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(27) in EMSD/LESD 7-2/4 Pt. 4

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28 September 2009

All Registered Lift Contractors and Engineers

Dear Sirs,

Circular No. 18/2009
Amendment of Code of Practice for Lift Works and Escalator Works –
Replacement of Suspension Ropes

With a view to ensuring the suspension ropes for lifts are in safe working order, the criteria for replacement of suspension ropes are added under the Clause 4 of the Code of Practice for Lift Works and Escalators Works.

Pursuant to section 27G of the Lifts and Escalators (Safety) Ordinance, the Code of Practice for Lift Works and Escalators Works (2002 Edition) (the Works Code) is hereby amended by incorporating the new requirements. The changes are detailed in **Amendment 7** to the Code of Practice for Lift Works and Escalator Works, a copy of which is attached herewith for your reference.

Please note that the changes covered in **Amendment No.7** forming part of the Works Code shall become effective as from 1 January 2010.

Yours faithfully,



(Arthur K. H. WONG)
for Director of Electrical & Mechanical Services

- cc. Director of Housing
Director of Architectural Services
The Lift and Escalator Contractors Association
The Registered Elevator and Escalator Contractors Association Limited
The International Association of Elevator Engineers
The Hong Kong General Union of Lift and Escalator Employees

Code of Practice
For Lift Works and Escalator Works
(2002 Edition)

AMENDMENT No. 7 of 2002 Edition
Replacement of Suspension Ropes

(Effective as from 1 January 2010)

Insert the following Clause after Section C: Clause 4.7.5

Item	Clause	Description
1	Section C Clause 4.8	Replacement of Suspension Ropes

The suspension ropes shall be replaced immediately based on the following replacement criteria or the discard criteria of lift manufacturer, whichever are more stringent.

Conditions	Rope Replacement Criteria	
	6 X 19 rope type	8 X 19 rope type
Reduction in diameter	10%	10%
Broken wires randomly distributed among the outer strands	> 24 per rope lay	> 32 per rope lay
Broken wires concentrating in one or two outer strands or when severe rusting is observed.	> 12 per rope lay	> 16 per rope lay
Adjacent broken wires in one outer strand	> 4 and the no. of broken wires per rope lay >12	> 4 and the no. of broken wires per rope lay > 16

If any rope on a sheave needs to be replaced, all others ropes on that sheave shall be replaced. When one suspension rope of a set has been damaged during installation or acceptance testing prior to being subjected to lift service, it is permissible to replace a single damaged rope with a new rope, provided the following requirements are met:

- (a) The wire rope data for the replacement rope must correspond to the wire rope data of the certificate of the original set of ropes.
- (b) The ropes of the set in question shall not have been shortened since their original installation.
- (c) The tension of the new replacement rope shall be checked and adjusted as necessary at fortnightly intervals over a period of not less than two months after installation. If proper equalization of the rope tension cannot be maintained after six months, the entire set of suspension ropes shall be replaced.
- (d) The replacement rope shall be provided with the same type of suspension rope fastening used with the other ropes.
- (e) The diameter of the replacement rope, under tension, shall not be varied from the remaining ropes by more than 0.5% of the nominal diameter of the rope.