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10 November 2000

All Registered Lift Contractors/Engineers

Dear Sirs,

**Circular No. 22/2000**

**Amendment No. 14 of Code of Practice on the  
Design and Construction of Lifts and Escalators**

**Amendment No. 6 of Code of Practice on the  
Examination, Testing and Maintenance of Lifts and Escalators**

Pursuant to section 27G of the Lifts and Escalators (Safety) Ordinance (Cap. 327) the Code of Practice on the Design and Construction of Lifts and Escalators (1993 Edition)(the Design Code) and the Code of Practice on the Examination, Testing and Maintenance of Lifts and Escalators (1996 Edition)(the ETM Code) have been amended by incorporating new requirements on ascending car overspeed protection means.

The above changes have been included in the Amendment No. 14 of the Design Code and the Amendment No. 6 of the ETM Code which are attached for your retention. It shall come into operation on 1 January 2001 and shall be applicable to lifts tendered on or after that date.

Yours faithfully,

(G.M.W. CHUI)

for Director of Electrical & Mechanical Services

c.c. AD/BS

D of H (Attn.: TS/2)

DB (Attn.: CBS/Legislation)

D of FS (Attn.: Fire Safety Command)

Hong Kong General Union of Lift & Escalator Employees

SCMN/GMWC/tp

Code of Practice  
on the Design and Construction of  
Lifts and Escalators  
(1993 Edition)

**AMENDMENT No. 14**

**Ascending car overspeed protection means in line with BS EN81-1:1998 superseding  
BS5655-1:1986**

**(Effective from 1 January 2001 and applicable to lifts tendered on or after that date)**

<u>Item</u>	<u>Clause</u>	<u>Description</u>
1.	Section E Part 1 Clause 5.11.1	Add the following at the end of the first paragraph: "A safety gear operating in upward direction may be used in accordance with 5.13."
2.	Section E Part 1 Clause 5.12.2	Add a remark at the bottom of table 3: "For avoidance of doubt, table 3 shall not be used to determine the maximum tripping speed for ascending car overspeed protection means."
3.	Section E Part 1 Clause 5.12.4	Add the following at the end of the clause: "Overspeed governors using only traction to produce the force shall have grooves which: a) have been submitted to an additional hardening process; or b) have an undercut in accordance with Annex M of EN 81-1."
4.	Section E Part 1 Clause 5.12.8	(i) Replace "completely accessible in all circumstances." with: "accessible and reachable for inspection and maintenance." (ii) Insert "and reachable" between "accessible" and "from outside the well."
5.	Section E Part 1 Clause 5.12.11	Replace the second paragraph with: "However, for rated speeds not exceeding 1m/s, this device may operate at latest at the moment when the tripping speed of the governor is reached."
6.	Section E Part 1 Clause 5.12.12	Replace the first sentence "An electrical .....tripped condition." of the first paragraph with: "If after release of the safety gear (Clause 5.11.5) the overspeed governor does not automatically reset itself, an electric safety device in conformity with Clause 10.2 shall prevent the starting of the lift while the overspeed governor is not in the reset position. This device shall, however, be made inoperative in the case provided for in Clause 10.3.1.4(b)"

Add:

**“5.13 Ascending Car Overspeed Protection Means**

A traction drive lift shall be provided with ascending car overspeed protection means conforming to the following:

5.13.1 The means, comprising speed monitoring and speed reducing elements, shall detect uncontrolled movement of the ascending car at a minimum 115% of the rated speed, and maximum as defined in Clause 5.12.3, and shall cause the car to stop, or at least reduce its speed to that for which the counterweight buffer is designed.

5.13.2 The means shall be capable of performing as required in Clause 5.13.1 without assistance from any lift component that, during normal operation, controls the speed or retardation, or stops the car, unless there is built-in redundancy.

A mechanical linkage to the car, whether or not such linkage is used for any other purpose, may be used to assist in this performance.

5.13.3 The means shall not allow a retardation of the empty car in excess of  $1g_n$  during the stopping phase.

5.13.4 The means shall act:

- a) to the car, or
- b) to the counterweight, or
- c) on the rope system (suspension or compensating), or
- d) on the traction sheave (e.g. on the sheave directly or on the same shaft in the immediate vicinity of the sheave).

5.13.5 The means shall operate an electric safety device in conformity with Clause 10.2 if it is engaged.

5.13.6 When the means has been activated, its release shall require the intervention of a competent person.

5.13.7 The release of the means shall not require the access to the car or the counterweight.

5.13.8 After its release, the means shall be in a condition to operate.

- 5.13.9 If the means requires external energy to operate, the absence of energy shall cause the lift to stop and keep it stopped. This does not apply for guided compressed springs.
- 5.13.10 The speed monitoring element of the lift to cause the ascending car overspeed protection means to actuate shall be, either:
  - a) a governor conforming to the requirements of Clause 5.12; or
  - b) a device conforming to Clauses 5.12.2, 5.12.3, 5.12.7, 5.12.8, 5.12.9, 5.12.12, and where equivalence to 5.12.4, 5.12.6, and 5.12.10 is assured.
- 5.13.11 The ascending car overspeed protection means is regarded as a safety component and shall be type tested to the requirements of Annex F.7 of EN81-1, or other relevant international standards.”

8. Section E Part 1  
Clause 10.2.1.1 (b)

- (i) Replace "Clause 10.2.2" of (2) with "Clause 10.2.2, or"
- (ii) Add:  
"(3) components in accordance with Annex H of EN81-1."

9. Section E Part 1  
Clause 10.2.1.2

Add the following after "Code":  
“(see Clauses 10.3.1.2, 10.3.1.4 and 10.3.1.8)”

10. Section E Part 1  
Clause 10.3.1.4

- (i) Add the following at the end of the third paragraph:  
"The effects of the emergency electrical operation shall be overridden by switching on the inspection operation.”
- (ii) Replace "may render inoperative" with "shall render inoperative" in the fourth paragraph.
- (iii) Add the following after (d):  
“(e) those mounted on the ascending car overspeed protection means, according Clause 5.13.5.”

11. Section E Part 1  
Table 4

Insert the following between "5.12.12" and "6.2.4.4":

" " " "

5.13.5	Check on the ascending car overspeed protection means	X	X	X
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Code of Practice  
on the Examination, Testing and Maintenance of  
Lifts and Escalators  
(1996 Edition)

**AMENDMENT No. 6**

**Ascending car overspeed protections means in line with BS EN81-1:1998  
superseding BS5655-1:1986**

**(Effective from 1 January 2001 and applicable to lifts tendered on or after that date)**

<u>Item</u>	<u>Clause</u>	<u>Description</u>
1.	Section C Clause 1.1.3	Add: "v) Ascending car overspeed protection means"
2.	Section C	Add the following clause: <b>"1.2.10 Ascending car overspeed protection means</b> The ascending car overspeed protection means shall be type tested in accordance with the testing process as described in Clause F.7 of EN81: Part 1 or other approved international standards."