Thank you for the opportunity to provide feedback on the Draft Design and Building Practitioners Regulation 2020, in particular the registration of Professional Engineers.

I provide feedback and questions below, broken down in relevant sections for convenience.

General feedback regarding the Professional Engineers Scheme

There appears to be a large amount of responsibility being put onto Engineers as part of this reform. What are the measures for support that are being put in place to assist with this additional responsibility on Engineers? Often an initial design is developed for tender, and then a design and construct contract is tendered for the rest of the build. How will this process be changed by the requirement for registration of engineers, will the initial 30% design be required to be done by a registered engineer and then the 100% design and construct be required to be done by another registered engineer.

For smaller jobs it is also common that a contractor will perform the works and a subsequent as built drawing, with the initial tender design as the final design (pending any on site issues). Will the contractor then also be required to provide final designs from a registered engineer? Is the intent that Engineers are checking everything that is being installed and "signing off" contractors designs? As adding additional responsibility to Engineers will only create more work and leave them with less time to do these checks or put even more pressure on Engineers to work longer hours to complete these tasks.

Currently the responsibility is on contractors to certify that their installations are compliant, and if anything goes wrong the responsibility falls on the builder and the subcontractor to fix this. I would hope that this responsibility would not fall on the engineer signing off these jobs under the reforms of the design and practitioners act.

With regards to the Pathways to Professional Engineering Registration:

There are a number of Engineers in the industry with extensive experience, that do not have a "Washington Accord" Degree. If these people are required to be registered in order to continue their work, there must be additional pathways or recognition of experience to include them in the process. To exclude them would be a mistake and a vast amount of knowledge would be lost, which also may force early retirement of some leaders in industry.

Classes of registration – Fire Safety Engineering is proposed as a registered class of engineer, however, Fire Services is not designated stream to registered. Fire Safety is different to fire services and are two completely different knowledge sets. Fire Safety engineers deal with performance solutions relating to the BCA and not the design of the fire system installed in the building. Additionally, in general, Engineers with a mechanical engineering degree migrate into fire services, however the mechanical engineering class also covers Air conditioning, amongst other services. Please detail the proposed pathway for recognition of degree and pathway to registration.

With regards to works that will require a registered engineer:

The definition of "Engineering Services" that required registration is vague, and it is unclear to what extent an engineer is required to be registered in order to do their day to day job. In relation to the types of design that are to be captured by the reforms, it is important for these to be published (at least in draft form) alongside the draft reforms as the design types and activities are very vague in the reform.

Will facilities managers be required to be registered engineers to instruct contractors to do works – (for example to instruct a contractor to do fire services upgrades). For works that involve a functional change to a system operation (not an essential service) would this require a registered engineer to certify the changes made to the functionality and equipment.

Will registered engineers be required when conducting voluntary upgrades of equipment such as upgrading fire indicator panels, switch boards and pump sets or to design and sign off a "like for like" and end of life maintenance replacement of plant and equipment?

With regards to Design that is done by engineers:

There is a large amount of work done in scoping and feasibility of projects, which will often require investigations, calculations, capacity studies and the like, but projects may then be handed over to other contractors or consultants and may never go ahead. This is an important part of the process in order to establish

correct funding, dictate design direction and engage with stakeholders, however external designers and engineers are still required to sign off their design as compliant. At what stage of the design is a registered engineer required to sign off?

With regards to client-side engineers:

As client-side engineers, there is a lot of work done on internal assets and providing information to external parties including the direction of works. Additionally, there are standards developed for building works which are enforced and are over and above Australian Standards. Will these require additional signoff by registered engineers? Additionally, will items such as energy efficiency improvements on existing buildings and equipment be required to be signed off by registered engineers.

With regards to maintenance and operational activities:

The Act defines specialist work which covers maintenance of building elements or other works prescribed by regulations not being specialist work – how will this affect the operations and maintenance industry? Is this now a requirement for all vendors that compile maintenance procedures, or provide a quote on recommendations for a fit out that must be performed by a registered engineer?

In particular, for asset lifecycle replacements – is a registered engineer required sign off on design, sizing and conduct and/or supervise the install? In the event the equipment make and model is no longer in market for a like for like replacement, is a registered engineer required to review and approve the alternative selection for install?

What is the expectation for current trades that do not operate with the engineer title but are industry recognised – i.e. fire maintenance contractors, mechanical installation contractors – will their work require a registered engineer to size and install and conduct compliance maintenance? Within these trades, there are often apprentices that conduct the maintenance/"specialist work" with or without supervision, is a registered engineer required to be a supervisor to all activities? This would apply for maintenance and install.

Will maintenance procedures that incorporate best practices, manufacturers literature and not directly referenced in Australian standards or BCA be required to be reviewed and endorsed by a registered engineer?

In regard to building work – please provide a more detailed definition of what this covers. For example, façade replacements and or any penetrations as part of services install – will all these require approval from a registered engineer?

I look forward to your response.

Kind Regards,

Chris Hipsley