

TECHNICAL REGULATIONS

of the Eurasian Economic Union "On the Safety of Amusement Parks" (EAEU TR 038/2016)

I. Scope of application

1. This technical regulation applies to amusement rides being put into circulation for the first time within the Eurasian Economic Union (hereinafter referred to as the Union).

2. This technical regulation establishes the minimum necessary safety requirements for amusement rides and the associated design, manufacturing, installation (assembly, setup), adjustment, operation, storage, transportation, and disposal processes in order to protect human life and/or health, property, and the environment, and to prevent actions that mislead consumers.

3. This technical regulation applies to temporarily installed (transported) amusement rides and stationary amusement rides (assembled on or without foundations), the use of which exposes passengers to biomechanical impacts of potential biomechanical risk level RB-1, RB-2, or RB-3, and which are divided into the following types:

a) mechanized amusement rides with progressive motion (including those using water);

b) mechanized amusement rides with rotational motion;

c) mechanized amusement rides with complex movement;

d) autodromes and go-karts;

e) inflatable amusement rides;

f) non-mechanized water amusement rides;

g) non-mechanized amusement rides;

h) children's amusement rides.

4. The types and kinds of amusement rides are defined in Appendix No. 1.

5. The types of biomechanical impacts on passengers, the degrees of potential biomechanical risk, and the types of passenger seat tilt are determined in accordance with the list in Appendix No. 2.

6. This technical regulation does not apply to equipment for children's playgrounds or to amusement rides with a negligible degree of potential biomechanical risk (RB-4),

nor to amusement rides manufactured and commissioned prior to the entry into force of this technical regulation.

The possibility and conditions of operation of amusement rides manufactured and commissioned prior to the entry into force of this technical regulation shall be determined by the legislation of the Union member states (hereinafter referred to as "Member States").

7. If other Union (Customs Union) technical regulations establishing requirements for amusement ride parts have been adopted and entered into force with respect to amusement ride parts, such amusement ride parts must comply with the requirements of this technical regulation and other Union (Customs Union) technical regulations that have entered into force and that apply to them.

II. Basic Concepts

8. For the purposes of this Technical Regulation, the following terms and conditions shall be used:

"accident" - the destruction of an amusement ride or its critical component, creating an immediate threat to human life or health, or causing harm to human life or health;

"autodrome and karting" - amusement rides in which passenger units can move freely outside the motion guides in an enclosed (confined) space;

"attraction" - equipment designed to entertain passengers during movement, including biomechanical effects;

"non-mechanized water attraction" - an attraction using water for water parks, swimming pools, and reservoirs;

"children's attraction" - an attraction specifically designed for the entertainment of children (from 90 to 160 cm tall);

"mechanized attraction" - an attraction that moves passengers along a predetermined trajectory or within a confined space using various forms of energy, excluding human muscle energy;

"Mechanized amusement ride with rotational motion" - an amusement ride that moves passenger modules primarily by rotation (by rotation and/or rocking), including those with complex motion;

"Mechanized amusement ride with translational motion" - an amusement ride that moves passenger modules primarily by translation along guides;

"Mechanized amusement ride with complex motion" - an amusement ride that moves passenger modules along a complex trajectory or in combination with an image shown to passengers;

"Inflatable amusement ride" - an amusement ride whose structure consists of one or more interconnected shells supported by excess pressure of inflated air;

"Biomechanical impact" - the effect on passengers of forces associated with their movement;

"Commissioning of an amusement ride" - the commencement of passenger operation of an amusement ride after completing the necessary procedures for assessing compliance with the requirements of this Technical Regulation;

"Type of amusement ride" - a collection of several types of amusement rides with a uniform operating principle or a set of uniform functions;

"Amusement park auxiliary devices" - decorations and design elements, fencing, lighting, tents, canopies, protective screens, and pavilions used in conjunction with amusement park rides;

"Release of amusement park rides into circulation" - the supply or import of amusement park rides (including shipment from the manufacturer's warehouse or shipment without storage) for the purpose of their distribution within the territory of the Union in the course of commercial activities, either free of charge or for a fee;

"High degree of potential biomechanical risk (RB-1)" - the likelihood of harm to a passenger(s) posing a threat to their life as a result of biomechanical effects;

"Children" - visitors, including passengers, between 90 and 160 cm tall (aged 2 to 14 years);

"Risk zones during movement" - areas around the bodies of passengers being moved, where impacts with structures or foreign objects may cause varying degrees of injury to passengers;

"Safety contour" - a restricted area within which a passenger moves, minimizing or eliminating the risk of injury from contact with moving and fixed structural elements;

"Critical component" - a structural part, assembly, or component of an amusement ride whose failure could cause death or serious bodily harm;

"Critical parameter" - an essential characteristic of an amusement ride or its critical component, the violation of which could cause death or serious bodily harm;

"Modification" - any design change to a critical component or a change in a critical parameter compared to the design;

"Designated service life" - the total operating time, upon reaching which the operation of the amusement ride must be terminated, regardless of its technical condition;

"Designated service life" - the calendar period of use of an amusement ride, upon reaching which the ride must be discontinued, regardless of its technical condition;

"Inappropriate use" - use of the amusement ride other than for its intended purpose or in violation of the operating documentation;

"Low potential biomechanical risk (RB-3)" - the probability of causing harm with temporary disability to a passenger(s) as a result of biomechanical effects;

"Negligible potential biomechanical risk (RB-4)" - the probability of causing harm without any form of disability to a passenger(s) as a result of biomechanical effects;

"Children's playground equipment" - equipment with or on which children can play, indoors or outdoors, individually or in groups, at their own discretion and in accordance with the rules;

"Amusement ride design safety justification" - a set of documents on the ride's safety to confirm its compliance with the requirements of this technical regulation and other effective technical regulations of the Union (Customs Union) that apply to it;

"Use restriction" - a restriction on the use of an attraction for passengers with disabilities or due to height or weight restrictions, or in the event of poor health;

"Amusement ride technical condition assessment (technical inspection)" - a set of works to check the technical condition of an attraction using visual, measuring, non-destructive, and other testing methods for compliance with the requirements of the operating documentation in order to determine the continued safe operation of the attraction for a specified period;

"Amusement ride passport" - a document containing information certifying the manufacturer's warranties, the values of the ride's main parameters and characteristics, as well as information on confirmation of conformity and the disposal of the attraction;

"Passenger" - a person carried by an amusement ride;

"Passenger module" - the part of an amusement ride designed to carry passengers (cart, cabin, seat);

"Visitor" - a person located within the amusement ride area or its auxiliary equipment;

"Rules for use of an amusement ride" - requirements for passengers and visitors developed by the designer (developer) or operator;

"Trial run" - a test run of an amusement ride without passengers, simulating a full passenger load, if the operating documents so require;

"Annual inspection" - a complete inspection of the amusement ride, its critical components, and critical parameters by the operator after annual maintenance;

"Daily inspection" - an operator's inspection of the operability and technical condition of critical components, critical parameters, and other parts of the amusement ride specified in the operating documents, including test runs;

"Control check" - a regulated check by a Member State's supervisory authority, in accordance with this Technical Regulation, of conformity assessment documents and operating documentation for an amusement ride, including a trial run;

"Full check" - an assessment by the operator of the condition of all critical components and critical parameters of the amusement ride in accordance with the requirements of the operating documentation (including disassembly and inspection of components (if necessary), testing, and a trial run), as well as the technical condition of other parts of the amusement ride;

"Designer (developer)" - the specialist or organization that developed the amusement ride design;

"Moderate level of potential biomechanical risk (RB-2)" - the probability of serious bodily harm to a passenger(s) as a result of biomechanical impacts;

"Degree of potential biomechanical risk" - the probability of harm to a passenger(s) as a result of biomechanical impacts of varying degrees, taking into account the possible severity of the consequences;

"Type of Amusement Ride" - rides similar in their operation and biomechanical impact;

"Restraining Devices" - ride components (e.g., seats, footwells, handrails, and locking devices) designed to prevent passengers from moving beyond the safety contour as a result of biomechanical impacts or forces generated during ride use, or due to passenger behavior;

"Restraining Device" - a device designed to restrain, limit movement, and/or maintain a predetermined body posture of a passenger to safely accommodate acceleration on the ride;

"Amusement Ride Log" - a document containing information certifying the manufacturer's warranties, the values of the ride's main parameters and characteristics, information reflecting the ride's technical condition, information on conformity assessment and ride disposal, as well as information entered during its operation (duration and conditions of operation, maintenance, repairs, and other data);

"Operator" - a legal entity or individual legally operating an amusement ride and using the ride to provide entertainment services to passengers;

"Operating document" - a design document that (separately or in combination with other documents) defines the rules for operating an amusement ride and (or) reflects information certifying the manufacturer's guaranteed values of the main parameters and characteristics of the amusement ride, as well as guarantees and information about its operation during the designated service life.

III. Amusement Park Identification Rules

9. Amusement parks are identified to determine whether they fall within the scope of this Technical Regulation.

10. The identifying features of amusements include their type, type, degree of potential biomechanical risk, and the types and magnitudes of biomechanical impacts on passengers.

11. Amusement parks are identified by:

- a) the manufacturer, a person authorized by the manufacturer, or the seller (supplier) releasing the amusements into circulation in the territories of the Member States;
- b) an accredited certification body included in the Unified Register of Certification Bodies and Testing Laboratories (Centers) of the Customs Union (hereinafter referred to as the "certification body");
- c) an authorized body of a Member State – when exercising state control (supervision) over compliance with the requirements of this Technical Regulation.

12. Amusement rides are identified using one of the following methods or a combination thereof:

- a) identification using documentation (comparison of the type and kind of the amusement ride and its technical characteristics specified in the operating documents with the data provided in Appendices No. 1 and 2 to this Technical Regulation);
- b) visual method (comparison of the amusement ride's appearance with the description provided in the operating documents);
- c) instrumental method (comparison of data obtained by measuring the dimensions or testing the amusement rides with the technical characteristics specified in the operating documents). The instrumental method is used if amusement rides cannot be identified using the methods specified in subparagraphs "a" and "b" of this paragraph.

IV. Rules for the Circulation of Amusement Rides on the Union Market

13. Amusement rides may be placed into circulation on the Union market if they comply with the requirements of this Technical Regulation and other effective technical regulations of the Union (Customs Union) that apply to them, and provided that they have passed the conformity assessment in accordance with Section XI of this Technical Regulation. Please contact www.aquamove.ru if you are interested in cooperation on Russian market.

14. Amusement rides that comply with the requirements of this Technical Regulation and other effective technical regulations of the Union (Customs Union) that apply to them must be marked with a unified mark for circulation of products on the Union market.

15. Amusement rides placed into circulation must meet safety requirements throughout their designated service life (designated resource), provided they are used for their intended purpose. 16. Amusement rides whose compliance with the requirements of this technical regulation has not been confirmed must not be marked with the unified product circulation mark on the Union market and are not permitted to be placed into circulation on the Union market.

V. Safety Requirements for Amusement Rides in Design

17. When designing amusement rides, all possible risks must be identified at all stages of the life cycle, including during normal operation, in the event of emergencies (resulting from failures and external influences), in the event of expected personnel errors, and inappropriate use.

18. When passengers move on an amusement ride, depending on the height of the ride (descent), speed, seat tilt angle, or inversion, biomechanical risks of varying degrees may be present. Therefore, measures to minimize or eliminate biomechanical risks must be applied taking into account the types and magnitudes of biomechanical

impacts on passengers. To analyze the risks and possible consequences of failures during amusement ride design, it is important to consider how and with what frequency passengers are exposed to biomechanical impacts.

19. The biomechanical effects exerted on a passenger(s) while using an amusement ride are not always acceptable for people with poor health or ill health. Therefore, information about the extreme nature of the ride and any restrictions on its use must be provided in the ride's operating manual and visitor information.

20. Amusement rides must be designed so that the raw materials, materials, and substances used in their manufacture and operation do not pose a threat to human life and/or health, property, or the environment. When using liquids and gases, associated hazards must be excluded.

21. Amusement ride control systems must ensure safe operation in all intended operating modes and under any external influences envisaged by the operating conditions.

22. Amusement ride control systems must prevent the occurrence of hazardous situations due to possible logical errors or operator violations of control actions.

23. Amusement ride control systems must include warning signals and other means to warn of malfunctions of the ride that could lead to hazardous situations.

24. The means for warning of malfunctions of the ride must ensure error-free, reliable, and rapid retrieval of information by the operator.

25. The ride must be started, as well as restarted after a stop (regardless of the reason for the stop), only by using the start control. The ride must be equipped with a warning sound signal, which must be activated by the operator before the ride starts moving, if necessary for safety reasons.

26. The emergency stop control:

a) must be easily identifiable and accessible;

b) must stop the ride quickly and without creating a hazard;

c) must remain in the stop position after being activated until it is forcibly returned to its original position;

d) must not cause the attraction to start after returning to its original position;

e) must be red and differ in shape and size from other controls.

27. The selected control mode must have priority over other control modes, with the exception of emergency stop.

28. A complete or partial power failure and subsequent restoration, as well as damage to the power supply control circuit, must not result in hazardous situations, including:

a) spontaneous restart of the ride upon restoration of power;

b) failure to execute a previously set stop command;

c) reduced effectiveness of protective devices.

29. Accessible parts of rides, passenger modules, and fences must not have sharp edges or rough surfaces that could cause injury.

30. Moving parts of rides must be equipped with fences preventing people from entering areas where moving parts could cause injury.

31. All attraction fences must be securely fastened so that access to the fenced area is possible only with the use of tools. Doors (or doors) of the fence must be equipped with locking devices.

32. Measures must be taken to eliminate the hazard caused by contact with, or proximity to, high or low temperature parts of the attraction or its equipment.

33. Amusement rides must be designed to prevent the risk of fire or overheating caused by the operation of the ride equipment, in accordance with the fire safety requirements established by the legislation of Member States.

34. When designing rides, it is necessary to ensure compliance with the hygienic parameters (indicators) that ensure safety during their operation:

noise (sound), infrasound, ultrasound, general and/or local vibration, electrical, magnetic, electromagnetic, and electrostatic fields, as well as infrared (thermal), ultraviolet, and visible radiation, including laser radiation. The types of impacts are determined for each specific ride based on an analysis of potential risks.

35. When using laser equipment in an amusement ride, such equipment must be designed and manufactured to prevent accidental radiation and provide protection against direct, reflected, scattered, and secondary radiation. 36.

When designing amusement rides, measures must be taken to protect personnel and passengers from the adverse effects of non-ionizing radiation, static electric fields, constant magnetic fields, industrial-frequency electromagnetic fields, and radio-frequency and optical electromagnetic radiation.

37. When designing amusement rides, risks must be completely eliminated or minimized by applying the following measures:

- a) ensuring the implementation of a comprehensive set of research and development work;
- b) conducting a comprehensive set of necessary calculations and tests based on duly verified methodologies;
- c) determining the materials and substances used in individual types of amusement rides, depending on the operating parameters and conditions;
- d) establishing substantiated criteria for limiting states by the designer (developer);
- e) establishing designated service lives, designated resources, maintenance, repair, and disposal periods by the designer (developer);
- f) establishing requirements to prevent unauthorized use;
- g) taking into account the need to clearly and understandably inform visitors about the

33. Amusement rides must be designed to prevent the risk of fire or overheating caused by the operation of the ride equipment, in accordance with the fire safety requirements established by the legislation of Member States.

34. When designing rides, it is necessary to ensure compliance with the hygienic parameters (indicators) that ensure safety during their operation:

noise (sound), infrasound, ultrasound, general and/or local vibration, electrical, magnetic, electromagnetic, and electrostatic fields, as well as infrared (thermal), ultraviolet, and visible radiation, including laser radiation. The types of impacts are determined for each specific ride based on an analysis of potential risks.

35. When using laser equipment in an amusement ride, such equipment must be designed and manufactured to prevent accidental radiation and provide protection against direct, reflected, scattered, and secondary radiation. 36.

When designing amusement rides, measures must be taken to protect personnel and passengers from the adverse effects of non-ionizing radiation, static electric fields, constant magnetic fields, industrial-frequency electromagnetic fields, and radio-frequency and optical electromagnetic radiation.

37. When designing amusement rides, risks must be completely eliminated or minimized by applying the following measures:

- a) ensuring the implementation of a comprehensive set of research and development work;
- b) conducting a comprehensive set of necessary calculations and tests based on duly verified methodologies;

- c) determining the materials and substances used in individual types of amusement rides,
 - depending on the operating parameters and conditions;
- d) establishing substantiated criteria for limiting states by the designer (developer);
- d) establishing designated service lives, designated resources, maintenance, repair, and disposal periods by the designer (developer);
- e) establishing requirements to prevent unauthorized use;
- g) taking into account the need to clearly and understandably inform visitors about the extreme nature and biomechanical impact of the amusement ride;
- h) restricting amusement ride use for certain categories of people;
- i) appropriately selecting standard loads and impacts on passengers and structures;
- j) appropriately designing amusement ride restraint devices;
- k) appropriately designing and manufacturing structures and control systems, including identifying critical parameters, critical components, and redundancy of critical components;
- m) providing amusement rides with emergency stop devices (if necessary) and evacuation means;
- m) ensuring accessibility of amusement ride components and parts for inspection, repair, and maintenance;
- o) creating appropriate working conditions for operators that ensure safe operation of the amusement ride and sufficient visibility from the operator's workstation;
- p) development and use of operational documentation to eliminate risks to the operator from improper installation (assembly, setup), adjustment, maintenance, and operation of amusement rides;
- p) organization of methods and routes for the possible evacuation of passengers and personnel.
- extreme nature and biomechanical impact of the amusement ride;
- h) restricting amusement ride use for certain categories of people;
- i) appropriately selecting standard loads and impacts on passengers and structures;
- j) appropriately designing amusement ride restraint devices;
- k) appropriately designing and manufacturing structures and control systems, including identifying critical parameters, critical components, and redundancy of critical components;
- l) providing amusement rides with emergency stop devices (if necessary) and evacuation means;
- m) ensuring accessibility of amusement ride components and parts for inspection, repair, and maintenance;
- n) creating appropriate working conditions for operators that ensure safe operation of the amusement ride and sufficient visibility from the operator's workstation;
- o) development and use of operational documentation to eliminate risks to the operator from improper installation (assembly, setup), adjustment, maintenance, and operation of amusement rides;
- p) organization of methods and routes for the possible evacuation of passengers and personnel.

38. When designing amusement rides, it is necessary to:

- a) consider design features of mechanized rides that could cause harm when activated by an external energy source;

b) consider the nature of the movement of mechanized rides, including the translational and rotational motion of passengers, taking into account the effects of acceleration and inertial forces;

c) consider the potential biomechanical risks of inflatable rides, including the risk of tipping over due to wind, the risk of electric shock during rain, and the risk of injury to children when falling into openings, gaps, cracks, and tunnels;

d) prevent exposure of passengers to unacceptable acceleration;

e) ensure the creation of safety loops of sufficient size for the movement of passengers, as well as a reliable control and braking system for the ride;

e) ensure the reliability of fastenings and connections of ride components;

g) consider risk zones during movement and sudden braking of passenger units.

The dimensions of such zones, taking into account the severity of injuries, depend on the anthropometric data of passengers, the restraint systems, and the relative speed of movement. To reduce these risks, measures must be taken to increase the enclosure zones of the relevant zone or remove obstacles by an appropriate distance, based on a risk analysis.

39. When designing amusement rides, it is necessary to analyze the types, consequences, and criticality of failures and, in accordance with the identified risks, classify them according to the consequences of failure:

a) catastrophic risk, which may cause death of passengers or failure of the ride;

b) critical risk, which may cause serious injury to passengers or major damage to the ride;

c) minor risk, which may cause minor injury to passengers or damage to property;

d) negligible risk, which is not serious enough to cause injury to passengers or damage to property.

40. Measures must be taken to eliminate or minimize risks with a consistent check of their impact on interconnected parts of the structure.

41. When designing amusement rides, the following critical components must be analyzed in the sequence "from the passenger seat to the ride base":

a) locking devices, seating positions, locking devices, fastenings, armrests, backrests, and seat belts (taking into account the directions and magnitudes of applied accelerations), including in the event of intentional violation of the rules of use, preventing

falls or injury to passengers;

b) passenger modules (taking into account the weight of passengers, the action of the resulting forces

created by all dynamic loads) and their secure attachment to the guides and/or to other passenger modules;

c) locking, braking, and protective devices (taking into account all factors affecting them);

d) guide devices and their fastenings;

e) the main supporting structures of the ride;

e) shifting mechanical parts that may become trapped within the safety contour.

42. When designing amusement rides, critical components and those with a limited service life must be identified and included in the list of critical components and in the list of components with a limited service life attached to the operating documentation. These lists must also be submitted to the manufacturer along with the design and engineering documentation.

43. Critical components must be redundant; the backup component must be no less reliable than the primary component, taking into account the nature and conditions of its loading.

44. If redundancy by substitution is not possible, it is ensured by sufficient reduction of the design stresses in all elements of the critical component (amusement ride unit). The method and frequency of non-destructive testing of the critical component must be specified. The highest reliability factors in the calculations must be for those components that are inaccessible for direct testing during operation.

45. If amusement rides use electrical power, they shall be designed to eliminate the risk of electric shock.

46. If amusement rides use non-electric power (hydraulic or pneumatic), they shall be designed to avoid any hazards associated with these types of energy. Pipelines shall be capable of withstanding the intended loads, securely fastened, and protected from external mechanical impacts. Measures shall be taken to protect against hazardous consequences in the event of rupture, sudden displacement of pipelines, and from high-pressure jets in the event of their possible rupture.

47. Children's amusement rides shall comply with the safety requirements in Appendix No. 3; non-mechanized water rides shall comply with the safety requirements in Appendix No. 4.

48. The designer (developer) shall develop a safety justification for the amusement ride design to confirm its compliance with the requirements of these technical regulations.

49. The original safety justification for the amusement ride design is retained by the designer, and a copy is retained by the Member State certification body until the end of the designated service life. If the designated service life is extended or after modification, the safety justification for the amusement ride design is subject to revision.

50. The safety justification for the amusement ride design shall include:

a) a description of the amusement ride, its main structural components and operating principles, information on the amusement ride's main technical characteristics, the characteristics of its mechanical, pneumatic, hydraulic, electrical, and electronic equipment (including control systems) and other equipment used, as well as information on the specific features of the amusement ride and its installation methods (assembly, setup), its overall dimensions and movement beyond these dimensions, limitations, design features and materials used, propulsion systems, drive types, speeds, accelerations, electrical equipment, operating cycle, control procedures, and restrictions for individual visitors;

b) an analysis of the amusement ride's potential biomechanical risks and a list of its critical components and critical parameters for which measures must be taken to reduce risks during the life cycle;

c) Drawings indicating the dimensions of devices essential for meeting safety requirements. These drawings shall specify all dimensions and cross-sectional values required for verification and approval of these drawings, the characteristics of materials, assemblies and components, fasteners and connections, as well as the main speeds and accelerations. The set of drawings for the amusement ride shall include:

drawings of the passenger modules (in the required views and cross-sections) indicating the overall dimensions, internal dimensions (seats, side and rear rests, arm and leg room), the presence of arm and leg rests, locking and safety devices, and handrails;

drawings of the lift and rotation mechanisms indicating their supports, drives, and control systems, as well as the lift and rotation amplitude;

Drawings of the chassis indicating loads, detailed images of gear wheels and safety devices, bearings, axles, shafts, their connections and the possibility of displacement relative to the passenger module, control and monitoring devices, wheel chocks, derailment and rollover protection devices, bumpers, safety devices, drives and brakes,

and foundation fastenings; schematic diagrams of electrical (electronic), pneumatic, and hydraulic equipment;

d) drawings and calculations of critical components indicating dimensions, materials, and critical parameters, as well as the results of the limit state analysis. Loads and impacts must comply with the requirements of this technical regulation and ensure safety. Welded joints are calculated to ensure their fatigue strength, using stress concentration factors at points of abrupt cross-sectional changes;

d) the main results and conclusions of the strength and reliability calculations of the supporting structures, indicating information on the main acting forces, masses, wind speeds, support pads, and all stressed areas necessary for technical inspection;

e) plans showing emergency exits and their dimensions, with calculation verification for enclosed spaces designed for 400 or more visitors, and special instructions in case of fire;

g) a list of standards applied in whole or in part and included in the list of standards, the application of which, on a voluntary basis, ensures compliance with the requirements of this technical regulation, and, if these standards were not applied, a description of the solutions aimed at implementing the requirements of this technical regulation;

h) the testing program and methodology for the assembled attraction;

i) instructions for evacuating passengers from the attraction in the event of an emergency.

51. When designing amusement rides, operational documentation is developed, including:

a) an amusement ride form or amusement ride passport;

b) an amusement ride operating manual;

c) an amusement ride maintenance and repair manual;

d) a list of spare parts and accessories;

d) instructions for installation (assembly, setup), start-up, adjustment, and running-in of the amusement ride;

e) instructions for transporting and storing the amusement ride;

g) instructions for decommissioning and recycling the amusement ride;

h) amusement ride operation and maintenance logs in accordance with the documents stipulated in subparagraphs "b" and "c" of this paragraph (indicating information ensuring compliance with operation and maintenance requirements).

52. To conduct compliance assessments and technical monitoring of attractions with potential biomechanical risk levels RB-1 and RB-2, an attraction form (as a separate document) is prepared, the contents of which are provided in Appendix No. 5.

53. For attractions with potential biomechanical risk level RB-3, an attraction passport is prepared, the contents of which are provided in Appendix No. 6.

54. The operating manual must include:

a) a description of the amusement ride's operation, including a detailed description of its main systems,

mechanisms, control systems, and their operation;

b) an indication of the maximum number and weight of passengers in one passenger module and

(or) the amusement ride as a whole;

c) requirements for commissioning procedures, suspension of operation, as well as for downtime for technical reasons and the procedure for recommissioning;

d) the work procedure for operators operating the amusement ride with passengers, including requirements for actions in emergency situations;

d) rules for using the amusement ride for visitors, as well as rules for servicing

passengers with disabilities, if the biomechanical effects of the amusement ride are acceptable for them;

e) information on restrictions on passenger use of the amusement ride due to health, age, height, and weight (if necessary);

g) methods for emergency evacuation of passengers from great heights or from seats with a significant inclination relative to the ground;

h) a description of weather conditions under which operation of the amusement ride is prohibited;

i) rules for the safe operation of the amusement ride with passengers, passenger loading diagrams (if necessary);

k) a procedure for daily inspections of critical components and critical parameters.

55 The maintenance and repair manual must include:

a) a list of critical components and critical parameters, a list of parts with a limited service life and their replacement schedule, assembly drawings and drawings showing the main dimensions required for maintenance and repair, basic electrical, hydraulic, and pneumatic circuit diagrams;

b) a description of the procedure for daily inspection of the amusement ride's technical condition before opening and after operation;

c) the procedure for assembly, disassembly, adjustment, and lubrication of individual amusement ride components, their frequency, and the consumables used;

d) a list of types of maintenance and repairs with a detailed description of their contents and technical requirements;

d) recommendations for the maintenance and repair of electrical equipment;

e) prohibition of modification by the operator or a third party without the approval of the designer;

g) the procedure and conditions for modifying components (only upon instruction and/or agreement with the designer).

56. The decommissioning and disposal instructions must include:

a) the procedure for decommissioning the amusement ride;

b) the procedure for the safe disposal of individual parts, taking into account the specifics of disposal of electronic components and individual assemblies containing hazardous substances.

57. Operating documents for the attraction are prepared in Russian and, if required by the legislation of Member States, in the official language(s) of the Member State in which the attraction is operated. Operating documents are prepared on paper (if necessary, a set of operating documents on electronic media may be attached).

VI. Safety Requirements for the Manufacture of Amusement Rides

58. Amusement rides must comply with the requirements of the design documentation.

59. Only those structural materials specified in the design documentation must be used for the manufacture of amusement ride components and parts. Substitution of structural materials without the approval of the designer is not permitted.

60. Particular attention must be paid to welded joints and the weldability of selected materials for critical components.

61. Fasteners must meet the reliability requirements established by the designer.

62. Materials, parts, devices, and assemblies that determine the safety of the amusement ride must comply with the technical requirements, design characteristics, and safety requirements of this technical regulation and other effective technical

regulations of the Union (Customs Union) that apply to them. 63. Critical components must bear the manufacturer's or contractor's markings, which must be clear and legible and located in an accessible location to ensure their subsequent identification.

64. All supplied materials and components for critical components must undergo incoming inspection (verification), with the necessary documentation prepared.

65. During the manufacturing process, materials (including consumables) and components (elements) produced by both the manufacturer and its suppliers must be inspected.

66. If the design documentation specifies that critical components must be tested during their manufacture, the manufacturer is obligated to ensure that these tests are carried out.

67. In cases where, upon review of the design documentation or in the technical requirements, it is established that these parts or assemblies are important for ensuring safety and require testing, the manufacturer is obligated to ensure that these tests are carried out.

68. Non-destructive testing must be applied to critical components and element connections specified in the list of critical components compiled during the amusement ride design process and submitted to the manufacturer along with the design and engineering documentation.

69. The manufacturer shall ensure that the essential safety characteristics and quality indicators for each material and each component comply with the requirements specified in the design documentation and shall provide for the corresponding manufacturing procedures.

70. Chains, steel ropes, textile ropes, and tapes used in the construction of the amusement ride shall have a certificate containing the following information:

- a) the manufacturer's name and location (address);
- b) the brand of the chain, steel rope, textile rope, or tape, including the nominal size, design, and material information;
- c) the test method used;
- d) the minimum breaking (or destructive) load.

71. The form of the certificate specified in paragraph 70 of this Technical Regulation shall be approved by the Eurasian Economic Commission.

72. Each part of the chain, rope, or belt that is not an assembly unit must be marked, and where this is not possible, a plate or permanent ring indicating the manufacturer's name and location (address).

73. The manufacturer must ensure that all metal parts of the amusement ride are protected from corrosion, wooden parts from rot, and parts of the amusement ride made of fiberglass and polymeric materials from aging, as specified by the designer. The inspection frequency of such parts during operation must be specified in the operating documentation. When using hollow sections made of structural steel, consideration must be given to the need to prevent internal corrosion.

74. Welded joints of critical metal components of amusement ride structures, including those bearing alternating loads, must ensure their safety. 75. Each amusement ride must be equipped with a manufacturer's information plate containing the following information:

- a) name and location (address) of the manufacturer and/or seller (supplier);
- b) name and/or designation of the amusement ride (model type (number));

- c) product serial number;
- d) month and year of manufacture.

76. The information on the information plate specified in paragraph 75 of this Technical Regulation may be affixed in any manner that ensures a clear and easily distinguishable image throughout the entire service life of the amusement ride. The plate must be in Russian and, if required by the legislation of Member States, in the official language(s) of the Member State in which the amusement ride is sold.

VII. Ensuring Safe Installation (Assembly, Installation) and Adjustment of Amusement Rides

77. To ensure safety during installation (assembly, installation) of an amusement ride, the following requirements must be met before commissioning:

- a) the amusement ride must be installed (assembled, installed) in accordance with the installation (assembly, installation), start-up, adjustment, and test run instructions or other operating documents containing instructions for installation (assembly, installation), adjustment, and adjustment;
- b) the operator or their authorized representative must ensure that the amusement ride is located on a site suitable for this purpose, in accordance with the instructions contained in the operating documents. It is necessary to ensure that:
 - the ground can safely support the load of the amusement ride;
 - The site is sufficiently flat, level, and stable for the safe installation (assembly, installation) and operation of the attraction in accordance with the form and installation instructions for the attraction.

After installation (assembly, installation) of the attraction, the ground must be regularly inspected to ensure there is no deterioration in its load-bearing capacity, especially under adverse weather conditions. The attraction site must be equipped with drainage if there is a risk of exposure to groundwater;

- c) the operator must determine the location of underground utilities or overhead lines that may pose a hazard during installation (assembly, installation) or operation of the attraction, taking into account, where necessary, the recommendations of the relevant authority. If utilities could pose a hazard to personnel or visitors, all reasonable and possible precautions must be taken to prevent such hazard, either through the use of suitable and properly located barriers or by other means.

It is necessary to ensure that underground utilities are not damaged when installing poles or stakes in the ground or when digging trenches or excavating pits.

Before commencing such work, special utility detection methods must be used if the absence of underground utilities has not been determined in advance;

- d) When installing amusement rides, the operator must adhere to the following principles:
 - the potential for dangerous lift-off of the ride from the ground due to wind must be considered;
 - rides must be positioned so that riders have safe access to and safe exit from each ride at designated locations, and there are no narrow passages that could cause dangerous congestion in an emergency;
 - adequate distances must be provided between and above rides and their auxiliary equipment on access roads to ensure access for emergency vehicles, as well as access to fixed fire hydrants (including during the evacuation of riders);
 - adequate distances must be maintained between adjacent rides, structures, or other occupied areas to minimize the risk of fire spread in the event of a fire;

if rides intersect or pass through each other, at a minimum, safety contours must be used for each ride. The operator must ensure that safety contours are maintained for both passengers and other visitors;

For token-operated rides for children, the distance between them may vary, provided that the safety contours are maintained;

d) If the ride is mounted (assembled, installed) on a foundation, the safety of the foundation must be confirmed before installation (assembly, installation) of the ride. Foundations must comply with the requirements of the Member State's construction legislation;

e) When installing rides without a foundation, dynamic loads must be taken into account, which must not cause movement or overturning of the ride during operation;

g) After installation (assembly, installation) of the ride, it must be adjusted and configured in accordance with the manufacturer's recommendations.

78. The commissioning of rides shall be carried out in accordance with the procedures established by the legislation of the Member States.

VIII. Safety Requirements for the Operation of Amusement Parks

79. When operating amusement parks, it is necessary to:

a) comply with the requirements of operating documents and maintain relevant logs;

b) post rules for the use of the amusement park for visitors at the entrance to the amusement park, as well as rules for servicing passengers with disabilities, if the biomechanical

effects of the amusement park are acceptable for them;

c) post information about restrictions on the use of the amusement park based on health, age, height, and weight (if provided for in the operating documents) at the entrance to the amusement park. The information shall be in Russian and, if required by the legislation of Member States, in the official language(s) of the Member State in which the amusement park is operated;

d) have means for measuring the height and weight of passengers (if provided for in the operating documents);

d) Place an information sign at the entrance to each operating amusement ride containing the date of the most recent annual inspection, indicating the organization that performed the inspection, and the date of the next annual inspection. The sign must be legible and protected from weather conditions and intentional damage;

e) Place signs containing information about the ride's main technical characteristics near the control panel;

g) Have first aid kits available;

h) Post the necessary evacuation signs, a plan, and procedures for evacuating passengers from great heights or from seats with a significant inclination relative to the ground;

i) Have means for evacuating passengers from passenger modules available (if provided for in the operating documents);

j) Post the basic rules for servicing the ride at the workstation for maintenance personnel;

k) Post passenger loading diagrams for the ride (if provided for in the operating documents). l) post signs at the maintenance personnel's workstations outlining the requirements for personnel regarding the daily inspection procedures for critical components and critical parameters;

- n) conduct daily inspections of the ride, recording daily approvals for the ride's operation in a logbook;
- o) prevent visitors from accessing hazardous areas (passenger module movement areas, mechanisms, electrical equipment cabinets, platforms, and ladders for maintenance personnel) during and outside of ride operation;
- p) prevent unauthorized use of the ride;
- p) organize safe workstations for personnel;
- c) install instruments for measuring wind speed and ambient air temperature on the amusement ride platform (if required by the operating documentation).

80. The operator conducts daily and annual inspections of amusement rides, as well as other inspections stipulated by the operating documents.

81. For previously operated amusement rides, after a long period (over 12 months) of suspension of operation, downtime due to technical reasons, or in the event of partial or complete disassembly of the ride, the operator shall perform a complete inspection of the ride.

82. Maintenance and repair of amusement rides shall be carried out in accordance with the operating documents.

83. If the designated service life of the main supporting structure and non-replaceable parts of the ride has expired, the operator shall suspend operation of the ride.

84. Upon expiration of the designated service life of the amusement ride, it is not permitted to use it for its intended purpose without an assessment of its remaining life.

85. The assessment of the remaining service life of an amusement ride that has reached the end of its designated service life is carried out through an inspection by an organization accredited (authorized) in accordance with the procedure established by the legislation of the Member States.

86. During the inspection of the amusement ride, the following shall be determined:

- a) the compliance of the amusement ride that has reached the end of its designated service life with the requirements of this Technical Regulation and other effective technical regulations of the Union (Customs Union) that apply to it;
- b) the necessary measures to ensure the amusement ride's compliance with the requirements of this Technical Regulation and other effective technical regulations of the Union (Customs Union) that apply to it, and the deadlines for their implementation.

87. During the inspection of the amusement ride, the following shall be performed:

- a) the condition of the amusement ride equipment shall be determined, identifying defects, malfunctions, degree of wear, and corrosion;
- b) inspection of the condition of metal structures, passenger modules, locking devices, the reliability of fastening of passenger seats, chassis, braking devices, and control systems;
- c) testing the insulation of electrical circuits and electrical equipment, and visual and measured inspection of the grounding (neutralization) of the amusement ride equipment.

88. Details of the inspection performed are included in the amusement ride form.

89. Based on the inspection results, a report is issued containing the conditions and possible extension period for the amusement ride's service life.

90. An assessment of the remaining service life may be conducted as part of a technical condition assessment (technical inspection) (if required by the legislation of Member States).

91. Modifications to the amusement ride are not permitted without the prior approval of the designer.

IX. Ensuring the Safety of Amusement Rides during Transportation, Storage, and Disposal

92. The transportation and storage of amusements must comply with the safety requirements established in the operating documents.

93. The operating documents must establish recommendations for the safe disposal of the amusements.

X. Ensuring Compliance of Amusement Rides with Safety Requirements

94. Compliance of amusements with this Technical Regulation is ensured by fulfilling its requirements directly and the requirements of other effective technical regulations of the Union (Customs Union) that apply to amusement rides, or by fulfilling the requirements of international and regional (interstate) standards, and in the absence of such standards, national (state) standards, the voluntary application of which ensures compliance with the requirements of this Technical Regulation.

95. Research (testing) and measurement methods for amusement rides are established in standards included in the list of standards containing rules and methods for research (testing) and measurements, including sampling rules, necessary for the application and enforcement of the requirements of this technical regulation and the assessment of the conformity of amusement rides.

XI. Conformity Assessment of Amusement Rides

96. Amusement rides placed into circulation within the Union are subject to assessment of compliance with the requirements of this technical regulation, as well as the requirements of other Union (Customs Union) technical regulations that have entered into force and that apply to them.

97. Conformity assessment with the requirements of this technical regulation is carried out in the form of confirmation of compliance, registration, and technical condition assessment (technical inspection).

XII. Conformity Assessment

98. Conformity assessment of amusement rides with the requirements of these Technical Regulations shall be carried out in the form of mandatory certification or declaration of conformity.

99. Conformity assessment of amusement rides with the requirements of these Technical Regulations shall be carried out:

- a) in the form of mandatory certification for amusement rides with potential biomechanical risk level RB-1 by a certification body;
- b) in the form of declaration of conformity for amusement rides with potential biomechanical risk levels RB-2 and RB-3 based on the company's own evidence and evidence obtained with the participation of a certification body or an accredited testing laboratory (center) included in the Unified Register of Certification Bodies and Testing Laboratories (Centers) of the Customs Union (hereinafter referred to as the testing laboratory (center)).

100. Information about the declaration of conformity or certificate of conformity, including the validity period, is indicated in the attraction's registration form or attraction passport.

101. To confirm the conformity of the attraction, the applicant shall prepare a set of documents confirming compliance with the safety requirements of this Technical Regulation, which shall include:

- a) a safety justification;
- b) operating documents;
- c) a contract (supply agreement) and accompanying documentation (for a batch or a single item);
- d) a manufacturer's quality management system certificate (if any);
- d) attraction test reports conducted by the manufacturer, a person authorized by the manufacturer, the seller (if any), and/or testing laboratories (centers);
- e) documents confirming the conformity of materials and components (certificate of conformity or declaration of conformity) or their test reports (if any);
- g) documents confirming the conformity of the component parts, parts (elements) of the attraction with other effective technical regulations of the Union (Customs Union), which apply to them.
- h) documents confirming the conformity of the attraction received from foreign certification bodies (if any);
- i) a list of the standards specified in paragraph 94 of this technical regulation, the requirements of which the attraction complies (if applied by the manufacturer);
- k) other documents confirming the attraction's conformity with the safety requirements of this technical regulation (if any).

XIII. Procedure for Declaring Conformity of Amusement Rides

102. Declaration of conformity of amusement rides is carried out according to the following schemes:

1) Scheme 1d – applied to mass-produced amusement rides with potential biomechanical risk levels RB-2 and RB-3 and includes the following actions performed by the applicant:

- preparing the set of documents specified in paragraph 101 of this Technical Regulation;
- implementing production control;
- taking all necessary measures to ensure that the production process ensures compliance of amusement rides with the requirements of this Technical Regulation;
- conducting sample testing in the applicant's testing laboratory and/or in a testing laboratory (center);
- accepting and registering the declaration of conformity;

b) Scheme 2d – applied to a batch of rides (single product) with potential biomechanical risk levels RB-2 and RB-3 and includes the following actions performed by the applicant:

- creating the set of documents specified in paragraph 101 of these technical regulations;
- conducting sample testing in the applicant's testing laboratory and/or at the testing laboratory (center);
- accepting and registering the declaration of conformity;

c) Scheme 5d – applied to mass-produced rides with potential biomechanical risk level RB-2 when it is impossible to conduct full testing before their installation (assembly, setup) at the operating site and includes the following actions performed by the applicant:

- creating the set of documents specified in paragraph 101 of these technical regulations;

implementing production control;

Taking all necessary measures to ensure that the production process ensures that attractions comply with the requirements of this Technical Regulation;

Submitting an application to the certification body (testing laboratory (center)) to conduct a type study of the attraction in one of the following ways:

Examining a sample of the attraction for planned production as a typical representative of all future products;

Analysis of technical documentation, testing of the sample or critical components of the attraction.

The results of the attraction type testing are documented in a report (certificate of conformity) and/or a protocol, in which the testing laboratory (center) assesses the attraction type's compliance with the requirements of this technical regulation.

Based on the report (certificate of conformity) and/or protocol, the applicant accepts and registers a declaration of conformity;

d) Scheme 6d – applies to mass-produced amusement rides with a potential biomechanical risk rating of RB-2, provided that the manufacturer has a certified management system. This scheme requires the applicant to prepare a set of documents specified in paragraph 101 of this Technical Regulation, including a management system certificate (or a copy of the management system certificate) issued by a management system certification body accredited by the accreditation body of a Member State and registered as a legal entity in accordance with the legislation of the Member States.

103. The manufacturer shall exercise production control and take all necessary measures to ensure that the production process ensures compliance of the amusement rides with the requirements of this Technical Regulation, conduct testing of samples in a testing laboratory (center), and issue and register a declaration of conformity. 104.

When declaring conformity under schemes 1d, 5d, and 6d, the applicant may be a legal entity or an individual as a sole proprietor registered in the territory of a Member State in accordance with its legislation, who is the manufacturer or a person authorized by the manufacturer.

105. When declaring conformity under Scheme 2D, the applicant may be a legal entity or an individual as a sole proprietor registered in the territory of a Member State in accordance with its legislation,

who is the manufacturer, seller, or authorized representative of the manufacturer.

106. The declaration of conformity is prepared using a uniform form approved by the decision of the Board of the Eurasian Economic Commission. The declaration of conformity shall indicate the degree of potential biomechanical risks to which the declared amusement rides belong.

107. The declaration of conformity is subject to registration in accordance with the procedure established by the Eurasian Economic Commission. The validity of the declaration of conformity begins on the date of its registration in the Unified Register of Issued Certificates of Conformity and Registered Declarations of Conformity. The validity period of the declaration of conformity corresponds to the designated service life or designated resource of the attraction.

108. The applicant is obligated to keep the declaration of conformity and the set of documents specified in paragraph 101 of this technical regulation for ten years from the expiration date of the declaration of conformity.

109. The set of documents specified in paragraph 101 of this technical regulation is provided to state control (supervision) authorities upon their request.

XIV. Amusement Ride Certification Procedure

110. Amusement rides classified as having a potential biomechanical risk rating of RB-1 are certified according to the following schemes:

a) Scheme 1c – applied to mass-produced amusement rides and includes the following steps:

the applicant prepares the set of documents specified in paragraph 101 of this technical regulation and submits an application for certification to the certification body;

the certification body analyzes the submitted documents and identifies the declared product, including by its potential biomechanical risk rating, collects samples from the applicant for testing in a testing laboratory (center), and determines the testing program;

the testing laboratory (center) tests the amusement ride samples;

the certification body analyzes the manufacturer's production status and the results of the amusement ride samples, and if the results are positive, issues a certificate of conformity to the applicant;

The certification body carries out inspection control of certified amusement rides by testing sample rides in a testing laboratory (center) and/or analyzing the production status;

b) Scheme 2c – applied to mass-produced amusement rides if the manufacturer has a certified management system and includes the following steps:

the applicant prepares a set of documents specified in paragraph 101 of this technical regulation, which must include a management system certificate (or a copy of the management system certificate) issued by the management system certification body, and submits an application for certification to the certification body;

the certification body analyzes the submitted documents and identifies the declared product, including by the degree of potential biomechanical risk, collects samples from the applicant for testing in the testing laboratory (center), and determines the testing program;

the testing laboratory (center) tests the amusement ride samples;

Please contact +7 964 578 30 19 if you are interested in cooperation on Russian market.

The certification body analyzes the applicant's set of documents and the amusement ride test results and, if the results are positive, issues a certificate of conformity to the applicant;

the certification body conducts inspection control of certified amusement rides by testing amusement ride samples in a testing laboratory

(center) and analyzing the results of the inspection control by the certification body of management systems for the manufacturer's certified management system;

c) Scheme 3c – applies to a batch of amusement rides (single product) and includes

the following steps:

the applicant compiles the set of documents specified in paragraph 101 of this technical regulation and submits an application for certification to the certification

body;

the certification body analyzes the submitted documents and identifies the declared product, including by the degree of potential biomechanical risk, collects samples from the applicant for testing in a testing laboratory (center), and determines the testing program;

The testing laboratory (center) conducts testing of amusement ride samples. If

the amusement ride is transported to the installation (assembly, setup) site in individual parts rather than in one piece,

testing is conducted after its installation (assembly, setup) and adjustment at the operating site;

the certification body analyzes the amusement ride test results and, if positive, issues a certificate of conformity to the applicant;

d) Scheme 9c – applies to a limited-volume batch of amusement rides supplied by a foreign manufacturer and includes the following steps:

the applicant prepares the set of documents specified in paragraph 101 of this technical regulation and submits an application for certification to the certification body.

Submission of the documents specified in subparagraph "z" of paragraph 101 of this technical

regulation is mandatory;

The certification body analyzes the set of documents submitted by the applicant and identifies the declared attractions, including the degree of potential biomechanical risks, and, if the results are positive, issues a certificate of conformity to the applicant.

111. The applicant for certification under schemes 1c, 2c, and 9c may be a legal entity or an individual as a sole proprietor registered in the territory of a Member State in accordance with its legislation, who is the manufacturer or a person authorized by the manufacturer.

112. The applicant for certification under scheme 3c may be a legal entity or an individual as a sole proprietor registered in the territory of a Member State in accordance with its legislation, who is the manufacturer or seller or a person authorized by the manufacturer.

113. The applicant shall select the certification scheme, taking into account the provisions of this technical regulation.

114. The applicant may submit an application for certification to any certification body included in the Unified Register of Certification Bodies and Testing Laboratories (Centers) of the Customs Union, with the appropriate scope of accreditation.

The application for certification is submitted by the applicant and must contain:

a) the name and location of the applicant;

b) the name and location of the manufacturer;

c) information about the amusement ride (its components) and its identifying features

(name, type, and kind of amusement ride), technical specifications specified in the operating documents, the code of the Unified Commodity Nomenclature of Foreign Economic

Activities of the Eurasian Economic Union, the document under which the amusement ride is manufactured, the release form (serial production or batch), and contract details;

d) a list of standards used (if any);

d) the certification scheme;

e) the applicant's obligations to comply with the rules and conditions of certification.

115. The certification body reviews the application and the set of documents specified in paragraph 101 of this Technical Regulation submitted simultaneously with the application, and

makes a decision on the feasibility of certification.

116. The certification body conducts work in accordance with the certification scheme, prepares a decision, and, if the results are positive, issues a certificate of conformity to the applicant.

117. In the event of a negative certification result, the certification body sends the applicant a reasoned decision refusing to issue a certificate of conformity.

118. Testing of a sample(s) of an amusement ride from a batch or a single product is carried out by a testing laboratory (center) on behalf of the certification body in accordance with the test program determined by the certification body, which issues a test report.

119. An analysis of the state of production is conducted by the certification body at the manufacturer's premises (if provided for by the certification scheme). The results of the analysis are documented in a report.

120. If the inspection results stipulated by the certification scheme are positive, the certification body issues a certificate of conformity to the applicant.

121. The certificate of conformity is issued in a standard form approved by the decision of the

Board of the Eurasian Economic Commission. The certificate of conformity must contain information on the level of potential biomechanical risk to which the certified amusement rides belong.

122. The certification body enters information about the issued certificate of conformity into the

Unified Register of Issued Certificates of Conformity and Registered Declarations of Conformity.

123. The validity period of the certificate of conformity is set for serially produced amusement rides and is no longer than 5 years; for a batch of amusement rides, the validity period is not set.

124. Inspection monitoring of certified products is carried out by the certification body that issued the certificate of conformity, in cases stipulated by the selected certification scheme, at least once per year during the validity period of the certificate of conformity.

Based on the results of the inspection monitoring, the certification body:

a) confirms the validity of the certificate of conformity within the period specified therein;

b) suspends the certificate of conformity for a period of no more than two months from the date of the relevant decision;

c) terminates the certificate of conformity.

125. If the identified nonconformities can be eliminated by implementing corrective measures and the results of these measures can be verified, the certification body

makes a decision to suspend the certificate of conformity. After implementing the corrective measures and eliminating the identified nonconformities, the certification body

makes a decision to renew the certificate of conformity. If, based on the results of the verification and resolution of identified nonconformities, it is impossible to conclude that the certified product fully complies with the requirements of this technical regulation, the certification body will decide to terminate the certificate of conformity.

126. A decision to revoke a certificate of conformity shall be made if nonconformities with the requirements of this Technical Regulation identified during

inspection control cannot be remedied by corrective measures agreed upon with the certification body.

127. The set of documents specified in paragraph 101 of this Technical Regulation, test reports from the testing laboratory (center), and the certificate of conformity shall be kept by the applicant and the certification body for the following period:

a) for serially produced amusement rides – at least 10 years from the date of expiration of the certificate of conformity;

b) for a batch of amusement rides (single item) – at least 10 years from the date of sale of the last item in the batch.

128. The documents specified in paragraph 127 of this Technical Regulation shall be submitted to state control (supervision) authorities upon request.

XV. Registration (registration), assessment of the technical condition (technical inspection) of the amusement ride

129. Registration (registration) of an amusement ride before commissioning shall be carried out in accordance with the procedures established by the legislation of the Member States.

130. During the designated service life (designated resource), the conformity of the amusement ride shall be assessed by a technical condition assessment (technical inspection) at least once every 12 months by an organization accredited (authorized) in accordance with the procedures established by the legislation of the Member States.

131. Upon recommissioning of an amusement ride, including after modification (major repairs), suspension of operation due to an accident, or suspension of operation due to the expiration of the designated service life of the amusement ride, a control inspection shall be conducted in accordance with the requirements of this Technical Regulation.

XVI. Marking Amusement Rides with a Single Mark of Product Circulation on the Union Market

132. Amusement rides that comply with the requirements of this Technical Regulation, as well as the requirements of other Union (Customs Union) technical regulations that have entered into force and that apply to them, and that have undergone the procedure for confirming their compliance with the requirements of this Technical Regulation and other Union (Customs Union) technical regulations that have entered into force and that apply to them, are marked with a single mark of product circulation on the Union market.

133. Marking with a single mark of product circulation on the Union market is carried out

before the release of the amusement rides for circulation on the Union market.

134. The single mark of product circulation on the Union market is applied by any method that ensures a clear and distinct image throughout the entire service life of the amusement rides.

135. The single mark of product circulation on the Union market is applied to the product itself and to the operating documents.

XVII. State Control (Supervision) over Compliance with the Requirements of this Technical Regulation

136. State control (supervision) over compliance with the requirements of this Technical Regulation with respect to amusement rides shall be carried out in accordance with the procedure established by the legislation of the Member States.

APPENDIX No. 1
to the Technical Regulation
of the Eurasian Economic Union
"On the Safety of Amusement Parks"
(EAEU TR 038/2016)

List of types and kinds of attractions

Name	Type of attractions
1. Mechanized translational motion (including using water)	Slideways Free-fall towers Water slides on boats or rafts Catapults Park trains on rails Monorails and cable car parks
2. Mechanized rotary motion	Ferris wheels swings carousels
3. Mechanized complex movements	with reciprocating and rotating motion motorized cinema seats simulators attractions based on industrial robots
4. Autodromes and karting	Colliding vehicles Park vehicles or pleasure road trains Karting (including on overpasses) Highway systems with mini-cars
5. Inflatable	Inflatable trampolines slides mazes
6. Water non-mechanized	Water slides, straight and with curves diving ramps

	floating platforms partially submerged with water splashing onto visitors
7. Non-mechanized	Slides Swings Carousels Bungee Jumps Trampolines
8. For children	Slides, slides swings carousels electric or pedal cars

Appendix No. 2

**to the Technical Regulation
of the Eurasian Economic Union**

"On the Safety of Amusement Parks"

(EAEU TR 038/2016)

List of types of biomechanical impacts on amusement park passengers, degrees of potential biomechanical risk and types of passenger seat tilt

I. Types and magnitudes of biomechanical impacts on amusement park passengers and degrees of potential biomechanical risk

Type of biomechanical impact	Units	Degree of potential biomechanical risk		
		RB-1	RB-2	RB-3
magnitude of biomechanical impact				
high middle low				
Ascent or descent from a height*	H (m)	H>8	2<H 8	0,4<H 2

Moving with speed	V (m/c)	V>20	10<V 20	3<V 10
Rising or lowering in a reclining chair:	H (m)	H 3	2<H 3	0,4<H 2
forward (fig.1)	(°)	135< 180	45< 135	10< 45
backward (fig.2)	(°)	135< 180	105< 135	95< 105
side (fig.3)	(°)	120 180	60 120	30< 60

* The levels of biomechanical risks are based on statistical data on the consequences of injuries caused by people falling from a height.

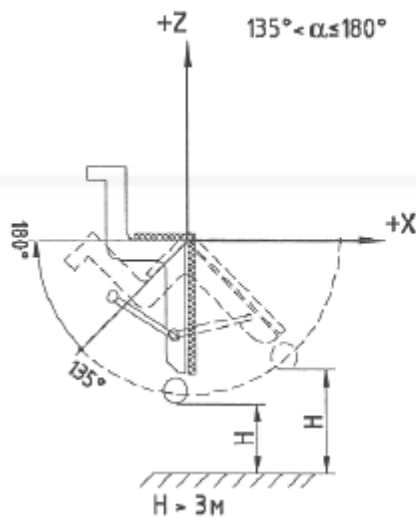
Note: When determining the degree of potential biomechanical risk of an attraction, the indicators with the highest values are selected.

оборудование для бассейнов и аквапарков

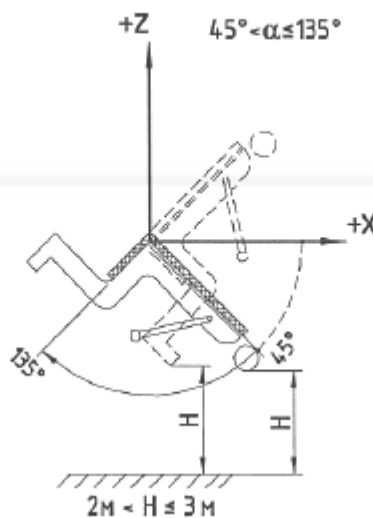
II. Types of passenger seat tilt

The types of forward tilt of passenger seats are shown in Figure 1.

RB-1



RB-2



RB-3

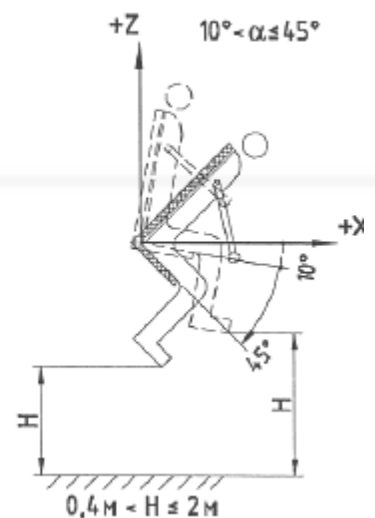


Fig. 1. Forward tilt of passenger seats

The types of rearward tilt of passenger seats are shown in Figure 2.

оборудование для бассейнов и аквапарков

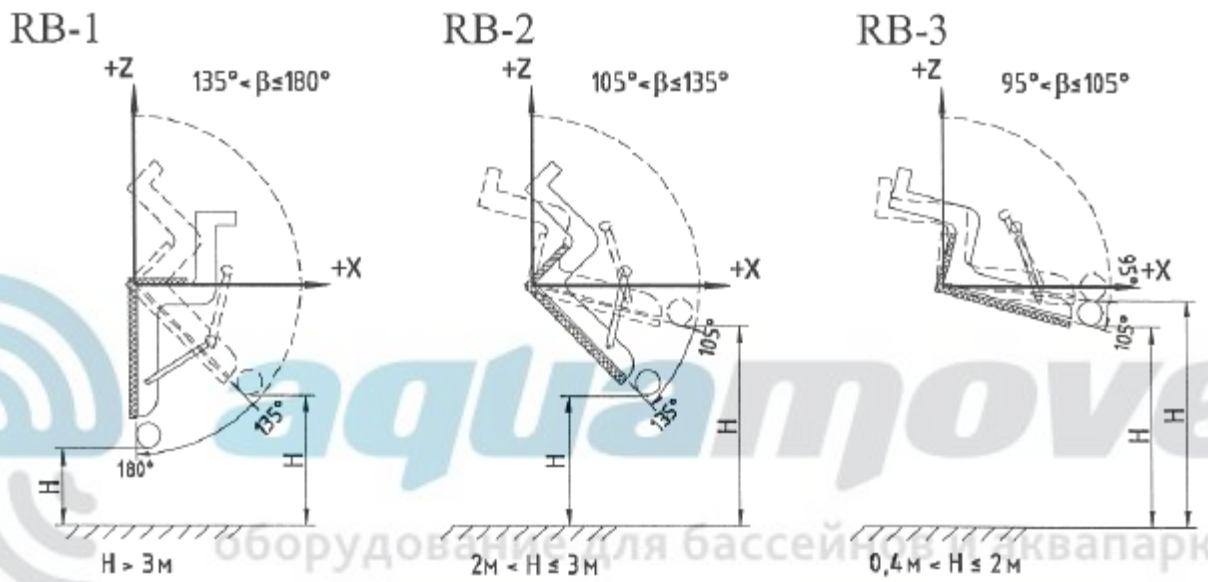


Fig. 2. Rearward Passenger Seat Recline

Passenger seat recline options are shown in Fig. 3.

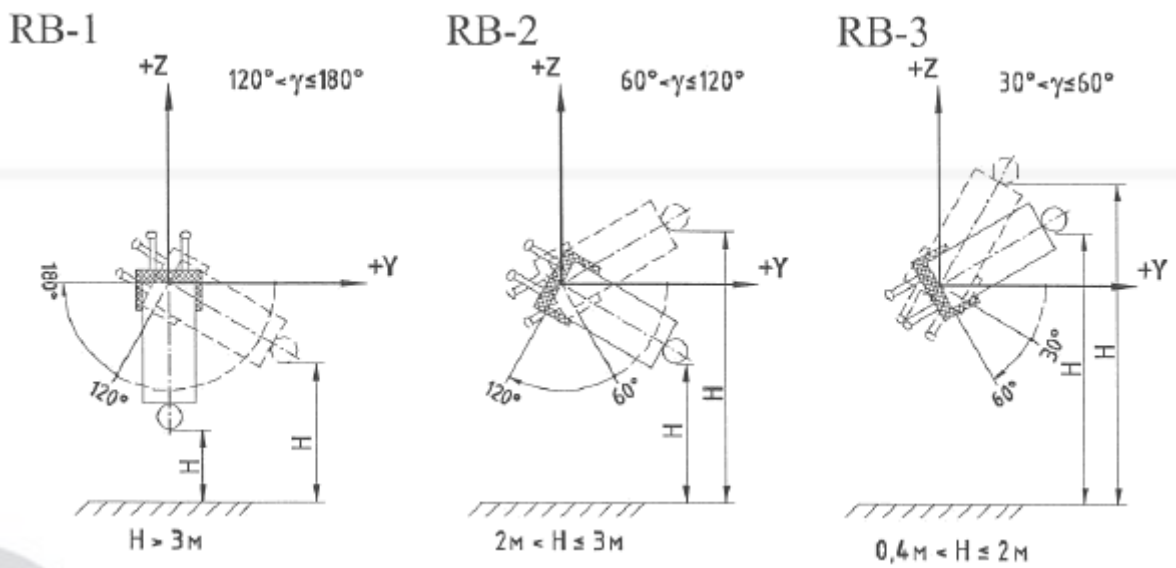


Fig. 3. Passenger seats tilted to the side

оборудование для бассейнов и аквапарков

Appendix No. 3

to the Technical Regulation

of the Eurasian Economic Union

"On the Safety of Amusement Parks"

(EAEU TR 038/2016)

Safety requirements for attractions intended for children

1. The design and manufacture of amusement rides intended for children is carried out taking into account additional risks associated with physiological, psychological, and anthropometric factors specific to children of different age groups, as well as the following requirements:

a) consideration of the operating characteristics of amusement rides intended for children of different age groups;

b) the need to manufacture all moving equipment components, as well as stationary elements (parts with which children may come into contact), from injury-safe materials or coatings;

c) preventing children's hands, feet, heads, fingers, and clothing from becoming trapped in various gaps, crevices, and openings;

d) the presence (or occurrence) of cracks, gaps, or openings in (between) equipment components that could trap foreign objects, in areas (zones) where children slide, swing, and jump as specified in the amusement ride operating manual, are prohibited;

d) ensuring a safe free fall height;

e) Ensuring safe distances between moving and fixed amusement ride elements;

g) Preventing water accumulation on the surface of the equipment and ensuring free drainage and drying;

h) Protecting protruding ends of fasteners;

i) Preventing clothing from snagging on protruding parts;

j) Manufacture wooden amusement ride elements from durable and moderately durable wood; avoid any surface defects;

k) Ensuring equipment elements are secured in such a way as to prevent their removal without the use of tools;

m) Ensuring equipment elements are wide enough for children to grasp (grasp) in accordance with established standards;

m) Provide railings and fences (where necessary) on amusement rides in appropriate locations, taking into account the age groups of children. The design of railings and fences should not encourage children to stand or sit on them, and there should be no elements that allow children to climb or stand on them.

2. The following requirements apply to materials used in children's amusement rides:

a) The materials used must not have a harmful effect on the child's health or the environment, or cause thermal burns upon contact with the child's skin in climates with very high or very low temperatures;

b) The following materials are not permitted for children's amusement rides:

flammable polymeric materials;

highly toxic combustion products;

new materials whose properties have not been adequately studied;

c) polymeric materials and composite materials based on various matrix bases must be resistant to ultraviolet radiation;

d) If polymeric materials and composite materials based on various matrix bases become brittle during use, the manufacturer must specify a safe operating period;

d) The wear resistance and surface hardness of polymeric and composite materials must ensure child safety for the entire intended service life;

e) Metallic materials that form peeling or flaking oxides must be protected with a non-toxic coating;

g) Plywood must be weather-resistant.

3. The following requirements apply to the assembly and installation of amusement rides intended for children:

The assembly and installation of amusement rides must be carried out in accordance with the design documentation, assembly, installation, start-up, adjustment, and test instructions;

Amusement rides must be securely fastened to their bases or prevent the possibility of their supporting structure from tipping over.

It is prohibited to use an amusement ride that does not ensure the safety of children (if the ride's safe installation is incomplete, the shock-absorbing coating is not in place, or if maintenance cannot ensure safety).

4. When operating amusement rides intended for children, the operator is obligated to:

a) install information signs or stands with the necessary information;

b) implement a series of measures to maintain the safety and operation of the amusement rides;

c) Prevent the use of equipment if it is damaged and could harm children's health.

This includes prohibiting the use of all types of laser products in attractions designed for preschool-aged children (2 to 6 years old), and for school-aged children (7 years and older), the use of laser products above hazard class 1, whose collimated output radiation poses a hazard when irradiated

to the eyes and skin;

d) Ensure the absence of obstacles that could cause injury in the installation area (assembly, installation) of attractions;

d) Ensure the safety zone is free of obstacles (structural elements, tree branches, benches, notice stands). When determining the safety zone, it is necessary to take into account the possible movements of the child and the moving parts of the attractions;

- e) Equip the landing zone with a soft, elastic, or shock-absorbing surface to prevent injury to children in the event of a fall from the attraction;
- g) ensure that there are no obstacles in the landing zone.

Appendix No. 4
to the Technical Regulation
of the Eurasian Economic Union
"On the Safety of Amusement Parks"
(EAEU TR 038/2016)

Safety requirements for non-mechanized water attractions

1. When designing and manufacturing non-mechanized water attractions, the following additional risks associated with the use of water in attractions are taken into account:

a) the characteristics of the aquatic environment, risks of falls on slippery surfaces, avoidance of water accumulation (unless intended to create entertainment effects), risks of drowning, risks of electric shock in wet environments, and risks of injury from falls from height onto the water surface;

b) avoidance of mechanical injuries from sharp edges, protrusions, and uneven surfaces on attractions;

c) avoidance of hands, feet, heads, and fingers getting stuck in gaps, crevices, and openings;

d) risks of falls from unfenced surfaces higher than 0.4 meters, from inclined surfaces, and from insufficiently secured supporting surfaces (unless intended to create entertainment effects);

d) sufficient passage width and accessibility for first aid;

e) the adequacy and convenience of restraint devices (railings, handles, and similar amusement ride structural elements). Their design must not allow descents along them or their complete surmounting, resulting in a risk of falls;

g) the need to ensure smooth surfaces in contact with amusement ride passengers, and the absence of joints with surface changes that could injure passengers while sliding;

h) the need to ensure sufficient water lubrication of surfaces or a water flow to prevent skin injuries, including friction burns;

i) the need to design a safe amusement ride design, particularly the shape of the surface for passengers sliding along at significant speeds, ensuring acceptable accelerations for passengers, as well as accelerations that eliminate the risk of head impacts on the sliding surface;

k) the braking area after a descent must be sufficient and convenient for the rapid evacuation of passengers, either independently or with the assistance of staff; collisions between people on descents and while riding are prevented;

l) the presence of more users on the amusement ride elements than is permitted by the amusement ride design and operating manual (including through the use of organizational and technical measures) is prohibited.

2. Operating documentation for non-motorized water rides shall be developed taking into account paragraph 1 of these Requirements, as well as the requirements of the Technical Regulation of the Eurasian Economic Union "On the Safety of Amusement Parks" (EAEU TR 038/2016).

3. Materials used for non-motorized water rides and amusement devices must take into account the accelerated corrosion characteristics of metal, wood, and non-metallic structures and fasteners. Measures must be taken to ensure regular inspection of the most safety-critical connecting elements.

4. Sliding surfaces and supporting surfaces of non-motorized water rides shall be made of materials that prevent delamination or deformation.

5. The materials and coatings used for non-motorized water rides must comply with environmental requirements. Materials and surfaces that come into direct contact with human skin must comply with hygienic safety requirements.

6. Information signs, markers, and instructions for the safe use of attractions must be posted at appropriate locations within non-mechanized water attractions and/or water parks.

Appendix No. 5

to the Technical Regulation

of the Eurasian Economic Union

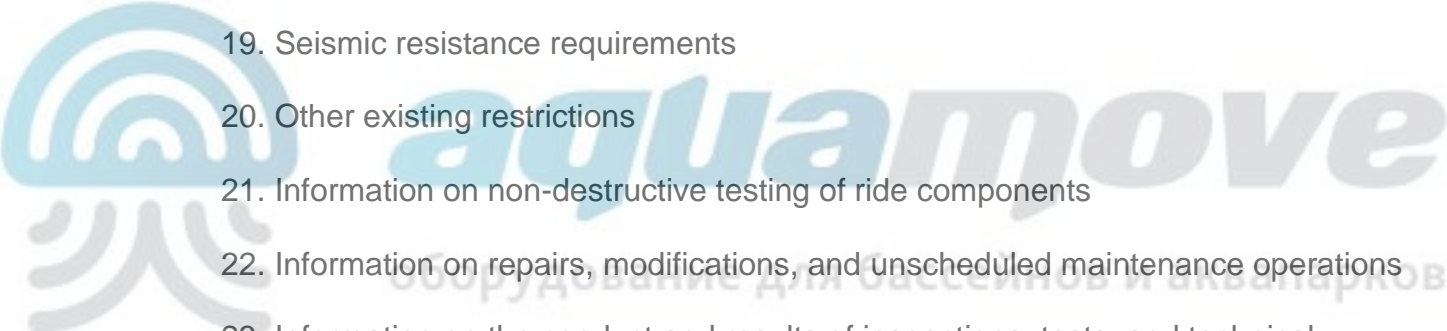
"On the Safety of Amusement Parks"

(EAEU TR 038/2016)

оборудование для бассейнов и аквапарков

Contents of the attraction form

1. Manufacturer's name
2. Ride name
3. Ride serial number and production date
4. Potential biomechanical risk rating
5. Ride technical specifications
6. Acceptance certificate
7. Information on the ride's compliance with the Eurasian Economic Union Technical Regulation "On the Safety of Amusement Parks" (EAEU TR 038/2016) and other effective technical regulations of the Eurasian Economic Union (Customs Union) that apply to it
8. Ride lifespan (designated service life)
9. Description of the ride's main structural components and operation
10. Maximum permissible and actual primary biomechanical impacts on passengers, as stipulated in Appendix No. 2 to the Eurasian Economic Union Technical Regulation "On the Safety of Amusement Parks" (EAEU TR 038/2016)
11. Passenger ride speed limits Modules
12. Lists of critical and limited-life components and their main technical characteristics
13. Operating loads and parameters
14. Visitor restrictions on ride use based on health hazards

- 
15. Visitor age, height, and weight restrictions
 16. Maximum operating and maximum design wind speeds for this ride
 17. Requirements for the ride foundation or base pad
 18. Possible snow load restrictions
 19. Seismic resistance requirements
 20. Other existing restrictions
 21. Information on non-destructive testing of ride components
 22. Information on repairs, modifications, and unscheduled maintenance operations
 23. Information on the conduct and results of inspections, tests, and technical monitoring conducted by testing laboratories (centers)
 24. Information on inspections conducted by control (supervisory) bodies authorities
 25. Information on incidents, accidents, and casualties
 26. List of attraction owners
 27. Permit for operation or commissioning of the attraction (if required by the legislation of the Eurasian Economic Union member state)
 28. Information on the extension of the permit for operation or commissioning of the attraction (if required by the legislation of the Eurasian Economic Union member state)
 29. Information on the registration (registration) of the attraction
 30. Information on the disposal of the attraction

Appendix No. 6
to the Technical Regulation
of the Eurasian Economic Union
"On the Safety of Amusement Parks"
(EAEU TR 038/2016)

Contents of the attraction passport

1. Basic information about the ride and its technical specifications
2. Completeness
3. Designated service life (designated service life and shelf life), manufacturer's (supplier's) warranties

4. Preservation
5. Packaging certificate
6. Acceptance certificate
7. Product movement during operation (if necessary)
8. Repairs and work records according to bulletins and instructions (if necessary)
9. Notes on operation and storage (if necessary)
10. Information on the ride's compliance with the Eurasian Economic Union Technical Regulation "On the Safety of Amusement Parks" (EAEU TR 038/2016) and other effective technical regulations of the Eurasian Economic Union (Customs Union) that apply to it
11. Disposal information
12. Special marks, including information on the ride's registration



aquamove

оборудование для бассейнов и аквапарков