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All Lift Owners, Contractors (Including Lift Contractors),
Building Owners, Authorised Examiners, and Other Interested Parties

Ministry of Manpower (MOM) & Building and Construction Authority (BCA) Joint Circular Safe Use of Lifts Undergoing Major Alteration or Replacement Works as Workplace Hoists/Lifts

In 2019, a worker was using a lift that was undergoing major alteration works to transport construction debris down from the eighth floor when the lift descended uncontrollably at a high speed and landed into the lift pit. The worker was pronounced dead at the scene.

2 When carrying out **major alteration or replacement (“major A/R”) works on lifts, and using such lifts as workplace hoists/lifts**, the following stakeholders are reminded to adopt the necessary measures, to ensure the safe use of lifts and prevent similar accidents from recurring:

A) Reminder to Lift Owners

Major Alteration or Replacement Works in Lifts

Under the Building Maintenance and Strata Management (Lift, Escalator and Building Maintenance) Regulations 2016 (the “BMSM Regulations”), a lift owner is required to **notify the Commissioner of Buildings in writing** before carrying out any major alteration or replacement work (“major A/R work”) on a lift. Please see **Annex A** for the list of works that are considered as major A/R works, and **Annex B** for the duties of lift owners when carrying out such works.

B) Reminder to Contractors and Authorised Examiners

Use of Lift Undergoing Major A/R Works as Workplace Hoist or Lift

The Occupier (whom typically is the main contractor or lift contractor) will need to ensure compliance with Regulation 19 of the Workplace Safety and Health (General Provisions) Regulations if the lift (whose Permit to Operate has ceased to be valid) is intended to be used as a workplace hoist/lift to carry materials or workers during major A/R works. This includes ensuring that the lift is tested and examined by an Authorised Examiner and issued with a signed certificate of test and examination, before the lift is to be used as a workplace hoist/lift. Main contractors and lift contractors are to also ensure that the hoist/lift comply with the necessary safety requirements (refer to **Annex C**).

C) Reminder to Employers and Principals



Risk Assessment, Safe Work Procedures and Emergency Response

Employers and principals shall conduct risk assessment, and develop a safe work procedure for the use of hoist or lift in workplaces. They are also required to develop and implement procedures for dealing with emergencies in the event of emergency such as malfunction of the hoist or lift.

The relevant statutory duties relating to the safe use of hoist and lift are summarised in **Annex D**. Should you need further information, you may refer to the following resources:

MOM website on workplace safety and health: <https://www.mom.gov.sg/workplace-safety-and-health>

BCA Lift Safety website: <https://www1.bca.gov.sg/regulatory-info/lifts-escalators>

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Annex A – Major Alteration or Replacement (A/R) Works

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.

Note: One-to-one replacement of a part of a lift with a part of the same design and specifications does not constitute major A/R works on the lift.

Annex B – Duties of Lift Owners When Carrying Out Major Alteration or Replacement (A/R) Works

When carrying out any major A/R work on a lift, the owner shall notify the Commissioner of Buildings through the Online Permit To Operate (OPTO) system or through the notification form at [https://www1.bca.gov.sg/docs/default-source/docs-corp-regulatory/lifts-and-escalators-legislation/emeg_n1_v3\(jan2019\).pdf?sfvrsn=9570b4a8_2](https://www1.bca.gov.sg/docs/default-source/docs-corp-regulatory/lifts-and-escalators-legislation/emeg_n1_v3(jan2019).pdf?sfvrsn=9570b4a8_2)

The existing Permit to Operate (PTO) issued in respect of the lift will cease to be valid from the commencement date of any major A/R works.

Upon completion of the major A/R works, the owner shall engage a Specialist Professional Engineer in Lift and Escalator Engineering to examine, inspect and test every part of the lift that was altered or replaced, to ensure that the design and installation of each altered or replaced part complies with the requirements in the BSM Regulations. Thereafter, the owner can submit an application to BCA for a new PTO for the lift.

Annex C – Safety Requirements for Hoist and Lift used in Workplaces

When a lift is used solely for carrying goods, it shall be classified as “hoist” under the classification class of 200 series. When it is used to carry workers, whether together with goods or otherwise, it shall be classified as “lift” under the classification class of 100 series.

Occupiers of workplaces where such hoists or lifts are used are to ensure the hoist or lift is in good working condition and all safety devices are working properly and well maintained.

Hoistway or liftway shall be effectively protected by a substantial enclosure fitted with gates that will, when the gates are shut, prevent any person from falling down or coming into contact with any moving part of the hoist or lift. The gate shall be fitted with efficient interlocking or other devices to ensure that:

- (a) the gate cannot be opened except when the cage or platform is at the landing; and
- (b) the cage or platform cannot be moved away from the landing until the gate is closed.

The hoist or lift shall be marked conspicuously with the maximum working load which it can safely carry.

Lifts used for carrying workers are to comply with the following:

- (a) efficient automatic devices shall be provided and maintained to prevent the cage or platform from over-running;
- (b) on each side of every cage from which access is afforded to a landing, the gate shall be fitted with efficient devices to ensure that the cage (i) cannot be raised or lowered unless all the gates are closed; and (ii) will come to rest when a gate is opened; and
- (c) where the cage or platform of the lift is suspended by rope or chain –
 - (i) the cage or platform shall be separately connected with at least 2 ropes or chains, with each rope or chain and its attachment being capable of carrying the whole weight of the cage or platform and the maximum working load; and
 - (ii) efficient devices shall be provided and maintained which will support the cage or platform with its maximum working load in the event of the failure of the ropes or chains or any of its attachment.

Operations of the hoist or lift shall not be performed on the car top.

Annex D – Extracts from Workplace Safety and Health (General Provisions) Regulations

Hoists and lifts

- 19.—(1) No hoist or lift shall be used in a workplace unless an authorised examiner has —
- (a) tested and examined the hoist or lift after its installation; and
 - (b) issued and signed a certificate of test and examination, specifying the safe working load of the hoist or lift.
- (2) The certificate of test and examination referred to in paragraph (1)(b) shall be kept available for inspection.
- (3) Subject to paragraph (10)(c), every hoist or lift used in a workplace shall be thoroughly examined by an authorised examiner at least once every 6 months or at such other intervals as the Commissioner may determine.
- (4) Every hoistway or liftway used in a workplace shall be efficiently protected by a substantial enclosure fitted with gates that will, when the gates are shut, prevent any person from falling down the way or coming into contact with any moving part of the hoist or lift.
- (5) Subject to paragraph (10)(b), any gate referred to in paragraph (4) shall be fitted with efficient interlocking or other devices to ensure that —
- (a) the gate cannot be opened except when the cage or platform is at the landing; and
 - (b) the cage or platform cannot be moved away from the landing until the gate is closed.
- (6) Every hoist or lift and every enclosure referred to in paragraph (4) shall be so constructed as to prevent any part of any person or any goods carried in the hoist or lift being trapped between —
- (a) any part of the hoist or lift and any fixed structure; or
 - (b) the counterbalance weight and any other moving part of the hoist or lift.
- (7) Every hoist or lift shall be marked conspicuously with the maximum working load which it can safely carry.
- (8) No hoist or lift shall be used in a workplace to carry a load exceeding its maximum working load.
- (9) The following additional requirements shall apply to lifts used in a workplace:
- (a) efficient automatic devices shall be provided and maintained to prevent the cage or platform from over-running;
 - (b) every cage shall, on each side from which access is afforded to a landing, be fitted with a gate with efficient devices to ensure that, when persons or goods are in the cage, the cage —
 - i. cannot be raised or lowered unless all the gates are closed; and
 - ii. will come to rest when a gate is opened; and
 - (c) where the cage or platform of the lift is suspended by rope or chain —
 - i. the cage or platform shall be separately connected with at least 2 ropes or chains, each rope or chain and its attachments being capable of carrying the whole weight of the cage or platform and its maximum working load; and
 - ii. efficient devices shall be provided and maintained which will support the cage or platform with its maximum working load in the event of a breakage of the ropes or chains or any of their attachments.

- (10) In the case of a hoist or lift used in a workplace which is not powered with mechanical power —
- (a) paragraph (9) shall not apply;
 - (b) the gate referred to in paragraph (4) shall be kept closed and fastened except when the cage or platform is at rest at the landing; and
 - (c) a thorough examination of the hoist or lift shall be carried out at least once every year by an authorised examiner.
- (11) Where a hoistway or liftway inside a workplace passes through 2 or more floors —
- (a) the hoistway or liftway shall be completely enclosed with fire-resisting materials, except that the top shall be enclosed only by some material easily broken in case of fire, or be provided with a vent; and
 - (b) all means of access to the hoist or lift shall be fitted with doors of fire-resisting materials.
- (12) It shall be the duty of the occupier of a workplace in which a hoist or lift is used to comply with paragraphs (1) to (11).
- (13) It shall be the duty of an authorised examiner to —
- (a) issue and sign a certificate, in a form determined by the Commissioner, of the result of the examination referred to in paragraph (3);
 - (b) provide the certificate referred to in sub-paragraph (a) to the occupier of the workplace;
 - (c) inform the Commissioner —
 - (i) as soon as is reasonably practicable, if the examination shows that the hoist or lift cannot continue to be used safely unless repairs are made; or
 - (ii) in any other case, within 28 days of the completion of the examination, of the results of the examination in a manner acceptable to the Commissioner; and
 - (d) exercise all due diligence in making any certification or in conducting any test or examination of any hoist or lift under this regulation.
- (14) For the purposes of this regulation, no lifting machine or appliance shall be considered to be a hoist or lift unless it has a cage or platform and the direction of movement of the cage or platform is restricted by a guide or guides.
- (15) This regulation shall not apply to any lift which has been inspected and tested under the Building Maintenance and Strata Management (Lift and Building Maintenance) Regulations 2005 (G.N. No. S 194/2005) and for which a Certificate of Lift Maintenance and Testing has been lodged with the Commissioner of Buildings.