



# International Union of Elevator Constructors

August 24, 2023

Brothers and Sisters,

We have recently received reports of catastrophic suspension failure on elevators with **noncircular elastomeric-coated steel suspension members**, belted elevator systems. In two cases as a result of suspension failure, the car and counterweight crashed into the pit destroying the entire elevator system. In these cases, the general public and IUEC members narrowly avoided being in the elevator when the failure occurred.

Upon further investigation of these incidents and reports of additional elastomeric belt failures across North America, the code required **Residual Strength Detection Means** were found inoperable, defeated, or reset. For example, pulse monitoring systems indicating that belts needed replacement due to extensive wear were disabled rather than removing the elevator from service for repair. Bend cycle counters have been reset multiple times (in excess of 4 million cycles) allowing the car to continue to operate with compromised belts. There have been instances as well in which excessive rouging from belts was evident in the machine room and yet the car was allowed to remain in operation.

All of these conditions are unacceptable and place the elevator constructor and the riding public in harm's way. The Residual Strength Detection Means (bend cycle/trip counter, or pulse unit) must be operable and not defeated/reset when the suspension has reached its replacement criterion. Once belts have reached their replacement criterion, the elevator must be removed from service and the belts replaced to ensure the safety of our members and the riding public.

As licensed elevator constructors in many of our states, you face potential legal peril if you are found to have ignored or disabled these safety devices and someone gets hurt. It is our obligation to the riding public to see that conveyance safety is the number one priority. No member of this Union should be party to aiding or abetting unsafe practices, even when directed to do so by members of management. The IUEC will back you in any situation in which you refuse a directive that will endanger the public.

**ASME A17.6-2022 Section 3.7 Replacement Criteria**, provides requirements for replacement of noncircular elastomeric-coated steel suspension members. Specifically, 3.7.2 Replacement Due to Wear, 3.7.3 Replacement Due to Damage, and 3.7.4 Replacement Due to Residual Strength Criterion.

If you have questions regarding this matter, please contact Director of Safety Mike Langer or Director of Codes & Standards David Griefenhagen.

Fraternally,

Frank Christensen  
General President

Frank J. Christensen  
General President

James K. Bender, II  
Assistant General President

Larry J. McGann  
General Secretary-Treasurer

## Vice Presidents

Leonard R. Legotte

Tony T. Gazzaniga

Mike Funk

Joseph M. Williams

Patrick W. Strafer

Bradley N. Brave

Timothy D. Morgan

John J. O'Connor

Juan Gonzalez, Jr.

John R. DeRosa, Jr.

HEADQUARTERS  
7154 Columbia  
Gateway Drive  
Columbia, MD 21046  
<http://www.iuec.org>

TELEPHONE  
(410) 953-6150

FAX  
(410) 953-6169

Affiliated with the AFL-CIO

