



NEWSLETTER

# ISSUE 14 MAY 2015

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## A WORD FROM THE REGISTRAR



When I was first appointed to the role of Registrar of the Board of Professional Engineers of Queensland in 2008 the number of RPEQs stood at less than 5,000. Today, the Board registers more than 11,000 RPEQs from Queensland, interstate and overseas.

During the registration renewal period (April-May) we are continuing to see growth in the number of engineers becoming RPEQs. On current trends we expect to have reached more than 13,000 by the middle of next year.

While I'm extremely proud of the work we have done to boost the number of RPEQs and fulfil our role as the regulator of the profession, it's also important that the Board provide relevant services for engineers. To this end the Board distributed a survey to our current RPEQs gauging their feedback on the registration system, the Professional Engineers Act and the Board and its services. The results tell us that while we are doing a good job there is room for improvement.

The survey results and the Board's plans to act on the feedback from our RPEQs are featured in this month's e-news. Readers will also find articles on the APPEA Conference and Exhibition, the Board's meet and greet

with local engineers in Emerald and as always case notes to help guide your professional conduct.

At the beginning of my welcoming message I mentioned my appointment as Registrar in 2008 and the great increases in the number of RPEQs. After seven years with the Board I have decided the time is right to step aside and seek a new challenge.

It has been a pleasure to have served in the role of Registrar and been given the opportunity to learn from and meet so many engineers. So, for the final time I hope you enjoy the Board's monthly e-news and thank you.

**Clare Murray**  
Registrar



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## AND THE RESULTS ARE IN

In March the Board released a survey for RPEQs to comment on the RPEQ system, the Act and the Board itself. The results showed broad support, but there was room for improvement.

Some of the highlight results included:

- 51 per cent of respondents rated the RPEQ system strongly, and another 30 percent said the system was sound.
- 62 per cent of respondents said they understood their obligations under Professional Engineers Act 2002.
- More than 50 per cent of respondents said they applied to become RPEQ within the minimum four year period or shortly afterward.

Areas for improvement include awareness of the Board and its services, just 40 per cent believed they had a satisfactory knowledge of the Board and its services.

The Board has committed itself to building on these results through more regular and targeted engagement with engineers and professional organisations.

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## CASE NOTES – BPEQ V M

QCAT finds unsatisfactory professional conduct by RPEQ in relying on the structural engineering expertise of an unregistered engineer, when M was a civil engineer with limited experience in structural engineering.

M was a registered professional engineer of Queensland since 2005. M had his practise in Victoria but also operated an office in North Queensland. He certified a design and approved an amended design for a commercial structure in North Queensland. The designs were prepared by an unregistered engineer employed by M's business in Queensland.

The designs contained defects including structural defects underpinned by calculation errors. The designs did not comply with Australian Standards or the Building Code of Australia. M was registered as a civil engineer and admitted to having very little knowledge or experience in structural engineering. In certifying the designs, M relied upon the expertise of his employed unregistered engineer and did not himself check the calculations and the designs.

QCAT was satisfied that in so doing M's conduct was of a 'lessor standard than that which might reasonably be expected of a RPEQ by the public or his peers' and that such conduct demonstrated 'incompetence, or a lack of adequate knowledge, skill, judgment or care in the practice of engineering'.

In determining the appropriate penalty, the Member took the following into consideration:

1. M recognised that it was wrong and inappropriate to rely on the unregistered engineer's 'skill, judgment and experience in structural engineering';
2. M recognised that it was inappropriate for an engineer of M's limited skill, knowledge and experience to provide structural engineering services, 'especially as they relate to cyclonic environments';
3. The business run by M no longer provides structural engineering services;
4. M's previously unblemished record; and
5. The defects in the designs did not result in any actual loss or damage because they were identified prior to construction.

M was reprimanded, ordered to pay penalty of \$5,000 and the Board's costs of the proceeding fixed in the sum of \$15,000.

*\*The engineers in question have been de-identified so as to protect their privacy.*

*The Board is committed to assisting RPEQs to maintain high standards of professional conduct and competence, maintaining public confidence in the standard of services provided and practice of RPEQs. To this end, the Board releases "case notes" in its monthly e-newsletters to provide practical examples and guidance.*



Clare Murray talks with Peter Slane from IChemE.

## APPEA CONFERENCE AND EXHIBITION 2015

A veritable who's, who from the oil, gas and engineering turned out for the 2015 APPEA Conference and Exhibition in Melbourne to discuss future direction and opportunities for the sector, challenges, best practice and the latest technology and various project updates.

Federal Industry and Science Minister Ian McFarlane MP and Opposition counterpart Gary Gray MP affirmed the bipartisan support for the sector, with Minister McFarlane announcing the latest round of offshore gas exploration permits.

Chevron Australia's Roy Krzywosinski was on hand to give an update on the massive Gorgon project on Barrow Island off the Western Australia coast. The multi-billion dollar has created thousands of jobs during construction, including many engineers, and will continue to be a major employer going forward.

With construction of Gorgon winding down the attention will turn to further exploration. Richard

Cottee, founder of Queensland Gas Corporation, gave an account of the gas exploration work his new venture Central Petroleum is undertaking in Central Australia. With its vast gas deposits Queensland stands ready to capitalise on the future growth of gas exploration and extraction.

While at the conference the Board Registrar Clare Murray took the opportunity to meet with engineering and contractor companies, individual engineers and other interested parties to discuss registration in Queensland.



## ELECTRONIC SIGNATURES – WHAT YOU NEED TO KNOW

In modern engineering practice, signatures are regularly affixed with the click of a mouse. Electronic signatures have allowed the streamlining of many elements of practice such as the execution of inspection certificates and provision of reports or letters of advice from remote locations. However, the enthusiasm with which this new technology is adopted must be tempered with caution about its ability to be misused, particularly forging or using an electronic signature in an inappropriate way. As with any misconduct by an engineer the Board may prosecute for misuse of an electronic signature. It is therefore vital that RPEQs understand the Board's position and expectation regarding use and control of electronic signatures and keep in mind practical points to help mitigate the risk of their misuse.

Although electronic signatures can facilitate the provision of reports and certificates with the responsible RPEQ working remotely, their use does not absolve those RPEQs of appropriately checking the report or certification provided. The Board has previously encountered situations where an RPEQ has received word from one of the RPEQ's unregistered employees that a report was completed and simply instructed an electronic signature to be affixed without checking the contents of the report for accuracy and appropriateness.

Another case involved a RPEQ granting a carte-blanche mandate to a staff member to affix their electronic signature to a certain type of document without requiring the document to be presented for checking—for example, geotechnical reports or Form 16 inspection certificates.

Another RPEQ made their electronic signature freely available to an organisation to the extent that the

RPEQ lost control of it and had no knowledge to what type of work it was being used for. Given that the affixation of an RPEQ signature is interpreted as confirmation that the work has been carried out by a person assessed by the Board to be competent and fit to practice and in a professional and competent way, such certification is a serious undertaking.

The former Commercial and Consumer Tribunal has remarked that a lay member of the public is entitled to rely on a certification by an engineer as to a technical matter and a false certification is consequently a serious matter. Any of these actions would almost certainly prompt a Board investigation and possible disciplinary action against the RPEQ involved. The Board's view is that an RPEQ engaging in any of the above conduct would likely be practicing to a lesser standard that might reasonably be expected by other RPEQs and demonstrate a lack of care in the practice of engineering, or more seriously, be misconduct in a professional respect or fraudulent or dishonest behaviour in the practice of engineering.

To mitigate against the risk of using, or having an electronic signature used inappropriately the Board recommends the following:

1. Exercise appropriate control over access to your electronic signature on your employer's internal network.
2. Establish and follow an appropriate process each time the electronic signature is to be applied by someone other than yourself.
3. Delete electronic signature on termination of employment.
4. Appropriate control over documents issued with electronic signature attached.



## EMERALD MEET AND GREET

The Board's first regional Board Meeting for 2015 saw members travelling to Emerald.

Unfortunately, due to a downturn in engineering related activity in the Central Highlands region crowds for the Board meet and greet were down, but that didn't damper the enthusiasm of the RPEQs in attendance.

Along with experienced engineers several of the attendees were coming up on the four registration threshold. Board members talked the prospective RPEQs through the process and offered their words of advice.

The next regional Board Meeting and meet and greet is scheduled for September on the Sunshine Coast.



Emerald RPEQs Hiran Wijeratne and Kevin Bickhoff



Chairman Dawson Wilkie with Yass-Marie Rutty and Alicia Ruhl.



## FROM THE ARCHIVES

The Board of Professional Engineers of Queensland traces its history back to 1930, when the then Queensland Government, led by Premier Arthur Moore of the Country and Progressive National Party, passed the Professional Engineers Act 1929.

The Act established a compulsory registration system for engineers (originally only for consulting engineers) and was the first such system in Australia.

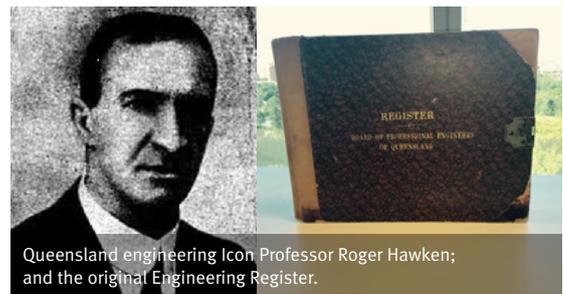
The architect (or engineer) of the registration system was Professor Roger William Hercules Hawken, a civil engineer by trade and the Dean of Engineering at the University of Queensland. Hawken went on to become the very first registered professional engineer of Queensland on 14 July, 1930.

Hawken was the lead engineer behind several structural Brisbane landmarks, and he was also involved in the development of the Story Bridge. The recognition for the design and construction of the Story Bridge goes to another famous Queensland engineer and Hawken's great rival - John Job Crew Bradfield.

Bradfield was born, raised and studied in Brisbane and Ipswich and became registered as RPEQ 242 on 27 October, 1936. His works included not only the

Story Bridge, but the Sydney Harbour Bridge, Cataract Dam and the Burrinjuck Dam.

Another recognisable engineer from that era is Sir John Robert Kemp, the inaugural chair of the Queensland Main Roads Board (later Queensland Main Roads Commissioner). Kemp was second only to Hawken as the first RPEQ. As Main Roads Commissioner, Kemp played a significant role in modernising Queensland roads, undertaking an ambitious state-wide road survey.



Queensland engineering icon Professor Roger Hawken; and the original Engineering Register.

## FAREWELL AND THANKS TO CLARE MURRAY



After seven years, four different ministers and many Board member changes, Clare Murray is stepping down from the role of Registrar.

Clare has been the driving force to boost the number of RPEQs to more than 11,000 and reinforcing a Queensland legislative requirement that had become largely forgotten.

Clare is well recognised by her peers, engineers, professional bodies, ministers and their staff and Board members past and present for her robust verve and dedication to the Board, the Professional Engineers Act and the engineering profession.

Clare is set to become the CEO of the Queensland Farmers Federation at a time of great hardship in the agricultural sector.

She leaves with the best wishes of the Board and the thanks of engineers around Queensland, Australia and overseas for making such a significant contribution to the profession.

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