

Accident Advisory: Worker found dead in lift car

Ref: [1819083](#) WSH Alert Accident Notification dated 1 February 2019

On 14 January 2019, a worker was using a lift to transport demolition debris down from the 8th floor when the lift started descending at a high speed and landed into the lift pit. The worker was pronounced dead at the scene. He was part of a team carrying out lift upgrading works at the residential building.



Figure 1: Scene of the accident

Recommendations

Persons in control of similar workplaces and work activities, such as principals and employers, are advised to consider the following risk control measures to prevent similar accidents:

Testing and examination

- Only lift cars that have been inspected by an Authorised Examiner (AE) and certified fit-for-use may be used for material transport.
- AEs are reminded to exercise due diligence in testing, examining and certifying lifts that are safe to use for its intended purpose, and that safety devices are in place and in good working order.

Safety devices

- Ensure all lift car safety devices (e.g. brake system, safety gear, overload detector, buffer) are in good working order and properly maintained to ensure their continued operability and effectiveness.

- To prevent unintended car movements, lift owners are advised to consider upgrading the lift braking system with built-in redundancy and self-monitoring features, such as a rope gripper. The rope gripper can be designed to automatically stop the lift once unintended lift car movement is detected.
- Workers using the lift car are not to by-pass or remove such safety devices installed or fitted to the car.

Material transport

- Building materials or debris to be transported in the lift car must be within the safe working load of the lift car, and properly stacked or securely fastened to prevent undesirable movement or accidental toppling.

Safe work procedure and emergency response

- Develop and implement a safe work procedure (SWP) for the lift car to be used safely. The SWP must always be strictly adhered to by workers using the lift car.
- Workers must also be made aware of the actions to take in the event of an emergency such as lift malfunction or unintended movement of lift car. This can be covered, for example, during the toolbox meeting prior to work commencement. Emergency response should cover a rescue plan for workers injured or trapped inside the lift car.

Risk Assessment

Conduct a thorough Risk Assessment (RA) for all work activities to manage any foreseeable risk that may arise during lift upgrading works. The RA should address, but is not limited to, the following areas:

Alteration or replacement works

Major alteration or replacement works concerning the lift landing door or lift car door might expose personnel to hazards such as falling objects, sharp edges and falling from elevated locations. These could result in injuries ranging from cuts to serious or fatal injuries.

Working on top of lift car

Working on top of the lift car can expose personnel to moving machinery parts and electrical equipment putting them at risk of being crushed or trapping hazards between the lift car and counterweight/lift shaft soffit/lift pit as well as electrocution hazards.

Transporting material via lift car

Manual handling issues such as working within a restricted space and the presence of debris may expose workers to risk of cuts and musculoskeletal injuries. Any sudden movement of the lift car may result in possible falls and/or striking against the materials within the lift car.

Further Information

1. Building Maintenance and Strata Management Act
2. Building Maintenance and Strata Management (Lift, Escalator and Building Maintenance) Regulations 2016
3. Workplace Safety and Health Act
4. Workplace Safety and Health (General Provisions) Regulations
5. Workplace Safety and Health (Risk Management) Regulations

6. Workplace Safety and Health (Construction) Regulations 2007
7. Building and Construction Authority (BCA)'s Circular on Amendments to the Building Maintenance and Strata Management (Lift, Escalator and Building Maintenance) Regulations – 27 December 2018
8. Code of Practice on Workplace Safety and Health Risk Management
9. SS550:2009 Code of Practice for Installation, Operation and Maintenance of Electric Passenger and Goods Lifts
10. WSH Guidelines on Working Safely during Modernisation, Installation or Dismantling of Electric Passenger and Goods Lift
11. Technical Advisory for Working Safely during Maintenance of Electric Passenger and Goods Lifts
12. WSH Guidelines on Improving Ergonomics in the Workplace
13. WSH Council's Guide to Effective Toolbox Meeting

* Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 08 February 2019. This may be subject to change as investigations are still on-going. Please also note that the recommendations provided here are not exhaustive and they are meant to enhance workplace safety and health so that a recurrence may be prevented. The information and recommendations provided are not to be construed as implying liability on any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

We regret that we are unable to reply to emails at this address. For enquiries or feedback, please email us at contact@wshc.sg.

Visit the WSH Council's [website](http://www.wshc.sg) now for updates on WSH-related matters, information and events.

Prevent all injuries.
Go home safe and healthy.

VISION
ZERO

**Show your support for safe and healthy workplaces
at www.wshc.sg/nationalcampaigns**

This WSH Bulletin is available free of charge, may be printed or downloaded onto electronic, optical or similar storage media provided that such activities are for private research, study, or in-house use only. If such material is to be copied or reproduced, users are asked to ensure that the material is reproduced accurately and not in a misleading context, that the status of the material is identified and to acknowledge Workplace Safety & Health Council, Singapore as the source of the material.