



Elevating and Amusement Devices Safety Program	Ref. No.: 291 / 20
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Subject: Elevator Car Lighting Branch Circuit
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This advisory is intended to inform owners, consultants, and contractors on TSSA’s perspective regarding the use of the elevator car light branch circuit to power accessories in or on the elevator car.

The Ontario Electrical Safety Code (OESC) contains the requirement in section 38-022 to provide a branch circuit for the elevator car lights.

38-022 Branch circuits for car lighting, receptacles, ventilation, accessories, heating, and air conditioning

- (1) At least one branch circuit shall be provided solely for the car lights, receptacles, auxiliary lighting power source, accessories, and ventilation on each car.*
- (2) Where air-conditioning and heating units are installed on the car, they shall be supplied by separate branch circuits.*
- (3) The overcurrent device protecting each branch circuit shall be located in the machine room or control room/machinery space or control space.*

TSSA interprets accessories to mean an accessory for one of the items identified in 38-022(1). I.e. An accessory for the car lights, receptacle, auxiliary lighting or ventilation. An accessory could be an item such as a device that automatically turns off the car lights when the elevator is not occupied or an air purification device that is part of the ventilation system.

Video monitors are not considered an accessory by TSSA and require their own branch circuit. The OESC section 38-025 provides the requirements for this branch circuit.

38-025 Branch circuits for other utilization equipment

- (1) Separate branch circuits shall supply other utilization equipment not identified in Rules 38-022, 38-023, and 38-024, but used in conjunction with equipment identified in Rule 38-001.*
- (2) The overcurrent devices protecting the branch circuits shall be located in the machinery room or control room/machinery space or control space.*

This circuit is not required to utilize 14-gauge wire or be a 15-amp circuit. Therefore, smaller sized conductors with an appropriately rated disconnect could be used for the branch circuit for video monitors.

Rationale

- 1. The equipment identified in 38-022(1) [*car lights, receptacles, auxiliary lighting, and ventilation*] are all items that are required by the elevator code. Excluding items other than accessories of these items from the branch circuit ensures that other non-code required items will not result in an overload or short of this circuit rendering these items unavailable.
- 2. A change is anticipated in 38-022 to follow changes being proposed in the NFPA. This change will remove the generic term accessory and replace it with specific equipment that is permitted to be supplied by the car light branch circuit. The specific equipment is: receptacles, alarm devices, Emergency Responder Radio Coverage (EERC) equipment, cab environmental purification systems, auxiliary lighting power sources, car emergency signaling and communication devices, monitoring devices not part of the control system (i.e. video cameras) and ventilation.

Application

Existing video monitors (or other non-elevator accessories such as protectors, security systems, patient wandering systems, ornamental exterior car lighting) that are connected to the elevator car lighting circuit will be permitted to remain connected to this circuit until the next 'related' major alteration to the elevator. Any new installation of video monitors must be wired to a separate branch circuit as identified in OESC 38-025. Video monitors are expected to be permanently wired using one of the wiring methods identified in OESC 38-021. Video monitors and any other permanent equipment are not to be plugged into the receptacles provided on the car.