

SAFETY RECOMMENDATIONS ISSUED IN 2020 IN THE GUIDED TRANSPORT SYSTEMS SECTOR

Accident on an escalator in the Repubblica station of the Rome Metro, Line A, on 23.10.2018, causing injuries to around twenty people:

Recommendation no. 1

It is recommended that the Directorate General for Guided Transport Systems and Local Public Transport of the Ministry of Infrastructure and Transport ensure that a revision of the regulatory framework concerning the operation of escalators is initiated, in particular with regard to the following aspects:

- definition of the methods for carrying out braking tests during periodic inspections (currently not clearly established by Ministerial Decree 02/01/1985 and Presidential Decree 753/1980);
- definition of the professional requirements of personnel employed in escalator maintenance: when assessing the qualification of maintenance personnel, criteria should be introduced based on the certification of specific training on elevator and translation systems, identifying possible ways of accrediting subjects, both institutional and non-institutional, that can provide specific training also with experience in laboratories and on test systems (the elevator "licence" issued pursuant to Presidential Decree 1767 of 1951 is not considered sufficient);
- planning of training activities for personnel employed in the maintenance and periodic inspections of installations in such a way as to guarantee the maintenance of skills and professional updating, also in the light of continuous technological progress and the multiplicity of types of installations in public operation.

Recommendation no. 2

It is recommended that the Italian Standardisation Body UNI assess the advisability of initiating a revision of the UNI EN 115-1 standards, concerning the operation of escalators, with regard to the following aspects:

- diversify the values of the stopping distances of escalators during the service brake tests, currently described in table 3 of paragraph 5.4.2.1.3.2 for the two operating conditions (unloaded and loaded), without prejudice to the deceleration limit of 1 m/s²;
- introduce the execution of a preliminary verification of the braking torque of the service brakes, prior to the periodic tests which are carried out by the maintenance companies, possibly using a dynamometric key, on the basis of the design values, taking into account data which must be supplied by the manufacturers in a clear and unequivocal manner, also by means of identification plates showing the value of the braking torque to be verified. This verification is to be considered necessary but not sufficient with respect to the outcome of the braking test, as the test must take into account the stopping distances required by the standard.

Recommendation no. 3

It is recommended that ANACAM (National Association of Elevator Construction and Maintenance Companies) and ANIE (National Federation of Electrotechnical and Electronic Companies), ensure that escalator manufacturers define, in a clear and detailed manner, in the use and maintenance manuals:

- how to adjust and calibrate the operating brakes and emergency brakes in order to ensure their correct and effective operation;
- how the emergency brakes are to be tested when they are inspected less frequently than every ten years, possibly under reduced load conditions.

Recommendation no. 4

It is recommended that ASSTRA (Transport Association) and AGENS (Confederal Agency for Transport and Services) raise the awareness of contracting authorities so that, in contracts for the supply of translation equipment, they include an obligation on the part of manufacturers to guarantee the availability of spare parts for the entire service life of the equipment, within certain timeframes and at costs indexed over time, in order to ensure adequate continuity of operation.

Recommendation no. 5

It is recommended that ATAC SpA adapt the contracting authority's supervisory system on the maintenance activities carried out by contractors.

Recommendation no. 6

It is recommended that ATAC SpA adopt effective measures to guarantee the maintenance of the usability and practicability under safe conditions of the routes and escape routes, with reference to the UNI 7508 and 7744 standards, particularly near the escalator boarding and disembarking areas, which are sometimes permanently occupied by unauthorised persons, possibly providing for the delimitation of appropriate areas dedicated to street performers.