to develop a single dedicated business-facing ministry which will strengthen policy capability, improve the regulatory environment, bring together business-facing services, and improve the Government's own internal co-ordination.

### The Ministry's investigation of the CTV Building collapse

Also high on the agenda are the Canterbury earthquake investigations and the rebuild of Christchurch. Following the 22 February 2011 earthquake, the former Department of Building and Housing commissioned a series of technical investigations to look at the performance of four relatively modern multi-story buildings in the central business district that had serious structural failures. These included the CTV Building. The Royal Commission is conducting its own investigation into the CTV Building's collapse and is using the Ministry's investigation reports as one source of information.

### Accountabilities for building work and Building Code compliance

Discussions at the Royal Commission have highlighted the importance of the skills and accountability of designers, engineers and others involved in building and construction. The Building Amendment Act 2012 more clearly signals and reinforces accountabilities for building work and Building Code compliance of all the parties involved in construction projects. It also introduces the framework for a risk-based approach to building consent and inspection requirements, so that these are aligned to the risk and

consequences of building defects and the skills and capabilities of those doing the work.

For the residential sector, this means that consenting for simple and low-risk houses built by licensed building practitioners will be streamlined. For commercial buildings, risk-based consenting will be based on a risk profile. The expectation is that there will be earlier identification and consideration of project risks, greater accountability by designers, documented means of managing those project risks, and transparency on liability. However, risk based consenting will not be introduced until the sector is ready and the drafting of regulations will be informed by lessons learnt from the Canterbury earthquake recovery.

Finally I thank you for giving me the opportunity to part of this event today. I congratulate you on reaching this milestone and the contribution you have made to the sector.”

Mr David Millard (current REA)

At the invitation of the Board Chair, David Millard reviewed his experience as a REA in the position of CEO of a dynamic specialist electrical and mechanical equipment supply company. He stressed the importance of the technician group in their organization to be able to provide the specialist knowledge associated with the application, installation and subsequent servicing of their equipment. Much of the ongoing knowledge and personal development that is so essential in the field of modern technology is provided by their overseas suppliers and the experience gained within NZ is used to the best advantage with continued training. Mr Millard stressed the importance of the credential to their business, and that they are actively working with the tertiary providers and training facilitators to ensure that the technician group continues to be appropriately recognized in today's environment.

Mr John L Gordon

John Gordon was asked by the Chair to recall the experiences many years ago when applying for the new registration and receiving his Certificate of Registration (No 9) at the first presentation ceremony 30 April 1963. Mr. Gordon was able to produce that Certificate and recounted how as an examinee engineer he became a lubricants engineer with an oil company. His expertise was in working closely with the new pulp and paper industries in the central North Island to solve their lubricating and servicing problems with the new expensive and highly complicated production machinery. Over the subsequent years until his retirement, the REA proved to be an important element of his career. John congratulated the Board in achieving this milestone and expressed his thanks for the opportunity to provide a brief outline of his practical use of the credential over many years.

Dr Dunlop concluded the formalities by thanking the Minister for both hosting the function and his interesting address. His thanks were also conveyed to David Millard and to John Gordon for their insights into their experiences with having the REA credential.

## EARTHQUAKES

Canterbury was struck by earthquakes in September 2010 and again in February 2011, the latter causing widespread damage to buildings and infrastructure in Christchurch and surrounding areas with many fatalities. The collapse of a number of buildings trapping occupants who were unable to be rescued prompted the Government to establish the Canterbury Earthquakes Royal Commission to investigate the consequences to the earthquakes and particularly the causes of the failures.



The Commission made a number of recommendations, 121 accepted by Government, 49 accepted in principle and 19 noted mainly because these had been acted upon regarding earthquake prone building policy settings. Cabinet issued a number of actions, and the one of particular interest to the Board was the establishment in 2013 of a **Review of the Engineers Occupational Registration Legislation**.

Although initially considered within the Building and Construction Sector, the review expanded to encompass the entire professional engineers' registration systems.

The review being carried out by MBIE was extensive and sought consultations from many interested parties. Although keeping the existing framework in the background, it prompted comments into a number of various scenarios outlined in a discussion document for amending the legislation. The Board made submissions in accordance with the discussion document but took advantage of the opportunity to present its view on a more encompassing registration system in line with its submissions on previous reviews.

The accountability problems and inability for litigation proceedings against those responsible for the design of the collapsed buildings (as described in the Royal Commission Report) has apparently delayed any determination or further progress on how the review will develop. Changes of Government will in all probability not assist in resolving this issue and as time elapses other Government priorities will surpass what was considered a vitally important investigation into how to improve the accountability and legal responsibility of professional engineers. The Board considered that perhaps this review could at last signal a serious attempt to help re-establish the REA within an improved encompassing statutory occupational legislation for the engineering sector.

It appears that at this stage in 2018, the review is struggling to come to grips with the litigation difficulties for professional engineers and as a

consequence any likelihood of any consideration to encompass the Middle Group Technicians and Technologists is most improbable.

## CHANGE OF TITLE FOR THE CREDENTIAL

Resulting from the Strategic Plan and the Task Force, during 2013 the Board sought the approval of the Minister to modernise the titles used for the Credential, The Board considers that the title Registered Engineering Associate and its post nominal REA no longer reflects the current description of the functions performed by the holders. The proposal is;

1. Retain the current title 'Registered Engineering Associate' (REA).
2. Introduce new titles 'Registered Building / Engineering / Science Technician (R{\*}Tn).
3. Introduce new titles 'Registered Building / Engineering / Science Technologist (R{\*}Tg).

Where Building = Qualified in Building Engineering {\*} = {B}  
Engineering = Qualified in Engineering {\*} = {E}  
Science = Qualified in Engineering Sciences {\*} = {S}

The Minister has deferred any decision on the proposal until after the MBIE investigation into the Engineers' Occupational Registration Legislation.

## CHANGE OF MINISTER

Effective week ending 9 May 2014, the Hon Nick Smith was appointed Minister for Building and Construction, replacing the Hon Maurice Williamson.

## FORMAL COMPLAINTS AGAINST AN REA

Early 2015 a formal complaint was received against an REA, and it was determined that it was necessary to establish the Complaints process provided in the Act for the first time in the Board's history. MBIE was

requested to initiate a request to the Minister to appoint an Investigation Committee, which duly met in April to consider the complaint. The Investigation Committee determined that the actions of the Respondent were a breach of the Code of Ethics for REAs, but not of such magnitude to be considered 'improper conduct' as stated in the EA Act. The complaint was not formally submitted to the Board.

Another complaint against an REA was received late 2015 and the Investigation Committee was re-appointed by the Minister. This complaint was upheld by the Investigation Committee and referred to the Board for consideration and determination. The Board agreed that an Inquiry was justified and was held October 2016. The Board's decision was that there was no evidence of improper or incompetent conduct and that under Section 22(1)(a) and Section 22(1)(b) of the EA Act, the Respondent was not guilty of incompetence and no further action was required.

## CONTINUING VIABILITY OF THE EARB

The Minister (Hon Nick Smith) met with the Board at its August 2015 meeting. He confirmed that the experiences surrounding the CPEng legislation and the aftermath of the Canterbury earthquakes had necessitated a fresh look at the occupational regulations across all sectors. The Government was not satisfied with the legislative framework across the engineering and building industries and considers there was room for reform. He also agreed that NZ generally does not have an ideal balance between the trades and middle group sectors, but considers that a strong industry body is better placed to facilitate career progression than any regulatory system. Occupations existed long before any regulatory structure was introduced, and it is Government policy to not regulate for occupations other than trades. Regulatory structures in principle protect the name of the occupation, not their application. Furthermore the broad range of activities performed within the EA Act makes it impossible to regulate.

Regarding the Board and the credential, the continuing free fall in the numbers registered must be taken seriously. Any review must investigate and question the need for Parliament's regulatory legislation for engineering technicians and technologists. It was the Minister's opinion that IPENZ was the most appropriate location for the engineering sectors occupational recognition.

The Board wrote to the Minister (March 2016) outlining the position of the Board and its projected viability, suggesting the following outcomes for consideration;

- Repeal the Act and its operation and the credential is thus devolved.
- Amend the Act to provide for another organisation to administer the Register.
- Encompass the provisions of the Act within the new CPEC type Regulatory Registration then currently under review by the Ministry.

The Minister replied that the review of the occupational legislation within the building and construction sector is likely to result in a restructuring of the registration boards. The timetable is unclear but it is unlikely to be introduced before 2018. Meanwhile the Board is required to perform its role and functions under the EA Act 1961. The Board continues to present MBIE with annual updates of its viability projections.

## CHANGE OF GOVERNMENT AND MINISTER

Following the 2017 General Election, there was a change of Government and the new Minister was Hon Jenny Salesa. The Chair, Deputy Chair and the Registrar met with the Minister February 2018 and briefed the Minister on the Board's continuing viability. The Minister indicated that in line with the new Government's policies, house construction and the associated building sector skills shortage had priority over other sector matters.

## **IPENZ v ENGINEERING NZ**

Late in 2017 IPENZ adopted another name 'Engineering NZ' as well as rebranding its membership categories most of which incorporated the title 'Chartered' with qualifying descriptions. IPENZ (Institution of Professional Engineers NZ Inc) remains as the official name of the organisation.

## Chapter 8 - REA: QUO VADIS?

No one has the ability to tell the future but let's take the opportunity to consider the main factors that could dictate the path that the credential may be able to take over the next few years. REA has never achieved the numbers that were originally estimated on the basis of the ratio of say 3 to 4 Technicians to every Professional Engineer. That would have meant something like 12,000 to 14,000 registered technicians, instead of the 5,915 that have been achieved after 55 years.

Once the support from the State Sector disappeared, the demand for the credential never retained the growth previously experienced and it continues to decline (see [graph](#)). Industry despite claiming that a statutory registration for Technicians (and more latterly Technologists) was desirable, has not formally adopted the credential into organisational career structures nor remuneration scales. Without this support it will prove difficult to continue to be justified or to meet the Government criteria for statutory occupational registration.

The Act has survived numerous attempts for its repeal and no doubt there could well be more attempts and reviews. Its relative importance will however not justify any real priority within the Parliamentary Programme and particularly in the MMP environment it may be impossible to gain full party support for any worthwhile amendments or support. There is little doubt that any Government will not be agreeable to legislate for compulsory registration of Technicians or Technologists.

Over recent years major disasters within NZ have all raised serious concerns over the problems with occupational registration / licensing, and to name a few examples, Cave Creek platform collapse, the Tamahere Storage Plant refrigerant explosion, Pike River Mine, and of course the Christchurch and Kaikoura earthquakes which resulted in the Royal Commission inquiry into the CTV and other buildings collapses. Extensive legal and engineering

investigations were prompted by these events and it was found that personal litigation proved impossible because accountability and legal liability would not withstand the Court's examinations.

Accepting that these events had a human failure element, and that the statutory systems in place were not sufficiently robust to provide accountability, it could be reasonably questioned where is the justification for a statutory Technician registration that similarly does not provide personal responsibility?

Quoting from a recent press release from the CEO of IPENZ, when referring to the CTV building tragedy;

*“We continue to look at the broader regulatory picture and how it needs to change. We think there is room to tighten regulation of work that intimately affects people’s health and safety. Engineering NZ is actively lobbying for task-based licencing of engineers for safety-critical work and even extending this to other types of safety-critical engineering such as fire, geotechnical and food processing as well as structural engineering. None of us are happy with how the [CTV] accountability processes played out. But we can’t turn back time. We can only continue to lobby for more targeted government regulation of safety-critical work, and that our members work from a high bar of professionalism.”*

The EA Act provides for self-funding of the Board with if necessary financial support from the Associations recognised under the Act. The Board members are nominated by the same recognised Associations plus three appointed directly by the Minister. The relative strength of the remaining Associations is diminishing in line with other voluntary membership occupational organisations where their benefits are now questioned. Simply

the provisions under the Act for the Associations to financially assist the Board in the future is not expected to be possible.

Similarly with the decline of the interest in the registration by the graduates now entering the workforce the trend in the diminishing registered numbers can be expected to continue with the retirements of the current registrants exceeding the rate of new applications.

These two factors of availability of members for nomination to the Board and declining applications will both impact on the practical and financial ability of the Board to be able to continue under the present provisions of the Act. The financial ability for the Board to continue under its statutory provisions will be seriously challenged over the next few years. At some stage, the question over the justification for the Board's existence and future will have to be addressed and appropriate decisions made.



# Engineering Associates Registration Board

## Principal Office Holders

### CHAIRS

C J M Choat	5/1962 – 3/1974
C J Tustin	4/1974 – 9/1976
J D Ellis	1/1977 – 9/1989
P S Dokter	9/1989 – 2/1995
N G Major	2/1995 – 12/1998
I C Shearer	6/1999 – 9/2009
R J Dunlop	4/2010 - current

### REGISTRARS

L C Hardie	5/1962 – 4/1966
J M Mitchell	4/1966 – 4/1971
I G Burns	3/1971 – 3/1974
H D Preddey	3/1974 – 6/1984
P F Reynolds	6/1984 – 9/1998
J V Edgar	9/1998 – 7/2018
R A Woods	8/2018 – current

## Occupational Regulatory Framework

### Authority for Occupational Regulation

Chartered  
Professionals

Registered  
Technologists  
&  
Certified  
Technicians

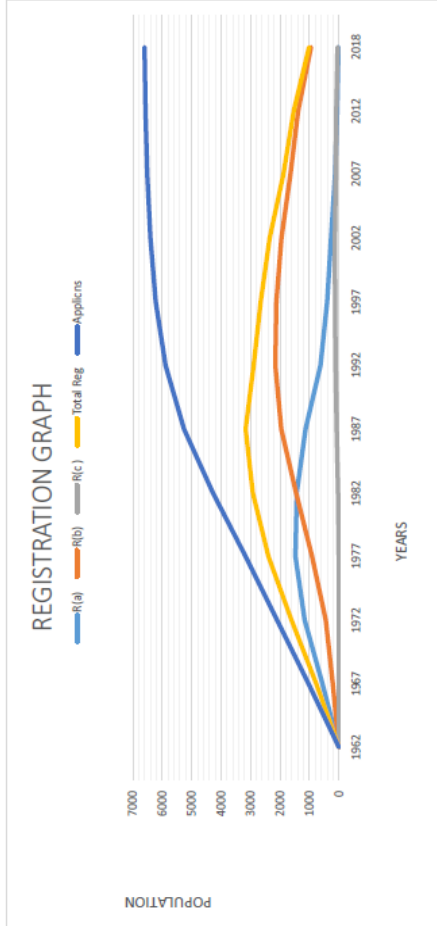
Licensed  
Trades

**Vision** : A single regulatory framework covering three occupational groups that are part of the same team with a common purpose to increase productivity in a cost effective manner through controlled delegation of responsibility for the wider good of our Nation.

## Proposed Engineering Structure

## REGISTRATION STATISTICS

Year	1962	1967	1972	1977	1982	1987	1992	1997	2002	2007	2012	2018
R(a)	0	560	1165	1478	1434	1133	625	398	267	129	60	14
R(b)	0	207	444	910	1457	1956	2159	2124	1951	1649	1387	949
R(c)	0	0	0	6	31	79	111	133	135	106	89	49
Total Reg	0	767	1609	2394	2922	3168	2895	2655	2353	1884	1536	1012
Applicants	0	1033	2103	3172	4280	5260	5888	6220	6401	6508	6565	6600



## Registration Statistics

## **Author's Profile**



**John V Edgar**

John was an engineer in an oil company, before joining the then new nylon spinning plant at Shannon. Upon its collapse, John returned to the oil industry as an engineer with a contracting service company. One highlight of his career was his appointment as the Project Manager for the NZ oil industry for the metric conversion of all the fuel dispensing equipment. John was a Board Member on the EARB for 24 years on the nomination of the NZIMechE, before being appointed as Registrar in August 1998. Qualified with NZCE (Mechanical), REA and NZIM Management Diploma (Cert No.2). Attended NZIM Administrative Staff College and is a Past Board Member of the NZ Executive Management Club

