

Helping Elevator Industry Attain New Heights

Before the introduction of the performance-based safety code for elevators and escalators, it was very difficult to introduce new technologies and innovations that did not comply with the letter of the prescriptive ASME A17.1 or CSA B44 elevator and escalator safety codes.

Under these codes, there is no uniform process for validating the compliance of new technologies with the safety requirements, making their adoption difficult, inefficient, and very expensive. The unintended effect of the code was to impede progress in the industry.

A17.1 did have provisions for “equivalent safety” in its preface and section 1.2, but it was up to the manufacturer and the Authorities Having Jurisdiction (AHJ) or Regulatory Authorities (RA) to determine if this had been met. With over 130 AHJs and RAs in North America, an “equivalent safety” approval would have to be addressed by many, if not all, of these bodies by a process of submitting variances—an expensive and time consuming process on an individual basis; a financially crushing proposition when considered on a continental scale.

What to do?

In Europe the Lift Directive requires manufacturers to meet the prescriptive requirements of EN81-1 or EN81-2 or submit the design and supporting risk assessment, test data, etc. to an independent “notified body” for approval. When approval is achieved, a certificate is issued and the product would be accepted throughout the European Union. In North America,

ASME and CSA introduced the ASME A17.7/CSA B44.7 Performance-Based Safety Code for Elevators and Escalators. This new code defined the Global Essential Safety Requirements (GESRs) and processes necessary to ensure that those requirements are met. Now, if a manufacturer introduces an innovative product or process that does not meet the prescriptive requirements of A17.1, it can be evaluated through the performance-based code A17.7. This process requires that an independent, accredited elevator/escalator certification organization (AECO) evaluate the product to ensure that it meets the requirements of the performance-based code for “equivalent safety” to A17.1

Why UL is the logical choice for those considering AECO certification?

There are only three ANSI accredited AECOs in the world, and Underwriters Laboratories (UL) is the only one based in North America.

Even before the performance-based code concept was conceived or articulated by the industry, UL was already participating in the ASME A17.1 technical committees on the North American level, as well as the ISO TC 178 committee on the international level — putting it on the frontline in terms of exploring how risk management was going to be handled relative



to safety issues in the industry. So UL was a logical participant as the A17.7 code developed in North America.

UL is the world’s most recognized independent product safety organization. It has been testing products and writing standards for safety for more than a century. The company’s impeccable record of independence and objectivity in the application of safety principles is an asset to a process where the AECO and manufacturer work closely in establishing the merit of “equivalent safety” for A17.1. This should serve to help allay any concerns AHJs or RAs might have regarding the working relationship with the manufacturer.

Further, UL is driving the AECOs toward collaborative processes (e.g., facilitating an ongoing committee of AECOs) to ensure consistency across the industry. This is something the AHJ community should find helpful.

For information on how UL can help you meet your elevator and escalator safety requirements please contact:

Kevin Connelly

T:: +1.631.546.2691

E:: kevin.connelly@us.ul.com

W:: ul.com/aeco



www.ul.com/aeco



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