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# BUILDING MAINTENANCE AND STRATA MANAGEMENT ACT (CHAPTER 30C)

# BUILDING MAINTENANCE AND STRATA MANAGEMENT (LIFT, ESCALATOR AND BUILDING MAINTENANCE) REGULATIONS 2016

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In exercise of the powers conferred by section 136 of the Building Maintenance and Strata Management Act, the Minister for National Development makes the following Regulations:

# PART 1

# PRELIMINARY

# Citation and commencement

**1.**—(1) These Regulations are the Building Maintenance and Strata Management (Lift, Escalator and Building Maintenance) Regulations 2016 and, except for Part 4, and Part 2 of the Schedule, come into operation on 25 July 2016.

(2) Part 4, and Part 2 of the Schedule, come into operation on 1 November 2016.

### Definitions

**2.**—(1) In these Regulations, unless the context otherwise requires —

- "ASME 18.1-2014" means the 2014 edition of the ASME A18.1 on Safety Standard for Platform Lifts and Stairway Chairlifts published by the American Society of Mechanical Engineers;
- "authorised examiner" means a person approved by the Commissioner for Workplace Safety and Health under section 33 of the Workplace Safety and Health Act (Cap. 354A) for the purpose of carrying out any prescribed examination or test of any hoist or lift;
- "certificate of statutory completion" means a certificate of statutory completion issued under the Building Control Act (Cap. 29), and includes a certificate of fitness for occupation issued under the repealed Building Control Act (Cap. 29, 1985 Ed.);
- "EN 81-41:2010" means the British Standard BS EN 81-41:2010 on Safety rules for the construction and installation of lifts — Special lifts for the transport of persons and goods — Part 41: Vertical lifting platforms intended for use by persons with impaired mobility, published by the British Standards Institution on 31 January 2011;
- "escalator" means a power-driven stairway with continuously moving steps and handrails, which is for carrying people

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between different floors of a building, and includes a passenger conveyor;

- "escalator service contractor" (also known as an escalator contractor) means a contractor who is registered with the Building and Construction Authority to carry out installation, major alteration, replacement works and maintenance of escalators, and is of at least L2 or such other financial grade as the Commissioner may determine;
- "home lift" means a lift, not being common property, installed in a private home solely for the use of its occupants;
- "ISO 4344:2004" means the 2004 edition of ISO 4344 published by the International Standards Organisation on 1 February 2004;
- "Japan Elevator Association Standards: 2014" means the technical standards for lifts issued by the Japanese Elevator Association in 2014;
- "lift" means any power-driven permanent equipment installed in or attached to a building or structure
  - (a) by which people or goods are raised or lowered within a car or cage, or on a platform, in a substantially vertical direction; and
  - (b) the movement of which is restricted by a guide or guides,

and includes the supporting structure, machinery, equipment, gear and enclosures used in connection with the lift;

- "lift service contractor" (also known as a lift contractor) means a contractor who is registered with the Building and Construction Authority to carry out installation, major alteration, replacement works and maintenance of lifts, and is of at least L2 or such other financial grade as the Commissioner may determine;
- "operate", in relation to a lift or escalator, includes allowing or authorising the operation of the lift or escalator;

"owner", in relation to a lift or escalator, means -----

- (*a*) except as otherwise provided by paragraph (*b*), the owner, lessee or occupier of the building or structure in, or in connection with, which the lift or escalator is used; or
- (*b*) where the lift or escalator is part of any common property or limited common property
  - (i) in the case of common property of any housing estate of the Housing and Development Board — the Town Council established under the Town Councils Act (Cap. 329A) for that housing estate;
  - (ii) in the case of common property or limited common property not comprised in a strata title plan — the person receiving any rent or charge for the maintenance of that common property or limited common property, and includes every person whose name is entered in the Valuation List prepared under section 10 of the Property Tax Act (Cap. 254) as owner of that common property or limited common property; or
  - (iii) in the case of common property or limited common property comprised in a strata title plan — the management corporation or subsidiary management corporation, as the case may be, having control of the common property or limited common property,

but does not include a supplier of a lift or escalator, or an agent of such supplier, who, by reason only of a contract for the sale or installation of the lift or escalator, retains the ownership of the lift or escalator pending any payment of its price or the giving of any other consideration;

- "passenger conveyor" means a power-driven installation comprising a continuously moving walkway for conveying people —
  - (a) between different parts of a building; or
  - (b) between 2 buildings;
- "permit to operate" means a permit issued by the Commissioner under regulation 10 or 22;
- "power-driven" means driven otherwise than by human power;
- "SS 550:2009" means the 2009 edition of the Singapore Standard Code of Practice for the Installation, Operation and Maintenance of Electric Passenger and Goods Lifts published by the Standards, Productivity and Innovation Board, as amended by the Singapore Standard Code of Practice for the Installation, Operation and Maintenance of Electric Passenger and Goods Lifts Amendment No. 1 published in December 2013;
- "SS CP 15:2004" means the 2004 edition of the Singapore Standard Code of Practice for the Installation, Operation and Maintenance of Escalators and Passenger Conveyors published by the Standards, Productivity and Innovation Board, as amended by the Singapore Standard Code of Practice for the Installation, Operation and Maintenance of Escalators and Passenger Conveyors Amendment No. 1 published in February 2008;
- "stairlift" means a motorised platform or seat installed in a stairway, which transverses the stairs when activated;
- "temporary occupation permit", in relation to a building, or part of a building, means a temporary occupation permit issued under the Building Control Act for the building or that part, and includes a temporary occupation licence issued under the repealed Building Control Act;
- "vertical platform lift" means a vertical lifting platform intended for use by people with impaired mobility, with or without

wheelchair, travelling vertically between predefined levels along a guided path.

- (2) For the purposes of these Regulations
  - (a) a lift includes a stairlift and a vertical platform lift; and
  - (b) a home lift does not include a stairlift or a vertical platform lift installed in a private home solely for the use of its occupants.

# PART 2

### BUILDING MAINTENANCE

### Painting of external walls

**3.**—(1) Every owner of any building, common property or limited common property must ensure that the external walls of the building, common property or limited common property, if painted, are painted —

- (*a*) at intervals of not more than 7 years or such longer interval as the Commissioner, in any particular case, may determine; and
- (b) to the satisfaction of the Commissioner.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$3,000.

### Gates and fences

**4.**—(1) Every owner of any exterior gate or fence must ensure that they are repaired without delay when damaged and, if painted, are painted to the satisfaction of the Commissioner.

(2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$3,000.

(3) In this regulation, "fence" means any dividing fence between properties (whether landed or non-landed) or along the boundary of a

property (whether landed or non-landed), and includes wall fence and railings but does not include retaining walls.

# PART 3

# LIFT MAINTENANCE

# **Application of this Part**

**5.** This Part applies to all lifts installed in accordance with the permission of the Commissioner of Building Control under regulation 29 of the Building Control Regulations 2003 (G.N. No. S 666/2003), but not the following lifts:

- (*a*) a lift used solely for the carriage, stacking, loading or unloading of goods or materials;
- (b) a mechanised vehicle parking system for transporting only vehicles;
- (c) a hoist used solely for lifting or feeding material directly into a machine;
- (d) a stage or orchestra lift;
- (e) a lift or hoist provided, in connection with any building which is being constructed, for the use solely of persons employed in the construction or for carrying materials used in the construction;
- (f) a lift used as part of an amusement ride, as defined in the Amusement Rides Safety Act (Cap. 6A).

# **Operation of lifts**

- **6.**—(1) An owner of a lift must not
  - (a) operate the lift; or
  - (b) resume operating the lift after any major alteration or replacement works to the lift,

unless a valid permit to operate is issued for the lift and the permit is not suspended.

(2) An owner of a lift who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Examination, inspection and testing of lifts

7.—(1) Before applying for a permit to operate for any lift under regulation 8, the owner of the lift must engage a lift service contractor to examine, inspect and test the lift —

- (a) in accordance with the requirements in paragraph (2); and
- (b) in the presence of an authorised examiner.
- (2) The requirements for the purposes of paragraph (1)(a) are
  - (a) in the case of a home lift
    - (i) the manufacturer's recommendations; or
    - (ii) where the manufacturer's recommendations are not available, the relevant provisions in SS 550:2009 or the Japan Elevator Association Standards: 2014, whichever is the standard the lift was designed to;
  - (b) in the case of a vertical platform lift
    - (i) the manufacturer's recommendations; or
    - (ii) where the manufacturer's recommendations are not available, the relevant provisions specified in EN 81-41:2010 or ASME 18.1-2014, whichever is the standard the lift was designed to;
  - (c) in the case of a stairlift
    - (i) the manufacturer's recommendations; or
    - (ii) where the manufacturer's recommendations are not available, the relevant provisions specified in ASME 18.1-2014; or
  - (d) in the case of any other lift, the relevant provisions specified in SS 550:2009.

(3) A lift service contractor who is engaged by an owner of a lift to carry out an examination, inspection and testing of the lift under paragraph (1) and —

- (*a*) who fails to do so; or
- (b) who does not carry out the examination, inspection and testing of the lift in accordance with paragraph (1)(a) or (b),

shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

(4) An owner of a lift must not engage a person who is not a lift service contractor to carry out any examination, inspection or testing of a lift under paragraph (1).

(5) A person must not carry out any examination, inspection or testing of a lift unless the person is a lift service contractor.

(6) Any person who contravenes paragraph (4) or (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

## Application for permit to operate for lifts

**8.**—(1) An application for a permit to operate for any lift must —

- (a) be made within 3 months after the date the lift is examined, inspected and tested under regulation 7 or, if the examination, inspection and testing does not take place on a single day, on the first day on which the examination, inspection and testing starts; and
- (b) be accompanied by
  - (i) a certificate, in such form and manner as may be determined by the Commissioner, signed by the authorised examiner mentioned in regulation 7(1)(b); and
  - (ii) such other documents, particulars and information as may be required by the Commissioner in the particular case.

(2) The authorised examiner must state the following in the certificate mentioned in paragraph (1)(b)(i):

- (a) the lift service contractor has carried out the examination, inspection and testing of the lift, in the presence of the authorised examiner and in accordance with regulation 7(1);
- (b) the authorised examiner is of the opinion that the lift is in a fit condition for operation;
- (c) the authorised examiner is not a partner, associate, director, officer or employee of the owner of the lift or the lift service contractor carrying out the examination, inspection and testing of the lift under regulation 7(1).
- (3) An application must
  - (*a*) be made by the owner of the lift to the Commissioner in such form and manner as the Commissioner may require;
  - (b) relate to a single lift, or to 2 or more lifts within or connected to a single building or comprised in 2 or more buildings belonging to the same owner; and
  - (c) be accompanied by the relevant application fee in regulation 9.

(4) If the Commissioner receives an application, the Commissioner may carry out, or arrange to be carried out by any person authorised by the Commissioner, such inspections or inquiries in relation to the application as the Commissioner considers necessary for a proper consideration of the application.

(5) For the purposes of paragraph (2), an authorised examiner who makes a statement mentioned in paragraph (2) that is false or misleading in a material particular, knowing the statement to be false or misleading, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# **Application fee**

- 9. The application fee mentioned in regulation 8(3)(c) is
  - (*a*) where the total number of lifts to which the application relates is 10 or fewer, \$20 per lift; or
  - (b) where the total number of lifts to which the application relates is more than 10, an amount equal to
    - (i) \$200; plus
    - (ii) \$10 per lift in excess of 10.

# Permit to operate for lifts

**10.**—(1) The Commissioner may, without checking the documents and particulars accompanying an application made under regulation 8, for every lift to which the application relates, issue a permit to operate authorising the operation of that lift, on the basis of the certificate mentioned in regulation 8(1)(b)(i).

(2) Despite paragraph (1), the Commissioner may carry out random checks on any document or particulars relating to any application at any time before or after issuing a permit to operate.

- (3) A permit to operate issued under paragraph (1)
  - (a) is in such form as the Commissioner may determine;
  - (b) may contain such conditions (as the Commissioner may determine) subject to which it is issued; and
  - (c) is valid for 12 months.

(4) An owner of a lift must, at all times on or after 1 September 2017 during the operation of the lift, display or cause to be displayed, in a prominent manner and in a conspicuous position in the lift, a valid permit to operate for that lift.

(5) An owner of a lift who contravenes paragraph (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Suspension or stoppage of lift operation

**11.**—(1) The Commissioner may, by written notice served on the owner of a lift, suspend or stop the operation of the lift if the Commissioner is of the opinion that —

- (*a*) the lift is in a dangerous state or condition that is likely to cause injury to any person;
- (b) it is in the interests of public safety to do so;
- (c) the owner of the lift has breached or is breaching any condition of the permit to operate for that lift; or
- (*d*) any information or document that is false or misleading in a material particular was given during the application for the permit to operate for that lift.

(2) The owner of a lift must, immediately after receiving any written notice under paragraph (1) to suspend the operation of the lift, suspend the operation of the lift, and may resume operation of the lift only after the Commissioner has served a written notice on the owner informing the owner that the suspension is lifted.

(3) The owner of a lift must, immediately after receiving any written notice under paragraph (1) to stop the operation of the lift, stop the operation of the lift.

(4) An owner of a lift who, on his or her own motion, wishes to permanently stop the operation of the lift, must notify the Commissioner before permanently stopping the operation of the lift.

(5) A permit to operate for a lift ceases to be valid when —

- (a) the Commissioner gives written notice to stop the operation of the lift under paragraph (1);
- (*b*) any major alteration or replacement works to the lift are commenced;
- (c) the owner notifies the Commissioner under paragraph (4) of the permanent stoppage of the operation of the lift; or
- (*d*) the temporary occupation permit issued for the building (or part of the building) which the lift is installed in or attached to has been revoked.

(6) An owner of a lift who contravenes paragraph (2) or (3) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

## Lifts to be kept in good working condition

**12.**—(1) An owner of a lift must ensure that —

- (a) the lift is kept in a good working condition at all times; and
- (b) the lift is -
  - (i) periodically maintained; and
  - (ii) examined, inspected and tested,
  - in accordance with these Regulations.

(2) An owner of a lift which is in such a condition, or is used in such a way, as —

- (a) to be or likely to be dangerous; or
- (b) to cause or be likely to cause injury to people carried in the lift,

must immediately stop the operation of the lift.

(3) An owner of a lift who contravenes paragraph (1) or (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

#### Periodic maintenance of lifts

**13.**—(1) An owner of a lift in operation must engage a lift service contractor (and no other) to maintain the lift.

(2) The lift service contractor engaged by an owner of a lift under paragraph (1) must carry out maintenance works for the lift in accordance with the maintenance requirements as set out in Part 1 of the Schedule and —

- (a) in the case of a home lift
  - (i) the manufacturer's recommendations for periodic maintenance; or

- (ii) where the manufacturer's recommendations are not available, the provisions for periodic maintenance in SS 550:2009 or the Japan Elevator Association Standards: 2014, whichever is the standard the lift was designed to;
- (b) in the case of a vertical platform lift or a stairlift
  - (i) the manufacturer's recommendations for periodic maintenance; or
  - (ii) where the manufacturer's recommendations are not available, the provisions for periodic maintenance in ASME 18.1-2014; or
- (c) in the case of any other lift, the manufacturer's recommendations for periodic maintenance and the provisions for periodic maintenance in SS 550:2009.

(3) The lift service contractor must carry out the maintenance works —

- (a) in the case of a home lift, vertical platform lift or stairlift
  - (i) at the frequency recommended in the manufacturer's recommendations for periodic maintenance (where available); or
  - (ii) once every 3 months,

whichever is more frequent; or

- (b) in the case of any other lift
  - (i) at the frequency recommended in the manufacturer's recommendations for periodic maintenance (where available); or
  - (ii) once every month,

whichever is more frequent.

(4) A person must not carry out any maintenance works on a lift unless the person is a lift service contractor.

(5) Any person who contravenes paragraph (1), (2), (3) or (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Investigation of lift incidents

**14.**—(1) In this regulation, a reference to an incident, in relation to a lift, refers to any of the following:

- (*a*) a person dies or is injured and the death or injury involves a lift, or any associated equipment or machinery of a lift;
- (b) the main drive system of a lift fails due to a reason other than the failure of the main power system of the lift;
- (c) a suspension rope of a lift breaks;
- (d) a brake, overload device, safety component or safety equipment of a lift fails;
- (e) an interlocking device for any door of the lift-way of a lift fails due to a reason other than the safety contacts not making electrical contact;
- (f) an interlocking device for any door of a lift car fails due to a reason other than the safety contacts not making electrical contact.
- (2) Where an incident involving any part of a lift occurs
  - (a) the owner of the lift; and
  - (b) the last lift service contractor who carried out any maintenance or repair work, or otherwise performed work, on the lift,

must each inform the Commissioner of the occurrence of the incident as soon as practicable after the owner and the lift service contractor become aware, respectively, of the occurrence of that incident.

(3) On request by the Commissioner, the lift service contractor mentioned in paragraph (2)(b) must, within the time stipulated by the Commissioner —

(*a*) engage an authorised examiner to investigate the incident and prepare an investigation report of the incident; and (b) submit the investigation report to the Commissioner.

(4) The Commissioner may also by written notice require the owner of the lift mentioned in paragraph (2)(a) to submit within a stipulated time an investigation report of the incident by another authorised examiner.

(5) An authorised examiner must not, for the purposes of paragraphs (3)(a) and (4), carry out any investigation or prepare any investigation report if the authorised examiner is a partner, associate, director, officer or employee of the owner of the lift, or the lift service contractor who engaged the authorised examiner.

(6) Any person who fails to comply with a request or notice of the Commissioner under paragraph (3) or (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

(7) Any person who contravenes paragraph (2) or (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

## Duties of lift service contractor

**15.**—(1) A lift service contractor engaged to carry out maintenance works on a lift must, during the term of the engagement —

- (*a*) when requested to do so by the Commissioner, submit an investigation report on any breakdown of the lift;
- (b) notify the Commissioner when the lift service contractor, in the course of the lift service contractor's duties, finds the lift to be unsafe for operation; and
- (c) put in place adequate barriers and barricades with warning signs in the vicinity of a lift when the lift is not operational when maintenance works are to be or are being carried out.

(2) If any lift maintenance agreement to which a lift service contractor is a party is terminated, the lift service contractor must —

- (*a*) within 7 days after the termination, notify the Commissioner of the termination; and
- (b) within 14 days after the termination, transfer any maintenance records (including certificates signed by

authorised examiners and other documents) in connection with any lift under the lift maintenance agreement to the owner of the lift.

(3) A lift service contractor who, without reasonable excuse, contravenes paragraph (1) or (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# **Duties of lift owner**

16.—(1) An owner of a lift must —

- (*a*) keep all maintenance records (including certificates signed by authorised examiners and other documents) in connection with the lift, for a period of at least 5 years after the issue or making of that record; and
- (*b*) whenever required to do so within that period of 5 years, produce to the Commissioner, or any person authorised by the Commissioner, for the Commissioner's inspection any of the maintenance records.

(2) An owner of a lift who, without reasonable excuse, contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Duties of lift owner and authorised examiner in major alteration or replacement works

17.—(1) An owner of a lift must notify the Commissioner in writing before any major alteration or replacement works are carried out on the lift.

(2) For the purpose of this regulation, major alteration or replacement works on a lift includes, but is not limited to, any of the following:

- (*a*) changing or removing any safety device of a lift, or adding any safety device to a lift;
- (b) changing the mass of a lift car, including lift car finishing;
- (c) changing the rated load or speed of a lift;
- (d) changing the travel distance of a lift;

- (e) changing the lift control operation (including changing the software or type of driving machine or brakes);
- (*f*) changing the number, type or size of the hoisting ropes supporting a lift car or its counterweight;
- (g) changing the size of the guide rails of a lift;
- (*h*) changing the type of safety gear;
- (*i*) changing the lift landing door, lift car door and lift car door drive and control.

(3) A person must not carry out any major alteration or replacement works on a lift unless the person —

- (a) is a lift service contractor; and
- (b) is supervised by an authorised examiner for those works.

(4) Upon completion of any major alteration or replacement works on a lift, the authorised examiner must examine, inspect and test the lift to ensure that the design and installation of the lift is in accordance with —

- (a) in the case of a home lift
  - (i) the manufacturer's recommendations; or
  - (ii) where the manufacturer's recommendations are not available, the requirements specified in SS 550:2009 or the Japan Elevator Association Standards: 2014, whichever is the standard the lift was designed to;
- (b) in the case of a vertical platform lift
  - (i) the manufacturer's recommendations; or
  - (ii) where the manufacturer's recommendations are not available, the requirements specified in EN 81-41:2010 or ASME 18.1-2014, whichever is the standard the lift was designed to;
- (c) in the case of a stairlift
  - (i) the manufacturer's recommendations; or

- (ii) where the manufacturer's recommendations are not available, the requirements specified in ASME 18.1-2014; or
- (*d*) in the case of any other lift, the requirements specified in SS 550:2009.

(5) For the purposes of paragraphs (3) and (4), an authorised examiner must not carry out —

- (*a*) any supervision of any major alteration or replacement works on a lift; or
- (b) any examination, inspection and test required by this regulation,

if the authorised examiner is a partner, associate, director, officer or employee of the owner of the lift, or the lift service contractor carrying out the major alteration or replacement works on the lift.

(6) Any person who contravenes paragraph (1), (3), (4) or (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

## PART 4

# ESCALATOR MAINTENANCE

#### **Operation of escalators**

**18.**—(1) An owner of an escalator must not —

- (a) operate the escalator; or
- (b) resume operating the escalator after any major alteration or replacement works to the escalator,

unless a valid permit to operate is issued for the escalator and the permit is not suspended.

(2) An owner of an escalator who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Examination, inspection and testing of escalators

**19.**—(1) Before applying for a permit to operate for any escalator, the owner of the escalator must engage an escalator service contractor to examine, inspect and test the escalator —

- (a) in accordance with the relevant provisions specified in SS CP 15:2004; and
- (b) in the presence of an authorised examiner.

(2) An escalator service contractor who is engaged by an owner of an escalator to carry out an examination, inspection and testing of the escalator under paragraph (1) and —

- (a) who fails to do so; or
- (b) who does not carry out the examination, inspection and testing of the escalator in accordance with paragraph (1)(a) or (b),

shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

(3) An owner of an escalator must not engage a person who is not an escalator service contractor to carry out any examination, inspection or testing of an escalator under paragraph (1).

(4) A person must not carry out any examination, inspection or testing of an escalator unless the person is an escalator service contractor.

(5) Any person who contravenes paragraph (3) or (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Application for permit to operate for escalators

**20.**—(1) An application for a permit to operate for any escalator must —

(*a*) be made within 3 months after the date the escalator is examined, inspected and tested under regulation 19 or, if the examination, inspection and testing does not take place

on a single day, on the first day on which the examination, inspection and testing starts; and

- (b) be accompanied by
  - (i) a certificate, in such form and manner as may be determined by the Commissioner, signed by the authorised examiner mentioned in regulation 19(1)(b); and
  - (ii) such other documents, particulars and information as may be required by the Commissioner in the particular case.

(2) The authorised examiner must state the following in the certificate mentioned in paragraph (1)(b)(i):

- (*a*) the escalator service contractor has carried out the examination, inspection and testing of the escalator, in the presence of the authorised examiner and in accordance with regulation 19(1);
- (b) the authorised examiner is of the opinion that the escalator is in a fit condition for operation;
- (c) the authorised examiner is not a partner, associate, director, officer or employee of the owner of the escalator or the escalator service contractor carrying out the examination, inspection and testing of the escalator under regulation 19(1).
- (3) An application must
  - (a) be made by the owner of the escalator to the Commissioner in such form and manner as the Commissioner may require;
  - (b) relate to a single escalator, or to 2 or more escalators within or connected to a single building or comprised in 2 or more buildings belonging to the same owner; and
  - (c) be accompanied by the relevant application fee in regulation 21.

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(4) If the Commissioner receives an application, the Commissioner may carry out, or arrange to be carried out by any person authorised by the Commissioner, such inspections and inquiries in relation to the application as the Commissioner considers necessary for a proper consideration of the application.

(5) For the purposes of paragraph (2), an authorised examiner who makes a statement mentioned in paragraph (2) that is false or misleading in a material particular, knowing the statement to be false or misleading, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# **Application fee**

**21.** The application fee mentioned in regulation 20(3)(c) is —

- (*a*) where the total number of escalators to which the application relates is 10 or fewer, \$20 per escalator; or
- (b) where the total number of escalators to which the application relates is more than 10, an amount equal to
  - (i) \$200; plus
  - (ii) \$10 per escalator in excess of 10.

# Permit to operate for escalators

**22.**—(1) The Commissioner may, without checking the documents and particulars accompanying an application made under regulation 20, for every escalator to which the application relates, issue a permit to operate authorising the operation of that escalator, on the basis of the certificate mentioned in regulation 20(1)(b)(i).

(2) Despite paragraph (1), the Commissioner may carry out random checks on any document or particulars relating to any application at any time before or after issuing a permit to operate.

(3) A permit to operate issued under paragraph (1) —

- (a) is in such form as the Commissioner may determine;
- (b) may contain such conditions (as the Commissioner may determine) subject to which it is issued; and
- (c) is valid for 12 months.

(4) An owner of an escalator must, at all times on or after 1 March 2018 during the operation of the escalator, display or cause to be displayed, in a prominent manner and in a conspicuous position at or near the escalator, a valid permit to operate for that escalator.

(5) An owner of an escalator who contravenes paragraph (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Suspension or stoppage of escalator operation

**23.**—(1) The Commissioner may, by written notice served on the owner of an escalator, suspend or stop the operation of the escalator if the Commissioner is of the opinion that —

- (*a*) the escalator is in a dangerous state or condition that is likely to cause injury to any person;
- (b) it is in the interests of public safety to do so;
- (c) the owner of the escalator has breached or is breaching any condition of the permit to operate for that escalator; or
- (d) any information or document that is false or misleading in a material particular was given during the application for the permit to operate for that escalator.

(2) The owner of an escalator must, immediately after receiving any written notice under paragraph (1) to suspend the operation of the escalator, suspend the operation of the escalator, and may resume operation of the escalator only after the Commissioner has served a written notice on the owner informing the owner that the suspension is lifted.

(3) The owner of an escalator must, immediately after receiving any written notice under paragraph (1) to stop the operation of the escalator, stop the operation of the escalator.

(4) An owner of an escalator who, on his or her own motion, wishes to permanently stop the operation of the escalator, must notify the Commissioner before permanently stopping the operation of the escalator.

- (5) A permit to operate for an escalator ceases to be valid when
  - (*a*) the Commissioner gives written notice to stop the operation of the escalator under paragraph (1);
  - (*b*) any major alteration or replacement works to the escalator are commenced;
  - (c) the owner notifies the Commissioner under paragraph (4) of the permanent stoppage of the operation of the escalator; or
  - (d) the temporary occupation permit issued for the building (or part of the building) which the escalator is installed in or attached to has been revoked.

(6) An owner of an escalator who contravenes paragraph (2) or (3) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Escalators to be kept in good working condition

**24.**—(1) An owner of an escalator must ensure that —

- (*a*) the escalator is kept in a good working condition at all times; and
- (b) the escalator is
  - (i) periodically maintained; and
  - (ii) examined, inspected and tested,

in accordance with these Regulations.

(2) An owner of an escalator which is in such a condition, or is used in such a way, as —

- (a) to be or likely to be dangerous; or
- (b) to cause or be likely to cause injury to people using the escalator,

must immediately stop the operation of the escalator.

(3) An owner of an escalator who contravenes paragraph (1) or (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

## Periodic maintenance of escalators

**25.**—(1) An owner of an escalator in operation must engage an escalator service contractor (and no other) to maintain the escalator.

(2) The escalator service contractor engaged by an owner of an escalator under paragraph (1) must carry out maintenance works for the escalator in accordance with the maintenance requirements in Part 2 of the Schedule and the provisions for periodic maintenance in SS CP 15:2004.

(3) The escalator service contractor must carry out the maintenance works once every month.

(4) A person must not carry out any maintenance works on an escalator unless the person is an escalator service contractor.

(5) Any person who contravenes paragraph (1), (2), (3) or (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

### Investigation of escalator incidents

**26.**—(1) In this regulation, a reference to an incident, in relation to an escalator, refers to any of the following:

- (*a*) a person dies or is injured and the death or injury involves an escalator, or any associated equipment or machinery of an escalator;
- (b) the main drive system of an escalator fails due to a reason other than the failure of the main power system of the escalator;
- (c) a brake, overload device, safety component or safety equipment of an escalator fails.
- (2) Where an incident involving any part of an escalator occurs
  - (a) the owner of the escalator; and
  - (b) the last escalator service contractor who carried out any maintenance or repair work, or otherwise performed work, on the escalator,

(3) On request by the Commissioner, the escalator service contractor in paragraph (2)(b) must, within the time stipulated by the Commissioner —

- (*a*) engage an authorised examiner to investigate the incident and prepare an investigation report of the incident; and
- (b) submit the investigation report to the Commissioner.

(4) The Commissioner may also by written notice require the owner of the escalator mentioned in paragraph (2)(a) to submit within a stipulated time an investigation report of the incident by another authorised examiner.

(5) An authorised examiner must not, for the purposes of paragraphs (3)(a) and (4), carry out any investigation or prepare any investigation report if the authorised examiner is a partner, associate, director, officer or employee of the owner of the escalator, or the escalator service contractor who engaged the authorised examiner.

(6) Any person who fails to comply with a request or notice of the Commissioner under paragraph (3) or (4) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

(7) Any person who contravenes paragraph (2) or (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Duties of escalator service contractor

**27.**—(1) An escalator service contractor engaged to carry out maintenance works on an escalator must, during the term of the engagement —

(*a*) when requested to do so by the Commissioner, submit an investigation report on any breakdown of the escalator;

- (b) notify the Commissioner when the escalator service contractor, in the course of the escalator service contractor's duties, finds the escalator to be unsafe for operation; and
- (c) put in place adequate barriers and barricades with warning signs in the vicinity of an escalator when the escalator is not operational when maintenance works are to be or are being carried out.

(2) If any escalator maintenance agreement to which an escalator service contractor is a party is terminated, the escalator service contractor must —

- (*a*) within 7 days after the termination, notify the Commissioner of the termination; and
- (b) within 14 days after the termination, transfer any maintenance records (including certificates signed by authorised examiners and other documents) in connection with any escalator under the escalator maintenance agreement to the owner of the escalator.

(3) An escalator service contractor who, without reasonable excuse, contravenes paragraph (1) or (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Duties of escalator owner

**28.**—(1) An owner of an escalator must —

- (*a*) keep all maintenance records (including testing certificates and other documents) in connection with the escalator, for a period of at least 5 years after the issue or making of that record; and
- (*b*) whenever required to do so within that period of 5 years, produce to the Commissioner, or any person authorised by the Commissioner, for the Commissioner's inspection any of the maintenance records.

(2) An owner of an escalator who, without reasonable excuse, contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Duties of escalator owner and authorised examiner in major alteration or replacement works

**29.**—(1) An owner of an escalator must notify the Commissioner in writing before any major alteration or replacement works are carried out on the escalator.

(2) For the purpose of this regulation, major alteration or replacement works on an escalator includes, but is not limited to, changing the speed, drive, control, safety device, braking system or step band of an escalator.

(3) A person must not carry out any major alteration or replacement works on an escalator unless the person —

(a) is an escalator service contractor; and

(b) is supervised by an authorised examiner for those works.

(4) Upon the completion of any major alteration or replacement works on an escalator, the authorised examiner must examine, inspect and test the escalator to ensure that the design and installation of the escalator is in accordance with the requirements specified in SS CP 15:2004.

(5) For the purposes of paragraphs (3) and (4), an authorised examiner must not carry out —

- (*a*) any supervision of any major alteration or replacement works on an escalator; or
- (b) any examination, inspection and test required by this regulation,

if the authorised examiner is a partner, associate, director, officer or employee of the owner of the escalator, or the escalator service contractor carrying out the major alteration or replacement works on the escalator.

(6) Any person who contravenes paragraph (1), (3), (4) or (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# PART 5 MISCELLANEOUS

## Obstruction

**30.** Any person who obstructs, hinders or impedes the Commissioner, or any other person acting under the authorisation of the Commissioner, in the performance or execution of his or her duty or anything which he or she is authorised, empowered or required to do under these Regulations shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$5,000.

# Revocation

**31.** The Building Maintenance and Strata Management (Lift and Building Maintenance) Regulations 2005 (G.N. No. S 194/2005) (called in these Regulations the revoked Regulations) are revoked.

# Saving and transitional provisions

**32.**—(1) Despite regulation 31, the revoked Regulations, except regulations 4, 8, 9, 12 and 13 of those revoked Regulations, continue to apply to and in relation to a lift in respect of which a Certificate of Lift Maintenance and Testing was lodged under regulation 5 of the revoked Regulations as if these Regulations have not been enacted, until the Certificate of Lift Maintenance and Testing ceases to be valid under those revoked Regulations or paragraph (2) earlier applies.

(2) Any Certificate of Lift Maintenance and Testing that is lodged under regulation 5 of the revoked Regulations in respect of a lift and is valid immediately before 25 July 2016 continues to be valid until the date —

- (a) it would have expired if these Regulations had not been enacted;
- (b) the Commissioner orders the termination of the operation of the lift under regulation 11(1) of the revoked Regulations; or

(c) any major alteration or replacement works are being carried out on the lift to which it relates under regulation 14 of the revoked Regulations.

(3) Regulations 18, 19, 20, 21, 22, 23(1)(c) and (4) and 24(1)(b)(ii) do not apply in respect of —

- (a) an escalator in a building (or part of the building) that was issued a certificate of statutory completion before 1 May 1989, until 31 January 2017;
- (b) an escalator in a building (or part of the building) that was issued a certificate of statutory completion between 1 May 1989 and 31 December 2000 (both dates inclusive), until 30 April 2017;
- (c) an escalator in a building (or part of the building) that was issued a certificate of statutory completion between 1 January 2001 and 31 December 2010 (both dates inclusive), until 31 October 2017;
- (d) an escalator in a building (or part of the building) that is issued a certificate of statutory completion on or after 1 January 2011, until 31 January 2018; and
- (e) an escalator that is in any structure, or used in connection with any structure, until 31 January 2018.

(4) A reference in paragraph (3) to a certificate of statutory completion for a building or part of a building is a reference to the temporary occupation permit for the building or part of the building if no certificate of statutory completion is issued for that building or part.

## THE SCHEDULE

Regulations 13(2) and 25(2)

#### PART 1

#### MAINTENANCE REQUIREMENTS FOR LIFTS

#### Areas of maintenance Requirements (a) When lift car doors and lift landing doors 1. Door open control are opened and the button controlling the opening of those doors is pressed, the opened lift car doors and lift landing doors must stay open. (b) When lift car doors and lift landing doors are partially closed and the button controlling the opening of those doors is pressed, the partially-closed lift car doors and lift landing doors must reopen. 2. Door protective Lift car doors and lift landing doors must be devices operational at all times and reopen upon activation of door protective devices. 3. Lift car doors and lift (a) Lift car movement must only be allowed when lift car doors are closed and landing landing doors doors are closed and locked, and ---(i) the gap at lift car doorway is not more than 12 mm; (ii) despite sub-paragraph (i), when there

- is obstruction at lift car door sill, the upthrust rollers of lift car doors are set such that the gap at lift car doorway is not more than 25 mm if lift entrance height is not more than 2.1 m (if lift entrance height is more than 2.1 m, for every 0.5 m increment in height, the gap at lift car doorway may be increased by 3 mm);
- (iii) the gap at lift landing doorway is not more than 10 mm;
- (iv) the clearance between lift car door panels is not more than 10 mm; and

Areas of maintenance

8. Housekeeping

#### **Requirements**

- (v) the clearance between lift car door panels and uprights, lintels or sills, is not more than 10 mm.
- (b) When lift landing doors are detected to be opened or unlocked during lift car movement, an emergency stop must be initiated immediately.
- (c) When lift car doors are detected to be opened during lift car movement, an emergency stop must be initiated immediately.
- (*d*) There must be no signs of excessive wear and tear of lift car doors and lift landing doors (or any component of the lift car door or lift landing door, including doors hoes, rollers, hangers and linkages).
- 4. Lift car emergency When lift car emergency alarm button is pressed, alarm the alarm must be audible from
  - (*a*) outside the lift well; and
  - (b) the designated floor as defined in SS 550:2009.
- 5. Lift car intercom When lift car intercom button is pressed, the intercom system must function as intended.
- 6. Emergency power supply for lift car lighting and ventilation Emergency power supply for lift car lighting and normal power supply to lift car is disrupted.
- 7. Movement of lift car Abnormal sounds or vibrations must not occur during any movement of the lift car.
  - Machinery, machinery space, lift pit, hoistway and lift car top must be kept clean, tidy and free from discarded items and debris.
- 9. Lift machine and drive (including motor, gear box,(a) Oil leakage must not occur in lift machine and drive.

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THE SCHEDULE — continued		
Areas of maintenance	Requirements	
drive sheave and (b motor generator set)	) Moveable parts, joints and gear box must be sufficiently lubricated.	
(c	) Lift machine and drive must be securely mounted.	
10. Brakes of lift ( <i>a</i> machine and drive	) Brakes must not be contaminated with, or be at risk of being contaminated with, any oil or grease.	
(b	) Brakes, when activated, must cause lift car to slow down, stop and stay at stopping position.	
(c	) If lift is fitted with additional brake system for preventing uncontrolled lift car motion, the brake, when activated, must cause the lift car to stop and stay at stopping position.	
11. Direct current (a machine	) Carbon brush length must be within the tolerance as recommended by the manufacturer.	
	) Insulation at carbon brush holders must not show any sign of carbon particle build-up which may cause flash-over and burning.	
(c	) The commutator must be free from any foreign deposit and must not cause any sparking when in operation.	
12. Overspeed governor (a	) At all times when lift is in operation, overspeed governor must function as intended and be able to activate lift safety gears.	
(b	) Governor ropes must not show any sign of excessive wear and tear, in accordance with manufacturer's recommendations or, where manufacturer's recommendations are not available, the requirements in ISO 4344:2004.	

- 13. Main rope and compensation rope
- (a) Main rope must be properly and equally tensioned

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Areas of maintenance

#### Requirements

- (b) Main rope and compensation rope must not show any sign of excessive wear and tear, in accordance with manufacturer's recommendations or, where manufacturer's recommendations are not available, the requirements in ISO 4344:2004.
- 14. Compensation rope and compensation rope sheave tie-down and tensioning14. Compensation rope sheave tie-down and tensioning14. Compensation rope sheave tie-down and guided, in accordance with manufacturer's recommendations.
  - (*a*) There must be sufficient oil in buffer, as indicated by oil level gauge, in accordance with manufacturer's recommendations.
  - (b) Buffer must provide effective cushioning upon impact to protect passengers in lift car at all times when lift is in operation.
  - (*a*) Ground and earth of controller and electrical system must be firmly secured.
  - (b) Controller must initiate immediate stopping of lift car and prevent lift movement under any condition that is unsafe to passengers and maintenance workers.
  - (c) Safety switches must function as intended at all times when lift is in operation.
  - (*a*) Lift car and counterweight must be guided by guide shoes or rollers at all times when lift is in operation.
  - (b) Guide shoes or rollers must not cause wear and tear of guide rails.
  - (a) Safety gear must be maintained and functioning at all times when lift is in operation.
  - (b) Safety gear, when activated, must be able to stop and hold the lift car and counterweight

15. Buffer

16. Controller and electrical system

- 17. Guide shoes or rollers of lift car and counterweight
- 18. Safety gear

Areas of maintenance	Requirements
	within the allowable distance in accordance with SS 550:2009.
19. All lift parts	Level of corrosion, wear and tear of all parts of lift must not affect the safe operation of the lift.
20. Stopping or level accuracy	The stopping accuracy of the lift car floor must be $\pm 10$ mm.

#### PART 2

#### MAINTENANCE REQUIREMENTS FOR ESCALATORS

#### Areas of maintenance

- Requirements
- 1. Signage and (a) Safety signage and direction indicator must be clearly and prominently displayed. indicator
  - (b) Edge of escalator step must be clearly demarcated with yellow lines.
  - (c) There must be sufficient lighting in the vicinity of escalator combs.

Anti-climbing, anti-sliding, access restriction and deflecting devices must be in place and must effectively serve their intended purposes.

- Activation of emergency stop switch must initiate emergency stopping of escalator.
  - (a) Handrail must move in the same direction and speed (within a speed tolerance of + 2%) as escalator steps.
  - (b) Handrail inlet safety switch must be activated if a foreign object enters inlet and must cause escalator to initiate emergency stop.
- 5. Housekeeping All machinery and machinery space in driving station, return station and truss area must be kept clean, tidy and free from discarded items and debris.

- 2. Anti-climbing, anti-sliding, access restriction and deflecting devices
- 3. Emergency stop switch
- 4. Handrail system

#### Areas of maintenance

6. Driving machine, brakes, sprocket and auxiliary brake

- Safety switch and sensor (such as skirt panel switch, escalator comb switch, step sag switch, step up thrust switch, missing step detection device, floor plate or access cover detection switch, drive chain tension and step chain tension monitoring switch)
- 8. Excessive speed and unintentional reversal protection
- 9. Operational clearance
- 10. All escalator parts

#### Requirements

- (a) Machinery must not have any oil leakage.
- (b) Moveable parts, joints and gear-box must be sufficiently lubricated.
- (c) Brakes, when activated, must stop the escalator within the distance specified in SS CP 15:2004.
- (d) All machinery must be securely mounted.

Activation of safety switch must cause escalator to initiate emergency stop.

Emergency stop must be activated when speed of escalator steps exceeds rated speed by 20%.

Clearance between escalator step and escalator skirt panel, clearance between escalator step and escalator comb, and all other clearances must comply with SS CP 15:2004 requirements.

Level of corrosion, wear and tear of all parts of escalator must not affect the safe operation of the escalator. Made on 15 July 2016.

# OW FOONG PHENG Permanent Secretary, Ministry of National Development, Singapore.

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