



NATIONAL ELEVATOR INDUSTRY, INC.

SETTING STANDARDS IN MOTION

February 20, 2020

B-1

Department of Labor & Industry  
Elevator Safety Board  
651 Boas Street, Room 1622  
Harrisburg, PA 17121-0750

Dear Members of the Elevator Safety Board:

At the Elevator Safety Board ("ESB") meeting on January 22, 2020, NEII offered to provide additional input before the ESB considers including the following proposal in its recommendations to the Secretary of Labor:

**2.7.5.1 Working Areas in the Car or on the Car Top.**

The requirements of 2.7.5.1.1 through 2.7.5.1.4 shall be complied with if ~~maintenance or inspection of the elevator driving-machine brake, emergency brake, elevator motion controller, or motor controller are located to be carried out from~~ inside the ~~car or from the car top~~ hoistway.

**2.7.5.1.1** ~~If maintenance~~ During maintenance, repairs, replacements, tests or inspection of the elevator driving-machine brake ~~or an~~ emergency brake, ~~or of~~ elevator motion controllers or motor controllers ~~from located~~ inside ~~the hoistway from inside~~ the car or from the car top ~~could result in unexpected vertical car movement~~, a means to prevent ~~this unexpected vertical~~ movement shall be provided.

NEII heard the concerns raised by the ESB and held a meeting with technical experts from the NEII member companies to consider a new or revised proposal. After making a good faith attempt to find a compromise, the group determined that the American Society of Mechanical Engineers A17.1/CSA B44 *Safety Code for Elevator and Escalators* ("ASME A17.1") already appropriately accounts for the potential of unintended movement of the car. NEII thus strongly opposes making any change to ASME A17.1 Requirement 2.7.5.1.

NEII has provided the ESB with robust comments (Attachment 1), explaining the ways the code addresses unintended movement. Specifically, "*if [unexpected movement] can occur, which is only if maintenance requires adjustment to the machine and emergency brakes, and/or motor controller from inside the hoistway... The A17.1 code addresses these conditions.*" ASME also responded to this issue in 2007 (Attachment 1) and determined that the code requirements are sufficient. Moreover, NEII has concerns that making the proposed code change will decrease the safety of those working on the car as it conflicts with established industry practices. Finally, NEII has seen no data to support such a modification to the code.

Given ASME's position, the absence of verified data indicating a problem requiring a fix and the unintended consequences of changing the code, NEII strongly opposes any changes to Section 2.7.5.1.

Sincerely,

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## Attachment 1.

**Previously Submitted December 16, 2019—NEII COMMENTS:** The American Society of Mechanical Engineers (“ASME”) conducted a Hazard Assessment and vetted all code changes related to the additional equipment in the hoistway through a thorough consensus process. The code language was based on the results of the Hazard Assessment. This language was added to the code since the 2005 supplement version and is identical in the 2016 version. Contrary to the public comment, unintended movement does not always exist with MRLs. Further, protection from unintended car movement while working on the car top is no less important for a non-MRL elevator as it is for an MRL elevator. While working on the car top, the car top inspection operating device and the car top stop button control the machine brake and power to the motor for MRL and non-MRL elevators. Additional protection for an MRL against unexpected car movement is necessary only if maintenance of the machine and emergency brakes, and/or a motor controller located in the hoistway can cause unexpected car movement. Where these components require no maintenance other than replacement, typical field practice to restrain the car can be provided during the replacement action. Protection from unexpected vertical movement is important if it can occur, which is only if maintenance requires adjustment to the machine and emergency brakes, and/or motor controller from inside the hoistway. The A17.1 code addresses these conditions; therefore the current language should be maintained.

ASME A17 Inquiry 06-26, below, further clarifies this requirement

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### **ASME A17.1/B44**

#### **Inquiry 06-26**

Subject: Requirement 2.7.5.1.1

Edition: ASME A17.1s-2005

Background: Access to the driving machine brake and emergency brake is from the car top on inspection operation.

However, no maintenance of the elevator driving machine brake or emergency brake is necessary or possible. Inspection of the driving machine brake or emergency brake is performed by means requiring no disassembly, adjustment or movement of the brake parts or movement of the car. The elevator motion controller and motor controller are not accessed from the car top or from inside the car.

Question: Given the system as described above, does 2.7.5.1.1 require a means to prevent movement of the car conforming to 2.7.5.1.2?

Answer:

*No, provided that there is no maintenance or inspection that could cause unexpected car motion.*

A17 Standards Committee Approval: January 24,  
2007

Photo of typical restraint of the elevator car for major repairs / replacements of components such as the car suspension, machine and emergency brakes, motor, and motor controller when located in the hoistway.

