

立法會
Legislative Council

LC Paper No. CB(1)1462/16-17
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by the Administration)

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Panel on Development

**Minutes of special meeting
held on Wednesday, 19 April 2017, at 10:45 am
in Conference Room 3 of the Legislative Council Complex**

Members present : Hon Tommy CHEUNG Yu-yan, GBS, JP (Chairman)
Hon WONG Ting-kwong, SBS, JP
Hon CHAN Kin-por, BBS, JP
Hon Mrs Regina IP LAU Suk-ye, GBS, JP
Hon Paul TSE Wai-chun, JP
Hon LEUNG Kwok-hung
Hon Michael TIEN Puk-sun, BBS, JP
Hon Frankie YICK Chi-ming, JP
Hon WU Chi-wai, MH
Hon YIU Si-wing, BBS
Hon MA Fung-kwok, SBS, JP
Hon CHAN Chi-chuen
Hon Alice MAK Mei-kuen, BBS, JP
Dr Hon KWOK Ka-ki
Hon Alvin YEUNG
Dr Hon Junius HO Kwan-yiu, JP
Hon HO Kai-ming
Hon LAM Cheuk-ting
Hon Holden CHOW Ho-ding
Hon Wilson OR Chong-shing, MH
Hon CHAN Chun-ying
Hon Tanya CHAN
Hon CHEUNG Kwok-kwan, JP
Hon HUI Chi-fung
Hon LAU Kwok-fan, MH

Dr Hon CHENG Chung-tai
Hon KWONG Chun-yu
Hon Jeremy TAM Man-ho
Hon Nathan LAW Kwun-chung
Dr Hon YIU Chung-yim

Members absent : Hon Kenneth LAU Ip-keung, MH, JP (Deputy
Chairman)
Hon Abraham SHEK Lai-him, GBS, JP
Hon WONG Kwok-kin, SBS, JP
Hon CHAN Han-pan, JP
Hon LEUNG Che-cheung, BBS, MH, JP
Hon Kenneth LEUNG
Hon KWOK Wai-keung
Dr Hon Fernando CHEUNG Chiu-hung
Dr Hon Helena WONG Pik-wan
Ir Dr Hon LO Wai-kwok, SBS, MH, JP
Hon Andrew WAN Siu-kin
Hon CHU Hoi-dick
Hon SHIU Ka-chun
Hon LUK Chung-hung
Dr Hon LAU Siu-lai

Member attending : Hon James TO Kun-sun

[According to the Judgment of the Court of First Instance of the High Court on 14 July 2017, LEUNG Kwok-hung, Nathan LAW Kwun-chung, YIU Chung-yim and LAU Siu-lai have been disqualified from assuming the office of a member of the Legislative Council, and have vacated the same since 12 October 2016, and are not entitled to act as a member of the Legislative Council.]

Public officers attending : **Agenda item I**

Mr Vitus NG
Principal Assistant Secretary (Works)³
Development Bureau

Mr VY Ek-chin
Chief Assistant Secretary (Works)⁴
Development Bureau

Mr CHAN Fan, JP
Director of Electrical and Mechanical Services

Mr Eric PANG Yiu-hung, JP
Assistant Director/Gas and General Legislation
Electrical and Mechanical Services Department

Mr Arthur LEE Hok-yin
Senior Engineer/Special Audit/1
Electrical and Mechanical Services Department

Clerk in attendance : Ms Sharon CHUNG
Chief Council Secretary (1)2

Staff in attendance : Miss Rita YUNG
Senior Council Secretary (1)2

Mr Raymond CHOW
Senior Council Secretary (1)6

Ms Christina SHIU
Legislative Assistant (1)2

Action

- I Regulatory control over lift and escalator safety**
(LC Paper No. CB(1)771/16-17(01) — Administration's paper on regulatory control over lift and escalator safety
LC Paper No. CB(1)771/16-17(02) — Paper on regulatory control over lift and escalator safety prepared by the Legislative Council Secretariat (Updated background brief))

Other relevant papers

(LC Paper No. CB(1)771/16-17(03) — Letter dated 29 March 2017 from Hon KWONG Chun-yu

LC Paper No. CB(1)771/16-17(04) — Letter dated 31 March 2017 from Hon Nathan LAW

LC Paper No. CB(1)832/16-17(01) — Submission from HKELEV.com dated 16 April 2017)

Director of Electrical and Mechanical Services ("DEMS") briefed members on the regulatory control over lift and escalator safety in Hong Kong under the Lifts and Escalators Ordinance (Cap. 618) ("the Ordinance"). With the aid of a powerpoint presentation, Assistant Director/Gas and General Legislation, Electrical and Mechanical Services Department ("AD(GGL)/EMSD"), briefed members on the progress of the investigation and follow-up actions taken by the Electrical and Mechanical Services Department ("EMSD") in relation to the escalator incident that had happened at Langham Place in Mong Kok on 25 March 2017 and three other lift/escalator incidents that had taken place in March 2017. Details of the subject matter were given in the Administration's paper (LC Paper No. CB(1)771/16-17(01)).

(Post-meeting note: A soft copy of the powerpoint presentation materials was issued to members vide LC Paper No. CB(1)846/16-17(01) by email on 19 April 2017.)

Causes of the escalator incident at Langham Place

2. Mr LAM Cheuk-ting asked if Otis Elevator Company (HK) Limited ("Otis") was both the manufacturer and maintenance contractor of the subject escalator in the Langham Place incident. AD(GGL)/EMSD replied in the affirmative.

3. Dr YIU Chung-yim noted that EMSD had seized the drive chain and broken chain safety device ("BCD") of the escalator concerned for investigation of the causes of the incident. The initial findings were that the possible cause of the chain breakage was metal fatigue, whereas the BCD had failed to react as a result of sticky grease jamming the movement of its moving part and locking a spring inside. Dr YIU opined that metal fatigue could only be identified in a laboratory test (i.e. coupon test), but not through a periodic examination and maintenance. In this regard, he requested the Administration to provide relevant information and consider including the coupon test in the periodic examination and maintenance. Dr YIU also commented that the problem of sticky grease jamming the movement of the moving parts

of BCD would occur in other escalators given the common use of grease as a lubricant.

4. Mr WONG Ting-kwong enquired: (a) given that both BCD and the auxiliary brake had failed to function, why the escalator concerned stopped moving about 14 seconds after it had started to reverse downwards; and (b) why the registered workers had failed to notice the early sign of metal fatigue of the drive chain concerned during the last maintenance works conducted two days before the incident.

5. DEMS advised that EMSD was carrying out an in-depth technical investigation to ascertain the causes of the escalator incident. According to the initial findings, the drive chain of the escalator at Langham Place was designed to withstand at least 5 times of the anticipated design load, and the drive chain broke at the time of the incident but the BCD failed to detect the chain breakage. The auxiliary brake was therefore not triggered to stop the escalator from moving downward. Eventually, with the load arising from some passengers reduced after they had left the escalator, the friction between the step chains and sprockets stopped the escalator from moving. DEMS undertook to provide the technical investigation report to members once it was available.

(Post-meeting note: The technical investigation report on the escalator incident at Langham Place was issued to members vide LC Paper No. CB(1)1108/16-17(01) on 9 June 2017.)

6. Mr CHAN Chi-chuen pointed out that the escalator incident at Langham Place had taken place despite periodic examinations and maintenance on the escalator concerned. He queried if the occurrence of the incident was due to the excessive workload faced by the registered engineers and workers of the lift/escalator industry.

7. DEMS replied that if a working team was to be assigned to undertake the examination or maintenance works for over six lifts/escalators in one day, the registered contractors concerned should review the performability of the work assignments and had to report the case with justifications to EMSD.

8. Mr HUI Chi-fung noted that the escalator incident at Langham Place had been caused by the double failure of the drive chain and BCD, which was very rare. He was worried that registered engineers or workers could not spot such a failure even if they had followed the examination and maintenance guidelines set out in the Code of Practice

for Lift Works and Escalator Works ("the Code of Practice") in carrying out maintenance works. Mr HUI queried if the existing regulatory regime was insufficient to ensure the safe operation of lifts and escalators, and urged EMSD to include in its technical investigation report the person(s) that should be held responsible for the incident.

9. DEMS responded that, while the safety level of lifts and escalators in Hong Kong was not lower than that in many overseas cities, EMSD would keep reviewing the regulatory regime for lift/escalator safety in Hong Kong by making reference to the successful experience of overseas counterparts.

10. Mr HO Kai-ming asked why two Otis employees had been arrested following the escalator incident at Langham Place. DEMS advised that the employees had been arrested by the Police due to suspected misconduct at the scene. As the case was under investigation, the Administration considered it inappropriate to make further comments.

11. Mr YIU Si-wing suggested that the Administration should introduce measures to address public concerns over the safety of high rise escalators. These measures might include requesting registered contractors to inspect these escalators more frequently, more experienced registered engineers and workers to conduct such inspections, the responsible persons (i.e. owners of an escalator and any other persons who had the management or control of the escalator) to increase the insurance coverage for the deaths/injuries caused by any escalator incident.

12. DEMS replied that additional safety devices were required for escalators with vertical rise of six metres or above. He showed appreciation for Mr YIU's suggestions and would remind the trade and responsible persons on the safety measures, and would consult the Lift and Escalator Safety Advisory Committee on Mr YIU's suggestions where necessary.

13. Noting that EMSD had requested the registered contractors to conduct special inspection on all the escalators with vertical rise of 15 metres or above immediately after the incident, Mr Jeremy TAM enquired for the reasons for setting 15 metres as the threshold. DEMS advised that the threshold had been fixed taking into consideration the additional safety devices required in escalators with vertical rise of or over 15 metres.

The lift incident at Wing Fat Commercial Building

14. Mr Nathan LAW expressed concern about the lift incident that had happened at Wing Fat Commercial Building in Aberdeen on 21 March 2017, where an unintended movement of a lift car in upward direction had occurred. He enquired whether a double brake system had been installed in the lift concerned to make it safe. Mr HUI Chi-fung also expressed concern over the said lift incident.

15. DEMS said that EMSD had issued the Guidelines for Modernizing Existing Lifts in 2011 to encourage the responsible persons for lifts to carry out modernization works for old lifts, including the installation of double brake systems. Moreover, the Urban Renewal Authority and the Hong Kong Housing Society had launched the Integrated Building Maintenance Assistance Scheme to provide financial assistance to building owners in carrying out building maintenance, including lift modernization works. As regards the lift concerned in the incident at Wing Fat Commercial Building, it had been installed in 1982 and did not have a double brake system. That said, a lift without a double brake system was still safe if it was properly maintained.

16. Mr Nathan LAW asked if the Administration would consider mandating the responsible persons for lifts to carry out lift modernization works. DEMS advised that since the issuance of the said Guidelines in 2011, only some 1 000 old lifts had been modernized (e.g. installation of double brake systems). The Administration considered the progress unsatisfactory. Subject to the review and consultation outcomes, a legislative proposal might be introduced to mandate the implementation of lift modernization works.

Lift/escalator maintenance works

17. Mr LAM Cheuk-ting relayed the concerns of some owners' corporations that in general very few tenders were received in response to tender invitations for lift/escalator maintenance contracts. He said that the poor response was attributed to the difficulty of the maintenance contractors, who were not the agents of the original lift/escalator manufacturers, in obtaining spare parts from the original manufacturers. Mr LAM urged the Administration to require original manufacturers of lifts/escalators to provide spare parts to maintenance contractors at reasonable prices so as to facilitate market competition.

18. DEMS replied that the local maintenance contractors could obtain the required spare parts for lift/escalator maintenance through international procurement. EMSD had also issued the Checklist for Handover and Takeover of Lift/Escalator Maintenance in 2015 to provide guidance to the lift/escalator industry and responsible persons to ensure a smooth transition between the incoming and outgoing maintenance contractors. About one-third of the lifts and escalators in Hong Kong were maintained by contractors who were not agents of the original manufacturers.

19. Mr WONG Ting-kwong asked how the main brake and the auxiliary brake of an escalator would be activated. Mr Michael TIEN enquired: (a) how often a maintenance contractor was required to examine the auxiliary brake of an escalator; and (b) how the auxiliary brake was examined to ensure its proper functioning, including whether the examination was conducted under a full-load condition.

20. DEMS advised that the main brake would be activated under many circumstances (e.g. when the escalator was overloaded or moving in a reverse direction), while the auxiliary brake, being an additional safety measure, would be activated when the drive chain broke. During an examination, the BCD would be triggered so as to activate the auxiliary brake, so that the registered engineer concerned could check if the safety devices of an escalator functioned properly. As regards the escalator involved in the Langham Place incident, the last periodic examination had been carried out by a registered engineer in January 2017.

21. DEMS further said that a full-load test would be conducted for any newly-installed escalator. After that, the escalator had to be examined twice a year, though not under a full-load condition. While there was no international practice of conducting a full-load test for servicing escalators, EMSD would review the necessity of introducing such a test during the periodic examinations.

22. Mr LAU Kwok-fan opined that, having regard to the high patronage of lifts and escalators in Hong Kong, the Administration should adopt a more stringent standard for the examinations and maintenance works for these devices than the international standards. Mr WONG Ting-kwong suggested that the Administration should raise the aforesaid standard by updating the Code of Practice. Meanwhile, Dr KWOK Ka-ki enquired if the Administration would roll out any measures to reduce the number of lift/escalator incidents, whereas Mr CHAN Chi-chuen called on the Administration to introduce a set of

clear and uniform standards in the Code of Practice for both lift and escalator works.

23. DEMS explained that lifts and escalators in Hong Kong were examined more frequently and thoroughly than those in many overseas cities. For example, escalators in Hong Kong were required to be examined twice a year, whereas an annual escalator examination sufficed for many overseas cities. He further advised that, enacted in 2012, the Ordinance had helped reduce the number of lift/escalator incidents. From 2009 to 2012, there were 126 lift incidents and 53 escalator incidents related to equipment fault, and the corresponding figures had been reduced to 31 and 14 respectively for the period between 2013 and 2016.

24. As regards the measures to improve lift/escalator examination and maintenance works, DEMS said that EMSD would look into the relevant regulatory regime in the course of conducting the technical investigation on the escalator incident at Langham Place, and take appropriate actions to ensure lift/escalator safety. The Code of Practice set out different scopes of works required for the examination and maintenance of lifts/escalators of different models, and ensuring lift/escalator safety was always the first priority.

25. Mr KWONG Chun-yu said it had been reported that some registered workers had to undertake maintenance works of a large number of lifts/escalators every day. He expressed worry about the quality of the maintenance works done under such a heavy work schedule. He also asked, for registered contractors with frequent non-compliance records, what the heaviest penalty would be.

26. DEMS replied that EMSD had introduced measures to monitor the workload of registered contractors. For instance, a circular had been issued to require the contractors to review the workload if a working team had to be assigned to undertake maintenance works for over six lifts/escalators in one day, and to report, with justifications, to EMSD if a working team had been so assigned. Moreover, the requirement for contractors to renew their registration every five years provided a mechanism for EMSD to check their compliance continuously. Registered contractors were also required to update and advise EMSD of their respective manpower levels every quarter, and these records would be audited by EMSD every two years.

27. Ms Tanya CHAN and Dr KWOK Ka-ki sought details about the progress of implementation of the recommendations made by the Director of Audit in his Report No. 66 in relation to the work of EMSD in monitoring the safe operation of lifts and escalators.

28. DEMS advised that EMSD had implemented all the recommendations made by the Director of Audit in the aforesaid report and had reported the implementation details to the Public Accounts Committee of the Legislative Council. He undertook to provide a written response on the implementation progress after the meeting.

(Post-meeting note: The Administration's written response was issued to members vide LC Paper No. CB(1)932/16-17(01) on 12 May 2017.)

Registered Lift/Escalator Contractors' Performance Rating Scheme

29. Ms Tanya CHAN noted that after the escalator incident at Langham Place, EMSD had removed the Safety Star and Quality Stars of the contractor concerned (i.e. Otis) under the Registered Lift/Escalator Contractors' Performance Rating Scheme ("the CPR Scheme"). She urged the Administration to make use of a simpler and clearer rating system to present the safety and service quality performance of the registered contractors.

30. DEMS explained that the star rating system under the CPR Scheme aimed at assisting the general public in better understanding the performance of the registered contractors. The rating was updated every quarter and published on EMSD's website. Under the system, a green Safety Star would be awarded to a registered contractor without any safety non-compliance being found. No Safety Star would be awarded to a registered contractor if non-compliance was found in the safety aspect. Meanwhile, if a registered contractor was awarded with a green Safety Star, its service quality performance would be presented by the number of blue Quality Stars. The higher the number of the Quality Stars (five stars at maximum), the better the service quality of a registered contractor was.

31. The Chairman asked if a registered contractor could continue to provide maintenance service if it had not been awarded any Safety Star under the CPR Scheme. He also suggested that, apart from publishing the information about the rating of a registered contractor on the website, EMSD should display such information in a conspicuous way in or near

the lifts/escalators maintained by that registered contractor, so that the public could know about the performance of a registered contractor easily.

32. DEMS advised that a registered contractor without a Safety Star could still provide lift/escalator maintenance service and the Administration would consider the Chairman's suggestion about the display of the rating information of registered contractors.

33. Mr KWONG Chun-yu found it unacceptable that a registered contractor without any Safety Star or Quality Star could still provide lift-escalator maintenance service to the public. In his view, the CPR Scheme had failed to penalize the non-compliant contractors.

34. Dr KWOK Ka-ki recalled that during the deliberation of the Bills Committee on the Lifts and Escalators Bill, some members had suggested that the CPR Scheme should be incorporated into the Bill. However, the Administration had refused to accept the suggestion, making the CPR Scheme simply an administrative measure. Dr KWOK further asked if the Administration had taken any disciplinary or legal actions against non-compliant contractors after the enactment of the Ordinance.

35. DEMS replied that there were 48 completed prosecution cases for contravention of the Ordinance between 2014 and 2016. Moreover, the licences of a registered contractor and a registered engineer had been revoked.

Manpower in the lift/escalator industry

36. Expressing concern on the impact of insufficient manpower in the lift/escalator industry on the quality of maintenance works, Mr LAU Kwok-fan asked what support measures had been taken by the Administration to address the problem. Ms Tanya CHAN and Mr KWONG Chun-yu expressed a similar concern.

37. DEMS responded that the Administration had maintained close contact with the trade unions and would follow up if there was lift/escalator worker suffering from unfair treatment. In terms of the maintenance workloads, the ratio of number of lifts and escalators to a team of two workers had decreased from 38 in 2011 (i.e. the year prior to the enactment of the Ordinance) to 32 in 2016. Moreover, according to an EMSD-commissioned study conducted by an independent consultant

in 2016, the salary rise of lift/escalator engineers and workers between 2012 and 2016 was higher than the inflation rate during the same period.

38. Mr HO Kai-ming opined that the wage level of lift/escalator workers was still low in spite of the higher-than-inflation adjustment over the past few years. The unsatisfactory remuneration packages had discouraged young people from joining the lift/escalator industry. Lift/escalator workers might switch to other electrical and mechanical fields earning higher salaries. Mr KWONG Chun-yu held the view that the allowance level for the apprentices of lift/escalator works training programmes was too low. He urged the Administration to review the allowance level.

39. DEMS advised that at present, an apprentice of a lift/escalator works training programme received a monthly payment of \$14,100 (inclusive of allowance, year-end bonus, etc.). His/her salary would raise to \$18,000 per month after the completion of the apprenticeship training. On average, a lift/escalator worker earned about \$23,900 per month. To attract young people to pursue a career in the lift/escalator industry, EMSD had collaborated with the Vocational Training Council to launch the Earn and Learn Scheme. In addition, in the five years between 2016 and 2020, EMSD would invest \$600 million in training technician trainees on various electrical and mechanical disciplines, including lift/escalator. DEMS undertook to follow up the manpower issues in the lift/escalator industry.

40. In order to enable members to have a better understanding of the situation of the lift/escalator industry, the Chairman requested the Administration to provide the following statistics over the past three years, including (a) a list of registered lift/escalator contractors; (b) the number of registered lift/escalator workers and engineers employed by each contractor; (c) the average salaries of lift/escalator workers and engineers under each contractor; (d) the number of lifts and escalators maintained by each contractor; and (e) the ratio of (d) to (b). DEMS undertook to provide the information after the meeting.

(Post-meeting note: The Administration's supplementary information was issued to members vide LC Paper No. CB(1)932/16-17(01) on 12 May 2017.)

Escalator etiquette

41. Dr CHENG Chung-tai asked whether the escalator etiquette of "stand on the right, walk on the left" should be upheld. DEMS advised that many overseas cities used to promote the escalator etiquette of "stand on the right side, walk on the left side". Yet, recent studies indicated that the practice of "stand still and hold the handrail" could increase the escalator capacity and make users safer. Therefore, some overseas cities had begun to disallow users to walk on the escalators. In Hong Kong, EMSD had partnered with many institutions to promote the practice of "stand still and hold the handrail" since 2007.

42. Dr CHENG Chung-tai opined that in view of the recent findings, the Administration should consider disallowing users to walk on the escalators at MTR stations. Mr CHAN Chi-chuen and Mr Jeremy TAM suggested that the Administration should make it clear to the public that the escalator etiquette of "stand on the right, walk on the left" should no longer be upheld. Mr TAM further asked if the etiquette of standing on a particular side would result in uneven wear to escalators.

43. DEMS replied that there was no concrete evidence supporting that standing on a particular side would result in uneven wear to escalators.

Motions proposed by members

44. The Chairman advised that he had received two motions proposed by members, one from Mr LAM Cheuk-ting and the other from Mr KWONG Chun-yu, both of which were directly related to the agenda item under discussion. Members agreed that these two motions be proceeded with at the meeting.

Motion proposed by Mr LAM Cheuk-ting

45. The Chairman read out the motion proposed by Mr LAM Cheuk-ting, of which the wording was as follows:

(Translation)

"This Panel requests the Electrical and Mechanical Services Department to formulate codes of practice or guidelines to require lift and escalator manufacturers to provide spare parts to maintenance contractors who are not the original manufacturers at

reasonable prices and within reasonable time, so as to facilitate market competition and improve maintenance quality."

46. The Chairman put the motion to vote. The motion was voted on and carried.

Motion proposed by Mr KWONG Chun-yu

47. The Chairman read out the motion proposed by Mr KWONG Chun-yu, of which the wording was as follows:

(Translation)

"This Panel requests the Government to review expeditiously the development of the lift and escalator maintenance industry, raise the levels of training allowances for attendees of apprentice training programmes and other relevant courses so as to attract young people to join the industry, and improve the remuneration packages for and working environment of lift and escalator maintenance technicians."

48. The Chairman put the motion to vote. The motion was voted on and carried.

(Post-meeting note: The Administration's written response to the two motions was issued to members vide LC Paper No. CB(1)941/16-17(01) on 15 May 2017.)

II Any other business

49. There being no other business, the meeting ended at 12:44 pm.