



Australian Elevators Association Limited

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SAFE ACCESS TO LIFT WELLS

Management of lift well access

There are a number of risks relating to the access of the hoist way which could include access to:

- The Lift Pit;
- The top of car; and or
- Any other part of the Lift Shaft including emergency access at any point in the lift shaft.
- These hazards include:
 - Fall from Height risk (from Top of Car, from Landing doors to Pit Ladder, when using Pit Ladder or when using emergency access doors);
 - Crush risk (whole or part of the body) through uncontrolled or unintended lift movement during access to the hoist way;
 - Other potential risks including, objects falling from height, potential inundation by a liquid or gas, exposure to biological or other hazardous substances, or workers working remotely and or in isolation.

Note: the hazards above and any other hazards identified as part of your site risk assessment need to be controlled within what is deemed reasonably practicable.

Lift landing access

Lift service providers need to develop a safe work method to manage the risk of potential falls into the hoist way; fall protection controls could be:

- Portable physical door barrier
- Door opening wedges
- Hoardings devices
- Or other administrative procedures

Safe access to top of car

All Top of Cars should have suitable guardrail fitted and installed in line with applicable standards where there is a fall risk between the shaft wall and top of car roof edge.

- Guard rails are recommended where the gap between the top of car edge and shaft wall is greater than 300mm.
- In the event that a Guardrail is in place, but work is required to be conducted on top of the car using a portable ladder or platform which takes a person above the side protection offered by a guardrail, then suitable fall protection measures should be considered and implemented in any work method process. This could include the use of work positioning and or fall arrest systems.

Compliant Structures

For most lifts operating in Australian buildings the means of safe access to the pit floor will comply with the current version of either AS1657, AS1735, EN81, A17.1 and those safe access means will consist of stairs, walkways and/or ladders.

Those standards set out the requirements for various structures which are intended to provide a means of unaccompanied and safe access for inspection or maintenance personnel, which is particularly suited to lifts. AS1657 defines safe access by various means including ladders where the vertical distance between levels is up to 6.0m.



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An appropriate lift pit access means will have been designed and constructed with due consideration of the need for unaccompanied personnel to get safely to and from the pit floor for maintenance or inspections, and with proper consideration of risks associated with lift equipment that can move, and other constraints inherent in a lift installation.

Non-compliant structures

For any buildings and lifts that do not have appropriate pit access means, it is suggested that the owner together with the lift service provider, consider applying the risk management principles so that a comparable level of risk control is achieved.

Various WHS legislation and guidelines outline well known risk control hierarchies that should be considered when seeking to control risks to a greater degree.

SAFE ACCESS TO LIFT WELL PITS

Pit access doors

Whenever possible, and especially when buildings are being designed or constructed, the AEA recommends a sub-floor access door or hatches be provided, particularly when a lift pit depth is more than 2.0m. The location, size and locking of any pit access doorway should be determined by the architect in consultation with the lift equipment designer.

Pit access when sub-floor access door not available

For pits greater than 2.0m in depth in existing buildings and when a sub-floor access door or hatch is not available, the following options should be considered to mitigate the fall from height risk from either the landing or needing to use a ladder. These options will depend on the characteristics of each site. A combination of possible controls might also be used.

Installation of a mezzanine or false floor in the pit to reduce the pit depth to less than 2.0m (note this will depend on pit clearances and lift speed).

The use of PPE and fall protection devices such as harnesses. Note these should be considered and only implemented after consideration of risk management principles and control hierarchies between the site owner and manager and lift service provider. Certification requirements for the use and testing of particular structures as connection or anchor points should be based on recognised standards, codes and jurisdictional guidelines

Use of ladders

When pit access doors are not practicable and ladders are used, ladder access methods should provide for three points of contact when climbing, meaning that it is only necessary to remove one foot or one hand from a ladder and surrounding area at any time. For example; AS1657 table G2 gives advice on the use of rung ladders. Ladders should be installed and positioned in line with applicable standards (AS1735 and EN81-20) including:

- Horizontal distance of the ladder (nearest ladder stile) to the landing door edge; and
- Dimension of the ladder including stile height above the landing floor, rung width, clearance of the ladder from the shaft wall depending on the type of installed, eg. Fixed, portable and pull out / extendable ladder.



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Suggested controls for the above mentioned other hazards:

The Site owner in consultation with lift service provider needs to ensure there is a safe system of work to control the above-mentioned hazards, example controls include:

- Ventilation, purging and decontamination (cleaning) of lift pits to ensure safe environment for workers
- Control of dropped objects by incorporating tethered tools, kick boards, working at the lowest lift level, work outside of normal business hours and work exclusion zones

Remote and Isolated worker:

Site owner in consultation with the lift service provider, principle contractor (for new constructions) or site controller must ensure there are effective systems and processes in place to manage the health and safety of workers performing remote or isolated work. This could include smart phone or other portable communication devices or alternative administrative procedures.

Note: All interested parties need to consider the principles of risk management to address this element of risk.