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

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29 January 2020

To: All Registered Escalator Contractors and Registered Escalator Engineers

Dear Sirs,

Circular No. 3/2020 Analysis of the Reportable Incidents for Lifts and Escalators in 2019

This circular disseminates the analytical results of lift/escalator reportable incidents in 2019 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 367 reportable lift incidents and 1 771 reportable escalator incidents in 2019. The number of reportable lift incidents per 1 000 lifts in 2019 was 18% lower than the average of the previous three years, whereas the number of escalator incidents per 100 escalators in 2019 was 2% higher than the average of the previous three years. Most of the incidents were due to passengers' behaviors such as trapping fingers by closing/opening doors in lifts or loss of balance in escalators. Five reportable lift incidents and six reportable escalator incidents were due to equipment faults, and passenger injuries were resulted in 10 of the equipment fault related cases. On the other hand, there were three industrial incidents related to lift works recorded in 2019 in which one incident led to the fatality of a worker who was trapped between the bottom of the lift car frame and the scaffold in the lift pit.

Closer attention in carrying out lift/escalator works can help eliminate those incidents due to equipment failure, whereas greater awareness of the responsible persons (RP) 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 RP and users on 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 addressing the problems associated with the incidents.

If you have any questions on the subject of this letter, please contact our officer on telephone number 3757 6208.

Yours faithfully,



(LAU Lik-kee)

for Director of Electrical and Mechanical Services

Table 1 – 2019 Lift Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	367
No. of incidents due to equipment fault	5 ^{Note 2}
No. of injury due to equipment fault	4
No. of fatality due to equipment fault	0
No. of incidents due to passenger behavior	359
No. of injuries due to passenger behavior	359
No. of fatalities due to passenger behavior	2 ^{Note 3}
No. of incidents during lift works	3
No. of injury during lift works	2
No. of fatality during lift works	1 ^{Note 4}

Remarks

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

- Note 2
- (i) Failure of the main drive due to insufficient tension of the drive belt connecting the electric motor and the hydraulic pump of a lift.
 - (ii) Breakage of one suspension rope of a lift.
 - (iii) Sudden stop of a lift due to damage of the governor rope which led to activation of the overspeed governor and safety gear.
 - (iii) A door rubber wheel bracket dropped from the upper part of the car door of a lift due to loosened fastening screws.
 - (iv) Sudden stop of a lift due to poor contact of the brake switch which led to activation of safety circuit and tripping of lift operation.

- Note 3
- (i) A suicidal case of a passenger who was found fallen into the lift shaft.
 - (ii) A passenger got dizziness and suddenly fell down in a lift car, who was sent to hospital and certified dead afterwards.

Note 4 A worker was trapped between the bottom of a lift car frame and the scaffold inside the lift pit during lift installation.

Table 2 – 2019 Escalator Incident Statistics

Description	Quantity
Total no. of incidents ^{Note 1}	1 771.
No. of incidents due to equipment fault	6 ^{Note 2}
No. of injuries due to equipment fault	6
No. of fatality due to equipment fault	0
No. of incidents due to passenger behavior	1 699
No. of injuries due to passenger behavior	1 842
No. of fatality due to passenger behavior	0
No. of incidents during escalator works	0
No. of injury during escalator works	0
No. of fatality during escalator works	0
No. of incidents due to external factors	66
No. of injuries due to external factors	81
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) The handrail of an escalator stopped suddenly while the escalator steps were still running due to defective bearing of the handrail drive.
 - (ii) Protruded steel wires from the surface of the handrail of three individual in-service escalators (three cases).
 - (iii) The breakage of handrail chain which led to the sudden stoppage of the handrail of an escalator.
 - (iv) A passenger loss balance case due to unsynchronised operation of the handrail of an escalator.