

RE: SMEC SUBMISSION ON THE DESIGN AND BUILDING PRACTITIONERS REGULATION 2020

Introduction

SMEC recognises the desire for reform in the urban multi-story development sector and believes that it will make an important contribution to enhancing public safety and consumer protection. We welcome the opportunity to submit comments on the Draft Design and Building Practitioner Regulation 2020.

Engineering Geologists currently play an important role in the planning, design and construction of our buildings and civil infrastructure and we observe that the draft Regulation does not allow for their contribution. In this submission we propose that the provisions of the draft Regulation be amended to recognise the important contribution of our members who are professional Engineering Geologists. Amendment of the regulation is required to ensure that these Engineering Geologists can continue to make their important contribution to NSW society.

About SMEC

SMEC is a global engineering, management and development consultancy delivering technical excellence and specialist solutions to our clients, partners and communities. We deliver specialist consultancy services across urban, infrastructure and management advisory sectors and can draw on international expertise through our partner companies within the Surbana Jurong Group. SMEC's strength in major infrastructure projects and urban development, coupled with our Surbana Jurong's expertise in urban planning, industrial development and management advisory, enable us to provide a full service offering to clients around the world based on years of global experience. With expertise in civil, structural and building services engineering design, we provide solutions from low-density, urban land developments, through to high-density, high-rise projects for public and private sector clients.

With over 1,770 employees around the country and 538 here in New South Wales, we are one of the leading professional engineering firms in the country.

SMEC actively encourages our staff to obtain professional accreditation. Professional accreditation is also a company requirement for promotion to positions of authority and management. The purpose of this is to ensure the requisite level of professional conduct, knowledge and expertise in specific fields over which individuals provide control on behalf of the company.

SMEC proposed amendment

In its current form, SMEC believe that the regulation will unnecessarily restrict the work that some professional Engineering Geologists currently carryout in the building industry. The kinds of design work, which currently may be performed by Engineering Geologists are covered by the role defined as Design Practitioner – Geotechnical Engineering in Schedule 1.

However, Schedule 2 Part 3 requires that Design Practitioner – Geotechnical Engineering must be qualified as a Registered Professional Engineer in the class of Geotechnical Engineering. This class of registration is currently closed to most Engineering Geologist who do not have either an undergraduate or postgraduate engineering degree, recognition or registration as a professional engineer by a professional body of engineers.

To avoid this unnecessary restriction on some of our employees, SMEC would like to suggest two alternative amendments.

Option 1

Amend Design Practitioner – Geotechnical Engineering to include a pathway for professionally accredited Engineering Geologists.

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Option 2

Add a new class of Design Practitioner covering professionally accredited Engineering Geologists.

SMEC preference would be for option 1.

Precedents for the proposed amendment

The important role played by professional engineering geologists is already recognised by the NSW Department of Infrastructure, Planning and Natural Resources in their Geotechnical Policy Kosciuszko Alpine Resorts. This policy is applicable for building work covered by State Environmental Planning Policy No. 73 Kosciuszko National Park - Alpine Resorts) 2007.

Ground engineering in the NSW building industry

All types of building work cause a change of stress on the ground, either by applying a load for example from a new building, or by removing soil and rock for a building basement. The understanding of the nature, behavior and performance of soil and rock under changes in stress, and the prediction of potential failure mechanisms that must be taken into account in engineering analysis and design, require skills and experience in geology and engineering. The more complex the geology of the project site, the higher the level of geological skills required to design a successful outcome.

This specialist area of the building construction industry is serviced by both geotechnical engineers and engineering geologists.

The role of engineering geologists

In NSW, engineering geologists currently carry out a broad range of building related work spanning the design and implementation of geotechnical investigations, the design of excavation support measures, the supervision and approval of construction of foundations to site classification for building developments. These engineering geologists may work independently or as part of multi-disciplinary teams at large companies where they work closely with geotechnical engineers and other engineering professionals.

Engineering geologists are the only professionals in the building industry with the in-depth education and training in geology that is required to fully understand the ground and its implications. Whilst some undergraduate degrees in civil engineering and most post-graduate geotechnical degrees include some classes in geology, these are generally insufficient to provide adequate geological understanding for sound geotechnical design.

Professional accreditation as an engineering geologist typically requires an undergraduate degree in geology with either a post-graduate degree in engineering geology or significant practical engineering experience working in the geotechnical industry.

Professional accreditation for engineering geologists

There are currently three professional bodies that provide accreditation for Engineering Geologists. These are:

- The Geological Society of Australia (GSA), through their Accredited Geologist program (Ac.Geo).
- The Australian Institute of Geoscientists, through their Registered Professional Geologist program (RPGeo), and
- The Australian Institute of Mining and Metallurgy, through their Chartered Professional Geologist program (CPGeo).

Many of our employees are also accredited through international programs such as the UK's Chartered Engineering Geologist and Registered Ground Engineering programs.

Additionally, other sectors (such as ANCOLD) are drafting the implementation of all Engineering Geologists being registered under the Register of Geotechnical Professionals Australia which in turn, lies under the National Engineering Register (NER). Consideration of appropriate registration that suits both State and National requirements would be a significant benefit to the industry.

SMEC firmly believe that maintaining accreditation is dependent on strict adherence to the Society's Code of Ethics and Continuing Professional Development. It is a requirement of these accreditation schemes that its members only practice within their areas of experience and expertise. Failure to comply with this important element of the code of ethics risks the withdrawal of accreditation.

Closing

In closing, SMEC believe that professional Engineering Geologists should be recognised by the proposed reforms in order that they may continue to provide their important contribution to the building industry in New South Wales. SMEC would urge the New South Wales Government to consult with the Australian Geomechanics Society in refining the regulation.

SMEC recognise and support the Australian Geomechanics Society (AGS) as the peak professional body that represents our Engineering Geologist and Geotechnical Engineering employees.

For and on behalf of SMEC

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