

E-NEWS

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BOARD OF
**PROFESSIONAL
ENGINEERS**
OF QUEENSLAND

Protecting the public
and setting the standard
of engineering

A word from the Chairperson

Andrew Seccombe
Chairperson and regional representative



Fortunately, in Queensland, we have avoided the worst of the COVID-19 outbreaks that impacted other states. But there have still been repercussions here in Queensland for BPEQ and the wider engineering community. Industry events we had planned to take part in as part of the mining sector engagement program were cancelled, along with BPEQ roadshows and the meet and greet planned for RPEQs in Cairns. My hope is that the month ahead will be better and allow for more in-person events. I will be presenting to students at JCU EUS and at the AusIMM New Leaders Conference. BPEQ representatives will also be taking part in the Local Government Managers Association Conference as part of our engagement program with local government and the Brisbane Homeshow as part of the *Think RPEQ* public awareness campaign.

Some events that have gone ahead in August were with engineering student societies. The crux of our message to students and graduates is around direct supervision and that they must be directly supervised by a RPEQ until they are registered themselves. Direct supervision is a transactional relationship between a RPEQ and an unregistered person – it is distinct from any hierarchical structure in an organisation. While direct supervision is designed to allow unregistered persons to carry out professional engineering services, RPEQs also have responsibilities. These will be discussed in this month's legal piece.

The crux of our message to students and graduates is around direct supervision and that they must be directly supervised by a RPEQ until they are registered themselves.

General information in the legal articles provided in the e-news is one way BPEQ tries to help RPEQs and others understand and comply with the PE Act. We do our best to help but must work within our functions as set out in the PE Act. During the recent renewal period I was told that some RPEQs behaved disrespectfully and at times aggressively toward the registration staff at BPEQ – these staff do their best to help. We ask that all our staff are treated with courtesy and respect. Accordingly, we have introduced a Zero Tolerance stance on disrespectful or aggressive behaviour. Phone calls or emails that are disrespectful or aggressive toward BPEQ staff will not be responded to.

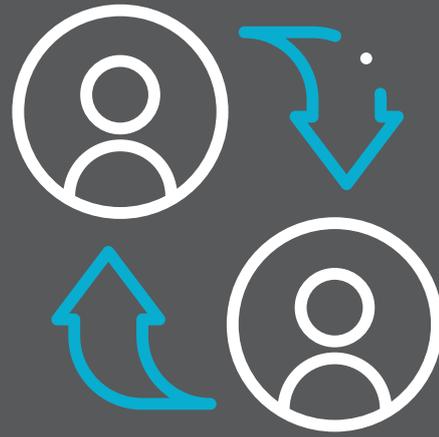
While we expect customers to show courtesy to our staff – and of course it is a two-way relationship and the expectation is that staff show courtesy at all times – that is not to say BPEQ is dismissive of constructive feedback. As we do each year following the renewal period, we are releasing a short survey to understand what worked well, what did not and how we can improve the renewals process. You can find information on the survey in this e-news issue.

If we can provide further information or assistance, please contact BPEQ at admin@bpeq.qld.gov.au or call 07 3210 3100.

ANDREW SECCOMBE

Chairperson and regional representative
The Board of Professional Engineers of Queensland

Direct supervision: elements and responsibilities



The PE Act mandates that all professional engineering services are carried out by a RPEQ or under the direct supervision of a RPEQ who is responsible for the services.

The purpose of this provision in the PE Act is to enable early career and graduate engineers to develop the skills and competence to reach the standard required to become a RPEQ and to protect the public by ensuring that all professional engineering services are carried out safely and satisfactorily.

It is important for all engineers to understand that direct supervision places substantial obligations on both the supervising RPEQ and the unregistered engineer being supervised.

Element of direct supervision

Direct supervision requires supervision of each individual professional engineering service. A general workplace or reporting relationship will not satisfy the direct supervision requirements. An assessment of direct supervision will be transaction-based, not relationship-based.

Strict compliance is required with each professional engineering service undertaken.

The following five elements must exist for there to have been direct supervision by a RPEQ:

ELEMENT		REQUIREMENT
1	The supervision must be direct ; and the supervising RPEQ must have actual knowledge of the services/ project	The supervising RPEQ must have direct contact and not through a third person
2	The supervising RPEQ must direct the person in the carrying out of the service; and	The supervising RPEQ must actively direct the unregistered person in carrying out the professional engineering services. A passive or observational role is not sufficient
3	The supervising RPEQ must oversee the carrying out of the service by the person; and	The supervising RPEQ must be involved from the beginning and though out the professional engineering service.
4	The supervising RPEQ must evaluate the carrying out of the service by the person; and	The supervising RPEQ must evaluate the professional engineering services and ensure they are being carried out to the standard expected of a RPEQ.
5	The supervising RPEQ must take full professional responsibility for the service.	The requirement is that the services are carried out to the standard expected of a RPEQ and that the supervising RPEQ takes overt professional responsibility for them.

Direct supervision can be undertaken remotely, including interstate, provided that the above elements exist. Clear records will be required, to show what direct contact there was between the supervising RPEQ and the unregistered person and what direction, oversight, and evaluation was provided.

What is not direct supervision

The following practices do not constitute direct supervision:

1. certifying, reviewing, or endorsing completed design work or engineering reports
2. supervision by exception where there is an issue triggered consultation
3. relying on the mere existence of RPEQs in the organisation without them being involved in each professional engineering services.

Responsibilities of supervising RPEQ

A supervising RPEQ must:

1. be registered in the relevant area of engineering
2. be competent in and have sufficient knowledge of the type of professional engineering services being supervised
3. have sufficient control over the outputs of the professional engineering services to reasonably form the view that the standard of the services is that to be expected of a RPEQ
4. take full professional responsibility for the professional engineering service.

The adequacy of direct supervision by a RPEQ or the professional engineering services for which the RPEQ takes full responsibility may be relevant in a professional discipline context.

Responsibilities of the person being supervised

An engineer who is being directly supervised:

1. has the legal onus to prove that they were directly supervised by a RPEQ who is responsible for the services in the performance of the professional engineering services
2. should, to discharge this onus, have detailed records which demonstrate how the five elements of direct supervision existed. Examples of records include, but are not limited to, letters, emails, file notes of verbal conversations, advices, and draft designs.

Carrying out professional engineering services other than under the direct supervision of a RPEQ who is responsible for the services can lead to prosecution in the Magistrates Court of Queensland. The absence of detailed records evidencing the direct supervision may mean that a supervisee may not be able to discharge their onus to prove that they were directly supervised.

Benefits of achieving registration as a RPEQ

The benefits of registration go beyond being able to perform professional engineering services without direct supervision or to directly supervise someone else.

Achieving RPEQ registration is an important career milestone for Queensland professional engineers and professional engineers who work for Queensland projects.

BPEQ encourages eligible professional engineers to take the next step and become registered and for RPEQs to encourage eligible supervisees to work towards registration as a career milestone.

Further information

Further information is contained in BPEQ Practice Note 4.5(1A) Direct Supervision, available on the BPEQ website.

If you have any questions about registration or direct supervision, please contact BPEQ on at admin@bpeq.qld.gov.au or call (07) 3210 3100.

Start as you mean to go on

Suzanne Burow
Elected RPEQ representative



RPEQs can help our future engineering professionals and shape the future of our profession, writes BPEQ's elected RPEQ representative, Suzanne Burow.

Recently, I have spoken to several engineering student groups about statutory registration and more particularly registration in Queensland. It has been gratifying that some of our future engineering professionals are taking the steps to become informed about these requirements. However, there are many more Queensland students who are uncertain of their obligations imposed by statutory registration, let alone students from other Australian jurisdictions.

BPEQ reaches out to various engineering student societies at universities in Queensland to facilitate this conversation but not all students attend these sessions. The need for engineering students to gain industry experience as a requirement of graduation presents a great opportunity for RPEQs, anywhere in Australia, to join this conversation, help our future engineering professionals and shape the future of our profession.

When students join your organisation, they are open to learning new skills and gaining new experiences. Take advantage of that mindset to instill within them the behaviours that will serve both them and our profession well in the longer term. Demonstrate that RPEQs take their commitment to CPD seriously even when work is busy or when life challenges you. Support and encourage them to attend relevant CPD covering the engineering work they will be exposed to during their employment. Perhaps you could organise for members of the team to attend the presentation together. Alternatively, if restrictions prevent attendance or there are no relevant CPD events in your area, there are plenty of online CPD options. To boost the engagement for the student, follow up the presentation with a discussion of how this could be useful with current projects. And finally share the tool you use to record CPD so that students can start out as they should mean to go on. All of us can be positive role models in our workplaces without too much effort.

'...behaviours that will serve both them and our profession well in the longer term.'

At these recent presentations, students were unsure whether they could ask which RPEQ would be directly supervising them. They were concerned that this question may be unwelcome, considered impertinent or that they would be rebuked. RPEQs can empower students by normalising this conversation. When you or your staff brief the student on the engineering work that they will be undertaking include details of the RPEQ who will be directly supervising them. Ultimately, this is just another aspect of the technical and business skills that they should be learning during this period. Furthermore, normalising this conversation will encourage students to realise that they must take charge of their careers. True, it can be daunting and at times they may be challenged by ethical dilemmas, but such a responsibility cannot be delegated.

SUZANNE BUROW

Elected RPEQ representative

FIEAust CPEng NER APEC Engineer IntPE(Aus) RPEQ

Ms Burow joined the Board in 2019 as the elected representative. She is a chartered and registered civil engineer with considerable experience as a practitioner in water resources engineering in various sectors across the industry. Ms Burow is currently a consulting engineer in the private sector and the president of the Queensland division of Engineers Australia.

UPCOMING

CPD courses and conferences

An introduction to the International Right to Repair movement

Brisbane / Webinar: 29 September 2021
Hosted by Engineers Australia

Up to 1 hours

Ethics – A Graduate Perspective

Brisbane: 30 September 2021
Hosted by Engineers Australia

Up to 2.5 hours

AusIMM New Leaders Conference 2021

Brisbane: 28-29 September 2021
Hosted by Engineers Australia

Up to 16 hours

IPWEAQ Annual Conference

Cairns: 12-14 October 2021
Hosted by IPWEAQ

Up to 45 CPD hours

Chemeca 2021

Virtual: 27-28 September 2021
Hosted by IChemE

Up to 12.5 CPD hours



Have your say on registration renewals

At BPEQ we are committed to learning and improving our services. We want to understand how the renewal process worked for you – everything from renewing your registration, the customer service you received and the usefulness of the notices and reminders.

If you have a spare 10 minutes, we'd appreciate your feedback. You can complete the survey here – [RPEQ renewal feedback survey](#). The survey will close 31 October.

We also welcome your feedback about any other customer service matters here – [BPEQ customer service feedback survey](#).

Masking the problem

Masks have become a ubiquitous sight on the streets, in our workplaces and on public transport. The humble mask is a simple but effective tool to stop the spread of COVID-19.

Another common site is masks littering the streets. From there, masks find their way into waterways and other environments, injuring and killing wildlife. An estimated 130 billion masks are sent to landfill around the world every month and with masks expected to be with us for some time yet, the gravity of the situation can be appreciated.

To help address the problem, researchers from RMIT are working on technology to turn disposable masks into road materials like bitumen, asphalt and concrete.

The testing of the mask-laden road materials is showing promising signs with the addition of masks making road materials stronger and more flexible. A kilometre of a two-lane road can use three million masks.

This creative thinking could help solve a major environmental and waste problem.



AN ENGINEER'S WORLD

'Blue' hydrogen may not be so green

Hydrogen has been touted as the next big export industry for Queensland. Over recent months, the state government has made various announcements about hydrogen projects and even created a ministry for hydrogen.

While there is no doubt hydrogen can be a clean and efficient energy source, researchers from Cornell and Stanford universities believe 'blue' hydrogen (one of the three forms of hydrogen along with 'grey' and 'green') is as harmful to the environment as burning fossil fuels.

Blue hydrogen is created by converting the methane to hydrogen and carbon dioxide by using heat, steam and pressure. The carbon dioxide is separated from the hydrogen and some is sequestered. It is the sequestering of carbon dioxide that makes this hydrogen form blue as opposed to grey – the latter process making no effort to capture emissions from grey hydrogen.

Because blue hydrogen still requires fossil fuels to create it and not all the emissions are sequestered, it is only slightly less harmful than grey hydrogen, claim Cornell and Stanford researchers.

For hydrogen to be properly green, electricity supplied by solar, wind or hydroelectric power is needed.

Welcome to our newest RPEQs

BPEQ extends a warm welcome to the following engineers who recently became registered:

RPEQ #	FIRST NAME	LAST NAME	REGISTRATION AREA
26459	Ramil Virgil	Abalos	Electrical
26474	Waddaa	Abdelaal	Civil
26409	Hansika	Abeygunarathna	Building Services, Fire Safety
08980	Randeep	Agarwal	Mechanical
26470	Gustavo	Aguilar	Electrical, Management
26398	Ajay	Agwan	Civil
26441	Md Iftekharul	Alam	Structural
26487	Shahram	Babaei Tooski	Management, Electrical
26400	Ehsan	Bahram	Civil
26373	Simon	Barker	Information Telecommunications & Electronics
26488	Caitlyn	Becker	Civil
26448	Pankaj	Bhavnani	Management, Petroleum
26428	Dexter Ramy	Catalan	Mechanical
26455	Don Rhenon	Catuirra	Chemical
26387	Fernando	Cea	Structural
26371	Shilpa	Charegaonkar	Electrical
26369	Feris	Chehade	Civil, Structural
26410	Shuzhuang	Chen	Civil
26386	James	Clare	Civil
26481	Martin	Clark	Mechanical
26454	Mark	Clarke	Electrical, Management
26446	Andrew	Clemence	Electrical
26471	Brian	Close	Civil, Structural
26367	Matthew	Cross	Structural
26406	Bernard	Cusack	Civil
26391	Matthew	Dafter	Civil, Management
26407	Michael	Dagher	Mechanical
26486	Jonathan	Dare-Williams	Civil
26399	Paul	Davis	Civil, Structural
26477	Jonard	Delos Santos	Mechanical

26411	Alysha	Di Martino	Chemical
26395	Michael	Diggle	Electrical
26427	Sundara Vignesh	Durairaj	Structural
26452	Marvin	Duran	Mechanical
26390	Ian	Eadie	Structural
26491	Roberto	Espinosa	Civil
26383	Micheal	Fahmy	Mechanical
26447	Michelle	Ferguson	Structural
26372	Mark	Fettuccia	Civil, Structural
26436	Timothy	Field	Civil
26412	Linton	Gloster	Civil
26484	Carlos	Guedes Valente	Mechanical
26490	Yoann	Guinard	Electrical
26422	Wen Zhe	Ha	Petroleum
26467	Myo	Han	Electrical, Information Telecommunications & Electronics
26421	Andrew	Harris	Naval Architecture
26415	Jasmine	Harrison	Mechanical
26483	Nicholas	Hayllor	Mechanical
18754	Yufeng	He	Electrical
26445	Hung	Hoang	Information Technology and Telecommunications
26426	Jesse	Horton	Civil
26389	Bernard	Hu	Building Services, Management, Electrical
26384	Eric	Huang	Building Services
18997	David	Hughes	Electrical
26432	Duncan	Ibbott	Civil
26453	Daniel	Jakubowski	Management
26377	Narges	Jalilvand Nezhad	Structural
26417	Vijay	Jayaraman	Chemical, Management
26457	Martin	Johnsson	Civil
26468	Gagandipsingh	Kang	Civil
26424	Noel	Kay	Civil
26396	Clarence	Kemper	Management, Mechanical, Pressure Equipment Design Verifier
26460	Andrew	King	Civil
26475	Peter	Knowles	Civil, Structural
26466	Valentyn	Korobkin	Building Services
26382	Steven	Lam	Electrical
26425	Craig	Laslett	Civil, Management
16974	Patrick	Lau	Electrical
16302	Austin	Legler	Civil
26429	Xianwen	Liao	Information Telecommunications & Electronics, Mechanical
26368	Edrick Dan	Lim	Structural
26433	Ralph	Lotze	Mechanical
26388	Nabil	Makram	Civil, Management
26401	Richard	Manwaring	Mechanical, Oil & Gas Pipeline
21286	Cesar	Martinez	Civil
26392	Stjepan	Maticovic	Electrical
26465	Samuel	McQuade	Mechanical
26397	Jayson	Mejos	Management
26451	Mohamed Roomi	Mohamed Subair	Chemical

26378	Abdelaziz	Mohammed	Civil
26394	Vinicius	Monteiro	Chemical
26464	Dean	Morison	Structural
26442	Alireza	Motieifar	Information Telecommunications & Electronics
26374	Gary	Murphy	Civil
26393	Amitaabh	Narsey	Civil
26402	Evdocia	Nicola	Management, Petroleum
26420	Lyla	Nolan	Civil
26472	Craig	O'Sullivan	Mechanical
26463	Ali	Oudat	Electrical
26375	David	Pashen	Information Telecommunications & Electronics, Aerospace, Management, Mechanical
26461	Nathan	Perkins	Civil, Management
26444	Hasitha Nayanajith	Polwaththe Gallage	Mechanical
26385	Lisa	Pomeroy	Civil
26413	Ravinder	Pratap	Civil
26469	Denis	Radunkovic	Management, Mechanical, Structural
26450	Mark	Randle	Mechanical
26438	Vellupillai	Ratnagopal	Electrical, Information Telecommunications & Electronics
26381	Jessica	Reedman	Electrical
26435	Simon	Rees	Management
26440	Todd	Richards	Mechanical
26479	Owen	Richards	Civil, Environmental
20144	Craig	Riley	Structural
26370	Antonios	Rofail	Civil
26423	Mark	Rollinson	Mechanical
20172	Simon	Sam	Electrical
26405	Darren	Sault	Structural
26404	John	Scaife	Civil, Management
26419	Hossein	Sedaghat	Mechanical
26403	Pawan	Sethi	Civil
12967	Anil	Sharma	Electrical
26364	Joshua	Sherratt	Electrical
26376	Taryn	Stark	Information Telecommunications & Electronics, Management
26482	Calman	Steindl	Electrical
26408	Steven	Sullivan	Mechanical
26478	Vimal	Surendran	Mechanical
15634	Kum	Tang	Mechanical
26309	Ali	Tashakkori Jahromi	Electrical
26480	Hamish	Truda	Civil, Environmental
26414	Alice	Twomey	Civil, Environmental
26476	Abdullah	Uddin	Civil
26434	Shivanita	Umapathi	Environmental
26456	Pragneshkumar	Vaghela	Electrical
26449	Diana	Vallee Becera	Management, Aerospace
26418	Damian	Volker	Civil
26458	Filip	Vuckovic	Civil, Management
26443	Nathan	Wagstaff	Civil, Structural
22447	Qi	Wang	Electrical

26489	Walter	Wang	Electrical
26379	Christopher	Ward	Geotechnical
19877	John	Wassermann	Civil, Mechanical
26473	Li	Wei	Building Services, Mechanical
26437	Lee	Wheeler	Civil
26439	Sri	Widodo	Electrical
26380	July	Win	Civil
26485	Ho Yeong	Wong	Electrical
26416	Zihou	Yang	Civil
26431	Kwok Ho Alex	Yeung	Building Services, Management, Mechanical
26462	Chaoming	Yu	Structural
26430	Yang	Zhang	Chemical

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 [linkedin.com/company/bpeqld](https://www.linkedin.com/company/bpeqld)

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