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## Proposed Categories of Registration

Submission to the Electrical Workers Registration Board (EWRB)  
18 May 2007

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## Background to IPENZ

The Institution of Professional Engineers New Zealand (IPENZ) is the lead national professional body representing the engineering profession in New Zealand. It has approximately 10,000 Members, including a cross-section of the engineering community from students to senior Fellows in management or governance positions in important design or construction organisations. IPENZ is non-aligned and seeks to contribute to the community in matters of national interest giving a learned view on important issues, independent of any commercial interest.

In making these comments IPENZ has drawn particularly on the knowledge of its Members, or members of kindred bodies, who supervise, work with, or work alongside electrical workers, or are otherwise aware of the issues.

## Executive Summary

IPENZ thanks the Electrical Workers Registration Board (EWRB) for the opportunity to comment on the “Proposed categories of registration” discussion paper.

IPENZ considers that it is premature to be considering licence classes related to design until the regulations limiting the definition are drafted and the timetable for enactment of the regulations and relevant sections of the Amendment Act are published. In our view these regulations might be such that there is no need for the EWRB to create a licence class of qualified engineers.

Should regulatory action by the EWRB be needed later, s75 allows existing regulatory systems to be used, ensuring no duplication. Hence it is recommended that no further consideration of a licence class “qualified engineer” occurs until the higher level matters are resolved.

## Submission

In responding to the discussion paper, it is IPENZ’s view there are a set of actions that depend on each other that may be viewed as a cascade. Consequently it is necessary that the highest action is finalised first; additional actions should not be considered in any formal sense until such time. Thus, in our view only section 1

is appropriate for immediate resolution. The comments from section 2 onwards are indicative only of how we might respond when the preceding higher level matters are decided.

**1. Regulations have not yet been drafted nor publicly discussed.**

Section 2 of the Amendment Act provides for the relevant parts to come into force on a date or dates to be appointed by the Governor-General by Order in Council. The inclusion of design in prescribed electrical work is not yet enacted, and we would expect that it will be enacted only after any accompanying regulations are finalised. Thus IPENZ considers that it is premature to propose the categories of registration of electrical workers until draft regulations specifying the types of prescribed electrical work have been publicly discussed.

**2. The need for a Licence Class for Qualified Engineer is not yet proven**

The EWRB states that *“with the Amendment Act introducing the design aspect into prescribed electrical work the Board needs to make provision for design Engineers and such Engineers would have available to them the registration category of Qualified Engineer – Design.”*

IPENZ understands that design has been included in prescribed electrical work in order to solve a problem faced by electricians. IPENZ recognises that this problem exists. In passing section 74(2) it can be presumed that Parliament has also recognised that there may be a need to limit the jurisdiction of the Amendment Act to exclude circumstances where the regulatory costs would not achieve any benefit in terms of the purposes of the Amendment Act.

Thus we recognise that any actions of the EWRB must be in the context of section 74(2) which states that regulations may be developed to prescribe any limitations within which the definition of prescribed electrical work must be interpreted. It is our understanding that the Ministry of Economic Development are preparing draft regulations for consultation, and that these regulations might well propose limitations in respect of the design element of prescribed electrical work. In our view, it is inappropriate to consider the classes of licence for design work until the extent of limitation of design in the regulations is known, or at the very least the draft proposal is on the table for debate.

The elements that should guide limitations must be based on the extent to which there is hard evidence that design mistakes have led to safety accidents or property damage. The EWRB is advised to publish its analysis of the public data so there can be well-informed debate.

Until the aforementioned matters are resolved it is premature for the EWRB to define a class called Qualified Engineer – Design. In particular the regulations defining any limitations of section 74 will be vitally important.

**3. Industry self-regulatory practices cover much design work on large scale**

IPENZ notes that many parts of the electrical generation, transmission and distribution system are covered by excellent self-imposed regulatory systems.

Equipment for that sector often has significant imported components designed to international standards, to which a New Zealand licensing board cannot possibly add value through its activities. The New Zealand component is managed by experienced companies who maintain excellent standards.

Further many companies that operate outside the self-regulation systems hold employer licences, and thus we consider the need for design to be covered explicitly through an EWRB licence class to be minimal.

However, there is a need for the EWRB to consult with those running the self-regulatory systems, particularly in the electrical supply industry, before any further development of proposals is carried out.

#### ***4. Potential for exemptions under section 75(1) should be maximised for electrical engineering design***

As stated above, there is an important hierarchy of actions. To contemplate actions this low in the hierarchy is inappropriate until higher level matters have been resolved.

If the eventual shape of the regulations makes consideration of engineering design by the EWRB necessary, IPENZ considers that, in the interests of minimising regulatory duplication, assisting consistency between regulatory systems, and ultimately meeting the public good, the powers of s75(1) should be used wherever there is a suitable regulatory system.

In Appendix 1 we have enclosed a description of the present regulatory system for engineers.

#### ***5. Residual Needs for a Qualified Engineer Licence***

We consider that by taking the steps outlined previously there may well be no residual need for a Qualified Engineer registration category.

#### ***6. Electrical design by persons other than engineers***

Electricians installing plant often decide on the routes for conductors, or bundles of conductors, and may seek their clients' preferences for the exact positions of switchboards, wall outlets, and fixed appliances. Because such detail is not always shown on drawings, these decisions may be said to be design. In some types of work, especially domestic installations, there may be no drawings or specifications at all, and the electrician will select components from catalogues or from a supplier's store. This process of selection may also be said to be design. We would support recognition by the EWRB of electricians doing design of this type.

We also recognize that architects specify fittings and make decisions that could be described as electrical design. Architects registered under the Architects Act could form another class of person the EWRB could treat under s75.

### **7. Impacts on Insurance**

Depending on the shape of the regulations, there may be impacts on insurance. Loss of the protection of appropriate insurance could work against the public interest.

### **Conclusion**

IPENZ considers that it is premature to be considering licence classes related to design until the regulations limiting the definition are drafted and the timetable for enactment of the regulations and relevant sections of the Amendment Act are published. In our view these actions might be such that there is no need for the EWRB to create a licence class of qualified engineers.

Should regulatory action by the EWRB be later proven to be needed, s75 allows existing regulatory systems to be used, ensuring no duplication.

## Appendix 1

### Engineering Registers and Their Relationship to Electrical Engineering Design

Although a detailed discussion of licence categories should follow the issue of a draft discussion document on the proposed new regulations, IPENZ recognises that a general description of engineering registers might assist in bringing the EWRB up to date information on how regulation of engineers has progressed recently.

Any comments on the appropriateness of engineering registers below are indicative of our views at present, but these may change when the higher level matters outlined in our submission are resolved.

IPENZ is of the view that the work of a professional engineer is completely different in scope from the work of an electrical tradesperson.

There would be advantages if there was consistency between the electrical worker registration regime and the licensed building practitioner regime, which deems chartered professional engineers to hold LBP licenses by virtue of their own registration scheme.

A professional engineer's scope of work is regulated, by statute, through the Chartered Professional Engineers of New Zealand Act 2002 (the CPEng Act). Section 8(c) requires CPEng registrants to agree to be bound by the rules as amended from time to time, and s46(b) of the rules requires that a chartered professional engineer must undertake engineering activities only within his or her competence. Should an allegation arise that a CPEng registrant has failed to work within his or her competence, i.e. properly limit his or her scope of work, the duty to investigate the allegation and if necessary discipline the engineer falls on the Registration Authority. Section 4 of the CPEng Act interprets the Registration Authority to mean IPENZ.

Further, the competence standard for CPEng requires that engineers demonstrate the ability to follow good practice in New Zealand – this means working within any legislative or regulatory requirements that impact on their work. Hence the suggestion that a pass in the wiring regulations examination would be required would be redundant.

Professional engineers doing electrical design, but not registered under the CPEng Act, are or may be recognized by IPENZ by Membership, and if so may use the postnominal MIPENZ. These people are bound by the IPENZ Code of Ethics, section 4(b) of which states that a Member must ...undertake engineering activities only within his or her competence.

The recent development of two new engineering registers is also relevant:

- Engineering Technology Practitioner
- Certified Engineering Technician

The “Engineering Technology Practitioner” register is aligned to the international benchmark standard for engineering technologists, including those in the

electrical discipline. Typically these practitioners hold a three year degree in engineering (e.g. Christchurch Polytechnic Institute of Technology have produced BEngTech graduates in electrical engineering for almost ten years). After relevant experience these practitioners can, from 1 July 2007 apply to IPENZ for assessment against the competence standard, which includes the same provisions as CPEng about demonstrating capability to work within the local jurisdiction. The register rules are almost an exact replica of the CPEng rules, including a code of ethics and the requirements to demonstrate current competence five-yearly.

Competent engineering technologists doing electrical design, but not registered on that new register, may apply to IPENZ for Technical Membership, and may use the postnominal TIPENZ. These people are also bound by the IPENZ Code of Ethics, section 4(b) of which states that a Member must ...undertake engineering activities only within his or her competence.

The other new register is “Certified Engineering Technician”. The register is aligned to the international benchmark standard for engineering technicians, including those in the electrical discipline. Typically these practitioners hold a two-year diploma in engineering (a number of polytechnics have produced such diplomates for many years, and before that a number of New Zealand Certificates in Engineering were awarded in electrical engineering). After relevant experience these practitioners can, from 1 July 2007, apply to IPENZ for assessment against the competence standard, which includes the same provisions as CPEng about demonstrating capability to work within the local jurisdiction. The register rules are almost an exact replica of the CPEng rules, including a code of ethics and the requirements to demonstrate current competence five-yearly.

Competent engineering technicians doing electrical design, but not registered on that new register, may apply to IPENZ to become Associate Members, and may use the postnominal AIPENZ. These people are also bound by the IPENZ Code of Ethics, section 4(b) of which states that a Member must ...undertake engineering activities only within his or her competence.

Admission to the registers just described is not limited to qualification holders. There are assessment pathways for those who have experiential learning to undertake what is known as a “knowledge assessment” to prove equivalent knowledge to a qualification, and if so, their competence can then be assessed in the same way as a qualification holder.