



IUEC CODES & STANDARDS ALERT

Subject: Phase II Emergency In-Car Operation

Control Type: Otis GCS Controller and other manufacturers

Safety Code: A17.1/B44:2019 and earlier editions

Scenario:

- Elevator is recalled to the designated level using the Phase I FIRE RECALL key switch
- Once recalled to the designated level, the car is “captured” on Phase II Emergency In-Car Operation by placing the FIRE OPERATION key switch to the “ON” position
- Doors are closed by applying continuous-pressure to the door close button
- A car call is placed to an intermediate floor and the elevator responds accordingly
- Once the intermediate floor is reached, the doors remain closed as required
- Next, the In-Car Stop Switch is keyed to the STOP position while the doors are closed
- When the door open button is pushed and released prior to full open, the doors do not automatically reclose as required. In this scenario, the doors continue to open until the door open limit is reached without continuous-pressure on the door open button.

Code Reference:

ASME A17.1-2019/CSA B44:19

2.27.3.3 Phase II Emergency In-Car Operation

2.27.3.3.1

...

(d) The opening of power-operated doors shall be controlled only by a continuous-pressure door open button. If the button is released prior to the doors reaching the normal open position, the doors shall automatically reclose. Requirements 2.13.3.3, 2.13.3.4, 2.13.4.2.1(b)(2), and 2.13.4.2.1(c) do not apply. All door open button(s) in the car shall be operational.

(e) Open power-operated doors shall be closed only by continuous pressure on the door close button. If the button is released prior to the doors reaching the fully closed position, horizontally sliding doors shall automatically reopen, and vertically sliding doors shall automatically stop or stop and reopen. Where provided, an additional door close button(s) in the car shall be operational.

Summary:

It appears in this scenario that the In-Car Stop Switch changes the door open button from continuous-pressure to momentary. This condition is not permissible in ASME A17.1-2019/CSA B44:19 and earlier editions. The continuous-pressure control of the door open and door close buttons is critical for the safety of emergency personnel responding to a fire.

Recommendation:

Review and test the scenario to identify if this condition occurs. If the condition does exist, notify your supervisor and the Authority Having Jurisdiction for corrective action.