

Guidebook for Responsible Persons for Lifts

Lifts and Escalators Ordinance (Chapter 618)



Owners

Property Management Agencies



Guidebook for Responsible Persons for Lifts

(2012 Edition)



Preface

Hong Kong, most people have to use lifts to travel up and down buildings, whether getting to work or school, or to get home. It is easy to see that lift safety is very much part of the daily lives of all. The government, registered lift contractors, registered lift engineers and registered lift workers are not the only ones responsible for ensuring the safety of lifts. Those who have ownership of lifts (such as the owners of a building or the owners' corporation) or who have the management or control of lifts (such as the property management company or the works consultant) [hereafter referred to as "responsible persons for lifts"], also have important roles to play.

This Guidebook for Responsible Persons for Lifts sets out in a Q&A format the responsibilities of the responsible persons for lifts under the Lifts and Escalators Ordinance (Cap 618) (hereafter referred to as "the Ordinance") and the Lifts and Escalators (General) Regulation (hereafter referred to as "the General Regulation"), and other matters relating to lift maintenance works. Its aim is to ensure that the responsible persons for lifts can effectively keep their lifts in a proper state of repair and in safe working order.

This Guidebook is for reference use only. The content of all legal clauses mentioned must be read in the original context of the relevant ordinances.

Disclaimer

This Guidebook, which is prepared by the Electrical and Mechanical Services Department (EMSD), seeks to outline in layman's terms the responsibilities of the responsible persons for lifts under the Lifts and Escalators Ordinance (Cap 618) and other matters relating to lift maintenance works. The legal provisions referred to in this Guidebook shall be construed in accordance with the Lifts and Escalators Ordinance (Cap 618).

This Guidebook is for general reference only. Users of this Guidebook should not rely on the information as professional legal advice and are strongly advised to seek assistance from lawyers should there be doubts about the application of the Lifts and Escalators Ordinance (Cap 618) in individual circumstances. Whilst every effort has been made to ensure the accuracy of the Guidebook, EMSD shall not be responsible for any liability howsoever caused to any person by the use of or reliance on this Guidebook.

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(1) What lifts are covered by the Ordinance?

The lifts^[1] regulated by the Ordinance and lawfully used in Hong Kong roughly fall into the following categories:



¹ According to section 2 of the Ordinance, lift means a lifting machine or appliance having a carrier the direction of movement of which is restricted by one or more guides; or a mechanised vehicle parking system. Section 3 of the Ordinance stipulates that the Ordinance applies to every lift in Hong Kong but excluding amusement devices, conveyors, material hoists, lifts the height of travel of which do not exceed 3.5 m and do not pass through any floor for carrying goods or materials and motor vehicles, lifts in any ship, lifts in any aircraft, lifts provided in connection with a building under construction, ramps in a pier, service lifts in an industrial undertaking and stage lifts.

(2) How is lift safety regulated?

The regulatory framework for lift safety under the Ordinance is made up of five major components.

(1) Type Approval System —

To ensure that only lifts with proper design, good quality and in compliance with EMSD standards^[2] are used in Hong Kong, the Ordinance stipulates that no lift works shall be carried out unless the lift to be installed and all its safety components are of a type for which written approval has been obtained from the Director of Electrical and Mechanical Services (the Director).

(2) Use Permit System —

The Ordinance stipulates that the responsible person for the lift shall arrange examination of the lift by a registered lift engineer after the completion of its installation, so as to confirm that the lift is in safe working order. The lift must not be put into use and operation without a use permit issued by the Director.

The Ordinance also stipulates that the responsible person for the lift shall arrange examination of the lift by a registered lift engineer before the expiry of the one-year validity period of its use permit, so as to confirm that the lift is in safe working order. The lift must not continue to be used or operated unless the use permit has been renewed by the Director.

(3) Resumption Permit System —

The Ordinance stipulates that the responsible person for the lift shall arrange examination of the lift by a registered lift engineer after the completion of a major alteration of the lift, so as to confirm that the part affected by the major alteration is in safe working order. The lift must not

² For details of the relevant standards, please refer to the Code of Practice on the Design and Construction of Lifts and Escalators and the Code of Practice for Lift Works and Escalator Works drawn up by EMSD.

continue to be used and operated unless a resumption permit has been obtained from the Director.

(4) Registration System —

The Ordinance provides for the registration of qualified persons as registered lift contractors, registered lift engineers or registered lift workers, and relevant registers to be established and maintained for public inspection.

The Ordinance stipulates that the responsible person for the lift must cause a registered lift contractor to undertake the maintenance works of the lift, and also arrange examination by a registered lift engineer. Moreover, only qualified registered persons may personally undertake lift works or directly supervise other persons to carry out lift works.

The Ordinance requires registered lift contractors to renew their registration every 5 years to ensure that they continue to meet the registration requirements. Registered lift engineers and registered lift workers are also required to renew their registration every 5 years to ensure that they meet the continuing practice and continuing learning requirements.

If a registered person commits a professional misconduct, which is a disciplinary offence, the disciplinary board under the Ordinance may order the cancellation or suspension of his/her registration after a hearing.

(5) Direct Inspection and Enforcement Action —

EMSD will conduct random / surprise inspections on a "risk-assessment basis" to check whether the lift works comply with the statutory requirements. Upon the detection of irregularities or disciplinary offences during the inspections, EMSD will take appropriate enforcement action against the relevant persons.

For details of the Ordinance, please visit the EMSD website at: http://www.emsd.gov.hk/emsd/eng/pps/leo_intrdctn.shtml According to section 2 of the Ordinance, the responsible person for a lift is defined as:

- (1) the owner of the lift; or
- (2) any other person who has the management or control of the lift,

but that does not include any person who **only** uses or operates the lift or carries out lift works in relation to the lift. The owner of the lift may, according to needs, confer on the appointed responsible person for the lift all or part of the management or control of the lift in a specific and clear manner. The owner of the lift should provide the responsible person for the lift with adequate information so that the latter can effectively perform the duties in relation to the lift.

Apart from the owner of the lift, any other person who has the management or control of the lift (i.e. who is responsible for the management or control of the lift), including the organisation and its staff, the property management company under its contract and the staff representing the property management company (such as the building management staff), shall be regarded as the responsible person for the lift. The responsible person for the lift shall perform the relevant duties of a responsible person as stipulated in the Ordinance and in accordance with the functions conferred on him/her by the owner of the lift. The responsible person for the lift may, according to needs, appoint his/her employees to perform all or part of the management duties in relation to the lift, and provide the staff concerned with clear guidelines so that the requirements of the Ordinance can be fulfilled. Please refer to Question 4 for details of the duties of a responsible person for a lift.

If the lift forms a common part of the building or structure under the Building Management Ordinance (Cap 344) and if an owners' corporation exists for the building or structure, the owners' corporation shall perform the duties of the responsible person for the lift in accordance with the Ordinance. It may appoint a suitable agent (e.g. a property management company or works consultant) to carry out on its behalf the duties of the responsible person as stipulated in the law. If a building or structure is without an owners' corporation, the owner of the lift shall be determined by the deed of mutual covenant. Regardless of whether an owners' corporation exists for the building or structure or not, the responsible person for the lift may appoint a suitable agent to perform on his/her behalf the duties of a responsible person as stipulated in the law. The responsible person should effectively oversee that the appointed agent has properly discharged his/ her duties as stipulated in the law. To sum up, the responsible person for a lift, i.e. the person who owns the lift or who has the management or control of the lift, shall perform the duties of a responsible person as stipulated in the Ordinance.

If the lift is a jointly owned or jointly managed facility (i.e. there is more than one responsible person for the lift), according to section 5 of the Ordinance, compliance with the requirement by one of the responsible persons is already regarded as compliance with the requirement by every other responsible person for the lift. According to section 15 of the Ordinance, the responsible person for the lift must engage a registered lift contractor to undertake the maintenance works of a lift and ensure that periodic maintenance is carried out in respect of the lift at intervals not exceeding one month. To comply with the above requirement, one of the responsible persons shall engage a registered lift contractor to carry out periodic maintenance for the lift. It is not required, however, that every responsible person should engage a contractor to carry out periodic maintenance. This arrangement is also applicable to other requirements that the responsible person for a lift has to fulfil.

The parties who rent or occupy the premises but are not authorised to manage or control the lift, such as tenants or premises users, are not required to undertake or fulfil the responsibilities of a responsible person for the lift. They should nevertheless observe the statutory requirements and use the lift properly. When use of the lift is prohibited, anyone who uses the lift regardless of warning is in breach of the law. Under the Ordinance and the General Regulation, the responsible person for a lift is required to:-

(1) Ensure that the lift and all its associated equipment or machinery are kept in a proper state of repair and in safe working order. (Section 12 of the Ordinance refers)

Example: To meet the above requirement, the responsible person for a lift may directly or through an agent (e.g. a property management company or works consultant) engage-

- (a) a registered lift contractor to carry out periodic maintenance for the lift in accordance with the statutory requirements so that the lift and all its associated equipment or machinery are kept in a proper state of repair and in safe working order, and to oversee that the relevant work has been completed by the contractor in accordance with the Code of Practice for Lift Works and Escalator Works and the maintenance contract. In order to monitor the work of the contractor effectively, the responsible person for the lift should ensure that details of lift works undertaken by the registered lift contractor have been entered into the log-book, and countersign the log-book to confirm that the works have been completed by the contractor.
- (b) a registered lift engineer to carry out periodic examination of the lift in accordance with the statutory requirements, so as to ensure that the lift and all its associated equipment or machinery are in safe working order.

If the registered lift engineer finds after completing the examination that the lift is not in safe working order, he/she will notify the responsible person for the lift in writing and explain the reasons for not issuing the certificate within 24 hours after the examination is completed. The registered lift engineer shall also report to the Director of Electrical and Mechanical Services the result of the examination by using the specified form. Upon knowing that the lift is damaged or is unable to comply with statutory requirements, the responsible person for the lift should arrange for a registered lift contractor to carry out rectification work at once. If the registered lift contractor is employed and managed by an agent (e.g. a property management company or works consultant) on behalf of the responsible person for the lift, the responsible person for the lift should effectively oversee that the agent has properly discharged its duties of managing the registered lift contractor. For example, the responsible person for the lift may hold regular work meetings with his/her agent (e.g. a property management company or works consultant) to review the daily operations of the lift and whether the contractor has properly carried out the lift maintenance work.

- (2) Take all reasonable steps to ensure that the lift is not used under the following circumstances. (Section 13 of the Ordinance refers)
 - (a) When works concerning the installation, major alteration, demolition of the lift or works that are likely to affect the safe operation of the lift are being carried out;

Example: To meet the above requirement, the responsible person for the lift may put in place relevant measures and designate staff to control the operation of the lift (e.g. managing the machine room door key or the key for activating/locking the lift), so as to prevent anyone from starting and using the lift during the course of the works. Meanwhile, the responsible person for the lift should effectively keep watch over the staff concerned in carrying out the assigned work.

(b) When the lift does not have a valid use permit; and

Example: To meet the above requirement, the responsible person for the lift may personally, or by a designated staff, apply for and manage the use permit in accordance with the requirements of the Ordinance, and ensure that the lift will not be used or operated when a valid use permit is not displayed.

(c) When no resumption permit has been issued for the lift after a major alteration has been carried out.

Example: To meet the above requirement, after the lift has undergone a major alteration, the responsible person for the lift may personally, or by a designated staff, apply for and manage the resumption permit in accordance with the requirements of the Ordinance, e.g. verifying the information on the resumption permit and properly maintaining the records of the resumption permit for future reference.

It is a defence for the responsible person for the lift to prove that the lift is used or operated without his/her consent or connivance, and that he/she has taken all reasonable steps to prevent the use or operation of the lift.

(3) Ensure that the service lift^[3], goods lift^[4] or mechanised vehicle parking system is not (i) used for carrying persons or (ii) overloaded. (Section 14 of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may put in place relevant measures such as designating staff to control the operation of the lift (e.g., managing the key for activating/locking the lift), so as to prevent any person from starting or illegally using the lift.



- ³ Service lift refers to a lift the rated load of which is not more than 250 kg and that has a car or cage of which the floor area is not more than 1 m² and the height is not more than 1.2 m. Service lift is commonly known as "dumbwaiter". It is usually installed in restaurants for delivering food. The Ordinance prohibits against the carriage of persons in a service lift.
- ⁴ Goods lift refers to a lift used, or intended to be used, exclusively for conveying goods or materials, or both. There are no floor selection button, car door open/close buttons, light fittings, intercom, etc. inside the car of a goods lift. Goods lift is generally installed in factories or warehouses for delivering goods only. The Ordinance prohibits against the carriage of persons in a goods lift.

(4) Ensure that works concerning the installation, major alteration^[5] and demolition of the lift, and works that are likely to affect the safe operation of the lift are undertaken by registered lift contractors. (Section 15(1) of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may personally or arrange for a designated staff to ensure that the works involved are undertaken by a registered lift contractor in accordance with the requirements of the Ordinance, and to confirm that those works have been completed by the contractor in accordance with the Code of Practice for Lift Works and Escalator Works and the maintenance contract, etc. Furthermore, the responsible person for the lift or his/her agent should oversee that the registered lift contractor has entered into the log-book details of the lift works that have been carried out and countersign the logbook, and maintain the logbook in accordance with the requirements set out in Question 8 of this Guidebook.

(5) Ensure that the lift maintenance works are undertaken by a registered lift contractor, and that periodic maintenance works^[6] are carried out for the lift at intervals not exceeding one month. (Section 15(2) of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may personally or arrange for a designated staff to ensure that the periodic maintenance works for the lift are undertaken by a registered lift contractor in accordance with the requirements of the Ordinance, and to confirm that those works have been completed by the contractor in accordance with the Code of Practice for Lift Works and Escalator Works, the maintenance contract and the practice guides, etc.

- (6) Engage a registered lift engineer to conduct the following lift works in accordance with the Ordinance -
 - (a) To examine the lift with load and to thoroughly examine all the associated equipment or machinery of the lift before the lift is put into use and operation; (Section 20 of the Ordinance refers)

⁵ Major alteration refers to any alteration work of lifts specified in Section 1 of Schedule 1 of the Lifts and Escalators Ordinance.

⁶ Periodic maintenance works refer to the inspection, cleaning, oiling and adjusting of the lift and any of its associated equipment or machinery.

- (b) To thoroughly examine the lift and all its associated equipment or machinery after major alterations and before the lift resumes normal use and operation, so as to determine whether the affected part is in safe working order; (Section 21 of the Ordinance refers)
- (c) To thoroughly examine the lift and all its associated equipment or machinery (periodic examination) at intervals not exceeding 12 months; (Section 22 of the Ordinance refers)
- (d) In order to encourage the responsible person for the lift to make early arrangements for the periodic examination of the lift as stated in (c) above, if the registered lift engineer completes the examination of the lift and all its associated equipment or machinery within the last 2 months of the validity period of its existing use permit, the new use permit will be valid until the 1st anniversary of the date of expiry of the existing permit. This provides greater flexibility for the responsible person for the lift, the contractor and the engineer in arranging a date for the periodic examination. The responsible person for the lift must ensure that a new use permit is issued before the existing one expires and have it displayed inside the lift car. The responsible person for the lift may make arrangements for a registered lift engineer to complete the periodic examination of the lift within 2 months before the expiry of the existing use permit. Upon receiving the safety certificate issued by the registered engineer, the responsible person for the lift should submit the properly completed certificate together with the prescribed fee to the Director of Electrical and Mechanical Services to apply for a new use permit for the lift. If the periodic examination of the lift is carried out on a date outside the 2-month period mentioned above, the validity period of the new use permit lasting for 1 year will count from the first day after the completion of the periodic examination; (The responsible person for the lift may refer to the diagram at Appendix 1 of this Guidebook to find out more about the above arrangement) (Part 2 of Schedule 5 of the Ordinance refers)
- (e) To thoroughly examine the lift with load and all its associated equipment or machinery (examination with load) at intervals not exceeding 5 years; (Section 23 of the Ordinance refers)

(f) in order to encourage the responsible person for the lift to make early arrangements for the examination of the lift with load as stated in (e) above, if the registered lift engineer completes the thorough examination of the lift with load and all its associated equipment or machinery within 2 months before the expiry of the last period for examination with load, the next examination period for the lift with load and all its associated equipment or machinery lasting for 5 years shall count from the date immediately after the date of expiry of the last period for examination with load. The responsible person for the lift may make early arrangements for a registered lift engineer to complete the examination with load within 2 months before the expiry of the last period for examination with load. Upon receiving the safety certificate issued by the registered engineer, the responsible person for the lift should submit the properly completed certificate together with the prescribed fee to the Director of Electrical and Mechanical Services to apply for a new use permit for the lift. If the examination of the lift with load is carried out on a date outside the 2-month period mentioned above, the validity period of the new use permit lasting for 1 year will count from the first day after the completion of the examination with load. (The responsible person for the lift may refer to the diagram at Appendix 2 of this Guidebook to find out more about the above arrangement) (Part 3 of Schedule 5 of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may personally or through an agent employ a registered lift engineer to carry out the periodic examination and the examination with load in accordance with the statutory requirements, so as to ensure that the lift and all its associated equipment or machinery are in safe working order.

(7) Ensure that a valid use permit is displayed at all times in a conspicuous position inside the lift car. For service lift, goods lift or mechanised vehicle parking system, the valid use permit should be displayed in a conspicuous position adjacent to the landing or if there is more than one landing, the main landing of the lift. (Section 39 of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may personally or through an agent (e.g., the property management company, works consultant or contractor) effect the timely replacement of the use permit in accordance with the requirements of the Ordinance. The use permit in force should be displayed at an appropriate height inside the lift car for inspection by users.

(8) Notify EMSD in writing by using the specified form (Appendix 3) and the registered lift contractor currently undertaking the lift works of any serious lift incident, including the death or injury of a person, failure of the main drive system, breakage of any suspension rope, failure of the overspeed governor, safety gear, overload device, interlocking device of the lift door or brake, within 24 hours of coming into knowledge of the incident. If no registered lift contractor is currently engaged, the registered lift contractor who most recently has undertaken any lift works in respect of the lift should be notified. (Section 40 of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may directly or through an agent (e.g. the property management company, works consultant or contractor), notify EMSD in writing by using the specified form (Appendix 3) in accordance with the requirements of the Ordinance and within the specified period of the incident. The responsible person for the lift should at the same time keep a copy of the completed specified form properly for inspection. The responsible person may specify in the maintenance contract that the registered lift contractor shall implement on his/her behalf the above requirement of the Ordinance. The responsible person for the lift exponsible person for the lift may consider working out with the lift contractor ways of communicating with each other in the event of an emergency to expedite communication.

(9) Provide without charge any assistance or information that EMSD or other law enforcement officers may reasonably require for carrying out an investigation. (Section 41 of the Ordinance refers)

Example: To meet the above requirement, the responsible person for the lift may put in place relevant guidelines requiring his/her staff to provide assistance.

 (10) Keep the record of log-book as specified in the regulations for <u>at least the recent 3 years</u>. (Section 2 of the General Regulation refers)

Example: To meet the above requirement, the responsible person for the lift may personally or through an agent (e.g. the property management company, works consultant or contractor), maintain log-books of the lift and ensure that the required information, such as the content and time of the lift works, the name of the qualified person, accident and trapping records, name and registration number of the registered lift contractor, etc., has all been entered in the log-books for inspection.

- (11) If the lift is involved in such serious incidents as stated in item (8) above and its operation cannot be resumed before the end of the 4-hour period after the registered contractor becomes aware of the incident, the registered contractor responsible for the lift must notify users by displaying in a conspicuous part of the lift a notice in the specified form (Appendix 4) containing information about the type of incident involved, including the reason for the suspension. Any person shall not obstruct the posting of the notice by the registered contractor or remove the notice before the lift resumes normal operation. (Section 69 of the General Regulation refers)
- (12) If a failure occurs in the emergency devices of the lift, i.e., alarm, intercom system, emergency lighting system and ventilation fan of the lift car, the responsible person for the lift should without delay notify the registered contractor responsible for the lift to effect repairs. If immediate repair of the emergency devices cannot be arranged, the responsible person for the lift should send staff to step up monitoring of the operation of the lift, so that speedy assistance can be provided in case any passenger is trapped. Otherwise, the responsible person for the lift should suspend the operation of the lift and await staff from the registered contractor to carry out repairs. The registered contractor shall send staff to attend to the failure of the emergency devices within 4 hours upon being notified by the responsible person for the lift. If the contractor finds that the affected emergency devices cannot be reinstated within 24 hours, it should notify EMSD in the specified form and indicate in the form the anticipated date for reinstating the devices.

Failure to comply without reasonable excuse with the above requirements by the responsible person for the lift may result in the prohibition from use or operation of the lift, and a possible fine or imprisonment for the responsible person. Please refer to the following table for the penalty:

Item	Ordinance	Penalty
(1)	Section12	Maximum fine at level 5 (\$50,000)
(2)	Section 13	Maximum fine at level 6 (\$100,000) and imprisonment for 12 months
(3)	Section 14	Maximum fine at level 6 (\$100,000) and imprisonment for 12 months
(4)	Section 15(1)	Maximum fine at level 5 (\$50,000)
(5)	Section 15(2)	Maximum fine at level 5 (\$50,000)
(6)	Sections 20,21,22 and 23	Maximum fine at level 3 (\$10,000)
(7)	Section 39	Maximum fine at level 3 (\$10,000)
(8)	Section 40	Maximum fine at level 3 (\$10,000)
(9)	Section 41	Maximum fine at level 3 (\$10,000)
	General Regulation	Penalty
(10)	Section 2	Maximum fine at level 3 (\$10,000)
(11)	Section 69	Maximum fine at level 3 (\$10,000)

Details of application fee regarding the various lift certificates (e.g. use permits and resumption permits) are set out in the Lifts and Escalators (Fees) Regulation ("the Fees Regulation"). The responsible person for the lift may refer to the Annex of the Fees Regulation for the required fees or visit EMSD website for relevant information.

According to the definition in section 2 of the Ordinance, lift works include any kind of work concerning the installation, commissioning, examination, maintenance, repair, alteration or demolition of a lift or any associated equipment or machinery of a lift. Examples include installation work, major alteration and demolition work of lifts, and routine maintenance and periodic examinations.

Associated equipment or machinery refers to any component, device, equipment or machinery of, for or connected with the lift, including any safety component and safety equipment for the lift, viz. safety gear, overspeed governor, door locking device, buffer (other than energy accumulation type buffer), ascending car overspeed protection device, unintended car movement protection means, safety circuit, driving-machine brake and overload device, etc.



According to section 8 of the Ordinance, no person other than^[7]:

- (1) a registered lift engineer^[8];
- (2) a registered lift engineer, a registered lift worker^[9] or a competent lift worker employed under a contract of employment by a registered lift contractor who undertakes the lift works; or
- (3) a worker directly supervised, at the site where the lift works are being carried out, by a qualified person mentioned in item (1) or (2) above, shall carry out lift works.

If there is a need to verify the recognized qualification of the qualified person mentioned in item (1) or (2) above, the responsible person for the lift may ask the person concerned to produce a valid registration card for inspection.

- ⁸ If the registered lift engineer is not employed by the registered lift contractor who undertakes the relevant works, the engineer and the workers under his/her direct supervision can only conduct examinations of the lift.
- ⁹ The registration is made in accordance with the prevailing demarcation of the kinds of work undertaken by trade practitioners. The classification is made up of three classes, viz. Class A, Class B and Class C, of lift workers or escalator workers who have sought registration to become qualified persons qualified to personally carry out the following works respectively: (i) (under Class A), lift works or escalator works in respect of a lift or an escalator before the first use permit for the lift or the escalator is issued, excluding any examination; and demolition works of a lift or an escalator; (ii) (under Class B) after the first use permit for a lift or an escalator; excluding any examination or demolition works of the lift or the escalator; and (iii) (under Class C) any examination of a lift or an escalator.

⁷ Including "specified persons " authorised by the Director of Electrical and Mechanical Services to carry out the lift works personally.

The responsible person for a lift should engage a registered lift contractor to carry out periodic maintenance for the lift at intervals not exceeding 1 month, arrange for a registered lift engineer to carry out periodic examination of the lift at intervals not exceeding 12 months and arrange a registered lift engineer to carry out periodic examination of the lift at intervals not exceeding 5 wears, so as to ensure that the lift and all its associated equipment or machinery are kept in a proper state of repair and in safe working order.

Meanwhile, EMSD has established an online application system through which registered lift contractors may apply for use permits for lifts. Registered lift contractors may submit use permit applications on behalf of the responsible person for the lift via the internet, and the information/data submitted will be transferred and stored by electronic means. This electronic platform is instrumental in speeding up application procedure for use permits. For details, please contact the registered lift contractor.

(1) **Periodic maintenance of lifts**

Periodic maintenance of lifts, also known as "oiling", includes such work as inspection, cleaning, oiling and adjustment.

(2) Periodic examination of lifts includes

- (a) Thorough examination of the lift and all its associated equipment or machinery without any load in the lift car, at intervals not exceeding 12 months;
- (b) Thorough examination of the lift and all its associated equipment or machinery with full rated load in the lift car, at intervals not exceeding 5 years;

- (c) Examination of the overload device of the associated equipment of the lift with a load in the lift weighing between 90% to 110% of the rated load, at intervals not exceeding 5 years; and
- (d) Examination of the brake when the lift car or platform is travelling in the downward direction at its rated speed with a load mentioned below, at intervals not exceeding 5 years-
 - (i) in the case of a lift designed and constructed in accordance with a safety standard established prior to the publication of British Standard BS5655: Part 1 and permitted to be used and operated under the law (i.e. a lift installed on or before 3 May 1969), with a load weighing 110% or more of the rated load for the lift; and
 - (ii) in the case of any other lift, with a load weighing 125% of the rated load for the lift.

The responsible person for the lift will generally engage a registered lift contractor on contract terms to provide the above periodic maintenance and examination services to ensure the safe operation of the lift. All registered lift contractors offer round-the-clock services for fault call handling and carry out emergency repair work for the lifts for which they are responsible, like rescuing trapped passengers, making emergency repairs on faulty lifts, etc. Moreover, upon receiving an incident notification from the responsible person for the lift, a registered lift contractor has to carry out an investigation and submit a detailed report to EMSD within 7 days.

(1) Requirement on keeping of log-books

According to section 2 of the General Regulation, the responsible person for a lift shall maintain a log-book for the lift for at least the recent 3 years, detailing the lift works undertaken, incidents/failures attended to and inspections conducted by the registered lift contractor, registered lift engineer and registered lift worker.

(2) Information to be entered into the log-book

A log-book of the approved format is available from the lift contractor. The log-book should contain basic information about the lift and the contractor, including the location of the lift and date of installation, lift number and its specifications, name of the installing contractor, name of the present maintenance contractor, the commencement date of maintenance and the routine maintenance time table. If the contractor (main contractor) has subcontracted some of the maintenance items to other registered lift contractors (subcontractors), it should clearly list out on the log-book the names of all the subcontractors.

(3) The following information about the lift works should also be entered into the log-book:

- Name and registration number of the qualified person who undertook the works;
- (b) Date and time of commencement and completion of the works;
- Type of works (e.g., installation, repair, inspection and routine maintenance, etc.);
- (d) Records of fault-call attendance, including the cause, date and time of the failure, and the date and time of resumption of operation;

- (e) Date, time and details of accidents that have taken place;
- (f) If passengers are trapped, the date and time when the trapped passengers are released;
- (g) Name of the authorised person of the subcontractor;
- (h) Date and time when the lift resumes operation;
- Name, signature and contact details of the responsible person for the lift or his/her agent (e.g. representative of the property management company); and
- (j) Duration of lift maintenance work (oiling) anticipated by the contractor.

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Major alterations in relation to a lift are specified in Section 2 of Schedule 1 of the Ordinance as follows:

- Addition of any automatic device to operate the door of the lift-way (lift-way door) or the door of the car (car door) of the lift;
- (2) Addition of auxiliary rope-fastening devices for the lift;
- (3) Addition of car-levelling devices for the lift;
- (4) Addition of any device to enable the lift to be operated at the top of the lift car;



- (5) Addition of any door to the lift-way, or removal or replacement of any liftway door, of the lift;
- (6) Addition of electrical contacts to the lift-way door or the car door of the lift;
- Addition of any interlocking device to the lift-way door or the car door of the lift;
- (8) Addition of one or more than one set of roller guide shoes for the lift;
- (9) Addition of one or more than one set of rope equalizers for the lift;
- (10) Addition of any safety component or safety equipment for the lift;
- (11) Addition of any switch to enable access to the lift-way of the lift;
- (12) Change in the number or size of the ropes for supporting the carrier of the lift or its counterweight;
- (13) Change in the size or type of any guide rail of the lift;
- (14) Change in the type of any interlocking device mentioned in item (7);

- (15) Change in the type of control or operation of the lift;
- (16) Modification resulting in an increase in the dead weight of the carrier of the lift;
- (17) Modification resulting in a decrease or increase in the distance that the carrier of the lift travels;
- (18) Modification resulting in an increase in the rated load of the lift;
- (19) Modification resulting in an increase in the rated speed of the lift;
- (20) Replacement, including any change in the type, of any controller of the lift;
- (21) Replacement, including any change in the type, of any driving-machine brake of the lift;
- (22) Replacement, including any change in the type, of the driving-machine of the lift; or
- (23) Replacement, including any change in the type, of any safety component (except safety circuit containing any electronic component) or safety equipment for the lift.

The responsible person for the lift shall employ a registered lift contractor to carry out the major alterations, and arrange examination of the lift by a registered lift engineer before the resumption of the normal use and operation of the lift. The responsible person for the lift may inquire with the registered lift contractor under his/her employ as to whether the works being carried out involve any major alteration.

If the major alterations mentioned above will be completed on a date close to the expiry date of the use permit of the lift (e.g. within two months before the expiry of the use permit), the responsible person for the lift may consult with the contractor and arrange a thorough examination by a registered lift engineer of the lift and all its associated equipment or machinery in advance, so that application for use permit and resumption permit for the lift can be made simultaneously. The new use permit, will be valid until the 1st anniversary of the date of expiry of the existing permit. Only registered lift contractors can carry out periodic maintenance for lifts. The responsible person for the lift may engage any registered lift contractor to carry out the maintenance works for the lift. The law does not require that lift maintenance works must be carried out by the contractor who installed the lift.

A list of registered lift contractors and their contact information are available on the following \EMSD website:

www.emsd.gov.hk/emsd/eng/pps/leo_reg_cntrctr.shtml



(11) For major alterations and replacement of major parts of lifts, what are the requirements and advice with regard to the added equipment?

Any equipment, including its components or parts, used for replacing the old one during the major alteration works should be in full compliance with the requirements of the current legislation. If the safety equipment of the lift is to be replaced, the installing contractor must first obtain prior approval from EMSD for the replacement equipment before it can be installed and used in Hong Kong.

Furthermore, although the equipment of the existing lifts is in compliance with the design and safety standards adopted at the time of installation, it is recommended that the responsible person for the lift should, in consultation with the registered lift contractor, consider installing equipment or devices that will enhance the safety of the



lift when arranging major alteration work or replacement of major lift parts. The equipment or devices may include redundant brake system, car door mechanical lock and door safety edge, unintended car movement protection means, ascending car overspeed protection means, intercom, CCTV system and other related emergency alarm devices, as well as ventilation system, lightings, socket outlets and stopping devices in the machine room, etc.

The above lift works shall be undertaken by a registered lift contractor. For lift owners to have a better understanding of the benefits of lift modernisation works as well as the recommended enhancement solutions available, EMSD has published a "Guidelines for Modernising Existing Lifts" for reference by lift owners. Details of the Guidelines are available at the following EMSD website: http://www.emsd.gov.hk/emsd/e_download/pps/le/Modernising_Lifts.pdf



Here are some safety tips on the use of lifts:

- (1) Do not overload the lift;
- (2) Do not interfere with the lift door and the lift equipment;
- (3) Do not play or jump inside the lift car;
- (4) Stay clear of the lift door, especially when it is opening or closing;
- (5) Do not use the lift in case of fire;
- (6) Children must be accompanied by adults when using the lift; and
- (7) When trapped inside a lift, keep calm and seek help by using the alarm bell and intercom. Wait for rescue and do not try to open the lift door by yourself.

Authorisation for entrance must first be obtained from the responsible person for the lift or his/her representative (including the owners' corporation or the property management company of the building) before anyone is allowed into the lift machine room. Under section 9A of the Building (Construction) Regulations (Cap 123B), where doors or other forms of access are provided for the purpose of inspection, maintenance or repair of a lift installed in a building, or the rescue of people from a lift installed in a building, the owner of the building shall post notices that comply with specific requirements warning people of the danger of entering the area to which access is provided or otherwise interfering with the operation of the lift.

Relevant persons may, after obtaining authorisation and notice from the responsible person for the lift or his/her representative, enter the machine room at any reasonable time for the purpose of inspecting, repairing or maintaining the lift or carrying out other non-lift works (e.g., ceiling repairs and building services maintenance in the machine room, etc.). To avoid accidents, persons other than those responsible for conducting the lift works/ building works/ building services installation works should refrain from entering the machine room.

If non-lift works which may obstruct the operation of the lift has to be conducted inside the lift machine room, the registered lift contractor responsible for the lift maintenance work must be notified beforehand, so that appropriate advice and assistance may be provided accordingly. In accordance with the Code of Practice on the Design and Construction of Lifts and Escalators, only the machines and equipment necessary for the operation of the lift, energy-efficient equipment of the lift, equipment for air-conditioning or ventilation of the machine room as well as the fire services installations and equipment specified by the Fire Services Department can be accommodated in the machine room.

Fire sprinkler systems should not be fitted in machine rooms under normal circumstances.

Machine rooms should never be used for storing sundries or for residential purpose.





For security or other reasons, in some buildings, gates are installed in front of landing doors on certain floors or the call buttons inside the lift car for certain floors are deactivated to prevent people from entering those floors. The responsible person for the lift shall comply with the following requirements:

(1) The fireman's lift must be able to reach the floors it is designed to serve under the fireman's lift operating mode. It is stipulated in the Code of Practice on the Design and Construction of Lifts and Escalators that gates are not allowed to be installed in front of the landing doors of a fireman's lift.



- (2) If gates are installed in front of the landing doors, their operation shall be interlocked with the lift control in such a way that whenever any of these gates starts closing or is closed, the dispatch signals to send the lifts to the corresponding floor shall be cancelled and the corresponding call button inside the lift car rendered inoperative. However, the call button at the landing door of the corresponding floor shall remain operative.
- (3) If gates are installed in front of landing doors, the call button at the landing door of the corresponding floor must be appropriately located so that the call button is ren dered accessible to a person standing between the gate and the lift landing door.





Lift models under the regulation of the Ordinance and lawfully used in Hong Kong are classified according to their modes of drive as follows:

Modes of drive:

- (1) Electric lift (positive drive/traction drive);
- (2) Hydraulic lift (direct acting /indirect acting).

Traction lifts are now used in most buildings. The basic structure of a typical traction lift is shown in the diagram below:



Note:

The basic structure of a typical lift.

The responsible person for the lift should take note of the following in the daily management of the lift:

- Suitable building management staff should be employed to manage the daily operation, repair and examination of the lift;
- (2) When regular maintenance, inspections or other lift works are carried out, the building management office should notify residents of the suspension of lift services for smooth conduction of work;



- (3) The door of the lift machine room should be kept locked;
- Do not put sundries inside the machine room or at the access to the machine room;
- (5) Fire fighting equipment for electrical fire (such as carbon dioxide type fire extinguishers) should be made available in the machine room;
- (6) Use of the emergency trap door of the lift car for purposes other than maintenance and rescue is strictly prohibited;
- (7) The lift car should be kept clean and hygienic. Use dry cleaning utensils and non-erosive detergents for daily cleaning purpose. The lift car must be kept dry;
- (8) When moving heavy objects that may overload the lift, contact the registered lift contractor for advice so as to avoid accidents;
- (9) Remind passengers to use the lift properly to avoid lift failure, damage or wear and tear caused by improper use;

- (10) No sundries should be placed inside the lift machine room, which should be kept clean and hygienic;
- (11) The louver and window guard of the lift machine room should be kept in good condition;
- (12) Ensure that there is adequate lighting in the lift machine room;



- (13) The lift machine room should be well ventilated and the temperature inside be kept below 40°C to avoid affecting the effective operation of the lift;
- (14) Damage to the building, such as water leakage or concrete spalling affecting the operation of the lift should be repaired immediately. The lift operation should be temporarily suspended if considered necessary, ;
- (15) Avoid any water splashing or flowing into the lift well. The lift well should be kept dry at all times;
- (16) The lift car and door sill should be kept clean at all times;
- (17) Maintain an operation and maintenance manual (O&M manual) for the lift for reference when needed;
- (18) Display the name and emergency contact telephone number of the registered lift contractor in a conspicuous position at the lift lobby. If the contractor (the principal contractor) subcontracts the day to day maintenance items or emergency repair service to another registered lift contractor (the subcontractor), the name and emergency contact telephone number of the subcontractor should also be displayed simultaneously in a conspicuous position at the lift lobby;
- (19) To identify through periodic maintenance areas of improvement for the lift. Consider carrying out relevant improvement works to enhance the safety, reliability and comfort of the lift.

(18) What are the duties of a responsible person for the lift in relation to the daily operation of the lift?

Upon observing any abnormality of the lift, the responsible person for the lift or his/her agent (such as the building management staff) should promptly and without delay notify the registered lift contractor for repair and improvement work to ensure the safety of passengers.



The responsible person for the lift or his/her agent (such as the building management staff) should

inspect the lift frequently, and pay attention to the following during the inspection or in case of a complaint,;

- (1) Is the lift door opening and closing smoothly? Are there any abnormal noises?
- (2) Is the safety edge of the lift car door functioning properly?
- (3) Does the lift start, stop and operate properly?
- (4) Are the emergency devices for use by passengers (intercom, alarm bell, lift car ventilation fan, emergency light and CCTV, etc.) functioning effectively?
- (5) When the lift stops at a floor, is there a big difference in the level between the lift car floor and the landing floor which may cause passengers to stumble?
- (6) Are the buttons functioning properly and effectively?
- (7) Are the lights, floor indicator inside the lift car and the electrical installations such as the floor indicator, etc. on each landing operating normally?

(19) How should the responsible person for the lift collaborate with the registered lift contractor to ensure the proper operation of the lift?

The responsible person for the lift or his/her agent (e.g. the building management staff) should work collaboratively with the registered lift contractor to ensure that the lift is in compliance with the requirements of the Ordinance. The responsible person for the lift should:

- Notify the registered lift contractor immediately for inspection and repair upon learning of any abnormal operation or damage to the lift;
- (2) Monitor the registered lift contractor to ensure that effective precautionary measures have been taken when lift works are conducted, so as to prevent other people from entering the work area and thus causing danger;
- (3) Ensure that the lift works concerning installation, major alteration or demolition of the lift, or that are likely to affect the safe operation of the lift are carried out by registered lift contractor;
- (4) Supervise the registered lift contractor, registered lift engineer or registered lift worker to ensure that details of lift works have been entered into the log-book, and countersign the log-book to confirm that the works have been completed;
- (5) Arrange periodic maintenance of the lift, including inspection, cleaning, oiling and adjustment by a registered lift contractor at least once a month;
- (6) Arrange thorough examinations of the lift and all its associated equipment or machinery by a registered lift engineer at intervals not exceeding one year, and apply for a valid use permit for the lift;

- Arrange thorough examination of the lift with load and all its associated equipment or machinery by a registered lift engineer at intervals not exceeding 5 years;
- Update the logbook and maintain <u>the relevant records for at least the</u> recent 3 years for inspection by EMSD;
- (9) Provide a good working environment and relevant equipment for the registered lift contractor to carry out maintenance work properly in order to ensure the safe operation of the lift;
- (10) Coordinate with the registered contractor and registered engineer with regard to the arranged schedule for periodic examinations;
- (11) Notify EMSD in writing by using the specified form (Appendix 3) and the registered contractor responsible for the lift of any lift incident within 24 hours of coming into knowledge of the incident. The responsible person may specify in the maintenance contract to assign the registered lift contractor to fulfil the above requirement according to the Ordinance. The reponsible person for the lift may consider working out with the registered lift contractor ways of communicating with each other in the event of an emergency to expedite communication; and
- (12) Keep the machine room, lift well and lift pit clean and hygienic.

Passengers should not panic if they are trapped inside the lift. They should keep calm and press the alarm button to seek help, or use the intercom in the lift car to communicate with the building management staff and the lift technicians. They should follow the instructions and wait in the lift car for rescue. When passengers are trapped due to a power failure, appropriate power supply is still available to the alarm bell and the emergency lights. The trapped passengers can also shout to draw attention.

As the lift may resume operation suddenly, trapped passengers must not try to force open the lift car door or to climb out of the lift through the emergency trap door lest serious accidents may occur.

The safety design, emergency equipment and ventilation equipment of the lift can ensure the safety of trapped passengers. As long as they follow the instructions, keep calm and maintain outside communication, it is safer for trapped passengers to stay in the lift car for rescue.

Do not use the lift when there is an emergency like a fire or flooding. As the power supply to the lift may be cut off during emergencies, tenants/occupants of a building should not use the lift to escape lest they may be trapped and face even greater danger. It is safer to use the staircase instead. The means of escape or



the staircase of the building should therefore be kept clear and unobstructed at all times.

Passengers should keep away from the electrical equipment or buttons in a lift if they are found to be wet with water to avoid electric shock. If there is water dripping inside the lift car, promptly notify the responsible person for the lift or registered lift contractor for follow-up. If passengers are trapped, the responsible person for the lift should promptly and without delay notify the fault call centre of the registered lift contractor for the contractor to send staff to rescue the trapped passengers and examine the lift immediately. The responsible person for the lift should never try to open the landing door by himself/herself in an attempt to rescue the passengers, lest more serious accidents may occur when the lift suddenly resumes operation. The responsible person for the lift should also explain to the trapped passengers that it is safe to stay in the lift car for rescue so as to calm them down. Please refer to Question 20 for advice on actions that should be taken when passengers are trapped inside the lift.

When notifying the fault call centre of the registered lift contractor that there are passengers trapped inside the lift, the responsible person for the lift should provide in detail the following information:

- (1) Name and address of the building;
- (2) Lift number of the lift concerned;
- (3) Condition of the lift (e.g., whether the lift car door is partly open, or the lift door is open but the lift car is not level with the floor landing, etc.);



- (4) Floor on which the lift stops;
- (5) Name and telephone number of the contact person; and
- (6) Condition of the trapped passengers.

The responsible person for the lift and the trapped passengers should cooperate with the technicians of the contractor so as to facilitate a prompt and safe rescue. In case of more serious circumstances (e.g., passengers feeling ill or having sustained an injury, or a fire has broken out), the responsible person for the lift should dial 999 to seek help from the Fire Services Department.



The responsible person for the lift should check if there is any person trapped inside the lift. If there are trapped passengers, apart from calling the police, the registered lift contractor should also be notified to send staff to help rescue the passengers. The responsible person for the lift should also tell the firemen at the scene that there are people trapped inside the lift.

The registered lift contractor should be contacted after the fire to arrange for a detailed examination of the lift and effect any necessary repair work.





There are generally two main types of maintenance services for lifts at present:

(1) Standard maintenance

The registered lift contractor provides the responsible person for the lift with the most basic periodic maintenance services as required by the Ordinance, or more comprehensive services in addition to the basic requirements. The contractor is totally or partially responsible, as determined by the terms of contract, for replacing the damaged parts.

(2) Comprehensive maintenance

This is a more comprehensive form of maintenance. The registered lift contractor will replace or repair any parts that require replacement due to wear and tear and failure, hence saving the time for quotations or bargaining. (The terms of the maintenance contract, agreed upon by the registered lift contractor and the responsible person for the lift, usually do not cover the lift components that passengers have access to, e.g. the side panel and the lift car door, and the equipment not installed by the registered lift contractor, e.g., the main switch in the machine room.)

The responsible person for the lift may consider requesting the registered lift contractor to provide in the tender document separate price lists for expensive spare parts and replacement fittings (e.g., suspension ropes) as (i) replacement or maintenance items covered by the maintenance contract; or (ii) replacement or maintenance items not covered and are subject to additional charges.

Sample tender document – a sample tender document and specifications for lift maintenance service, and guidelines on how to prepare maintenance services contract can be downloaded from the following EMSD website for reference. http://www.emsd.gov.hk/emsd/eng/pps/leo_pub_plem.shtml It would be appropriate for the responsible person for the lift to select through tender a suitable registered lift contractor for the lift maintenance services. Alternatively, the responsible person for the lift may ask for quotations from

different registered lift contractors for comparison. The following should be noted in selecting a contractor:

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(1) Background of the registered lift contractor

In determining whether a contractor has the capability to provide reliable services, the



responsible person for the lift should consider the business scale of the contractor (e.g. number of employees, number of registered lift engineers, registered lift workers and competent lift workers, number of lifts presently maintained by the contractor and its registered capital and financial status), its credibility and reputation in the trade, its performance and experience, whether it has in place a quality management system (e.g. ISO9001 certification), and its administrative arrangement in respect of safety (e.g. whether registered safety officers have been employed).

(2) Sufficient technical knowhow

In view of the constant changes in lift technology, not all registered lift contractors may have sufficient technical knowhow to provide proper maintenance services for lifts of various brands and models. The responsible person for the lift should thus need to know how many employees of the registered lift contractor have received maintenance training or already have the maintenance and repair experience relevant to the particular brand and model of lift, and whether the lift contractor provides continuous and appropriate training to its employees, so as to determine if the lift contractor has sufficient technical knowhow and capability to provide the maintenance services required. Moreover, the responsible person for the lift should also need to know whether the lift contractor has sufficient technical information (including wiring diagram, operation and maintenance manual) on the particular brand and model of lift, and whether the lift manufacturer will provide the contractor with technical support.

(3) Spare parts

It is inevitable that faulty machinery parts have to be replaced in the course of maintenance. Thus, it is necessary to ascertain whether the contractor has sufficient spare parts for use. The responsible person for the lift should enquire whether the lift contractor has the spare parts of the particular brand



and model of lift, and whether the number of such spare parts is sufficient for use by the lifts maintained by the contractor. The responsible person for the lift may ask to visit the lift contractor to confirm the number of these spare parts. He/she should also ask the lift contractor whether there are ways to obtain or purchase the spare parts, whether there are any previous records or supporting documents, whether parts are obtainable from the lift manufacturer and whether there is proof for this from the lift manufacturer, and how much time is required for delivery of the parts. In case substitutes have to be used, whether the lift contractor can ensure their quality and compatibility with other machinery parts.

(4) Anticipated duration of maintenance works

Whether the periodic maintenance is to be conducted on a weekly, biweekly or monthly basis? The registered lift contractor is required to advise the responsible person for the lift the time needed for performing periodic maintenance for each lift installation. Furthermore, the registered lift contractor should also affix a maintenance schedule, or "oiling schedule", on the log-book for inspection.

(5) Performance rating scheme

In choosing a suitable registered lift contractor for maintaining and repairing the lifts of the building, the responsible person for the lift or his/ her property management company may refer to the Registered Lift Contractors' Performance Rating Scheme established by EMSD and check the points and ratings of all registered lift contractors. Such information is available for download at the EMSD website.

(6) Capability of dealing with emergencies

Breakdown of a lift or power failure of the building may lead to the trapping of lift passengers. The responsible person for the lift may set a time limit within which the registered lift contractor must send staff to rescue the trapped passengers. The responsible person for the lift should also consider the geographical distribution of the lift contractor's service centres, such as the distance from the nearest service centre to the building, and the number of emergency support staff during and outside office hours. In addition, the responsible person for the lift should know about the arrangements of the lift contractor in dealing with emergencies in case of a typhoon. The responsible person for the lift should have a clear understanding of these issues.

The following should be noted when signing a maintenance contract:

- Duration of the contract, i.e. whether it is a one-year, two-year or five-year contract, or a contract without time limit.
- (2) The notification period for termination of contract, e.g. 90 days in advance.



- (3) Are the maintenance fees paid monthly or quarterly? Is advance payment required?
- (4) Are the maintenance fees reasonable? The responsible person for the lift should consider whether the maintenance fees are commensurate with the services provided under the maintenance contract. If in doubt, the responsible person for the lift may ask the registered lift contractor to provide for reference relevant information regarding the calculation of the maintenance fees, e.g. the charges for each service item covered by the maintenance contract.
- (5) Are the maintenance fees adjusted annually? How is the rate of adjustment determined?
- (6) What action will the registered lift contractor take for default on maintenance payment? How long does it take for a default on maintenance payment to trigger a suspension of services? Is interest charged on the outstanding fees?
- (7) Is the maintenance work (oiling) carried out weekly, bi-weekly or monthly? The Ordinance requires that the responsible person for the lift should arrange periodic maintenance of the lift by a registered lift contractor at intervals not exceeding one month.

- (8) Whether the registered lift contractor has provided a schedule of maintenance to specify the work to be carried out during periodic maintenance.
- (9) The spare parts to be covered, scope of service, limitations (e.g. the contractor is not responsible for any damage caused to the spare parts due to users' negligence), and the costs for replacement or repair of equipment (e.g. whether additional charges will be imposed for replacement of suspension ropes).
- (10) The Ordinance requires that a lift should be thoroughly examined by a registered lift engineer at intervals not exceeding one year (i.e. annual check). Does the contract state that the contractor will provide such a service? Is additional payment required? To avoid committing an offence under the Ordinance, the responsible person for the lift may make an agreement with the registered lift contractor as part of the maintenance contract that the registered lift contractor will be responsible for applying for the lift use permit, paying the relevant fees and posting the valid use permit, etc.
- (11) Does the contract include a pledge by the contractor that in the event of passengers being trapped or a lift failure, the contractor will send staff to help within a specified time limit? What is the consequence if the contractor fails to achieve the target response time?
- (12) Is the contractor responsible for cleaning the lift car, machine room and lift pit as well as attending to the flooding problem in the lift pit?
- (13) What is the arrangement for other works relating to the building installations and the lifts, such as the repair works for the lighting and ventilation systems of the lift well?



- (14) Who is responsible for the maintenance of the decorations of the lift car, lift door and landing doors? What are the relevant arrangements?
- (15) Who is responsible for the maintenance of the closed circuit television and intercom of the lift? If it is the responsibility of the lift contractor, is additional payment required?
- (16) Has the lift contractor taken out sufficient and comprehensive insurance against any casualties or property losses arising from accidents or incidents relating to the maintenance of the lift?
- (17) Consideration may be given to stipulating in the contract that a certain amount of the maintenance fees will be retained as deposit and that deposit will be returned in full to the lift contractor upon contract expiry, subject to all contract requirements being met by the contractor.
- (18) Penalty clauses may be added to the maintenance contract as appropriate. For example, penalty will be imposed where the incidence of lift failure/ service disruption time for each lift exceeds the permitted levels in a month.
- (19) If the registered lift contractor (main contractor) wants to subcontract some of the maintenance items to other registered lift contractors (subcontractors), it must first obtain the prior approval of the responsible person for the lift and inform EMSD by using the specified form before the subcontracting arrangements become effective.

Factors like maintenance quality, utilisation rate, usage and operational environment will affect the condition of lift equipment. Generally speaking, for a lift that has been in use for more than 20 years, some of its major accessories may get worn out due to prolonged use, resulting in declining efficacy. Major overhaul or renovation is therefore needed. It should however be emphasised that existing lifts, if properly maintained and periodically examined, are safe.

The benefits of renovating an aged lift are as follows:

(1) Enhancing the safety of the lift

Despite meeting the statutory requirements at the time of installation, an aged lift may not measure up to the latest technological standards. Upgrading the safety equipment of an aged lift can enhance lift safety and protect the passengers better.



(2) Enhancing the reliability and availability of lift services

Due to prolonged use, most of the machinery of an aged lift may have worn out or are nearing the end of their life expectancy. The parts will soon become faulty, leading to lift failure. Lifts which are not properly maintained are even worse. In some cases, since the spare parts are already out of production, it is difficult to replace them and the downtime is thus lengthened. Through the renovation works, ageing equipment is replaced, thereby reducing the possibility of lift failure and passengers being trapped, and at the same time enhancing the reliability of service. As it is easier to obtain new spare parts for replacement after the renovation, repair time can also be shortened, increasing the availability of lift services. (3) Improving the appearance of the lift

Anything that is used for a long time will, due to wear and tear, look old and less attractive. Lifts are no exception. To improve the living environment, owners of many old buildings will carry out renovation works to their buildings, such as refurbishing the lobby and the external



walls. As part of the building services, lifts are used by residents every day. To give a new look to your building, don't forget to refurbish the lifts.

(4) More comfortable ride

With the advance of technology, the starting and stopping of lifts can be very smooth, while the vertical and horizontal vibrations are greatly reduced for passengers to travel in greater comfort. However, due to technical constraints, passengers travelling in some aged lifts may feel a jerk when the lift accelerates and decelerates. With rising expectations towards the quality of life, many people may find this unacceptable. Renovating the aged lifts can satisfy user demand for a more comfortable ride.

(5) Saving Energy

Energy efficiency is an important consideration in the development of lift technology. For example, lifts controlled by variable voltage and variable frequency remain highly efficient at different speeds, eliminating wastage of energy. The lift is an electrical equipment for everyday operation. Improving its efficiency means



reducing its overall electricity consumption, hence achieving savings in the recurrent energy expenses of the whole building.

(6) Improving the performance of the lift

The responsible person of the lift can make changes to the specifications of the lift or enhance its control modes (subject to environmental constraints, e.g., the maximum size of the lift car is limited by the size of the lift

well) as part of the lift renovation work. This can improve the operational performance (e.g., speed or load capacity) of the lift.

(7) Prolonging the life of the lift

Like other machines, the machinery parts of a lift in use for a long period of time will fail more frequently as they are nearing the end of their life span. Operation of the entire lift will be affected if part of the machinery is malfunctioning due to prolonged

use. Given that other machinery parts are still in good condition, the lift will remain suitable for continued service after the replacement of aged or worn out parts.

(8) Saving money

The machinery parts of an aged lift will need to be replaced with the passage of time if no renovations are undertaken, incurring material and labour costs every time the need for replacement arises. Renovation can enable these ageing machinery parts to be replaced in

one go, thereby saving the preparation work and the labour costs required every time a machinery part is replaced. Moreover, if the renovation involves the replacement of the old driving system with a new one, there will be a reduction of electricity consumption as mentioned in the preceding paragraphs. With a lower operating cost, renovation of aged lifts can lead to more savings in the long run.







[Integrated Building Maintenance Assistance Scheme:

The Urban Renewal Authority (URA) and the Hong Kong Housing Society (HKHS) have launched the Integrated Building Maintenance Assistance Scheme (IBMAS) on 1 April 2011. With one-stop service, the scheme aims to encourage owners and owners' corporations of domestic properties and composite buildings to rehabilitate their buildings. Lift owners can obtain financial assistance in carrying out repair, maintenance and replacement works, etc., for their lifts through the scheme. For further information and enquiries, please call the IBMAS hotline at 3188 1188 or browse the following website: <u>http://www.hkhs.com/eng/wnew/pdf/pr 20110331.pdf</u>]

For lift owners to have a better understanding of the benefits of lift modernisation works as well as the recommended enhancement solutions available, EMSD has published a "Guidelines for Modernising Existing Lifts" for reference by lift owners. Details of the Guidelines are available at the following EMSD website: <u>http://www.emsd.gov.hk/emsd/e_download/pps/le/Modernising_Lifts.pdf</u>

(28) What should the responsible person for a lift be mindful of when changing registered lift contractor?

The Ordinance does not require that the responsible person for a lift must engage the registered lift contractor who installs the lift to carry out maintenance work for the lift. They may engage any suitable registered lift contractor to maintain the lift. When selecting a contractor, however, the responsible person for the lift may refer to the suggestions in Question 26 of this Guidebook. Without violating the terms of the lift maintenance contract with the registered lift contractor, the responsible person for the lift may switch to another registered lift contractor for the maintenance of the lift.

In accordance with section 44 of the Building Management Ordinance (Cap. 344), when procuring supplies, materials or services, etc., the owners' corporation must observe the standards and guidelines prescribed in the code of practice published for the purpose of procurement. Relevant details can be found in



Appendix (2) of the Code of Practice on Building Management and Maintenance prepared by the Home Affairs Bureau and the Home Affairs Department, or on the webpage on building management of the Home Affairs Department at: <u>http://www.buildingmgt.gov.hk</u>

Apart from comparing maintenance fees, the responsible person for a lift should take note of the following when changing registered lift contractor:

- (1) Does the registered lift contractor intending to take over the maintenance work have adequate skills, manpower and technical knowhow (please see Question 26) to maintain the lift, especially lifts of a new model? As the operation of such lifts is controlled by microprocessors and computer programmes, a higher level of expertise is required to maintain their proper and safe operation. If the registered lift contractor taking over the maintenance is unable to obtain parts from the original manufacturers, EMSD considers that the use of parts from non-original manufacturers is acceptable subject to the condition that both the function and compatibility of the non-original parts are on par with the parts from original manufacturers. For safety components of lifts, approval must first be sought from EMSD before their installation and use. The responsible person for the lift may require the contractor to ensure that the function and compatibility of the non-original parts are on par with the parts from original manufacturers.
- (2) What are the differences between the services provided by the registered lift contractor intending to take over the maintenance work and those provided by the existing registered lift contractor? Whether the maintenance fees, coverage and service standards are reasonable.
- (3) What is the difference between the terms of the maintenance contracts? Does the responsible person for the lift have to take a greater responsibility and a higher risk?

(4) When there is a change of registered lift contractor, the new registered lift contractor taking over the maintenance shall within 14 days after the maintenance contract becomes effective submit an examination report of the lift to EMSD. EMSD will assign inspectors



to carry out random inspection to ensure that the quality of services is maintained. During the course of transfer, the existing registered lift contractor is required to provide the necessary technical information of the lift's equipment and components (such as the operation and maintenance guidelines/instructions) to the incoming registered lift contractor. To minimise disputes, the responsible person for the lift should discuss with both parties, in order to lay down a clear demarcation of responsibility in handling the outstanding maintenance work left by the existing registered lift contractor.

(5) According to EMSD guidelines, a registered lift contractor taking over the maintenance work of a lift should conduct a thorough examination of the lift to ensure its proper operation. Any irregularities detected shall be rectified immediately to ensure safety. The responsible person for the lift has the responsibility to cooperate with the contractor so that rectification work can be completed as early as possible. If for any reasons the registered lift contractor is unable to rectify the irregularities, thus affecting the safe operation of the lift, it must report to EMSD immediately. The contractor should also cease the operation of the lift and inform the responsible person immediately, and to post warning notice in a conspicuous position adjacent to the main lobby of the lift.

(6) The registered lift contractor whose maintenance contract is terminated is not allowed to hinder access to the control system of the lift by removing or adding any devices or circuits, setting password, modifying the programme, etc, which will affect the normal operation of the lift. The responsible person for the lift should report any such malpractice to EMSD.

(29) Under what circumstances should the responsible person for the lift contact EMSD?

In accordance with section 40 of the Ordinance, the responsible person for the lift has the responsibility to notify EMSD in writing by using the specified form (Appendix 3) and the registered lift contractor currently undertaking any lift works in respect of the lift within 24 hours upon coming into knowledge of any of the following incidents:

- (1) the death of, or injury to, any person involving any part of the lift;
- (2) failure of the main drive system;
- (3) breakage of any suspension rope;
- (4) failure of a brake, overload device or safety equipment; or
- (5) failure of the lift door interlocking devices.

The registered lift contractor is able to offer assistance on this matter. Under mutual agreement, the contractor may report such incidents to EMSD on behalf of the responsible person for the lift, so as to satisfy the requirements of section 40 of the Ordinance.

Moreover, if the responsible person for the lift (e.g. the lift owner, the property management company or works consultant) is of the view that the registered lift contractor responsible for the maintenance work is not discharging its duties properly (e.g. failing to carry out proper periodic maintenance and periodic examination of the lift and its associated equipment or machinery), thus affecting the safe operation of the lift, he/she should cease the operation of the lift and contact EMSD as soon as possible.

In case of a lift failure or if there is any dissatisfaction with the operation of the lift (which is not related to safety), a good and quick way to deal with the problem is to notify the registered lift contractor to send staff to undertake repair or followup actions.

If the responsible person for the lift is doubtful of the suggestion or judgment of the registered lift contractor employed (e.g. when the contractor considers that the lift is not in safe working order and must cease operation), They may commission an independent consultancy company or another registered lift contractor to provide independent professional advice so as to come to an appropriate decision.



You may contact EMSD by phone (1823 call centre or 2333 3762) or by e-mail (info@emsd.gov.hk).

More relevant information is available on EMSD home page at <u>www.emsd.gov.hk</u>.







Appendix 1

Flexible arrangement for periodic examination of lifts (Example)





Appendix 2

Flexible arrangement for examination of lifts with load (Example)





Appendix 3

Form LE27 - Notification of incident involving a lift or an escalator

Guidebook for Responsible Persons for Lifts 65

Name :

Telephone:

FORM LE27

THE LIFTS AND ESCALATORS ORDINANCE (CHAPTER 618) Pax:

Date: Notification of Incident Involving a Lift or an Escalator

Pursuant to section 40 and section 70 of the Lifts and Escalators Ordinance, Cap. 618, the responsible person for a lift or an escalator must within 24 hours after an incident comes to his or ber knowledge, motify in writing by completing the following to -Note .

(1) The Director of Electrical and Mechanical Services

(by fax: 2504 5970 or by e-mail: lead@emad.gov.hk)

(2) Registered Lift / Escalator Contractor (responsible for maintaining the lift / escalator) Name:

Fax No.:

Brief Description of Incident (tick "V" where appropriate)				
Date of Inc	ident: Time of Incident:			
Location of Incident:				
Lift / Escalator No.: Lift / Escalator Loc				
□ Lift	Failure of main drive system (failure of main power system excluded)			
	Breakage of suspension rope			
	Failure of brake, overload device, or safety equipment			
	 Pailure of interlocking device for any door of the lift-way (failure of the making of electrical contact of safety contacts excluded) 			
	 Pailure of interlocking device for any door of the carrier (failure of the making of electrical contact of safety contacts excluded) 			
Escalator	 Failure of main drive system (failure of main power system excluded) 			
	Failure of brake, step chain, drive chain, or safety equipment			
Lift Escalator	C Others, please specify:			
Details of	Casualty			
No. of Person(s) involved in the Incident: No. of Deaths:				
No. of Person(s) requiring No. of Injuries:				
Nospitalization:				
Responsible	Person for the Lift / Escalator or his Agent			



Appendix 4

Form LE30 - Notice of suspension of service following lift / escalator incidents



Notes	

Contact List

Name	Company	Tel. No.	Fax No.
\ <u> </u>			
1			

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General Legislation 😰 EMSD

Electrical and Mechanical Services Department

3 Kai Shing Street, Kowloon, Hong Kong Tel: (852) 1823 Fax: (852) 2504 5970 Website: www.emsd.gov.hk Email: info@emsd.gov.hk