

立法會 *Legislative Council*

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Panel on Development

Meeting on 27 October 2009

Background brief on lift safety

Purpose

This paper outlines the regulatory regime on lifts and the improvement measures on lift safety proposed/implemented by the Administration since December 2008, and provides a summary of the concerns and views expressed by Members at meetings of the Council and the relevant Panels.

Existing control regime

Private buildings

2. Lift safety of private buildings is governed by the Lifts and Escalators (Safety) Ordinance (Cap. 327) (the Ordinance). Under the Ordinance, cycles of periodic maintenance, examination and testing for lifts are required. Only registered lift engineers (REs) and registered lift contractors (RCs) are qualified to carry out lift works, including construction, installation and maintenance services. Major safety components for lift installations are also required to have tests conducted and certificates issued by accredited independent testing institutions. The Electrical and Mechanical Services Department (EMSD) is the authority responsible for regulating lifts in private buildings. Apart from maintaining registers for qualified engineers and contractors, EMSD also conducts audit inspections for lifts in private buildings, and carries out surprise checks to ensure that the services provided by engineers and contractors are up to the standards as specified in the Code of Practice on the Design and Construction of Lifts and Escalators and the Code of Practice for Lift Works and Escalator Works.

Government buildings

3. Lifts in Government buildings are exempted from the control in the Ordinance. The repair and maintenance works of these lifts are undertaken by the

Electrical and Mechanical Services Trading Fund (EMSTF), which arranges the relevant works in accordance with the requirements and technical standards of the Ordinance, and monitors the works as appropriate.

Public housing estates

4. Lifts in public housing estates managed by the Housing Authority (HA) are not governed by the Ordinance. However, the Housing Department (HD), being the department responsible for the regulation and maintenance of lifts in public housing estates, follows the requirements under the Ordinance as the basis for regulation of lifts in those estates. HD also employs lift contractors registered under the Ordinance to conduct lift repair and maintenance works according to all the requirements and standards under the Ordinance and the EMSD guidelines.

Questions raised by Members at Council meetings in late 2008

5. Amid the spate of lift incidents in late 2008, Members raised a series of questions on lift safety at the Council meetings on 19 November, 3 December and 10 December 2008, covering the following major issues --

- (a) how the authorities currently monitor the repair and maintenance of lifts in various kinds of buildings;
- (b) how the Administration regulates the arrangements for notification of lift failures by management companies;
- (c) the criteria adopted by HD for selecting contractors for the installation and maintenance of lifts in public housing estates; and
- (d) given that HD would have handed over the estate management to the owners' corporations of Tenant Purchase Scheme (TPS) estates upon their establishment, whether HD has monitored the lift maintenance standards of such public housing estates to safeguard the safety of tenants.

6. According to the Administration, for lifts in public housing estates managed by HA, the tender contracts on lift works (i.e. the procurement and installation of lifts) require the provision of future maintenance and repair services so as to ensure that the lifts are maintained by the original contractors. Besides, even though the lifts in the same estates are of different brands due to different completion dates or phases of development, HD will follow the principle of maintaining the lifts by original contractors: the contractors that are the selling agent of the brand of the lifts will be engaged in providing maintenance works for that brand of lifts. HD will not ask the contractors to carry out maintenance works for lifts of brands other than those for which the contractors are the selling agents.

7. As regards TPS estates, the Administration has advised that owners' corporations (OCs) have been established in all TPS estates. As with other private housing estates, the management and maintenance of the TPS estates are undertaken by their OCs, and the day-to-day business of the OCs is run by their management committees. Being the owner of the unsold flats of the TPS estates, HA participates in the management of the estates by appointing an officer of HD as a member of the management committee. The HA representative will assist the OCs in the proper and effective management of the estates as far as possible, and encourage the owners to make decisions in the overall interests of the estates, so as to safeguard the interests of all owners and HA.

Discussions by the relevant Panels

8. The regulatory control on lift safety was discussed at the joint meetings of the Panel on Development and the Panel on Housing on 8 December 2008 and 24 February 2009.

9. At the joint Panel meetings, the Administration advised that it had adopted a multi-pronged package of measures to enhance the existing regulatory framework on lift safety. Those measures include --

- (a) stepping up inspections -- EMSD has, through additional resources provided by the Development Bureau, increased the proportion of audit inspection and spot checks of lifts in private buildings from one out of 10 to one out of seven using a risk-based approach for a period of 15 months up to March 2010;
- (b) enhancing the Codes of Practice on Lift Safety -- EMSD has reached agreement with lift contractors and worker representatives to enhance the existing Codes of Practice to address issues such as frequency and duration of specified maintenance tasks, maintenance activities to be performed by at least two workers, disclosure of contractors' performance, arrangement of surprise inspections, and reporting of serious lift incidents by contractors to EMSD;
- (c) enhancing workers' competence -- EMSD has launched a scheme to enable those who possess sufficient skills and work experience, but have not undergone formal academic training or craft apprenticeship to become "competent lift workers" under the Ordinance. Upon successful completion of the training course under the proposed scheme, the lift workers will be regarded as "competent lift workers" and such status does not require recognition by registered lift contractors;

- (d) revising tendering arrangements for Government contracts -- EMSTF has ceased to adopt the "bunching approach" (i.e. one contractor being assigned maintenance services for different brands of lifts through one single contract) such that each lift maintenance contract will include only one single brand of lifts;
- (e) providing sample tendering document for public reference -- EMSD has compiled a sample tender document with the requisite scope and specification for lift maintenance services to facilitate building owners and management agencies to properly procure such services;
- (f) announcing serious lift incidents -- EMSD has undertaken to announce serious lift incidents involving fatalities, serious injuries, breakage of suspension ropes, failure of motor brakes, overspeed governors or safety gears, reported by lift contractors within 12 hours of confirmation of the incidents;
- (g) assuring the quality of maintenance -- EMSD has required the industry to adopt a set of new practices to assure the quality of maintenance. These include requiring RCs to let lift owners or their building management agents know the number of hours which they plan to spend on routine maintenance per month. The number of prescribed maintenance activities requiring at least two workers has also been increased from two to 10; and
- (h) releasing information on the performance of the RCs -- EMSD will release the information through the department's website. Such information is based on the new "Maintenance Performance Rating of Registered Lift Contractors" Scheme developed in consultation with the trade. This information should provide useful reference for lift owners.

10. The Administration also indicated that it would conduct a critical and comprehensive review of the Ordinance on the following key areas --

- (a) the arrangements for lift workers to be qualified as "competent lift workers";
- (b) the qualification and experience required for registration as lift engineers;
- (c) the penalty provisions in the Ordinance; and
- (d) the procedure of disciplinary proceedings and the issuance of improvement letters by EMSD for non-compliance items identified during inspections.

11. Moreover, the Administration advised that EMSD would conduct 100% audit inspection of the lifts installed in TPS housing estates and enhance publicity on lift maintenance¹.

12. Taking note of the improvement measures implemented/proposed by the Administration, individual members expressed the following concerns and views --

- (a) While the relevant workers' union welcomed the proposed establishment of a registration system for lift workers, there was concern that if the threshold of registration was too high, the livelihood of existing lift workers might be affected;
- (b) The course fees of the top-up courses should be set at a reasonable level, and those courses should be flexibly arranged to facilitate the attendance of lift workers who had to work very long hours;
- (c) As the number of maintenance tasks to be performed by at least two workers would be increased from two to 10 under the enhanced Code of Practice for Lift Works, with a total of some 57 000 lifts in Hong Kong, there might not be sufficient manpower to meet the demand for lift maintenance services;
- (d) More should be done by the building management in monitoring the maintenance services of lift contractors;
- (e) HA's insistence on the engagement of original contractors for maintenance services might have undermined fair competition and led to monopolization in lift maintenance services by original contractors. The situation would be further aggravated if some manufacturers controlled the prices of parts. What was most important was for EMSD to devise clear and enforceable guidelines on the standard of maintenance services;
- (f) The existing sanctions and penalties under the Ordinance might not be sufficient to achieve a deterrent effect; and
- (g) Apart from specifying expensive spare parts and replacement items as mandatory or provisional items in the sample tender document, the time frames within which different parts, such as suspension ropes, should be replaced should also be specified.

¹ In April 2009, the Administration provided an information paper (LC Paper No. CB(1)1359/08-09(01)) on the results of EMSD's audit inspection of lifts installed in TPS housing estates in Hong Kong and other actions taken by EMSD to assist lift owners to manage lift maintenance.

Recent developments

13. On 27 August 2009, the Ombudsman announced the findings of the direct investigation carried out by his Office into the regulatory system of lifts administered by EMSD. An executive summary of the direct investigation report is given in **Appendix I**. The Administration's press release on 28 August 2009 setting out its response is in **Appendix II**.

14. The Administration will, at the meeting of the Panel on Development on 27 October 2009, provide an update on various improvement measures and seek members' views on the legislative proposal to amend the Ordinance in areas relating to, among other things, registration of lift/escalator workers, upgrading the qualification of registered lifts/escalator engineers, and the level of penalty. The Administration intends to introduce the legislative proposal in May 2011.

Relevant Papers

15. A list of relevant papers is in **Appendix III**.

EXECUTIVE SUMMARY

Direct Investigation on Regulatory System of Lifts

Background

In the wake of lift incidents since October 2008 and amid grave public concern, The Ombudsman decided to initiate a direct investigation into the regulatory system of lifts administered by the Electrical and Mechanical Services Department (“EMSD”) on 15 January 2009. The ambit of the investigation includes:

- (a) lift examination requirements under the Lifts and Escalators (Safety) Ordinance (Cap 327);
- (b) EMSD’s monitoring measures;
- (c) the effectiveness of the regulatory framework; and
- (d) possible areas for improvement.

Regulation of Lifts in Hong Kong

2. The regulatory framework for lifts rests on three legs.

(a) Statutory certification system

3. A lift owner has to arrange for lift examination by a registered lift engineer (“RE”) at least once every 12 months. If examination results are satisfactory, the RE, through a registered lift contractor (“RC”) who normally is his employer, will issue a lift certificate. The lift owner then delivers the certificate to EMSD for endorsement, after which it is returned for conspicuous display in the lift. These steps are subject to stringent time-lines. EMSD can direct the lift owner to conduct an examination of the lift by issuing a Form 9 order and follow up by issuing a Form 16 order to prohibit the use of the lift.

(b) Registration of Contractors and Engineers

4. Only contractors and lift engineers registered with EMSD (i.e. REs and RCs) are eligible to carry out repair and maintenance of lifts. EMSD runs an administrative demerit point system (Performance Monitoring Points System or “PMPS”): a RC or RE may be referred to a disciplinary board which can impose sanctions, including the removal of a RC or RE from the register.

(c) Direct Inspection and Enforcement Action

5. EMSD conducts inspections of lifts and issues warning letters for breach found under PMPS. However, from 2005 to 2008, EMSD issued only two Form 9 orders and considered referring only one case to the disciplinary board.

EMSD's Improvement Measures

6. After the lift incidents, EMSD has taken immediate measures to strengthen the regulatory regime. The measures include legislative review for RE registration and level of penalties, stepping up lift inspections, surprise inspections to verify whether the RE had examined the lifts personally, ensuring speedy announcement of serious lift incidents, disclosing RC performance through a performance rating system and enhance public education on lift safety.

7. Since commencement of our investigation, EMSD has taken further measures. These include early reminders to RCs and/or lift owners for lift examination, early site inspections in overdue cases, timely issue of orders for lift examination, investigating cases where lift certificate submission is overdue for 12 weeks, warning RCs and REs on repeated late examination of lifts, and notifying lift owners of non-compliance items found by EMSD in addition to according demerit points to RCs and REs.

Problems identified and Our Observations

8. We commend EMSD's increase in direct inspection and firm enforcement following the spate of lift incidents. However, Government alone cannot, and should not, assume total responsibility for the maintenance and safety of each and every lift in Hong Kong. EMSD should promote the principles of "shared responsibility" and enable "user surveillance".

9. Lift owners have a personal interest as lift users. They have a prime responsibility and they share it with the RCs and REs they engage to service their lifts. The safety certificate is a key instrument in enabling "user surveillance". Properly documented, the certificate is both a safety assurance and a key source of information on the current state of lift maintenance. With a transparent record of EMSD's disciplinary system against RCs, lift owners can make an informed choice and the trade will view it as an incentive for upholding standards. Consumer choice means business and competition is a powerful tool for quality assurance.

Standards, Statistics, Monitoring and Analysis of Trends

10. Maintenance standards and time-lines for lift examination and submission of safety certificates are essential for EMSD to monitor the performance of RCs and REs and take enforcement action in cases of default. EMSD's standards and time-lines were unclear, and vital information and statistics were not available.

During the investigation, we have observed a positive change in attitude and approach. We hope EMSD will invest time and efforts in setting clear standards and building up an operational information base.

Handling Overdue Cases

11. We observe that EMSD's timeframe of issuing reminders (seven weeks after a lift is overdue for examination) is long and inconsistent with the statutory timeframe to issue a Form 9 order (five weeks) and prohibition order (eight weeks). Although EMSD has tightened up the monitoring of lift examination and outstanding lift certificates, it should monitor and assess the effectiveness of these measures regularly.

Tracing Responsibility for Late Certificates

12. We note that EMSD cannot ascertain the party or parties responsible for delay in submitting lift certificates and a time-limit is not imposed on RCs to countersign the certificate before sending it to lift owners. Before any legislative amendment to plug the loophole, EMSD should require RC to record the date of issuing lift certificates to lift owners and impose administrative sanctions to repeated offenders for late submission of certificates.

Transparency of Disciplinary Records

13. Disclosure of EMSD's disciplinary records under the performance rating system is useful reference for lift owners in their selection of RCs. The potential damage to reputation and loss of business will urge RCs and REs to stay off EMSD's blacklist. As an additional incentive for adhering to good practices and high standards, we suggest that EMSD inform the insurance industry of the availability of the system on its website.

Display of Certificates

14. We observe that in many cases lift certificates are not displayed in a prominent position for easy reference and the print is small. EMSD should revise the format of the certificate to make it more legible, particularly with the expiry date boldly and clearly visible in standardised format.

Flaws in Disciplinary Action

15. EMSD normally should initiate disciplinary action if a RC or RE receives three warning letters within 12 months. In the only case EMSD considered for disciplinary actions on a RC, the following problems were identified:

- (a) the Engineer who reviewed the case had failed to report the result to his supervisor and the case was not followed up subsequently;
- (b) EMSD failed to issue four warning letters despite meeting the criteria due to computer error;
- (c) EMSD issued five warning letters erroneously due to computer error.

16. EMSD should review and strengthen its procedures and pinpoint responsibilities in the administration of disciplinary measures. In addition, EMSD should review the procedures and criteria for issuing warning letters under PMPS, set out the rules and clarify their rationale, update the PMPS document and promulgate it to the trade.

Recommendations

17. The Ombudsman had made 13 recommendations to the Director of the Electrical and Mechanical Services, including the following:

- (i) promote the principles of “shared responsibility” and “user surveillance” of lift safety through extensive publicity and public education;
- (ii) revise the format of the lift certificate and enforce rigorously the requirement for its conspicuous display;
- (iii) alert the insurance industry to the availability of the performance rating system;
- (iv) invest time and efforts in setting standards and building up an information base;
- (v) review in six months’ time the mechanism for following up overdue lift examinations and lift certificates;
- (vi) secure information on the date RCs issue lift certificates to lift owners and impose sanctions for non-compliance;
- (vii) consider a proper code of practice and a hierarchy of accountability for determining whether or not to proceed with disciplinary action against a RC or RE, including the monitoring of the progress of disciplinary proceedings; and

- (viii) review the procedures and criteria for issuing warning letters under PMPS, set out the rules and clarify their rationale, update the PMPS document and promulgate it to the trade.

18. EMSD has accepted our recommendations and provided us with a tentative timetable for implementation.

**Office of The Ombudsman
August 2009**

Press Releases

Appendix II

Government adopts multi-pronged approach in ensuring lift safety

In response to the Ombudsman's direct investigation on the regulatory system of lifts by the Electrical and Mechanical Services Department (EMSD), a Development Bureau spokesman re-affirmed today (August 28) the utmost importance attached by Government to ensuring lift safety in Hong Kong.

"Following a series of lift incidents in late 2008, we have asked for a comprehensive review of the regulatory system of lifts and closely monitored the improvement measures being put in place by EMSD," the spokesman said.

The Development Bureau and EMSD had reported progress to the Legislative Council Development Panel of such improvement work in December 2008 and February 2009. With the support of Legco, EMSD has put in place the various enhancement measures with additional resources provided by Development Bureau.

"Action is in hand to brief Legco Members on progress after the summer recess, particularly on proposals to amend the Lifts and Escalators (Safety) Ordinance to strengthen the statutory framework," the spokesman said.

These legislative proposals were the outcome of deliberations of two EMSD-led task forces comprising representatives from the Hong Kong General Union of Lift and Escalator Employees, the two local lift and escalator contractors associations, the Construction Workers Registration Authority, the Vocational Training Council, the Hong Kong Institution of Engineers and the International Association of Elevator Engineers (HK-China Branch).

"The Secretary for Development has accepted the Task Forces' recommendations and will consult Legco and the industry on these legislative amendments," the spokesman said.

The main legislative proposals are -

1. To introduce a registration system for lift and escalator workers which will recognise the individual qualification and competency of workers. This will replace existing arrangements whereby 75% of about 5,000 serving competent workers under the law obtained their status through designation by registered lift and escalator contractors.
2. To upgrade the qualification requirement for registration as lift and escalator engineers by adopting the qualification of registered professional engineer ("RPE") of suitable disciplines with at least two years' relevant working experience as the prerequisite requirement for registration as lift and escalator engineers.
3. To raise the maximum fine for offences under the Ordinance from \$5,000 to \$200,000 to increase its deterrent effect.
4. To streamline the disciplinary process by empowering the Director of Electrical and Mechanical Services to take disciplinary action for relatively minor offences. The Director can also reprimand the persons/parties committing such offences.
5. To grant statutory powers to the Director to impose sanctions for failure of lift or escalator owner to comply with improvements specified in notices to rectify minor defects within the prescribed period. Currently, these improvement notices are advisory in nature.
6. To require the display in the lifts of a more prominent and user-friendly safety label in prescribed format duly signed by the registered engineer upon completion of the periodic examination and testing, confirming the installation is in safe working order, to raise public awareness.

"We believe the strengthened statutory regulation system would help enhance lift safety in Hong Kong and in promoting the principle of 'shared responsibility'," the spokesman said.

"That said, EMSD is firmly committed to discharging its roles in inspection and enforcement as well as in public education to enable user surveillance."

Since November 2008, EMSD has deployed eight additional staff to step up audit inspections from a sampling rate of 1 out of 10 to 1 out of 7, including performing surprise inspections with the aid of a web-base data system. Through the use of the data system and with the collaboration of the trade, lift examinations can be traced more effectively than before and overdue submissions of lift certificates have been greatly reduced - to 304 so far in 2009 compared to 18,660 last year. With immediate effect, EMSD will fully implement the issuing of Form 9 to urge owners to carry out lift examinations and submit the lift certificate on time.

To assist owners to procure lift maintenance services and monitor contractors' performance, EMSD updated the "Lift Owners' Guidebook" for distribution in April and provided sample tender specifications for owners' reference.

Since June 1, 2009, EMSD has required the industry to adopt a set of new practices to assure the quality of maintenance. These include requiring registered lift contractors to let lift owners or their building management agents know the number of hours which they plan to spent on routine maintenance per month. The number of prescribed maintenance activities requiring at least two workers has also been increased from two to ten.

From next month (September), EMSD will release information on the performance of the Registered Lift Contractors through the department's website. Such information is based on the new "Maintenance Performance Rating of Registered Lift Contractors" Scheme developed in consultation with the trade. This information should provide useful reference for lift owners.

"We welcome the Ombudsman's recommendations and will continue to work with EMSD to implement those recommendations in the Ombudsman's report. We will report further progress to Legco before the end of this year," the spokesman said.

Ends/Friday, August 28, 2009
Issued at HKT 19:59

Regulatory control on lift safety

List of relevant papers

Date	Meeting/Event	References
19 November 2008	Hon James TO raised a question on lift safety at the Council meeting.	http://www.legco.gov.hk/yr08-09/english/counmtg/agenda/cm20081119.htm#q_4 http://www.info.gov.hk/gia/general/200811/19/P200811190244.htm
19 November 2008	Hon LAU Kong-wah raised a question on lift safety at the Council meeting.	http://www.legco.gov.hk/yr08-09/english/counmtg/agenda/cm20081119.htm#q_17 http://www.info.gov.hk/gia/general/200811/19/P200811190212.htm
3 December 2008	Hon CHAN Kam-lam raised a question on lift safety at the Council meeting.	http://www.legco.gov.hk/yr08-09/english/counmtg/agenda/cm20081203.htm#q_1 http://www.info.gov.hk/gia/general/200812/03/P200812030131.htm
8 December 2008	The Panel on Development and Panel on Housing discussed the subject of "Lift safety" at a joint meeting.	Discussion paper http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/devhg1208cb1-318-1-e.pdf Information note http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/devhg1208cb1-342-1-e.pdf Minutes of meeting http://www.legco.gov.hk/yr08-09/english/panels/dev/minutes/devhg20081208.pdf
10 December 2008	Hon IP Wai-ming raised a question on lift safety at the Council meeting.	http://www.legco.gov.hk/yr08-09/english/counmtg/agenda/cm20081210.htm#q_4 http://www.info.gov.hk/gia/general/200812/10/P200812100142.htm

Date	Meeting/Event	References
24 February 2009	The Panel on Development and Panel on Housing further discussed the subject of "Lift safety" at a joint meeting.	<p>Discussion papers http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/hgdev0224cb1-826-1-e.pdf http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/hgdev0224cb1-809-1-e.pdf</p> <p>Background brief http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/hgdev0224cb1-814-1-e.pdf</p> <p>Minutes of meeting http://www.legco.gov.hk/yr08-09/english/panels/dev/minutes/devhg20090224.pdf</p>
28 April 2009	The Administration provided an information paper on "Audit Inspection of Lifts in Tenant Purchase Scheme Housing Estates".	http://www.legco.gov.hk/yr08-09/english/panels/dev/papers/devcb1-1359-1-e.pdf
27 August 2009	The Ombudsman announced the investigation findings into the lift regulatory system.	<p>Executive summary http://www.ombudsman.gov.hk/concluded/2009_08_01.doc</p> <p>Full report http://www.ombudsman.gov.hk/concluded/f2009_08_01.pdf</p>
28 August 2009	The Administration issued a press release on adopting a multi-pronged approach in ensuring lift safety.	http://www.info.gov.hk/gia/general/200908/28/P200908280303.htm