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(40) in EMSD/LESD 7-2/4A Pt II

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28 January 2021

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

Dear Sirs,

Circular No. 2/2021 Analysis of the Reportable Incidents for Lifts/Escalators in 2020

This circular disseminates the analytical results of lift/escalator reportable incidents in 2020 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 238 reportable lift incidents and 1 516 reportable escalator incidents in 2020. The number of reportable lift incidents per 1 000 lifts in 2020 was 44% lower than the average of the previous three years, whereas the number of escalator incidents per 100 escalators in 2020 was 14% lower than the average of the previous three years. The decrease in 2020 is believed to be attributed to the lower utilization of lifts and escalators during the epidemic. We hope the trade will join hands to suppress the incident rates to all time low even after the easing of social distancing or travel restrictions. Similar to past years, most of the incidents in 2020 were due to passengers' behaviors such as trapping fingers by closing/opening doors in lifts or loss of balance in escalators. 10 reportable lift incidents and 10 reportable escalator incidents were due to equipment faults, and passenger injuries were resulted in 19 of the equipment fault related cases. On the other hand, there were three industrial incidents related to lift/escalator works recorded in 2020.

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 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

Table 1 – 2020 Lift Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	238
No. of incidents due to equipment fault	10 ^{Note 2}
No. of injury due to equipment fault	10
No. of fatality due to equipment fault	0
No. of incidents due to passenger behavior	226
No. of injuries due to passenger behavior	228
No. of fatalities due to passenger behavior	0
No. of incidents during lift works	2
No. of injury during lift works	2
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 (six cases).
 - (ii) Emergency stop of lift operation due to activation of the overspeed governor switch arisen from governor bearing failure.
 - (iii) Emergency stop of lift operation due to instability of the drive motor contactor.
 - (iv) Occurrence of unintended car movement due to the instability of the brake coil relay and insecurity of the levelling control timer.
 - (v) Abnormal door closing due to instability of the door control circuit relay.

Table 2 – 2020 Escalator Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	1 516
No. of incidents due to equipment fault	10 ^{Note 2}
No. of injuries due to equipment fault	13
No. of fatality due to equipment fault	0
No. of incidents due to passenger behavior	1 445
No. of injuries due to passenger behavior	1 539
No. of fatality due to passenger behavior	1 ^{Note 3}
No. of incidents 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	60
No. of injuries due to external factors	68
No. of fatality due to external factors	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) Protruded steel wires from the surface of the handrail of an escalator.
 - (ii) Emergency stop of the escalator due to breakage of a handrail drive chain or breakdown of a handrail drive unit (three cases).
 - (iii) Unsynchronized handrail operation of an escalator due to malfunction of handrail drive unit (four cases).
 - (iv) Emergency stop of an escalator due to activation of the upper landing safety switch by step misalignment arisen from a damaged step wheel.
 - (v) Roll-back of an escalator due to the failure of its motor and gearbox coupler.

Note 3 A person fell from height of a carpark building and landed on the lowest step of an out-of-service escalator.