

# EVACUATION LIFT RECOMMENDED OPERATING PROTOCOL

## BACKGROUND

In order to support the correct operation of a lift in evacuation mode, we provide the following protocol to be used for the operation of an evacuation lift in the event of use. This is the responsibility of the lift company and not Power Systems International Limited (PSI) or PSI Lifts Limited (PSIL). Moreover, this is guidance and no reliance can be placed nor inferred from this protocol.

What we are providing is an example of what in our opinion is best practice and it is the ultimate client's responsibility to ensure that any evacuation procedures and protocol are fit for purpose.

## SOURCE OF PROTOCOL

We have used the lift system at Garth Building, Bangor University based on the design for those lifts, the lift equipment and our secondary power systems.

Recommended Lift Evacuation Protocol

The system is integrated with the ELPS unit; with the lift control working as follows: On activation from the building fire alarm or on the event of a switch from normal operation to evacuation mode on the landing station.

1. The lifts, if in travel will continue to the destination and complete a controller stop (doors do not open). Landing call buttons are disabled.
2. The display within the cabins and on the landings will display: "Lift in Evacuation mode". This is also repeated on the lift cabin speech system. With this installation, Welsh practice adopted in the Garth Building lifts, require that this is repeated in Welsh. Other secondary languages maybe required in public places, though there is no requirement for this.
3. The lifts return to the main exit level and stay parked there with the doors open. If a fire signal is detected on the main floor the lift will return to the second option level.
4. The displays on the landings and cabin show lift position and Lift in evacuation mode, when the lift travels the direction arrows show direction of lift and floor level.
5. The evacuation procedure is for two people: operative one at the main control station receiving calls from the landing intercoms and one operative as lift driver. Communication between operatives is via cabin intercom and main station.
6. The lift driver using the evacuation control key in the cabin COP takes control of the lift by switching the lift to evacuation operation. At this point the doors will close and all landing buttons remain disabled.
7. The lift driver operates the lift by placing calls in the cabin as normal with the exception of the doors opening. In this instance this is not automatic during evacuation control. The evacuation lift has to be fitted with at least 2 hour rated doors.
8. When a floor call is placed the lift travels to the level and the floor button needs to be pressed to open the doors. The doors are set to instantly close if the floor button is released (in case of fire, smoke etc.). Once the doors are fully open they will remain open for the set time (double the normal door opening time allowing persons in wheelchair, or with limited mobility time to enter the lift. If at any point a floor call is placed the door close straight away.
9. It is advised that the operatives work the following system: as landing calls are placed for evacuation the controller advises the lift driver of the landing floors for pick up, the driver runs the

lift to the highest level picking up passengers on the down direction floor to floor. In this way the empty cabin drives up, and less power is drawn from ELPS batteries, by collecting passengers in the down direction, as this loads the cabin. The more weight in the cabin the less power required to operate the lift, and by being more a more efficient use of power, it provides more operations.

10. On arrival to the exit level, the driver removes the evacuation key this places the lift in a non-operational state with evacuation operation still displaying on landings and cabin displays. The driver assists persons through the evacuation route to the muster point.

11. At the muster point the driver will contact the controller and await instructions. If further calls are placed from a landing for evacuation and if in the opinion of the fire evacuation officer it is deemed safe to re-enter the building then the operators can return for further journeys. If the Evacuation Officer is not satisfied that the building is safe to return to, then they should wait for fire brigade and instruct them of all the levels were persons are within the safe zones.

12. During the operation the ELPS provides battery level signal to the lift controller. The lift controller, when a low state signal is received, will display on all levels, cabin display and on the speech system (last operation travels). The control will allow one complete run to the top floor and collection from each landing. On arrival to the exit level the lift will go out of service doors open and displays showing out of service. If this occurs then the driver will inform the command station that the lift has completed all available ELPS operations.

13. The command operative must then inform the fire brigade and all emergency personnel that no further evacuation is possible with the lift, and inform the fire brigade and all emergency services of any landing call point requests. If the above systems are not in place the lift system is not suitable to be used as an evacuation lift.