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31 December 1997

All Registered Lift & Escalator Contractors  
All Registered Lift & Escalator Engineers

Dear Sirs,

**Circular No. 17/97**  
**Code of Practice on the Examination, Testing and Maintenance**  
**of Lifts and Escalators (1996 Edition)**  
**Amendment No. 1**

Pursuant to section 27G of the Lifts and Escalators (Safety) Ordinance, Cap. 327, the Code of Practice on the Examination, Testing and Maintenance of Lifts and Escalators (1996 Edition)(the Code) has been amended-

- (a) by incorporating the relevant recommendations for fire prevention in the Final Report of the Commission of Inquiry into the Garley Building Fire; and
- (b) by adding new requirements on safety measures to be taken in carrying out lift and escalator works.

The above changes have been included in the Amendment No. 1 of the Code which is attached for your retention.

The requirements in the Amendment No. 1 of the Code shall come into operation on 19 January 1998 and shall be applicable to lift and escalator works carried out on or after that date.

Yours faithfully,

(LAW Yu-wing)  
for Director of Electrical & Mechanical Services

c.c. AD/BS  
D of Housing (Attn.: TS/1)  
C of Labour (Attn.: Mr. CHAN Wing-cheung)  
D of Fire Services (Attn.: Mr. CHU Man-chun)  
D of Buildings (Attn.: Mr. CHOW Kim-ping Alex)  
President, Hong Kong Union of Lift and Escalator Employees

WLC/GMWC/LYW/tp

Code of Practice  
on the Examination, Testing and Maintenance of  
Lifts and Escalators  
(1996 Edition)

**AMENDMENT No. 1**

**Safety Precautionary Measures, including Fire Safety**  
(Effective as from 19 January 1998 and applicable to  
lift and escalator works carried out on or after that date)

1. Foreword

*Delete the Foreword and substitute the following:-*

**"Foreword**

This Code of Practice on the Examination, Testing and Maintenance of Lifts and Escalators (this Code) is published by virtue of Section 27G of the Lifts and Escalators (Safety) Ordinance, Cap. 327 (the Ordinance). It sets out guidelines on the methods and procedures for compliance with the requirements of the Ordinance on the examination, testing and maintenance of lifts and escalators. It makes references to BS5655 (EN81) and BS5656 (EN115), with the permission of the British Standards Institution, and the Code of Practice on the Design and Construction of Lifts and Escalators (the Design Code) established under the Ordinance, and the codes of practice issued by the Labour Department with regard to safety at work. Copies of the British Standards can be obtained through Industry Department."

2. Section A

*Delete Section A and substitute the following:-*

**"Section A Introduction**

This Code deals with the methods and procedures for the approval, examination, testing and maintenance of lifts and escalators. It is intended to present the acceptable procedures for examination and testing of lifts and escalators and essential safety measures to be taken during maintenance, repair, major alteration, replacement and addition of lifts and escalators.

The duties of the registered lift contractors or registered escalator contractors, and the registered lift engineers or registered escalator engineers, for the examination, test and maintenance of a lift or escalator will be covered."

3. Section B

*Delete Section B and substitute the following:-*

**"Section B References, Definitions, Symbols and Abbreviations**

For the sake of consistency, the references, definitions, symbols and abbreviations adopted in this Code follow those stipulated in the Design Code and the Ordinance.

Unless the context otherwise requires -

"registered contractor" means registered lift contractor and/or registered escalator contractor;

"registered engineer" means registered lift engineer and/or registered escalator engineer."

4. Section C Clause 4

*Delete the heading "Maintenance and Repair of Lifts and Escalators" and substitute "Maintenance, Repair, Major Alteration, Replacement and Addition of Lifts and Escalators in Existing Buildings"*

5. Section C Clause 4

*Delete Clause 4.2 and substitute the following:-*

**"4.2 Safe Carrying Out Lift and Escalator Works in Existing Buildings**

Lift and escalator works shall be carried out in compliance with requirements in the current edition of the Code of Practice for Safety at Work (Lift and Escalator) issued by the Labour Department, to safeguard persons, including the workers, users and any persons in the vicinity of the installation, against the risk of any accident including fire accident associated with these works.

For the same reason, a safe system of work shall be adopted. A general safe system of work shall include, but not limited to, the requirements in the following sub-clauses:

#### **4.2.1 Cleanliness of Lift Car Roof, Machine Room, Well and Pit, and Escalator Wellway and Pit**

Good housekeeping practice shall be exercised at lift/escalator installations. The lift car roof, machine room, well and pit, and escalator wellway and pit shall always be kept clean and tidy. Unnecessary combustible materials and sundry items, such as oil rags, waste gloves and rubbish, shall be cleared away before and after carrying out works. When not in use, the portable service lamp on top of the lift car shall be switched off and properly placed on a hanger which is well away from any flammable substance, for preventing the lamp to act as an ignition source.

#### **4.2.2 Handling of Inflammable Substances**

Inflammable substances and waste shall be handled with great care. Inflammable substances shall be properly sealed in a suitable container when not in use. Inflammable waste shall be removed from the work site immediately after use.

#### **4.2.3 Protection of Structure during Demolition of Lift and Escalator**

In demolishing a lift or an escalator, the registered contractor shall ensure that the structural integrity of the building is not affected. Where necessary, effects made on the structure of the building shall be assessed by a registered structural engineer.

#### **4.2.4 Number of Working Hours**

There shall be a limit on the number of hours that a lift worker or escalator worker works in any one shift. In general, one normal shift of work would mean an 8-hour work. Individual registered contractor shall conduct a risk assessment on the workers to determine the optimum working hours in a shift with breaks for their workers to carry out work attentively and safely."

#### **6. Section C Clause 4**

*Delete Clause 4.3 and substitute the following:-*

#### **"4.3 Safety Precautionary Measures for Lift Works**

#### **4.3.1 General Safety Precautionary Measures Related with Landing Door and Car Door**

- 1) Appropriate warning signs are required to be prominently displayed at least at the main landings. An example of such a sign is shown in Figure 1. When people are working within the lift well, or work lasting for more than 30 minutes is being carried out, the lift car entrance is required to be suitably blocked by a barrier with warning sign such that any intended users will not inadvertently enter the lift car. When any safety circuits are bypassed or interfered affecting the safety of the users, in addition to the barrier at the lift car entrance, warning signs are required to be displayed on all landings. In case of emergency, rescue operation may be commenced before displaying of signs. In any case, adequate safety precautions must be taken at all times.
- 2) The accidental opening of power-operated automatic doors must be prevented.
- 3) Whenever a landing door is unlocked or open with the car not at the level of that landing, suitable safety precautions shall be taken and the landing door shall not be allowed to remain open any longer than is absolutely necessary for working. In any case, effective precautions shall be provided to protect a landing entrance which is kept open or unlocked. This may take the form of any of the following:-
  - (a) a barrier comprising a guard rail of at least 1 m high with a mid-rail and toe-board being fixed across the landing entrance threshold; or
  - (b) a mesh or solid enclosure of a least 1 m high being erected at an appropriate distance from the landing threshold.

The landing door must be closed and locked whenever there is no person working at or near the landing, notwithstanding that a barrier or an enclosure as mentioned above is provided. If the landing door cannot be closed and locked, the barrier shall have to be extended to the full height of the entrance unless the car is at the level of that landing.

All protective barriers shall incorporate warning notices in both English and Chinese and appropriate safety signs. These barriers shall be stored at convenient locations so as to be readily available to the workers when required.

- 4) The posting of persons instead of fixing barriers at unprotected landings in order to prevent other persons from entering the area of danger is discouraged and shall only be used after very careful consideration of the overall situation, e.g. time factor, degree of risk and the type of persons at risk.

#### **4.3.2 Ascertaining Presence of Trapped Passengers inside a Stalled Lift**

In attending a lift breakdown call, the registered lift contractor and its lift workers shall check whether there is any passenger trapped inside the stalled lift. They shall ascertain that no passenger is trapped inside the lift, by physical inspection of the interior of the lift car, before leaving the scene.

This action shall be performed by a competent lift worker. He shall record such in the log book before he leaves the scene.

#### **4.3.3 Work to be Carried out by Two or More Lift Workers**

The registered lift contractor shall remind its lift workers to take necessary safety precautions in carrying out maintenance and repair works, in particular when any safety circuit is bypassed or interfered affecting the safety of the lift users. The registered lift contractor shall ensure that the following lift works are carried out by two or more lift workers as required:-

- (i) releasing passengers trapped in a lift which stopped outside the unlocking zone; and
- (ii) manually releasing the brake of the traction machine of an electric lift, or operating the manual emergency lowering or ascending device of a hydraulic lift.

#### **4.3.4 Provision of Emergency Lighting**

Emergency lighting or a battery torch shall be provided or made available to workers working in a lift shaft or a confined or dark area for use in the event of power failure or sudden failure of the normal lighting."

### **7. Section C Clause 4.4**

*Delete the heading "Safety Precautionary Measures for Escalator Maintenance" and substitute "Safety Precautionary Measures for Escalator Works".*

8. Section C Clause 4

Add-

**"4.7 Fire Safety Measures in Carrying out Lift and Escalator Works in Existing Buildings**

Registered contractor shall ensure that adequate fire safety measures are taken in carrying out lift and escalator works, especially when hot works are to be carried out.

**4.7.1 Notification of Lift Works**

The registered lift contractor shall submit two types of notices to Director of Electrical and Mechanical Services, Commissioner for Labour, Director of Fire Services and Director of Buildings as shown in Appendix E & F:

- (a) The first notice (in Appendix E) shall be used to notify the departments concerned of commencement of lift works involving major alteration, replacement or addition of lift in existing building. The registered lift contractors shall indicate in the notice the period when hot work would be carried out inside a lift well.
- (b) The second notice (in Appendix F) shall be used to notify departments concerned of commencement of major hot work which lasts for one day or more for major alteration, replacement or addition of lift in existing building. The registered lift contractor shall specify the commencement and ending dates of the major hot work in the notice.
- (c) The registered lift contractors shall use their best endeavours to forward the second notice to departments concerned at least one working day prior to the commencement of each major hot work so as to facilitate inspection by the government departments. In any event, if there is a change in the work schedule, further notification must be given.
- (d) The names and contact numbers of the contractor's hot work supervisor and the contact person responsible for the whole lift work project shall be supplied in the second notice.

**4.7.2 Hot Work Supervisor**

4.7.2.1 A hot work supervisor shall be present at site during the whole time while hot work relating to lift works or escalator works is being carried out. He shall -

- (a) perform the duties of a fire watch; and
- (b) ensure that adequate fire safety measures are carried out and fire safety requirements are complied with.

4.7.2.2 The hot work supervisor shall -

- (a) be a competent lift worker or a competent escalator worker, as the case may be;
- (b) be of a supervisory grade;
- (c) have the ability and experience to carry out fire prevention and safety work.

He could also act as the supervisor of lift works or escalator works, as the case may be, if so desired.

### **4.7.3 Safety Training**

4.7.3.1 Training on fire safety shall be provided to hot work supervisors. Every hot work supervisor shall have attended fire safety training course organised by recognized institutions, e.g. the Occupational Safety and Health Council.

4.7.3.2 Welding worker who is to carry out welding work in relation to lift works or escalator works shall attend safety training course including fire safety aspects.

### **4.7.4 Welding and Cutting**

When gas or electric arc welding/cutting work is carried out, adequate safety precautionary measures shall be taken to prevent fire and personal injuries.

The registered contractor shall require its welding workers to return the same number of spent welding electrodes as the number of electrodes issued to them.

### **4.7.5 Fire Resisting Construction Requirements for Lift Well**

The fire resisting construction requirements for lift well and its landing doors are stipulated in the Code of Practice for Fire Resisting Construction issued by Building Authority. In order to provide adequate resistance to the spread of

fire, a landing door should normally remain in a closed position unless a lift car stops at the floor of the landing door.

If, when carrying out lift works, some landing doors need to be kept open or taken down before reinstatement, the registered lift contractor shall ensure that the fire safety requirements in the "Practice Note for Registered Contractors 36 - Maintenance and Replacement Works of Lift Installations", as well as any subsequent amendments including those after these requirements have been incorporated into the Code of Practice for Fire Resisting Construction, issued by Building Authority are complied with. These requirements include the provision of hoardings of not less than one hour fire resisting period for lift door openings and prohibition of scaffolds made up of combustible materials inside the lift well."

9. Appendices

*Add **Appendix E** and **Appendix F** as attached.*

Appendix E Notice of Commencement of Lift Works Involving Major Alteration,  
Replacement or Addition of Lift in Existing Building

**Notice of Commencement of Lift Works  
Involving Major Alteration, Replacement or Addition of Lift  
in Existing Building**

Date \_\_\_\_\_

To Director of Electrical & Mechanical Services  
Commissioner for Labour  
Director of Fire Services \*<sup>1</sup>  
Director of Buildings \*<sup>1</sup>

We hereby give you notice that we have been appointed to carry out the lift works as follows:-

Location: \_\_\_\_\_

EMSD location no.: \_\_\_\_\_

Lift no(s): \_\_\_\_\_

Date of commencement of the works: \_\_\_\_\_

Planned date of completion of the works: \_\_\_\_\_

Contact person's name & tel./pager no.: \_\_\_\_\_

The works will involve:-

- (a)  replacement/addition\* of lift(s) in existing building
- (b)  breach of lift well compartmentation, e.g. removal of lift landing door(s)
- (c)  conducting hot work in lift well mainly from \_\_\_\_\_  
(date/time) to \_\_\_\_\_ (date/time)<sup>2</sup>
- (d)  erecting metal/bamboo\* scaffold in lift well<sup>3</sup>
- (e)  Fireman's lift no(s): \_\_\_\_\_

The details of the major alteration are (if applicable): \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Name & Signature of Registered Lift Contractor

- Note:
1. Also submit this notice to Director of Fire Services and Director of Buildings if the works involve item (a), (b), (c), (d) or (e).
  2. The date and time for conducting major hot work (hot work lasting for 1 day or more) should be provided separately with at least 1 working day's notice.
  3. Only scaffold constructed of non-combustible materials shall be used for lift works tendered on or after 1.8.1997.
  4. This notice should be received by relevant Government departments at least 14 days before commencement of the works if the works involve item (a), (b), (c), (d) or (e).
  5. A location plan indicating the position(s) of the lift(s) should be provided together with this notice.

Tick if applicable

\* Delete if inapplicable

Appendix F      Notice of Conducting Major Hot Work in Lift Well for Major Alteration,  
Replacement or Addition of Lift in Existing Building

**Notice of Conducting Major Hot Work in Lift Well  
for Major Alteration, Replacement or Addition of Lift  
in Existing Building**

Date \_\_\_\_\_

To Director of Electrical & Mechanical Services	(Fax no. 2895 4929)
Commissioner for Labour	(Fax no. 2544 3497)
Director of Fire Services	(Fax no. 2723 2197)
Director of Buildings	(Fax no. 2625 0351)

Location: \_\_\_\_\_  
\_\_\_\_\_

EMSD location no.: \_\_\_\_\_

Lift no(s): \_\_\_\_\_

Date & time of commencement of major hot works<sup>1</sup>: \_\_\_\_\_

Date & time of completion of major hot work: \_\_\_\_\_

Hot work supervisor's name: \_\_\_\_\_ tel.: \_\_\_\_\_

pager: \_\_\_\_\_

mobile tel.: \_\_\_\_\_

Contact person's name \_\_\_\_\_ tel.: \_\_\_\_\_

pager: \_\_\_\_\_

mobile tel.: \_\_\_\_\_

\_\_\_\_\_  
Name & Signature of Registered Lift Contractor

- Note:
1. Major hot work means hot work lasting for 1 day or more.
  2. Registered lift contractors should submit this notice to the above Government departments at least 1 working day before commencement of the major hot work. In any event, prior notice must be given.