

Estates and Facilities Alert

Action

Ref: EFA/2011/002 Issued: 17 October 2011
Gateway Reference: 16776

Device

**Electric traction lifts without motor rooms.
Also known as MRL lifts (machine roomless lifts)**



Problem

- In the event of a loss of electrical power, lift failure or breakdown passengers may be trapped in a lift.
- With a machine roomed lift the brake and winding wheel are located in the lift motor room and easily accessible to rescue personnel.
- With an MRL lift the brake is located in the shaft and either mechanically or electrically operated.
- Thus this type of lift relies on the availability of a power supply to the electrically operated brake.

Action

Manufacturers and service/ maintenance providers of the lift installation should confirm that all electrical systems provided for the emergency movement of new and existing MRL lifts are monitored and give a clear warning of any UPS, battery or other circuit failures.

Action by

Managers and staff responsible for the procurement, supply, maintenance and asset management of lifts.

Contact

Lift maintenance and Service providers and/ or manufacturers.

Problem

1. NHS Wales Shared Services Partnership – Facilities Services have witnessed handover of many lift installations. The healthcare providers' preference is generally for lift drive units to be located within the lift shafts rather than in a separate lift motor room. These lift types are known as MRL lifts (machine roomless lifts) lifts and are available in different sizes including bed passenger lifts.
2. The rescue of passengers trapped in lifts is an important part of the training provided by lift installers to Healthcare bodies on completion of the contract works. In older installations this operation was relatively simple using the brake and hand winding equipment located in the lift motor room. The construction arrangements of an MRL lift make this procedure impossible and so different procedures are required.
3. Early MRL lifts were fitted with a mechanical brake release in the control cabinet which is generally located in the architrave on the landing of the highest floor served by the lift. More recent MRL installations employ an electrically powered system, e.g. a battery, which is easier to use by staff who are not lift engineers, but are trained in passenger release procedures.
4. Initially the battery was used under manual control to power the brake release and operate a control mechanism to allow the lift to move either up or down depending on lift position and load. However, some lift manufacturers have started incorporating in the lift design and installation an uninterruptible power supply (UPS) system, able to automatically drive the lift to an adjacent floor with minimal intervention.
5. All these designs are dependent upon the UPS being maintained and monitored for faults and failure. In the event of a failure, passenger rescue may not be possible without assistance from a lift maintainer and resultant delay which may give rise to further risks to staff and patients.

Action

6. All MRL lift installations should include some form of electrical standby power (probably UPS) to facilitate passenger rescue by ensuring electrically operated brakes can be lifted and/or power provided to drive a lift to the nearest landing.
7. All MRL lift installations should include a suitable system to monitor the condition of the UPS or battery and to raise alarms, where necessary.
8. The lift installer should provide confirmation from the UPS manufacturer that the UPS is suitable for the environment where they are located (e.g. lift shaft, plant rooms, etc.) and in particular meets all Electromagnetic compatibility (EMC) requirements.
9. Installation teams and healthcare providers should ensure that all emergency standby power and UPS equipment connected to an MRL lift are monitored by the healthcare premise Building Management System (BMS) or other suitable facility.
10. For existing MRL lifts, healthcare providers should liaise with the lift installer to determine whether a link can be installed from the BMS/PC or suitable monitoring system to the lift UPS.
11. For **Emergency Planning** provision, the lift installer and/or maintenance contractor should confirm that they have a written method statement for the rescue of trapped passengers in the unlikely event that mains power becomes unavailable and the UPS has failed.

12. For new designs this Alert should be reviewed with those managing the scheme for the Healthcare provider.

13. For existing MRL lifts the EFA should be reviewed by those with responsibility for operation and maintenance / service of the lifts.

Suggested Onward Distribution

- Risk Management,
- Estates Directors,
- Facilities Directors,
- Primary Care organisations
- Fire Advisors,
- GP and Dental surgeries,
- Nursing and Care Homes,
- Ambulance Stations,
- Office Managers,
- Healthcare design and architect teams.

Additional information for England

The above sections of this Alert were compiled by NHS Wales Shared Service Partnership - Facilities Services and distributed nationally without modification.

Action required by this alert should be **underway by: 21st November 2011**

Action required by this alert should be **completed by: 23rd January 2012**

Enquires should quote reference number EFA/2011/002 and be addressed to:

Defects & Failures

Department of Health
Estates & Facilities Division 3N09
Quarry House,
Quarry Hill,
Leeds LS2 7UE
Mb-defects&failures@dh.gsi.gov.uk

HOW TO REPORT DEFECTS & FAILURES

Defects and failures relating to non-medical equipment, plant and buildings should be reported to the Department as soon as possible. Advice on what needs to be reported can be found in DH (2008) 01. Defect and failure reporting is an on-line only reporting facility, available on the NHS Information Centre website at www.ic.nhs.uk

This Alert can be found on the following websites
<http://www.dh.gov.uk> and <https://www.cas.dh.gov.uk>

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