Subject: Otis Electronic Touch Buttons, Maintenance Procedures

Sent to: All Elevating Licensees

1. Background

Pursuant to their obligation under Section 25 of Ontario Regulation 316 made under the Elevating Devices Act, OTIS Canada, Inc. advised the Director of a potential problem with electronic touch buttons installed on Otis elevators.

The electronic touch buttons if not properly maintained may inadvertently activate when they come in contact with certain types of heavily moisture-laden smoke; typically, in the case of a building fire. The affects of smoke are particularly critical if the buttons are overly sensitive, worn, damaged or have accumulated dirt or other particular matter. Therefore a proper maintenance is of paramount importance.

The following Orders are formulated based on the maintenance procedures dated June 15, 1999, provided by OTIS Canada, Inc. that should lessen the possibility of unintentional activation of the buttons in the event of a fire.

2. Order to Contractors:

Contractors who maintain elevators equipped with Otis electronic touch buttons shall immediately implement the maintenance procedures which shall include the following:

2.1 Every Twelve (12) months:

2.1.1. Check the voltage settings of such buttons to ensure that they are not overly sensitive.

- **Recommended voltage** settings are as follows:
  1. B+ voltage – 135 volts maximum;
  2. Firing voltage (“Bo voltage”) – 150 Volts maximum;
  3. Bias voltage, if applicable. *(“TB”)-25 Volts maximum.

- Note: Bias voltage (“TB”) is utilized solely in electronic touch buttons that are part of multiriser elevator configurations.

2.1.2. Inspect button faceplates for signs of excessive wear or damage and accumulation of dirt or other particular matter.

- **Actions**
  1. Faceplates that are excessively worn or damaged shall be replaced.
(2) Faceplates that have accumulated dirt or other particulate matter shall be wiped clean with a cloth

2.2 Every sixty (60) months (see also 2.3)

2.2.1 Inspect button tubes and bases for signs of excessive wear or damage an accumulation of dirt or other particulate matter.

• Actions

(1) Touch button components including tubes, button inserts, bases and tube sockets shall be disassembled from the faceplate.

(2) Tubes or bases that are excessively worn or damaged shall be replaced.

(3) Tubes that have accumulated dirt or other particulate matter shall be wiped clean with a cloth and blown free of any remaining dirt or particulate matter with compressed air.

(4) Button inserts, bases and tube sockets that have accumulated dirt or other particulate shall be wiped clean with a cloth and blown free of any remaining dirt of particulate matter with compressed air.

2.3 Immediately and on regular maintenance visits:

2.3.1 Inspect immediately tubes and bases of any individual electronic touch buttons that have malfunctioned or appear damaged.

• Actions: Replace or clean if necessary as per the maintenance procedure in 2.2 above.

3. Instructions to Contractor

If the work required does not constitute a part of your maintenance contract, and you cannot obtain authorization from the owner to complete the work, you shall inform the District Inspector immediately, indicating the elevator installation number and reference to Bulletin #148/99, so that the inspector may issue an Order to the owner to have the work completed. Note, that contractors are provided with a listing of inspectors’ home office/district information.

4. Background

Following an investigation into a recent fire where the elevator equipped with Otis electronic touch buttons went to the fire floor, testing carried out by fire authorities in cooperation with the Offices of Coroners having jurisdiction, the manufacturer, other industry members and TSSA, confirmed the following.

Electronic touch buttons may activate when exposed to certain types of heavily moisture-laden smoke. Particularly if the buttons are overly sensitive and the button components are worn, damaged or have accumulated dirt or other particulate matter. The maintenance procedures prescribed above should lessen the possibility of such unintentional activation in the event of a fire.

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