

TR CU 011/2011 Technical Regulations of the Customs Union 011/2011 Safety of elevators

Technical Regulations of the Customs Union TR TS 011/2011

"Safety of elevators"

(approved by the decision of the Customs Union Commission dated October 18, 2011 No. [824](#))

Foreword

1. This technical regulation of the Customs Union was developed in accordance with the [Agreement on common principles and rules of technical regulation in the Republic of Belarus, the Republic of Kazakhstan and the Russian Federation](#) dated November 18, 2010.

2. This technical regulation of the Customs Union has been developed with the aim of establishing in the unified customs territory of the Customs Union uniform requirements for elevators that are mandatory for application and fulfillment, ensuring the free movement of elevators released into circulation in the unified customs territory of the Customs Union.

Article 1. Scope

1. This technical regulation of the Customs Union applies to elevators and elevator safety devices intended for use and used on the territory of the Member States of the Customs Union.

This technical regulation of the Customs Union applies to all elevators and elevator safety devices (buffers, safety devices, speed limiters, mine door locks, hydraulic safety devices).

This technical regulation of the Customs Union does not apply to elevators intended for use and used:

- in the mines of the mining and coal industry;
- on ships and other floating equipment;
- on platforms for exploration and offshore drilling;
- on airplanes and aircraft, as well as on elevators:
- with a rack and pinion or screw lifting mechanism;
- special purpose for military purposes.

2. This technical regulation of the Customs Union establishes requirements for elevators and elevator safety devices in order to protect human life and health, property, as well as prevent actions that mislead buyers (users) regarding their purpose and safety.

Article 2. Definitions

In this technical regulation of the Customs Union, the following terms and definitions are used:

buffer - a device designed to limit the value deceleration of a moving cabin, counterweight in order to reduce the risk of injury or equipment breakdown when moving the cabin, counterweight to the extreme working position;

hydraulic safety device - a hydraulic device (burst valve) rigidly connected to the hydraulic cylinder and designed to prevent the cab from falling;

mine door lock - an automatic device designed to lock the mine door;

service area - a free area next to the elevator equipment, where the personnel serving this equipment is located;

manufacturer - a legal entity, including a foreign one, or an individual entrepreneur, carrying out on their own behalf the production and (or) sale of elevators, safety devices and are responsible for their compliance with the requirements of this technical regulation of the Customs Union;

cabin - a part of the elevator designed to accommodate people and (or) cargo when they move from one level to another;

an elevator is a device designed to move people and (or) goods from one level to another in a car moving along rigid guides, in which the angle of inclination to the vertical is no more than 15°;

catchers - a device designed to stop and hold the cab (counterweight) on the guides when the set speed is exceeded and (or) when the traction elements break;

elevator modernization - measures to improve the safety and technical level of the elevator in operation to the level established by this technical regulation;

nominal speed - the speed of the elevator car for which the elevator is designed;

speed limiter - a device designed to actuate the mechanism of safety devices when the set speed of movement of the cab, counterweight is exceeded;

elevator passport - a document containing information about the manufacturer, the date of manufacture of the elevator and its serial number, basic technical data and characteristics of the elevator and its equipment, information about safety devices, the designated lifespan of the elevator, as well as intended for entering information during operation;

intended use - the use of elevators in accordance with its purpose, indicated by the manufacturer of the elevators in the operating documents;

working platform - a device designed to accommodate personnel performing work on the repair and maintenance of elevator equipment;

a typical sample - an elevator with the main features standard-size range of elevators;

standard-size range - elevators characterized by unified design solutions, differing among themselves in the characteristics of carrying capacity, speed, lifting height and (or) equipment of the drive elevator, car, control system, as well as the mutual arrangement of the equipment;

maintenance of the elevator - a set of operations to maintain the performance and safety of the elevator during its operation;

elevator safety device - a technical means for ensuring the safety of an elevator;

dispatching control device - a technical means for remote control over the operation of the elevator and ensuring communication with the dispatcher (operator);

elevator operation - the stage of the elevator life cycle, at which its quality is implemented, maintained and restored, includes intended use, storage during operation, maintenance and repair.

Article 3. Rules of circulation on the market

1. Elevators, elevator safety devices are put into circulation on the market on the territory of the Member States of the Customs Union if they comply with this technical regulation of the Customs Union.

2. Elevators, elevator safety devices put into circulation must meet safety requirements during the entire service life specified by the manufacturer, subject to the use of the elevator, safety devices for their intended purpose, and meeting the requirements of the manufacturer's accompanying documentation in accordance with paragraph [2 of Article 4 of](#) this technical regulation.

3. Elevators, elevator safety devices, put into circulation, must be completed with accompanying documentation in the state language of the State - a member of the Customs Union and (or) in Russian.

Supporting documentation includes:

- manual (instruction) for operation;
- passport;
- assembly drawing;
- a schematic electrical diagram with a list of elements;
- basic hydraulic diagram (for hydraulic lifts);
- a copy of the elevator certificate, elevator safety devices (subject to clause [2.7 of Article 6](#)), fire doors (if any).

The operating manual (instruction) includes:

- installation instructions containing instructions for assembly, commissioning, adjustment, test and inspection procedure;
- instructions for use and measures to ensure the safety of elevators during operation, including commissioning, intended use, maintenance, certification, inspection, repair, testing;
- a list of quickly wearing parts;
- methods of safe evacuation of people from the cockpit;
- instructions for decommissioning prior to disposal.

4. Information should be applied to the elevator in any way that provides a clear and clear image during the entire lifespan of the elevator, containing: the name of the manufacturer and (or) his trademark; identification (factory) number of the elevator; Year of manufacture.

This information is placed in the cabin or on the cabin, in a place accessible to the operating personnel.

5. Information must be applied to the elevator safety device in any way that provides a clear and clear image throughout the entire service life, containing the name of the manufacturer and (or) his trademark; device identification number.

Article 4. Safety requirements

1. To ensure the safety of the elevator during the design, manufacture, installation and during the assigned service life, means and (or) measures are provided to fulfill the general safety requirements and, taking into account the purpose and operating conditions of the elevator, special safety requirements established by Appendix [1](#) .

The energy efficiency class is indicated in the technical documentation for the elevator and its labeling.

2. To ensure the safety of the elevator installed on site, the following requirements must be met before commissioning:

2.1. the installation of the elevator is carried out by qualified personnel for the installation of elevators in accordance with the installation documentation containing instructions for assembly, commissioning and adjustment, as well as in accordance with the project documentation for the installation of the elevator;

2.2. confirmation of compliance and putting the mounted elevator into operation is carried out in the manner prescribed by article [6 of](#) this technical regulation.

3. To ensure safety during the designated lifespan of the elevator, the following requirements must be met:

3.1. use of the elevator for its intended purpose, carrying out maintenance, repair, and inspection of the elevator in accordance with the manufacturer's manual;

3.2. performance of works on maintenance and repair of the elevator by qualified personnel;

3.3. Conformity assessment in the form of technical examination of the elevator in the manner prescribed by article [6 of](#) this technical regulation;

3.4. after the expiration of the designated service life, it is not allowed to use the elevator for its intended purpose without conducting a conformity assessment in order to determine the possibility and conditions of extending the life of the elevator for its intended purpose, performing modernization or replacement taking into account the conformity assessment

Conformity assessment is carried out in the manner prescribed by article [6 of](#) this technical regulation.

5. In the absence of information about the designated service life in the passport of the elevator put into operation before the entry into force of this technical regulation, the designated service life of the elevator is set equal to 25 years from the date of its commissioning.

6. Safety requirements for the disposal of elevators are established by the legislation of the Member States of the Customs Union.

Article 5. Ensuring compliance with safety requirements

Compliance of elevators and elevator safety devices with this technical regulation of the Customs Union is ensured by the fulfillment of its safety requirements directly or the fulfillment of the requirements of standards interconnected with this technical regulation of the Customs Union.

Fulfillment on a voluntary basis of the requirements of standards interconnected with this technical regulation testifies to the compliance of elevators and elevator safety devices with the requirements of this technical regulation.

Article 6. Confirmation of conformity of the elevator, elevator safety devices

1. Confirmation of the compliance of the elevator and elevator safety devices specified in Appendix 2 with the requirements of this technical regulation is carried out in the form of mandatory certification before releasing them into circulation on the territory of the Member States of the Customs Union.

2. Certification of the elevator and elevator safety devices is carried out in the following order:

2.1. certification of the elevator and elevator safety devices specified in Appendix 2 is carried out by a certification body accredited in the prescribed manner (hereinafter - the certification body), on the basis of an agreement with the applicant;

2.2. mandatory certification of the elevator and elevator safety devices, intended for serial production, is carried out according to scheme 1c, specified in Appendix 3. In this case, the applicant is the manufacturer (the person authorized by the manufacturer) of the elevator, elevator safety devices;

2.3. compulsory certification of a one-time production elevator, a one-time production elevator safety device, an elevator from a one-time production batch and an elevator safety device from a one-time production batch is carried out according to scheme 3c (for a one-time production batch) and scheme 4c (for one-time production) specified in Appendix 3;

2.4. for compulsory certification, the applicant submits an application for certification, which specifies the following information:

- name and location of the applicant;
- name and location of the manufacturer;
- information allowing to identify the object of certification;
- information about the place where the certification object is tested;
- information on the standards applied on a voluntary basis to ensure the compliance of the elevator and elevator safety devices with the requirements of this technical regulation;

2.5. the application for certification shall be accompanied by documents confirming compliance with the requirements of this technical regulation:

- a) for certification of an elevator:
 - technical description;
 - manual (instruction) for operation;
 - schematic electrical diagram with a list of elements;
 - hydraulic diagram with a list of elements for a hydraulically driven elevator;
 - test and measurement reports, risk analysis performed by or on behalf of the manufacturer (if any);
 - copies of certificates of conformity to technical regulations for safety devices or, in the case established by these technical regulations, test and measurement reports;
 - a copy of the quality management system certificate (if any) issued by a body accredited in the territory of a member state of the Customs Union;
- b) for certification of elevator safety devices:
 - technical documentation (descriptions, drawings, pictures);
 - a copy of the quality management system certificate (if any) issued by a body accredited in the territory of a member state of the Customs Union;

2.6. when carrying out certification of an elevator, the applicant submits for testing an assembled one-time elevator, a typical sample of a batch of elevators produced at a time or a typical

sample of a standard-size range of serial production elevators and the documents specified in paragraph [2.5 of](#) subparagraph a) of this article;

2.7. when certifying the elevator safety devices specified in Appendix [2](#), the applicant submits to the certification body for testing on the territory of the Member States of the Customs Union:

- a one-time production safety device, a standard sample of a safety device for a one-time production batch, a sample of a standard size range of a serial production safety device;
- components required for testing the certified safety device;
- documents specified in clause [2.5 of](#) subparagraph b) of this article.

Elevator safety devices manufactured by the elevator manufacturer, used by him for completing elevators of his own production and supplied as spare parts for replacing identical elevator safety devices on elevators of his own production, are not subject to mandatory certification. The procedure for testing such elevator safety devices is established in the standards from the list approved by the Commission of the Customs Union.

The results of such tests are documented in protocols. Copies of the protocols are provided during the certification of lifts;

2.8. identification of the elevator and elevator safety devices specified in Appendix [1](#) to this technical regulation is carried out by the certification body by establishing the identity of their characteristics to essential features;

2.9. the essential features of an elevator include a combination of the following features:

- the presence of a cabin;
- the presence of rigid guides;
- the angle of inclination of the guides to the vertical is no more than 15 degrees;
- availability of a drive for raising or lowering the cab;

2.10. an essential feature of the elevator safety devices specified in Appendix [2](#) is their functional purpose, arising from the definitions of the relevant concepts specified in article [2 of](#) this technical regulation.

Identification is carried out using the technical documentation provided by the applicant.

The result of identification is the assignment or non-assignment of products to the object of technical regulation of this technical regulation;

2.11. research (testing) and measurements in the course of mandatory certification of elevators and elevator safety devices are carried out by a duly accredited testing laboratory (center);

2.12. the certification body, within the timeframes determined by the agreement with the applicant, conducts certification in accordance with the selected certification scheme and decides to issue a certificate of conformity or refusal to issue it.

The certificate of conformity and its annexes must contain information about the type (model), manufacturer, country of origin of the elevator and the following components and elevator safety devices:

- winches;
- a hydraulic unit (for a hydraulic lift);
- control system (controller);
- cab door drive;
- mine doors;
- mine door locks;
- catchers;
- speed limiter;
- buffer;
- hydraulic safety device.

The decision to refuse to issue a certificate of conformity must contain a reasoned justification for the inconsistency of the elevator or elevator safety device with the requirements of this technical regulation.

After the elimination of the specified discrepancy, the applicant reapplies to the certification body with an application for the issuance of a certificate of conformity;

2.13. the validity period of certificates of conformity for serially manufactured elevators and elevator safety devices should not exceed five years for scheme [1c](#) specified in Appendix [2](#) to this technical regulation.

For elevators and elevator safety devices put into circulation by the manufacturer during the specified periods of validity of the certificate of conformity for mass-produced products, the certificate of conformity is valid for the entire lifespan of the elevator.

For elevators and safety devices for elevators of one-time production, for lifts and safety devices for elevators from a batch produced at a time, the certificate of conformity issued according to schemes [3c](#) and 4c specified in Appendix [3](#) to this technical regulation is valid until the end of the lifespan;

2.14. upon expiration of the certificate of conformity for serially produced elevators and elevator safety devices, the applicant may apply to the certification body to obtain a certificate of conformity in the manner prescribed by this article, or apply to the certification body that issued this certificate with an application to extend the validity of the certificate compliance. The validity period of the certificate of conformity, taking into account the applied scheme [1c](#), specified in Appendix [3](#) to this technical regulation, can be extended accordingly up to five years by the decision of the certification body that carried out the previous certification, based on the analysis of the applicant's information and the results of inspection control over the certified object of certification (at certification according to scheme [1c](#)).

To extend the validity period of the certificate of conformity, the applicant sends to the certification body an application for extending the validity of the certificate of conformity, which is accompanied by information containing information that since the last inspection control, no changes have been made to the design of the certified elevator and the elevator safety device.

The certification body, based on the analysis of the information provided by the applicant and the results of the inspection control, makes a decision on the extension or refusal to extend the validity period of the certificate of conformity and informs the applicant about the decision taken within a period not exceeding 10 days from the date of the decision. The decision to refuse to extend the validity period of the certificate must contain a reasoned justification for the inconsistency of the elevator and the elevator safety device with the requirements of this technical regulation.

Information on the extension or refusal to extend the validity of the certificate of conformity is sent by the certification body, within a period not exceeding 10 days from the date of the decision, to the state control (supervision) bodies authorized to monitor compliance with the requirements of this technical regulation;

2.15. the applicant is obliged to notify the certification body that issued the certificate of conformity about the changes made to the design of the elevator safety devices specified in Appendix [2](#), as well as about changes in the design of the elevator that affect its safety.

The certification body analyzes the documentation submitted by the applicant and decides to reissue the certificate of conformity for the elevator with a modified design and (or) elevator safety devices or the need for new tests of the elevator and (or) elevator safety devices;

2.16. the certification body suspends the validity of the certificate of conformity (according to scheme [1c](#)) in case of non-fulfillment of the requirements established by paragraph [2.15](#) of this article, and (or) in case of negative results of inspection control of certified products;

2.17. When products are released into circulation on the territory of the Member States of the Customs Union, a set of documents must be kept for:

- elevator and elevator safety devices - from the manufacturer for at least 10 years from the date of withdrawal (termination) from the production of elevators;
- a batch of elevators and elevator safety devices (single item) - from the seller (supplier) within at least 10 years from the date of sale of the last item from the batch (single item).

Copies of the documents used in the certification of elevators for compliance with the requirements of technical regulations, and copies of certificates of conformity must be kept in the

certification body that issued the certificate of conformity during the validity of the certificate of conformity and within five years after its expiration;

2.18. the set of documents submitted for certification is carried out in the state language of the Member State of the Customs Union and (or) Russian.

3. The conformity assessment of the elevator installed at the facility before commissioning with the requirements of this technical regulation is carried out in the form of a declaration of conformity of the elevator, according to scheme [4d](#), indicated in Appendix [3](#) to this technical regulation, in the following order:

3.1. the declaration of conformity of the elevator is carried out on the basis of our own evidence and evidence obtained with the participation of an accredited testing laboratory (center).

As their own evidence, the protocol of checking the functioning of the elevator is used, after the completion of the installation of the elevator, the passport, the assembly drawing of the assembled elevator and project documentation for the installation of the elevator.

The elevator assembly drawing must contain the information and dimensions necessary to verify the compliance of the elevator installation with the requirements of this technical regulation. The drawing indicates views and sections (with dimensions), including shafts, machine and block rooms, giving an idea of the location and interconnection of the components of the elevator, as well as the load from the elevator on the construction part of the building (structure);

3.2. the application is submitted to an accredited testing laboratory (center);

3.3. an accredited testing laboratory (center) conducts inspections, studies, tests and measurements within the time frame specified by the contract with the applicant. In this case, the following are carried out:

- checking the conformity of the installation of the elevator equipment with the installation documentation and design documentation for the installation of the elevator in the building (structure);

- checking the functioning of the elevator and elevator safety devices;

- testing of insulation of electrical networks and electrical equipment, visual and measuring control of grounding (grounding) of the elevator equipment;

- test of the adhesion of traction elements with a traction sheave (friction drum) and test of the braking system on an electrically driven elevator;

- testing the tightness of the hydraulic cylinder and pipeline on a hydraulic lift;

- testing the strength of the cab, traction elements, suspension and (or) support of the cab, their fastening elements;

3.4. the results of inspections, studies, tests and measurements are drawn up in protocols, copies of which are attached to the elevator passport.

Specialist of an accredited testing laboratory (center), makes an entry in the elevator passport about the results of inspections, research, tests and measurements;

3.5. the declaration of conformity of the elevator to the requirements of this technical regulation is attached to the elevator passport. The elevator passport and declaration must be kept for the designated lifespan of the elevator;

3.6. prior to commissioning, it is not allowed to use the elevator to transport people and (or) cargo, except for cases related to its installation, adjustment and testing;

3.7. commissioning of the elevator is carried out in the manner prescribed by the legislation of the Member State of the Customs Union.

4. The conformity assessment of the elevator during the assigned service life is carried out in the form of a technical examination at least once every 12 months by an organization accredited (authorized) in the manner prescribed by the legislation of the Member State of the Customs Union.

The result of the elevator conformity assessment is drawn up by an act and indicated in the elevator passport.

5. Conformity assessment of an elevator that has served its designated service life is carried out in the form of a survey by an organization accredited (authorized) in the manner prescribed by the legislation of a member state of the Customs Union;

5.1. when examining the elevator, the following are determined:

- compliance of the elevator that has worked out the assigned service life, the general safety requirements established by Appendix 1 to this technical regulation and (taking into account the purpose of the elevator) to the special safety requirements established by Appendix 1 to this technical regulation;

- the necessary measures (including the modernization of the elevator) and the timing of the measures to ensure the compliance of the elevator with the requirements of this technical regulation;

5.2. when examining an elevator, the following are carried out:

- determination of the state of the elevator equipment, including elevator safety devices, with the identification of defects, malfunctions, the degree of wear and tear and corrosion;

- control of metal structures of the frame, cab suspension, counterweight, as well as guides and their fastening elements;

- testing of insulation of electrical networks and electrical equipment, visual and measuring control of grounding (grounding) of the elevator equipment.

Information about the survey carried out is indicated in the elevator passport;

5.3. based on the results of the survey, a conclusion is drawn up containing:

- conditions and possible term for extending the use of the elevator;

- recommendations for upgrading or replacing the elevator.

Conformity assessment of an elevator after modernization or replacement carried out in the manner prescribed by paragraph 3 of this article.

When assessing the conformity of the modernized elevator, the following is additionally carried out:

- checking the compliance of the upgraded elevator with the general safety requirements established in Appendix 1 to this technical regulation, and (taking into account the purpose of the elevator) with the special safety requirements established in Appendix 1 to this technical regulation;

- checking the conformity of the installation of the elevator equipment with the design documentation for modernization;

- verification of the fulfillment of the recommendations for the modernization of the elevator specified in the conclusion based on the results of the conformity assessment of the elevator that has worked out the designated service life

The applicant, on the basis of the positive results of the conformity assessment, draws up a declaration of conformity and assigns a new lifespan of the lift, makes an entry in the passport about the lifespan and technical readiness of the lift for commissioning;

5.4. if there is no need to modernize or replace the elevator and fulfill the conditions for extending the service life, the term for using the elevator for its intended purpose is established;

5.5. elevators put into operation before the entry into force of this technical regulation and having fulfilled the assigned service life must be brought into compliance with the requirements of this technical regulation within a period not exceeding 7 years from the date of entry into force of this technical regulation.

Article 7. Marking with the mark of product circulation on the market of the Member States of the Customs Union

1. Elevators, safety devices that meet safety requirements and have passed the conformity assessment procedure must be marked with a single sign of product circulation on the market of the Customs Union member states.

2. Marking with a single mark of product circulation on the market of the Member States of the Customs Union is carried out before the release of elevators, safety devices into circulation on the market.

3. A single sign of product circulation on the market of the Member States of the Customs Union is applied to each elevator and elevator safety devices, according to the approved list, and is also given in the operating documents attached to it.

4. Marking of elevators, safety devices with a single mark of product circulation on the market of the Customs Union member states testifies to their compliance with the requirements of this technical regulation.

5. A single sign of product circulation on the market of the Member States of the Customs Union is applied in any way that provides a clear and clear image during the entire lifespan of the elevator.

Article 8. Safeguard clause

1. The Member States of the Customs Union are obliged to take all measures to restrict, prohibit the release into circulation of elevators and elevator safety devices in the customs territory of the Member States of the Customs Union, posing a danger to human life and health, property. The competent authority of a member state of the Customs Union is obliged to notify the Commission of the Customs Union and the competent authorities of other member states of the Customs Union of the decision taken, indicating the reasons for this decision and providing evidence explaining the need for this measure.

2. The grounds for the application of the article of protection may be the following cases:

- failure to comply with the requirements of this technical regulation of the Customs Union;
- incorrect application of standards interconnected with this technical regulation, if these standards have been applied;
- other reasons for the prohibition of the release of elevators into circulation on the market.

Article 9. Transitional periods

Certificates of conformity for elevators, elevator safety devices issued before the entry into force of this technical regulation by accredited certification bodies of the Member States of the Customs Union are valid in the territory of the Member State of the Customs Union in which they were issued until the expiration date specified in the certificate ...

Attachment 1

to the technical regulations of the
Customs Union "Safety of elevators"
(TR CU 011/2011)

Safety requirements

1. To ensure the safety of the elevator, the following general requirements must be met:

1.1. inaccessibility for users and unauthorized persons of elevator equipment installed in:

- cabinets for equipment placement;
- machine room;
- block room;
- the elevator shaft, with the exception of the equipment located in the elevator car;

1.2. the presence of measures to protect users and unauthorized persons from injury as a result of contact with moving parts of the elevator equipment;

1.3. the presence of protection devices, interlocks to stop or prevent the movement of the car, if the mine door is not closed, not locked; equipment maintenance door, emergency door, inspection and escape hatch cover, cab door are not closed. This requirement does not apply to the preliminary opening of automatic doors when the car approaches the landing and the mode of adjusting the car to the level of the landing during loading / unloading provided for in the elevator design;

- 1.4. the availability of the possibility of safe evacuation of people from a stopped cabin by personnel;
- 1.5. lift equipment accessible to users and other persons should not have surfaces with irregularities that pose a danger to them;
- 1.6. availability of means for lighting the cab, intended for the transport of people, including in the event of a power outage;
- 1.7. the equipment of the elevator must correspond to the climatic, seismic conditions in which the elevator is supposed to be operated;
- 1.8. availability of means and (or) measures to prevent people falling into the mine from storeyed and adjacent to the mine areas of the building (structure) and from the cabin;
- 1.9. the dimensions of the elevator doorway must ensure safe entry into and exit from the car to the landing, safe loading and unloading of the car;
- 1.10. the horizontal and vertical distance between the thresholds of the landing and the car must ensure safe entry into and exit from the car. from her;
- 1.11. the distance between the structural elements of the cabin and the shaft should exclude the possibility of a person entering the shaft when the doors of the shaft and the cabin are open, as well as when the cabin is in the area of the landing;
- 1.12. the presence of means to prevent or reduce the force of squeezing a person or an object in the path of movement of the automatically closing door of the cab and (or) mine, to the limits that reduce the risk of injury;
- 1.13. the cabin, traction elements, suspension and (or) support of the cabin, counterweight, their fastening elements must withstand the loads arising from the intended use and testing of the elevator;
- 1.14. equipment of the cabin, intended for the movement of people, with means for connection to two-way communication, with the help of which the passenger can call for help from the outside;
- 1.15. availability of means to prevent the start-up of an overloaded cab during normal operation;
- 1.16. availability of means that restrict the movement of the cab beyond the extreme working positions (floor platforms);
- 1.17. the presence of means that limit the amount of excess of the rated speed of the cab when moving down to limits that reduce the risk of injury or damage to equipment;
- 1.18. catchers and buffers, when triggered, must ensure that the cab slows down in order to reduce the risk of injury or equipment breakdown;
- 1.19. provision of air exchange in the cabin, designed to move people;
- 1.20. the size and location of working areas for equipment maintenance must be sufficient to ensure the safe performance of work;
- 1.21. availability of safe personnel access to elevator equipment;
- 1.22. the presence of a safe entry of personnel to the working platform in the mine and (or) the roof of the cabin and exit from it;
- 1.23. the working platform and (or) the roof of the cabin (if necessary to accommodate personnel) must withstand the loads from the personnel on it;
- 1.24. availability of means and measures to reduce the risk of personnel falling from the working platform located in the mine, and (or) from the roof of the cab;
- 1.25. availability of means for stopping and controlling the movement of the cabin by personnel during maintenance. If it is necessary to move personnel around the mine, the cabin must provide means to control the movement at a safe speed and stop the cabin by the personnel. These tools must be inaccessible to users and unauthorized persons;
- 1.26. the presence of measures and (or) means to prevent injury to personnel in the elevator shaft due to uncontrolled movement of elevator parts;
- 1.27. the presence of measures and (or) means to prevent injury to personnel by elements of lift equipment: belts, pulleys, blocks, protruding motor shaft, gears, sprockets, drive chains during their movement;

1.28. the availability of means to create a level of illumination of the service areas, sufficient for the safe conduct of work by personnel;

1.29 the presence of measures and (or) means to ensure the electrical safety of users, other persons and personnel when they act on the elevator control devices and (or) touch the conductive structures of the elevator;

1.30. the fire resistance limit of the mine doors must be set in accordance with the fire safety requirements;

1.31. the presence of measures to ensure that passengers can safely leave the cabin in the event of a fire hazard in the building (structure);

1.32. Requirements for the safe disposal of elevators must be provided.

2. To ensure safety on an elevator intended, including for the transportation of disabled people and people with limited mobility, the following special requirements must be met:

2.1. the dimensions of the cab, the doorway of the cab and the shaft must ensure safe entry and exit from the cab, as well as placement in the cab of the user on a wheelchair;

2.2. the doors of the cabin and the elevator shaft intended for transporting the user in a wheelchair without accompanying persons must open and close automatically;

2.3. the elevator car must be equipped with at least one handrail, the location of which must facilitate the user access to the car and to the control devices;

2.4. the horizontal and vertical distance between the thresholds of the cab and the landing should ensure safe entry into and exit from the cab for a user on a wheelchair;

2.5. the design and placement of control and signaling devices (sound and light) in the elevator car and on the floor area should ensure the safety and accessibility of the elevator for disabled people and other low-mobility groups of the population.

3. To ensure safety, the following special requirements must be met in an elevator that transports firefighters during a fire:

3.1. the dimensions of the car and the lifting capacity of the elevator must ensure transportation of firefighters with fire fighting equipment and (or) people rescued in case of fire;

3.2. control systems and alarm systems must ensure that the elevator operates under the direct control of firefighters. Other modes of elevator control must be disabled;

3.3. the presence of an elevator control mode, regardless of the operation of other elevators, combined with it by a group control system;

3.4. availability of visual information in the elevator car and on the main landing (designated) floor about the location of the car and the direction of its movement;

3.5. elevator shaft doors must be fireproof, the fire resistance limit of which is set in accordance with the requirements for fire safety of buildings (structures);

3.6. the presence of measures and (or) means for evacuating firefighters from the cab, stopped between floors;

3.7. the use of materials in the structure of the compartment of the cabin that reduce the risk of fire hazard in terms of the applicable indicators of combustibility, flammability, smoke-generating ability, flame spread and toxicity during combustion.

4. To ensure the safety of an elevator intended to be connected to a supervisory control device, the following special requirements must be met:

it should be possible to remove signals for the purpose of transmitting from the elevator to the dispatch control device for its operation, the following information:

on the actuation of electrical safety circuits;

about unauthorized opening of mine doors;

about opening the door (cover) of the elevator control device without the machine room.

5. To ensure the safety of an elevator intended for installation in a building, a structure in which deliberate damage to the elevator equipment is possible, the following special requirements must be met:

5.1. the enclosing structures of the cab compartment, as well as the decoration of the walls, ceiling and floor, must be made of materials that reduce the risk of their deliberate damage or fire;

5.2. control, signaling, lighting devices in the cab and on the floor areas must be of a design and made of materials that reduce the risk of their deliberate damage or ignition;

5.3. a continuous mine fence should be provided;

5.4. availability of means that take the elevator out of the "Normal operation" mode in case of unauthorized opening of the mine doors in the absence of a car on the floor in the "Normal operation" mode. The return to the "Normal operation" mode must be carried out by the service personnel.

Appendix 2

to the technical regulations of the
Customs Union "Safety of elevators"
(TR CU 011/2011)

List of elevator safety devices subject to mandatory certification

1. Buffer:

- energy storage type (except for energy storage type buffers with linear characteristics):
- with non-linear characteristics;
- with amortized reverse motion;
- energy-dissipating type.

2. Hydraulic safety device (burst valve).

3. Shaft door lock.

4. Catchers.

5. Speed limiter.

Appendix 3

to the technical regulations of the
Customs Union "Safety of elevators"
(TR CU 011/2011)

Content and application of schemes for confirming the conformity of the elevator, elevator safety devices to the requirements of the technical regulation "Safety of elevators"

1. Scheme 1c:

1.1. accredited testing laboratory:

conducts tests and measurements of the parameters of the elevator at the facility of its installation or at the test bench in the manner and volume that are established by the standards from the list approved by the Commission of the Customs Union;

draws up test and measurement results in protocols.

1.2. certification body:

analyzes the compliance of the certification object, test and measurement results with the requirements of technical regulations;

analyzes the state of production;

draws up and issues a certificate of conformity to the applicant with positive results of analysis of information and evidentiary materials specified in article [6 of](#) this technical regulation, as well as with positive results of tests and measurements performed by an accredited testing laboratory;

carries out inspection control over the certified object of certification. The frequency of inspection control is established by the certification body, but at least once a year.

2. Scheme 3c (for a one-time production batch) and Scheme 4c (for one-time production):

2.1. accredited testing laboratory:

conducts tests and measurements of the parameters of the elevator at the facility of its installation or at the test bench in the manner and volume that are established by the standards from the list approved by the Commission of the Customs Union;

draws up the results of tests and measurements in protocols;

2.2. certification body:

analyzes the compliance of the certification object, test and measurement results with the requirements of technical regulations;

prepares and issues a certificate of conformity to the applicant upon positive results of the analysis of information and evidentiary materials specified in Article [6 of](#) this technical regulation, as well as upon positive results of tests and measurements performed by an accredited testing laboratory.

3. Scheme 4d (declaration scheme):

3.1. applicant:

prepares his own evidence specified in article [6 of](#) this technical regulation;

submits an application to an accredited testing laboratory (center) for conformity assessment in the form of a technical examination of the elevator;

3.2. accredited testing laboratory (center):

conducts conformity assessment in the form of technical examination of the elevator;

draws up an act of technical examination of the elevator;

3.3. the applicant, on the basis of his own evidence and the positive results of the technical examination, draws up a declaration of conformity.