

For Information  
on 26 June 2017

## **LEGISLATIVE COUNCIL PANEL ON DEVELOPMENT**

### **Lifts and Escalators Ordinance (Cap. 618) Commencement Notices under Sections 14, 15, 19, 20, 21, 23, 25 and 26 of Schedule 16 in respect of Recognized Qualifications for Registered Engineer and Registered Worker**

#### **PURPOSE**

This paper informs the Panel of the arrangement for commencing the operation of certain provisions under the Lifts and Escalators Ordinance (Cap. 618) (hereinafter as “the LEO”) thus phasing out the transitional arrangements in respect of the qualification requirements for registration of registered engineers (hereinafter as “RE”) and registered workers (hereinafter as “RW”). The arrangement is in line with the objective of the LEO for gradually strengthening the registration of engineers and workers to enhance the safety level of lifts and escalators.

#### **BACKGROUND**

2. The LEO and the two subsidiary legislations, namely, the Lifts and Escalators (General) Regulation (Cap. 618A) and the Lifts and Escalators (Fees) Regulation (Cap. 618B), came into force on 17 December 2012. A series of enhanced control measures were introduced, including extending the coverage of the legislation; strengthening the registration regime of personnel engaged in lift and escalator works; raising the penalty levels of offences; and improving the regulatory processes to enhance operational efficiency and enforcement effectiveness.

## STRENGTHENING REGISTRATION REGIME OF PERSONNEL

3. At commencement of the LEO in 2012, those qualifications contemporaneously recognized for registration of RE and RW remained applicable. To strengthen the registration requirements and to match the gradual building up of the industry's capabilities, certain of these qualifications would be repealed at some later dates to be announced, and upon the serving of Commencement Notices under the LEO:

### 3.1 In respect of RE:

	(I) At time of LEO <u>Enactment in 2012</u>	(II) To be repealed upon serving of Commencement <u>Notice under LEO</u>
3.1.1 Qualifications		
(a) Higher diploma, higher certificate or equivalent	✓	To be repealed <sup>1</sup>
(b) Bachelor degree or equivalent	✓	To be repealed <sup>2</sup>
(c) Registered professional engineer	✓	-

### 3.2 In respect of RW:

#### 3.2.1 Qualifications

(a) Recognition of sufficient experience and training by registered contractor (RC)	✓	To be repealed <sup>3</sup>
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<sup>1</sup> Sections 14, 15 and 23 of Schedule 16 of the LEO – this provision is related to the phasing out of the route for seeking registration as RE using the qualification of having a higher diploma or higher certificate of any of the specified disciplines plus five years relevant working and necessary practical experience.

<sup>2</sup> Section 24 of Schedule 16 of the LEO – this provision is related to the phasing out of the route for seeking registration as RE using the qualification of having a bachelor degree of any of the specified disciplines plus four years relevant working and necessary practical experience.

<sup>3</sup> Section 25 of Schedule 16 of the LEO – this provision is related to the phasing out of the route for seeking registration as RW with proof of qualification from registered lift / escalator contractors on the sufficiency of applicant's relevant experience and training.

	(I) At time of LEO <u>Enactment in 2012</u>	(II) To be repealed upon serving of Commencement <u>Notice under LEO</u>
(b) Apprentice, certificate or equivalent, or passing of trade test	✓	-

### 3.2.2 Registration

(a) Registration for one or more, but not all, kinds of works	✓	To be repealed <sup>4</sup>
(b) Registration for all kinds of works	✓	-

3.3 The registration acquired by those RE and RW with the qualifications recognized under the LEO prior to the repeal will remain valid (Sections 79, 83, 91, 95 and 161 of the LEO).

4. The purposes of repealing those qualifications as mentioned under column (II) of paragraphs 3.1.1, 3.2.1 and 3.2.2 and implementing the repeal in phases are: (i) not to jeopardize the livelihood of practising engineers / workers and for ensuring the sufficiency of manpower in the trade to provide services when the LEO was first enacted; and (ii) to strengthen the registration regime of personnel engaged in lift and escalator works to enhance the safety level of lifts and escalators. To provide flexibility for coping with the industry's capabilities, no timetable of repeal was stipulated in the LEO. The implementation of the transitional arrangements in phases had been discussed and agreed by the Bills Committee on Lifts and Escalators Bill<sup>5</sup>.

<sup>4</sup> Sections 19, 20, 21 and 26 of Schedule 16 of the LEO – this provision is related to the requirement of registration of RW for all kinds of lift / escalator works, i.e. the three existing registration classes in "Installation/Demolition", "Maintenance" and "Examination", rather than registering for only one or two classes of lift/escalator works.

<sup>5</sup> Legislative Council Bills Committee Paper No. CB(1)1553/11-12 refers.

## PHASING OUT OF TRANSITIONAL ARRANGEMENTS

### Registration of lift engineers or escalator engineers

5. As for the repeal of higher diploma, higher certificate or equivalent for RE (paragraph 3.1.1(a)(II) refers), the trade is well aware of the timetable. The number of registration as RE with the qualification of higher diploma or higher certificate has been decreasing. The qualification of all the newly registered RE in 2016 is at the bachelor degree level. Hence, the transitional arrangement mentioned in paragraph 3.1.1(a)(II) should be phased out in early 2018.

6. As for the repeal of bachelor degree or equivalent for RE (paragraph 3.1.1(b)(II) refers), the recent review showed that the trade is gradually migrating to the more demanding registration requirement of Registered Professional Engineer, but currently very few newly registered RE are having such qualification. The timetable for repealing bachelor degree or equivalent for RE is subject to a further review by 2023.

7. Regarding the manpower situation, the Electrical and Mechanical Services Department (EMSD) estimates that RE need to complete about 102 000 examinations in 2022. In 2016, there were 243 RE<sup>6</sup> engaged in conducting about 86 000 examinations. Taking into account the number of newly registered and retired engineers and repeal of higher diploma, higher certificate or equivalent for RE, it is estimated that about 290 RE would be available for providing examination service in 2022. On the basis of 250 working days a year, each RE is estimated to complete the examination for about 1.4 lifts or escalators a day on average in both 2016 and 2022, a situation better than that before the LEO came into operation<sup>7</sup> in 2012. As such, the EMSD considers that the supply of RE in the coming five years is adequate following the repeal of higher diploma, higher certificate or equivalent for RE which is proposed to take place in early 2018.

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<sup>6</sup> Under the LEO, there are about 350 RE. According to the records submitted by RCs in 2016, there were 243 RE engaged actively in conducting examinations for lifts or escalators.

<sup>7</sup> In 2011, about 188 RE completed around 76 000 examinations. On the basis of 250 working days a year, each RE on average completed examination for about 1.6 lifts or escalators a day.

## Registration of lift workers or escalator workers

8. As for the repeal of recognition of sufficient experience and training by registered contractor for RW (paragraph 3.2.1(a)(II) refers), the trade is also well aware of the timetable. In 2012, there were around 640 general workers, i.e. workers practising in the trade but were yet not qualified as competent workers. The transitional arrangement has provided sufficient time for such workers to acquire the required work experience and apply for registration. Over the past four years, there were around 470 newly registered RW.

9. Regarding the manpower situation, the EMSD estimates that workers are required to complete about 2 094 000 periodic maintenance in 2022. In 2016, about 3 391 RW and 1 070 general workers<sup>8</sup> were engaged in about 1 778 000 periodic maintenance. Taking into account the number of newly registered and retired workers and repeal of recognition of sufficient experience and training by registered contractor for RW, it is estimated that about 3 570 RW and 1 650 general workers would be engaged in periodic maintenance work in 2022. On the basis of 250 working days a year and with the assumption of two paired up workers in a team for all periodic maintenance<sup>9</sup>, each team on average is estimated to complete periodic maintenance for about 3.2 lifts or escalators a day on average in both 2016 and 2022, a situation better than that before the LEO came into operation<sup>10</sup> in 2012. As such, the EMSD considers that the supply of workers in the coming five years is adequate following the repeal of recognition of sufficient experience and training by registered contractor for RW which is proposed to take place in early 2018.

10. As for the repeal of registration for one or more, but not all, kinds of works for RW (paragraph 3.2.2(a)(II) refers), the trade generally supports phasing out of such transitional arrangement. Under the LEO, there are three existing classes of registration for RW, i.e. installation/demolition, maintenance and examination. In the long run, the EMSD aims at upgrading the knowledge

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<sup>8</sup> Under the LEO, there are about 5 425 RW and 1 725 general workers. According to the statistics submitted by RCs in 2016, there were about 3 391 RW and 1 070 general workers engaged in periodic maintenance works for lifts or escalators.

<sup>9</sup> In consideration of the work nature and work execution requirements, the Code of Practice for Lift Works and Escalator Works requires that 15 types of lift works must be carried out by a team of two or more workers.

<sup>10</sup> In 2011, about 3 220 competence workers and 449 general workers completed around 1 584 000 periodic maintenance. On the basis of 250 working days a year and with the assumption of two paired up workers in a team for all periodic maintenance works, each team on average completed periodic maintenance for about 3.5 lifts or escalators a day.

and skills of workers so that registered lift / escalator workers would be capable of performing all kinds of lift / escalator works. However, the trade associations express concern that the supply of RW would be reduced in short-term if such transitional provision was repealed without allowing adequate grace period for their preparation work.

11. Based on past registration records, about 60% of the workers have sufficient experience and knowledge for all three existing classes of registration (“All Classes” registration) (paragraph 3.2.2(b) refers), whilst the remaining 40% will require RCs to arrange comprehensive skills training, including that related to the three registration classes, before they can be registered as RW in all classes. As the number of lifts and escalators will continue to increase substantially in coming years in light of the recent local infrastructure and housing development programmes, the supply of manpower remains tight. It will be difficult for RCs to arrange such training in the short-term. With significant rise in the number of new apprentices and trade members taking certificate/diploma courses in the past two years<sup>11</sup>, it is expected that by 2019/2020, the tight manpower situation in the industry would start to be alleviated, thereby allowing RCs to deploy general workers to receive comprehensive skills on-the-job training for fulfilling the “All Classes” registration requirements. It is therefore recommended that the requirement for “All Classes” registration be introduced after 2022. To set a goal for the industry to get prepared for it, the commencement of “All Classes” registration requirement is recommended to take place in early 2023.

## CONSULTATIONS

12. Since December 2015, the EMSD has held ten joint meetings with relevant industry stakeholders to deliberate the proposed phase out of transitional arrangements. The following proposals on phasing out the transitional arrangements were supported by the trade associations, worker

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<sup>11</sup> The EMSD has worked closely with the trade in monitoring the manpower situation and implemented the following measures in recent years to attract more new blood to join the industry -

- (i) The Vocational Training Council (VTC) and the Construction Industry Council (CIC) jointly introduced the “Earn & Learn” Scheme in 2014. The number of new apprentices joining the industry has significantly increased from about 70 a year to over 250 in 2016;
- (ii) In 2016, the VTC and the University of Hong Kong School of Professional and Continuing Education launched two courses related to lift and escalator for the practicing workers for them to acquire the academic qualification for registering as RW;
- (iii) The CIC has implemented the Contractors Cooperative Training Scheme for Electrical and Mechanical (E&M) trades (including lift mechanic and escalator mechanic) to provide financial support to those who wish to join the lift and escalator industry; and
- (iv) Starting from 2015, the EMSD invests over \$600 million in recruiting more than a thousand technician trainees in five years for the entire E&M industry, including the lift and escalator trade, so as to cope with future challenges.

union, professional organizations and relevant stakeholders in a meeting of the Lift and Escalator Safety Advisory Committee<sup>12</sup> held on 6 February 2017:

- (i) Repeal of higher diploma, higher certificate or equivalent for RE in Q1/2018 (paragraph 3.1.1(a)(II) refers);
- (ii) Repeal of recognition of sufficient experience and training by RC for RW in Q1/2018 (paragraph 3.2.1(a)(II) refers); and
- (iii) Repeal of registration for one or more, but not all, kinds of works for RW in Q1/2023 (paragraph 3.2.2(a)(II) refers).

## **FINANCIAL IMPLICATIONS**

13. The proposed arrangement for phasing out the transitional arrangements has no financial implication to the Government.

## **WAY FORWARD**

14. To repeal the transitional arrangements for
- (i) Higher diploma, higher certificate or equivalent for RE in Q1/2018 (paragraph 12(i));
  - (ii) Recognition of sufficient experience and training by registered contractor for RW in Q1/2018 (paragraph 12(ii)); and
  - (iii) Registration for one or more, but not all, kinds of works for RW in Q1/2023 (paragraph 12(iii)).

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<sup>12</sup> Members of the Lift and Escalator Safety Advisory Committee include representatives from Hong Kong Institution of Engineers, Lift and Escalator Contractors Association, Registered Elevator and Escalator Contractors Association Ltd, International Association of Elevator Engineers (HK - China Branch), Hong Kong General Union of Lift and Escalator Employees, Construction Industry Council, Vocational Training Council, Hong Kong Institute of Surveyors, Building Services Operation and Maintenance Executives Society, Consumer Council and Hong Kong Housing Society.

15. We plan to submit to the Legislative Council the Commencement Notices in accordance with Sections 14, 15, 19, 20, 21, 23, 25 and 26 of Schedule 16 of the LEO in the second half of 2017 for negative vetting.

**Development Bureau  
Electrical and Mechanical Services Department  
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