

Department of Industrial Relations
Division of Occupational Safety and Health
ELEVATOR UNIT HQS
6980 Santa Teresa Boulevard, Suite 130
San Jose, CA 95119
Phone: 408.362.2120
Fax: 408.362.2131



May 18, 2010

CIRCULAR LETTER E-10-01

**TO: Installers, Manufacturers of Conveyances and Related Equipment and,
Other Interested Parties**

SUBJECT: Battery Operated Retrieval Devices

This letter does not address battery powered inching features found on some MRL elevators which pick brakes in a controlled manner to facilitate rescue by trained elevator personnel, or battery lowering of hydraulic elevators.

This letter seeks to clarify the Division's requirements as they relate to devices which use batteries to drive traction elevators in cases of main power failure, in particular but not limited to, the Reynolds & Reynolds TPV Powervator systems.

The Division believes that a hazard can be created by the installation of these devices and is issuing this special order pursuant to California Labor Code 7318.

Where a Battery Operated Retrieval Device is to be provided on new or existing traction elevators the following procedures shall apply:

The Division shall be notified in writing of the intent to alter an elevator prior to the installation of the Battery Operated Retrieval Device.

The Division shall be notified that the installation of the Battery Operated Retrieval Device is complete, and that the elevator is ready for inspection prior to resumption of elevator service.

A complete set of wiring diagrams indicating the modifications to the elevator controller resulting from the installation of the Battery Operated Retrieval Device shall be provided to the Division for review.

Documentation of the sequence of operation shall be provided to the Division.

All operating and electrical protective devices shall function as prescribed in CCR Title 8, except as may be modified in this special order.

Battery Operated Retrieval devices shall not be considered as Emergency or Standby Power.

The Battery Operated Retrieval Device shall comply with the following requirements.

Operation

- 1) **The Battery Operated Retrieval Device operation shall be permitted, providing that all electrical protective devices function as they would when powered by the main power supply. The function of the following devices and operations may be modified, bypassed, or otherwise made inoperative as described below.**
 - A) **Designated Attendant Operation is not required.**
 - B) **On Phase I Emergency Recall or Phase II Emergency In-Car Operation, the system may respond appropriately to inputs from fire control and operating devices, or if battery power is insufficient to move the car to the designated or recall level, the following operation is required.**
 - 1) **The fire hat in the car shall be extinguished.**
 - 2) **A car that is not at a landing shall move to the closest available landing it is capable of reaching.**
 - 3) **A car with power operated doors that is stopped at a floor shall open the doors, and then within 15 seconds, initiate reclosing.**
 - 4) **A car that is stopped at a landing shall have its door open button operative until power is removed by the Battery Operated Retrieval device.**
 - 5) **A car that is stopped at a landing shall not move until normal, emergency, or standby power is available.**
 - C) **Upon activation of a counterweight displacement device, an elevator powered by a Battery Operated Retrieval Device shall move to a floor in a direction away from the counterweight if possible. If it is not possible to move to a floor in a direction away from the counterweights, the car shall remain stationary.**
 - D) **All landing call registration devices shall be rendered inoperative.**
 - E) **Where a power door reopening device is rendered inoperative during the activation and operation of the Battery Operated Retrieval Device, the average kinetic energy produced by the closing door shall not exceed 2½ ft/ lbs.**
 - F) **The procedure to test, service, and repair the Battery Operated Retrieval Device shall be documented and located in the elevator machine room.**

Electrical Requirements

- 1) **The Battery Operated Retrieval Device shall be rendered inoperative when the machine room main power supply disconnecting means is in the open position.**
- 2) **Any modifications to electrical equipment, such as disconnect switch cabinets or controller cabinets, and elevator controller shall be approved by the equipment manufacturer and listing agency.**
- 3) **The incoming AC power and the batteries of the Battery Operated Retrieval Device shall each have a disconnecting means lockable in the open position to remove power from the device and elevator controller.**
- 4) **The Battery Operated Retrieval Device shall remain inoperative where loss of power results from a shunt trip device.**
- 5) **The Battery Operated Retrieval Device shall be located in the elevator machine room or control space.**

**Debra Tudor
Principal Engineer
DOSH-Elevator Unit HQS**