



LIFT &



電梯通訊

ESCALATOR NEWSLETTER

Feature Article

Raising the Professional Standards of Lift / Escalator Engineers

Over the years, lift/escalator trade practitioners have contributed significantly to the development of the trade in Hong Kong, and are always dedicated to carrying out and overseeing lift/escalator works in a professional manner, in order to ensure lift/escalator safety.

To further uplift the service quality of lifts and escalators as well as enhancing the status and image of the trade, the Lifts and Escalators Ordinance (Cap.618) (the Ordinance) stipulates clearly that the qualification standard of registered lift/escalator engineers (REs) responsible for lift/escalator examination would be brought to a level comparable with the standards of other legislations for building safety, i.e. at the level of registered professional engineers (RPE). The Electrical and Mechanical Services Department (EMSD) will assess and review the trade situation in 2023 before taking forward the implementation arrangements of the initiative.

To formulate the framework and standard regarding professional assessments of lift/escalator trade practitioners and to assist practitioners to obtain professional qualifications, the EMSD liaised with the Control, Automation and Instrumentation Division under the Hong Kong Institution of Engineers (HKIE) to kick-start discussions on the issues in 2020. After the discussion, both parties agreed to work together to provide advices on the acquisition of professional qualification for REs. A joint sharing session was held in June 2021 to explain to the trade the routes to professional qualification.



The sharing session held jointly by the EMSD and the HKIE

The EMSD continued to proactively coordinate with the HKIE to facilitate trade practitioners to obtain relevant professional qualifications. Registered contractors were also encouraged to provide formal Engineering Graduate Training Schemes (EGTS) so as to nurture new blood to be qualified as RPEs. The HKIE has also formed a working group on the professional assessment of the lift/escalator trade practitioners. In particular, the Mechanical Discipline and Control, Automation and Instrumentation Discipline of the HKIE have respectively issued in January 2022 two guidance notes on professional assessment specifically prepared for lift and escalator practitioners. Online briefing sessions were also held by the two disciplines respectively to introduce the guidance notes and the professional assessment process. The two guidance notes issued by the HKIE can be accessed via the following hyperlinks:

[Guidance notes of the Mechanical Discipline:](#)



[Guidance notes of the Control, Automation and Instrumentation Discipline:](#)



Lift/escalator trade practitioners and those interested in joining the industry are encouraged to make reference to the above guidance notes and formulate plans to obtain RPE qualification as soon as possible. Meanwhile, registered lift/escalator contractors should also assist their staff in obtaining RPE qualification by providing appropriate training and working opportunities. We believe that the tripartite collaboration between the trade, the HKIE and the EMSD will enhance the professional standards of the trade and bring about safe and reliable lift/escalator services to the local community.

Improving the regulatory regime for registered lift/escalator engineers

Apart from implementing measures to enhance the professional standards of REs, the EMSD also conducted reviews on the regulatory regime for REs and launched a number of initiatives to strengthen the regulatory regime, with a view to ensuring REs' effective fulfilment of duties. Such initiatives include adding new declaration items in the registration or renewal application procedures, reviewing the interview content, conducting regular surveys on the employment situation and career development of REs, as well as strengthening the monitoring and analysis of examination data and related information of lifts/escalators.

Regarding the interview assessment for REs, a new interview model was officially adopted in June 2022. Under the new interview model, questions will cover three different areas, including (1) laws and regulations, codes of practice, guidelines and circulars related to lift/escalator safety and works; (2) testing/examination of lifts/escalators; and (3) investigation of lift/escalator failures and incidents. Please see Circular No. 5/2022 for more details.

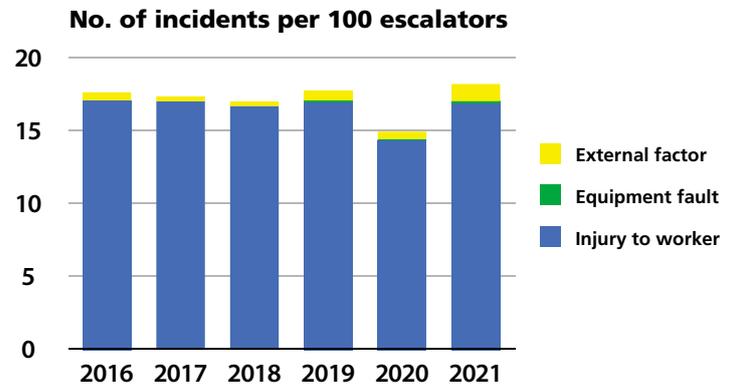
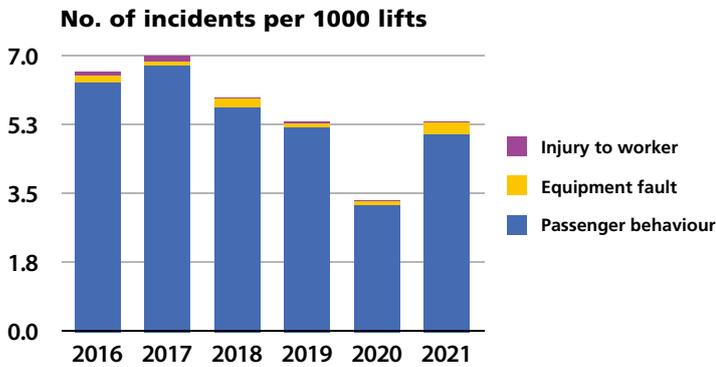
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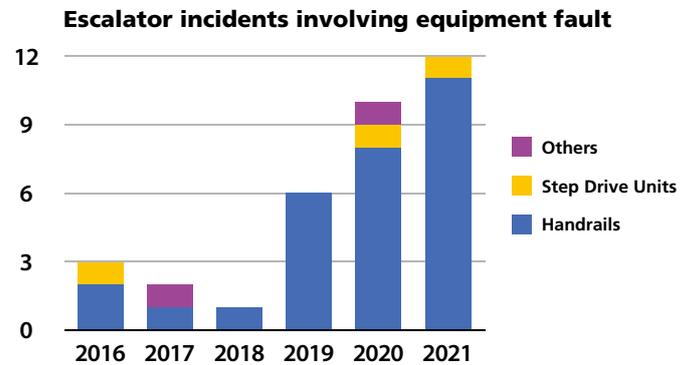
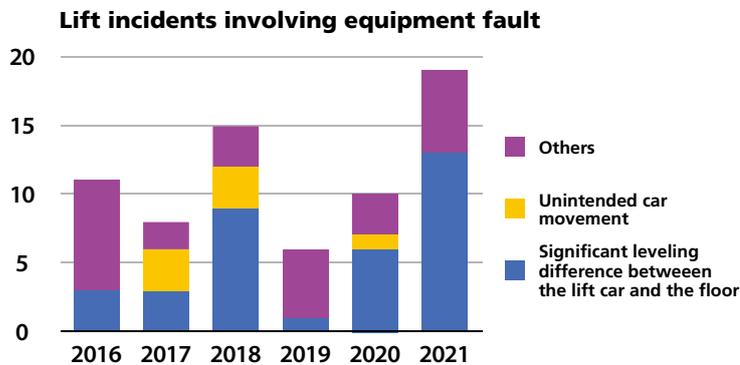
Feature Article

Analysis of the Incidents of Lifts/Escalators in 2021

EMSD received reports of 375 lift incidents and 1 872 escalator incidents in 2021. Compared with the past few years¹, the number of incidents per 100 escalators was largely stable, whereas the number of incidents per 1 000 lifts showed a downward trend.



Similar to past years, most of the incidents were attributable to passenger behaviour, such as finger trapping by opening or closing doors in lifts or loss of balance on escalators. As for the incidents caused by equipment faults, most of the incidents of lifts involved malfunction of electronic or electrical components, which resulted in significant levelling difference between the lift car and the landing floor, and in turn causing the passengers to trip when entering or exiting the lifts. Regarding the incidents of escalators caused by equipment faults, most of them involved malfunction of handrails or their related parts, which led to loss of balance and injuries of passengers.



EMSD has reminded the trade to check the condition of the components of lifts and escalators carefully during maintenance. Contractors were also advised to check regularly the quality of maintenance work and supervise effectively the maintenance work carried out by the frontline staff, with a view to reducing the incidents caused by equipment faults. Regarding the maintenance of handrails, the trade should, during periodic maintenance or examination, check for any excessive wear and tear in handrails and their related components, and notify responsible persons (“RPs”) (such as the property owner, property management company, property management staff, etc.) in a timely manner for follow-up. The operation of the escalator should be suspended if necessary. In addition, if the costs of repair or parts replacement are not covered under the maintenance contract, the registered contractors should remind the RPs to reserve funding for such costs, so as to avoid delays in carrying out maintenance due to negotiations over the costs.

Besides, RPs should keep track of lift/escalator operations through daily inspections. Should any abnormalities be found in the lifts/escalators and their related equipment, the registered contractors should be notified promptly for follow-up. RPs should also provide guidance to passengers on the safe use of lifts/escalators, so as to reduce incidents caused by passenger behaviour.

EMSD hopes that the sharing of the incident statistics will facilitate the adoption of appropriate measures by the trade and RPs to reduce lift/escalator incidents. EMSD will monitor the situation closely and further step up inspections. Should any violation of the Ordinance or the Code of Practice for Lift Works and Escalator Works be found, strict enforcement actions would be taken.

¹ In 2020, usage of lifts and escalators decreased due to the outbreak of COVID-19, thus resulting in a corresponding decrease in the number of incidents that year.



Checklists for Daily Inspection of the Safe Operating Condition of Lifts and Escalators

According to the Ordinance, responsible persons for lifts/escalators (RPs) have statutory duties to ensure that their lifts/escalators and all their associated equipment or machinery are kept in a proper state of repair and in safe working order. To this end, RPs should not only engage registered lift/escalator contractors to undertake periodic maintenance and examination of the lifts/escalators, but should also pay close attention to the running state of the lifts/escalators and check the operating condition of the lifts/escalators and their associated equipment daily before they commence operation.

To facilitate RPs' early identification of common problems that may compromise lift/escalator safety, EMSD has produced two leaflets, setting out respectively the important items to be checked during the daily checks of lifts and escalators for easy reference by frontline staff. The leaflets have been published and the leaflets in Chinese version are being distributed to the RPs in batches. RPs may also copy/print the leaflets as appropriate through the following link:



https://www.emsd.gov.hk/filemanager/en/content_826/Daily_Check_Leaflets_for_Lifts.pdf



https://www.emsd.gov.hk/filemanager/en/content_826/Daily_Check_Leaflets_for_Escalators.pdf

Common issues concerning lift safety:



The lift operates normally when it starts, runs and stops, and there is no abnormal sound when the lift operates



The lift doors open and close smoothly, and there is no abnormal sound when the lift door operates



When the lift arrives at the destination floor, the level difference between the lift car and the landing floor would not pose a tripping hazard to users entering/leaving the lift



The lift door re-opening device(s) (for example: safety edges, light beam sensors, light curtains etc.) are effective



The floor displays and/or operating buttons in the lift car and on each landing function normally and are not loose or damaged, and no exposed wire is present



A valid use permit is displayed in a conspicuous position in the lift



The walls and other accessories of the lift car (including false ceilings, handrails, decorative panels, etc.) are in good structural condition and are installed with sufficient stability



The access to the lift machine room is not obstructed

Common issues concerning escalator safety:



The escalator starts, stops and runs normally



There is no abnormal sound when the escalator is operating



The steps, combs and handrails of the escalator are intact and not damaged



When pulled by hand, the handrail has no slackening



The left and right handrails have the same speed and are synchronized with the steps



A valid use permit and the emergency contact number of the registered escalator contractor are displayed in a conspicuous position

News *-in-* Brief

Checklists for Daily Inspection of the Safe Operating Condition of Lifts and Escalators

In support of the development of Hong Kong into a smart city, EMSD has actively enhanced the online application procedures of various electronic forms to streamline the administrative procedures concerning document handling, which would bring along convenience to the trade and improve regulatory efficiencies. Following the setting-up of the online platform and introduction of "iAM Smart" functions, such as authentication, digital signing and "e-ME" form-filling, for 16 commonly used electronic forms for lifts and escalators in 2021, eight forms with lower usage were also converted into e-fillable PDF (ePDF) format and launched in the first quarter of 2022. Trade practitioners, contractors and responsible persons for lifts and escalators may submit all specified forms for lifts and escalators online now.



"Login" page for authentication with "iAM Smart"

Development Progress of the Digital Log-books for Lifts and Escalators

To capitalise on the benefits for the public and the trade brought by digital technologies, EMSD is developing the Digital Log-books System of Lifts and Escalators, which uses blockchain technology, to replace statutory log-books in paper format. The development of the Digital Log-books is making good progress. The EMSD had consulted and received steadfast support as well as valuable opinions from representatives of trade practitioners and responsible persons, including Lift and Escalator Contractors Association, Hong Kong General Union of Lift and Escalator Employees, Building Services Operation and Maintenance Executive Society, Hong Kong Housing Authority and MTR Corporation Limited, on the system design.

In addition, EMSD has been working with trade practitioners and responsible persons to carry out system testing for approximately 50 lifts at four different locations since April 2022. Test participants were provided with user manuals, training programmes and hotline services for trouble-shooting and opinion collection, with the aim to continuously improve the system design. The EMSD plans to progressively extend the coverage of the system testing to approximately 1 000 lifts/escalators before late 2022, in preparation for the official launch of the Digital Log-books in late 2022.

To learn more about the preliminary design of the mobile app and web portal of the System, please watch the following videos:



https://youtu.be/Ro4Ykt_75Ms



<https://youtu.be/UbErF-qLH11>

Your valuable views on the system design are most welcome. Please send your views to Digitallogbooks@emsd.gov.hk.



The EMSD held consultation meetings with the Hong Kong General Union of Lift and Escalator Employees



Preliminary design of the mobile app and web portal of the System

Modernisation of Aged Lifts/Escalators

As at the end of 2021, there were about 71 000 lifts and 10 000 escalators in Hong Kong, of which about 60% and 50% respectively have been used for 20 years or more. Generally, aged lifts/escalators are inferior to their new and modern counterparts in terms of performance and safety devices, and they are more prone to issues such as ageing parts, long maintenance time and discontinued production of spare parts. In the long run, responsible persons for lifts/escalators (RPs) should proactively consider and arrange for modernisation works for aged lifts/escalators to enhance their safety level and service performance. To identify whether modernisation works are needed for a lift or an escalator, apart from consulting the registered lift/escalator contractor concerned, RPs can also employ a third party professional to conduct an independent assessment on the lift/escalator, to examine the condition of the lift/escalator and to give professional advice.

To raise public awareness on the modernisation of aged lifts, the EMSD held a series of publicity activities in 2021 and 2022, including broadcast of television advertisements and advertisements on bus and tram bodies. To learn more about modernisation of lifts/escalators, please visit the following website:



https://www.emsd.gov.hk/en/lifts_and_escalators_safety/responsible_persons_corner/lift_modernisation_resource_corner/index.html



An advertisement on bus body



An advertisement on tram body

Recent Prosecution Cases



Over the past year, EMSD issued a total of 30 summonses to initiate prosecution against 11 persons/companies suspected of having contravened the Ordinance. Among the cases, the prosecution procedures of 20 cases have been completed. Below are some of the completed cases:

Case 1

During an investigation on an escalator incident at a shopping mall in Tseung Kwan O in December 2020, EMSD found that two registered escalator workers failed to take adequate safety precautions when carrying out escalator maintenance works, causing a member of the public to trip over the landing cover and get injured. EMSD initiated prosecutions against the two registered workers (with a summons issued to each of them). The two registered workers were convicted and fined HK\$2,000 each.

Case 2

During an inspection in June 2021, EMSD found that a lift in a hotel in Yau Ma Tei was put into operation without a valid use permit. EMSD initiated prosecution against the responsible person for the lift involved (with one summons issued). The responsible person was convicted and fined HK\$5,000.

Case 3

During an inspection in August 2021, EMSD found that the unintended car movement protection means of a lift in a building in North Point was not functional. During the investigation, EMSD found that the registered lift engineer responsible for the periodic examination of the lift had not carried out thorough examination and had provided false or misleading information on the safety certificate of the lift. EMSD initiated prosecution against the registered engineer (with a total of five summonses issued). The registered engineer was convicted on all charges and fined a total of HK\$30,000.



Tips for Lift Management

Ensure the lift doors open and close smoothly, beware of any abnormal noise during operation; ensure the lift car is level with the landing floor, passenger safety would then be assured.



Feedback

Your comments and suggestions, whether on editorial style or contents, are most welcome. Tell us how we can improve and make the Lift and Escalator Newsletter a truly informative and interesting publication for you. The Lift and Escalator Newsletter is available on our website at <http://www.emsd.gov.hk>.

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