

**CLOSING SPEECH BY MR DESMOND LEE, MINISTER FOR SOCIAL AND FAMILY DEVELOPMENT AND SECOND MINISTER FOR NATIONAL DEVELOPMENT, FOR THE SECOND READING OF THE PROFESSIONAL ENGINEERS (AMENDMENT) BILL 2017**

Mr Speaker sir, I thank Members who have spoken on this Bill. Let me try to respond to some of their questions.

**Scope of PE Act**

2 Mr Louis Ng and Ms Thanaletchimi asked about the scope of the PE Act; in particular, why the Act covers only four prescribed branches of engineering and how the other branches of engineering, will be regulated and supported. Mr Ng cited examples - aerospace, marine and transport.

3 The regulatory agencies overseeing safety of engineering works on aircraft, marine projects and land transport rely on specific legislation as well as industry codes to enforce quality and safety requirements. These are their primary levers.

4 However, on top of that, it is open to some regulators to decide to specify in their legislation that certain works need to be undertaken or certified by Professional Engineers, or PEs. In such a situation, PE Board will come in and prescribe these as branches of professional engineering. The Board then becomes an important secondary lever for regulation of PEs doing this work.

5 So this is an evolving and continuing conversation between PE Board and various sectoral regulators. One key consideration, among many, is whether sectoral regulators assess that it is necessary to add a further layer of regulation on PE involvement, in order to secure certain levels of safety and quality standards in the work, over and beyond what they have managed to achieve under their primary regulatory framework. If so, PE Board will work with them to prescribe new branches of professional engineering.

6 For example, chemical engineering was just introduced as a prescribed branch of professional engineering last November. The decision was based on MOM's assessment that Chemical PEs were needed to ensure the safety of Major Hazard Installations such as chemical plants.

7 Ms Thanaletchimi also asked about experience requirement for Professional Engineers. PE candidates are already required to meet relevant experience requirements prior to key milestones of the qualification process. For instance, applicants must have at least four years of practical work experience before they can attend the professional interview. Details of such requirements such as duration and scope of work experience will be further prescribed in the Act's subsidiary legislation

## **Process for issuing penalties to PEs and professional engineering practices**

8 Ms Cheryl Chan asked about the Board's processes for issuing penalties to PEs and professional engineering practices. She suggested that the Board create a list of violations to make clear which warranted deregistration.

9 To some extent, sections 17B and 26A of the Act already set out some of the situations under which a PE can be removed from the register, and when a professional engineering practice may have its licence revoked. For minor infringements, the Board may choose to issue a letter of censure to errant firms, or to errant PEs. In some cases, the PE Board might censure both.

10 It would be hard to be more prescriptive beyond that, as the exact course of action will depend on the facts and circumstances of each case. The Board has to calibrate the penalty according to the severity of wrongdoing. But sometimes complex cases may need to be investigated by the Board or Disciplinary Committees appointed by the Board.

## **Contractors employing PEs to carry out certain professional engineering works**

11 Ms Chan also asked about checks and balances for contractors who employ PEs to carry out professional engineering works on their own projects. This amendment should not compromise safety or professional standards. First, PEs undertaking these works will still need to fulfil the full requirements, including the scope of work, prescribed under the relevant legislation, such as the Building Control Act. Second, PEs employed by contractors will continue to be held accountable by the PE Code of Conduct, which requires them to carry out their duties in a professional and independent manner. Third, the PEs that contractors employ can only carry out professional engineering works on specified low risk temporary works, such as site offices and temporary living quarters.

## **Recourse for disputes with PEs**

12 Ms Cheryl Chan also asked if the public could seek advice and recourse through the Board in the event of contractual disputes with PEs. The Board is a professional body and does not provide dispute resolution services. Contractual disputes should be resolved through other avenues like mediation or litigation. Nevertheless, if disputes arise because of a PE's alleged professional misconduct, members of the public can still file a complaint against the PE with the Board.

## **Registered Foreign PEs**

13 Mr Louis Ng asked about the processes and criteria for authorising Registered Foreign PEs (RFPEs) through the ASEAN MRA on Engineering Services. Becoming an RFPE involves a two-step process. To start, a person seeking to be an RFPE in Singapore must first be admitted in his own country as an ASEAN Chartered PE (ACPE). To do so, he has to meet the criteria set out in the ASEAN MRA. Basically,

this means holding a recognised engineering degree; keeping up with Continuing Professional Development; being equipped with relevant experience in engineering practice; and being recognised as the equivalent of a PE in his own country. Taken together, these criteria help to uphold the standards of ACPEs.

14 Next, an ACPE must submit an application to the Board before he can become an RFPE in Singapore or recognised foreign PE. If approved, this will be valid for one year. ACPEs and RFPEs are bound by both Singapore and international codes of professional conduct, as well as Singapore laws and regulations. This means that any RFPE working in Singapore will be held accountable – both by our regulatory bodies and by the Singapore legal system.

15 Mr Ng asked whether there will be restrictions on the number of RFPEs that can collaborate with each locally-registered PE, and whether there are measures to mitigate unhealthy foreign competition that could depress wages and weaken our local core. On the first point, the Board requires an RFPE to collaborate with one designated local PE. This is to facilitate tracking. The Board will also be looking at whether sensible ratios can be put in place, whether in rules, practice directions or guidelines, of how many RFPEs that a Singapore PE can collaborate with. This is to ensure that the quality of supervision by the Singapore PE is not diminished. But as I mentioned earlier, the scheme is still in its early days, and the number of RFPEs in Singapore is still very small. The PE Board is monitoring the situation and will adjust the conditions in future, if necessary.

16 On the second point, RFPEs cannot undertake professional engineering work independently. They cannot sign off on submissions to regulatory agencies. So they will not be able to replace PE Board-registered PEs as custodians of the safety of our engineering works. Currently, the Singaporean core of our PE profession is strong: of the 3,900 PEs that we have today, Singaporeans make up almost 80%, and this proportion has held steady for the last 10 years. But separately and more importantly, we will continue to work with the industry to strengthen the capabilities and skills of our engineering core. Let me go through some of these measures together with the points raised by Er Dr Lee Bee Wah.

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### Developing the engineering profession

17 Er Dr Lee spoke of the need to develop our engineering profession and improve its image. She is spot on. Engineering is a core capability that we must build on.

18 As she noted, giving scholarships has been an important means of attracting talent into engineering-related fields. The prestigious PSC Engineering Scholarship was introduced last year to strengthen our pipeline for apex leadership positions in the engineering clusters within the public service. 8 of these scholarships were given out this year. Various Ministries and Statutory Boards, such as MND, MINDEF, JTC, PUB, BCA, CAAS, DSTA and IMDA also give out engineering scholarships in many different branches. To grow engineering capabilities in the private sector, agencies such as BCA and IMDA have been working with industry partners to award scholarships in various branches of engineering. For instance, BCA offers the BCA-Industry Built-Environment Scholarships and Sponsorships in collaboration with industry firms.

These scholarships aim to encourage high calibre students to pursue an engineering career in the built environment sector in Singapore. So far, more than 200 industry firms have participated in this programme.

19 We will also continue to look into new ways to develop the profession. We agree that media publicity can also help to shape perception, correct misimpressions and promote engineering as a good career choice. So in 2016, the Government launched a rebranding campaign to revitalise the profession's image and highlight its important contributions to society. In fact, the new realm of digital engineering and the introduction of DfMA and Virtual Design & Construction involving technology and virtual reality have begun to make the built environment sector and the engineering profession a lot more attractive – especially to the young people for whom technology is like fish to water. We also increased salaries for public sector engineers to ensure that these jobs remain attractive. These efforts aim to raise the standards of public sector engineers, and set the benchmark for the wider profession.

20 For engineers in the Built Environment sector, the Construction Industry Transformation Map (ITM) that will be launched later this year will include strategies to develop and strengthen the profession. Details will be announced soon. But one idea that has been floated is to introduce a capstone programme for graduating students to bring them up to speed on industry best practices and prepare them for work. We have also set up a taskforce comprising representatives from the Government, industry, and institutions of higher learning (IHLs) to incorporate relevant skills into the engineering curricula of our tertiary educations. The taskforce is expected to deliver their recommendations early next year.

21 I agree with Er Dr Lee on the importance of upskilling. There is already a comprehensive suite of SkillsFuture programmes designed to help Singaporeans develop skills and competencies for future growth sectors. All of these schemes cover specialised courses in various fields of engineering.

22 The SkillsFuture Earn and Learn programme aims to help fresh graduates from polytechnics and ITEs augment their academic training with practical industry experience to support their transition into the workforce. Candidates undergo a 12- to 18-month structured training programme in a job related to their field of study. The training programme includes guided learning, on-the-job training, and work-based projects. Candidates receive an industry-recognised certification upon completion.

23 The SkillsFuture Study Awards is targeted at early to mid-career Singaporeans looking to enhance their skills in future growth sectors. Successful applicants will receive a monetary award of S\$5,000 which can be used to defray out-of-pocket expenses associated with their study. Eligible courses in the Built Environment sector include those from NUS, NTU, and BCA Academy. We will continue to work with the Future Economy Council, IHLs, and industry associations to review and update the list of qualifying courses.

24 So there are many resources that our engineers can tap on to upskill and deepen their expertise. I encourage interested parties to find out more about the relevant schemes and qualifying courses on the SkillsFuture website before applying for the ones that are most suitable.

25 In summary, we place great importance on developing our engineering profession. And I am confident that this Bill, which will help to raise the standards of PEs, enhance their access to overseas opportunities, and provide a more pro-enterprise environment for local professional engineering firms, is a step in the right direction. With that, Mr Speaker sir, I beg to move.

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