USING UCL STANDARD LIFTS FOR EVACUATION OF MOBILITY IMPAIRED PERSONS (MIP)

Staff & students use of lifts for evacuation - what you need to know:

It is standard practice to prohibit the use of all lifts during fire evacuation on the basis that the fire may cause damage to lift motors or disrupt electrical supplies resulting in occupants being trapped in the lift during a fire incident, additionally:

- persons waiting for the lifts would delay the evacuation beyond safe evacuation times for the building;
- higher risk of lift cars being overload with occupants trying to evacuate failing, trapping persons in the lift car without escape;
- risk of lifts stopping on the fire floor and lift car doors opening resulting in occupants being injured or incapacitated by fire or smoke on that level;
- lift rescues often take a considerable time to hand move lift cars to the next available safe floor, even if the lift motor room is accessed safely;
- others (lift engineers fire brigade etc.) would be placed in danger, trying to effect a lift rescue in these conditions;
- lift rescues would divert limited Fire Brigade resources at incident to unnecessary / avoidable lift rescues, instead of tackling the fire or other immediate rescue tasks;

Mobility Impaired Persons (MIP) are particaurly at risk due to their inability to negotiate stairs during an emergency incident. Therefore, lifts may be used in certain circumstances during a fire incident but only with safety controls, modifications and specific management arrangements in place. MIP occupants may be able to use the following types of lifts depending on availability and other constraints:

**Firefighting Lifts** (specifically for use by the fire brigade during fire incidents) - may be used for MIP to evacuate after a short delay, providing that this is communicated to the attending fire brigade upon their arrival;

**Evacuation Lifts** (specifically for MIP evacuation during fire incidents) - may be used to evacuate after a short delay to implement management arrangements;

**Standard Lifts** - may be used for MIP to self-evacuate only where a specific risk based assessment, special modifications and management controls have been implemented;

*This approach is based on the specifications of Clause 46.9 of BS 9999: 2017, taking into consideration the requirements imposed on the ‘Responsible Person’ in relation to the provision of means of escape for ‘all relevant persons’ under the Regulatory Reform (Fire Safety) Order 2005*
1.0. Introduction

Physical constraints of lift construction, lack of staff availability and evacuation management presents challenges for disabled egress from UCL buildings in the event of an emergency. This has resulted in the implementation of a risk-based approach to the use of standard lifts (passenger or goods) in order to facilitate disabled self-evacuation (or with minimum assistance) within a short period. Refered in this document as Adapted Standard Lifts (ASL).

It is reasonable to assume that in the first minutes of a fire, components essential to the function of the lift would not be normally be effected. Under this proviso, there is no reason for the lifts not to be used in order to facilitate the evacuation of MIP, during a short initial period. This approach would equally apply to the use of designated evacuation and firefighting lifts and the provision of self-evacuation measures, as opposed to using lift keys and having other designated staff to undertake this function.

However, there a number of considerations and safeguards that are required to be in place prior to implementing such a procedure. These are identified in a robust risk assessment that considers the specific arrangements required for the diversity of buildings at UCL. Generally, ASL will be introduced only with the following considerations:

- provision of suitable Refuges (to wait safely for short periods during fire incidents) are provided;
- all ASL entrance landings will need to be a suitable to meet a protected FR30 disabled refuge;
- all ASL entrance landings have some form of communications provided for use by MIPs;
- ASL will generally be provided in low risk buildings;
- ASL will generally be provided in low rise buildings;
- Both generic and completed building specific risk assessment will be required for each lift;
- A register of all ASL to be kept and regularly updated;
Areas that require assessment and form part of the fire alarm cause and effect for the ASL:

- all areas in the vicinity of lifts (lift lobbies, stair enclosures etc.);
- lift motor rooms;
- lift shafts;
- electrical mains intake rooms;
- lift power supply source and cabling;
- lift car physical attributes;
- local lift / building constraints;
- provision of two directions of escape and other lifts that may be used;
- the implementation of other means (for example, evacuation chairs) where this is not directly possible, other arrangements will need to be explored;

1.1. **Adapted Standard Lift (ADL) Safety Process:**

- Fire alarm activates:
  - all lifts ground and come out of use;
- building occupants evacuate;
- ASL delay time starts (counting down between 5 and 10 minutes);
- after ASL time delay countdown completed, fire alarm system checks for:
  - any fire alarm activation in ASL critical areas;
  - if none:
    - ASL will come back into service to allow self-evacuate;
- however, any fire detector activation in ASL critical areas:
  - ASL will not come back into operation;
  - alternative MIP evacuation methods including assistance from the fire brigade, may be required;
2.0. Adapted Standard Lift (ASL) - Cause and Effect Matrix

**FIRE ALARM ACTIVATION**

- **MIP Adapted Standard Lift (ASL) Unit**
  - Has the fire alarm been activated in any of the following areas:
    - electrical mains intake room;
    - power supply to the ASL;
    - stair enclosure housing the ASL;
    - landing;
    - ASL motor room;
    - ASL shaft;
    - other relevant locations;

- **Yes**
  - Lifts ground & remain out of service
  - Evacuation by other means or as specified in individual PEEP

- **No**
  - **Is there a second ASL available?**
    - **No**
      - Fire Fighting or Evacuation Lifts - ground & come out of service;
      - Use of these lifts under local management arrangements or under Fire brigade control on arrival;
    - **Yes**
      - **Fire Alarm Activation**
        - ASL will ground and come out of service; timer countdown starts for a minimum period of five minutes (in order to deter other abled bodied persons from using the lifts during an evacuation);
        - During this period MIP make their way to a safe refuge whilst other occupants evacuate the premises;
        - Once the ASL timer has elapsed and there is still no activation of relevant fire alarm devices, the ASL become active;
        - ASL may then be called to the safe refuge floor and MIP may self evacuate to safety;
      - **MIP Self Evacuation**

**Evac Lifts: Rev 1 / Dated: Apr 17**

Pairs of letters (NO)

---

Date Last Amended: May 18

Issued by the - Fire Safety Manager, Safety Services, UCL Estates, Gower Street, London, WC1E 6BT. This guide is to be regarded as a general statement of UCL local requirements, information or guidance only & supplements relevant British Standards or Manufacturers Instructions etc.
3.0. **Lift Cause, Effect and Wiring Diagram**

3.1. For the ASL cause and effect to work, the following diagram need to be followed in order to have a minimum of five minute (up to ten minutes in taller buildings) time delay on lift operations. The way this works:

- wiring two fire alarm interfaces next to the lift motor controls;
- interfaces will then be programmed to bring the lift to the programmed floor (usually ground);
- wait for 5-10 minutes giving other abled bodied building users, time to evacuate the building without attempting to use the lift;

3.2. The way this is done is:

- the first interface will send the lift to ground on a fire alarm activation by closing the link to the lift motor;
- the second interface then starts a timer for 5 minutes following which the link will re-open to allow the lift to work as normal, and be called to the required location for evacuation purposes;

3.3. When will this will not be the case:

- as part of the cause and effect, the timer will work on all detectors and manual call points around the building except for those in areas that are critical to the lift function;
- those areas, will be any detector or MCP operating in the lift landing, the lift motor room or the main electrical intake room (where no secondary back-up supply is provided) feeding the power to the lift;
- the reason for this is so that the lift and anybody using it, will not be at risk of becoming trapped or effected by smoke and / or fire while making their escape;