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18 February 2022

To: All Registered Lift/Escalator Contractors
All Registered Lift/Escalator Engineers

Dear Sirs,

Circular No. 4/2022**Analysis of the Reportable Incidents for Lifts/Escalators in 2021**

This circular disseminates the analytical results of lift/escalator reportable incidents in 2021 for trade practitioners' reference and introduction of appropriate improvement measures. The breakdown figures of the reportable incidents are given in the attached summary tables.

There were 375 reportable lift incidents and 1 872 reportable escalator incidents in 2021. The number of reportable lift incidents per 1 000 lifts in 2021 was 55.6% and 8.1% higher than the number in 2020 and the average of the previous three years respectively, whereas the number of escalator incidents per 100 escalators in 2021 was 21.2% and 9.8% higher than the number in 2020 and the average of the previous three years respectively. While 2020 was a year of relatively lower utilization of lifts and escalators due to stringent social distancing measures, the increase in 2021 was still considered very high. Similar to past years, most of the incidents in 2021 were due to passengers' behaviors such as trapping fingers by closing/opening doors in lifts or loss of balance in escalators. 19 reportable lift incidents and 16 reportable escalator incidents were due to equipment faults, which resulted in 35 injuries. The majority were due to poor levelling of lift car caused by failures of electronic components and unsynchronized handrail operation. At the same time, there were five industrial incidents related to lift/escalator works recorded in 2021.

Closer attention in carrying out lift/escalator works and quality checking can help eliminate those incidents due to equipment failure, whereas greater awareness of the responsible persons (RPs) and users can lower the number of cases due to passenger behaviors. Please help remind frontline staff to pay attention to lift/escalator works and arouse the attention of RPs and users of safe use of lifts/escalators.

We hope the sharing of the incident statistics will alert practitioners to be more attentive and facilitate the trade or relevant interested parties to exert efforts in deriving appropriate measures and innovative ideas/solutions for avoiding lift/escalator incidents.

If you have any questions on the subject of this letter, please contact our officer on telephone number 2808 3174.

Yours faithfully,

(LAU LIK-kee)

for Director of Electrical and Mechanical Services

Encl.

c.c. The Lift and Escalator Contractors Association

The Registered Elevator and Escalator Contractors Association Limited

The International Association of Elevator Engineers (HK-China Branch)

The Hong Kong Institution of Registered Engineers (Lift & Escalator)

The Hong Kong General Union of Lift and Escalator Employees

Table 1 – 2021 Lift Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	375
No. of incidents due to equipment fault	19 ^{Note 2}
No. of injuries due to equipment fault	18
No. of fatality due to equipment fault	0
No. of incidents due to passenger behavior	352
No. of injuries due to passenger behavior	348
No. of fatality due to passenger behavior	1 ^{Note 3}
No. of incidents during lift works	4
No. of injuries during lift works	4
No. of fatality during lift works	0

Remarks

Note 1 The number of incidents is based on the dates when the respective incidents were made known to EMSD.

Note 2 (i) Passenger tripping due to levelling difference of lift car at landing arisen from leveling device malfunction (13 cases).

(ii) Passenger struck by falling object from the landing door lock / car door panel (2 cases).

(iii) Emergency stop of lift operation due to malfunction of speed measurement device causing the safety gear mis-triggered / trigger of final limit switch (2 cases).

(iv) Emergency stop of lift operation due to intermittent contact of the drive motor.

(v) Abnormal door closing due to malfunction of door re-opening device.

Note 3 A passenger fainted in a lift car due to her personal health condition and certified dead before arrival to a hospital.

Table 2 – 2021 Escalator Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	1 872
No. of incidents due to equipment fault	16 ^{Note 2}
No. of injuries due to equipment fault	17
No. of fatality due to equipment fault	0
No. of incidents due to passenger behavior	1 731
No. of injuries due to passenger behavior	1 874
No. of fatalities due to passenger behavior	2 ^{Note 3}
No. of incident during escalator works	1
No. of injury during escalator works	1
No. of fatality during escalator works	0
No. of incidents due to external factors	124
No. of injuries due to external factors	137
No. of fatality due to external factors	1 ^{Note 4}

Remarks

Note 1 The number of incidents is based on the dates when the respective incidents were made known to EMSD.

Note 2 (i) Unsynchronized handrail operation of an escalator due to malfunction of handrail drive unit (9 cases).
(ii) Emergency stop of the escalator due to breakage of a step supporting roller / bushing between the step and drive chain (3 cases).
(iii) Protruded steel wires from the surface of the handrail of an escalator (2 cases).
(iv) Sudden stop of handrail due to breakage of a handrail drive chain.
(v) Burnt smell from the brake module due to malfunction of an electrical component.

Note 3 (i) The deceased lost balance and fell at the inclined section of an ascending escalator.
(ii) The deceased fell off from the inclined section of an escalator travelling from 1/F to G/F and landed on B1/F.

Note 4 One incident concerned the deceased who fell from height and crashed onto the balustrade of an escalator.