Subject: WARNING: EFFECTIVENESS OF SAFETY RETAINERS DEPENDS ON PANEL-SILL CLEARANCES

Sent to: ELEVATOR CONTRACTORS IN SCOPE U1, L1, F1

1. ORDER TO CONTRACTORS

1.1 Contractors, who have installed hall door safety retainers on new elevators or under the retrofitting program, required by Director's Ruling #61/88, shall ensure that these installations met:

(a) All critical door-panel bottom and top maximum clearances, taking into consideration the possible maximum upward movement of the door panel;

(b) The minimum retainer-sill engagement, measured with the door panel in the closed position and with panel lifted as much as the top retainers permit;

(c) All other measurements to ensure that the installation of retainers was done in accordance with instructions supplied by the manufacturer of the door safety retainers.

1.2 Considering the safety risk to the general public from improperly installed safety retainers, contractors shall carry out all necessary checks, paying particular attention to retrofitted elevators, so as to verify conformance.

1.3 Non-conforming elevators shall be immediately corrected.

2. BACKGROUND

2.1 A person has been seriously injured after falling into the hoistway pit through a closed landing single-panel-sliding door. The door bottom safety retainers, retrofitted as required by the Director's Ruling #61/88 as well as the door prime guiding means disengaged from the sill-track, allowing the bottom of the door to swing into the hoistway.

2.2 The safety retainers did not fulfill their intended function in preventing this type of accident. Why?
2.3 According to the retainer's manufacturer's drawing, supplied with the retrofit kit and attached to the Ruling #61/88:

- Clearance A was to be not more than 1/8"...but was actually 5/16" to 3/8".
- Engagement B was to be at least 1/4"...but was actually only 3/64" to 1/16".

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\text{A = ZEE bracket to sill clearance;} \\
\text{B = Engagement of ZEE bracket with the sill after the door panel is lifted as much as the top retainers permit.}
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2.4 Note that, with the door-panel in the door-open position, the clearances were as required in the manufacturer's instructions. However, since the door sill was not level, the clearance A would increase and engagement B reduce when the panel is in the door-closed position.

2.5 Since the engagement 'B' with door closed was not in accordance with the manufacturer's drawings, the force that such installed safety retainers could withstand, was significantly reduced.