

METHODOLOGY

for conducting preliminary and final stages
OF THE WORLD CONSTRUCTION CHAMPIONSHIP (WCC)
within the individual nomination:
Design of the architectural and construction part

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1. PURPOSE AND SCOPE

These methodological recommendations (hereinafter referred to as the Methodology) determine the procedure and conditions for holding the preliminary and final stages of the World Construction Championship (WCC) (hereinafter referred to as the Championship) within the individual nomination “Design of the architectural and construction part.”

The preliminary stage of the Championship is optional, i.e. Participant Organizations shall make their own decisions and determine the option of selecting specialists to participate in the final stage of the Championship:

- or independently organize and hold the preliminary stage in the organization using the Tasks developed for the preliminary stage of the Championship according to the Methodology,

- or conduct the selection of Participants according to the qualification criteria in accordance with Appendix No. 1 to the Methodology.

The lists of Finalists shall be sent within the terms established by Section 9 of the Methodology, in accordance with the Quotas presented in Appendix No. 3 to the General Procedure for the Championship.

The participating organization shall provide the Organizer with information about the finalists in the format in accordance with Appendix No. 6 to the Methodology and ensure their registration on the Official website of the Championship <https://pro-wcc.ru> (hereinafter - the Official website) in the section “Participants”.

The Methodology of individual nomination Design of architectural and construction part is developed for revealing the level of competence and complex evaluation of knowledge, skills and abilities of specialists, carrying out activities in the field of designing of the architectural and construction part of industrial construction facilities.

Individual Nomination “Design of the Architectural and Construction part” includes Three Sections:

- Design of architectural solutions for industrial buildings;
- Design of building structures of industrial buildings and structures;
- Calculation of building structures of buildings and structures taking into account dynamic impacts.

2. TERMS AND DEFINITIONS

Abbreviation	Decryption
Jury/Expert jury	A group of experts evaluating the results of tasks performed by Participants on nominations
Task/Task of the Championship	Task, during performance and according to the results of which the Participants demonstrate the level of knowledge, abilities and skills on the nomination
Quotas	Number of places for specialists of Organizations-participants established by the Organizing Committee for each nomination in the final stage of the Championship
Nomination	Name of the activity (profession) on which the Championship competitions are held

Organizer	A team of diverse specialists under the direction of the Ministry of Construction of Russia and Rosatom State Corporation, responsible for organizing and holding of the Championship
Participant Organization	An Organization whose specialists take part in Championship competitions/General partner-Participant
Organizing committee	Federal Organizing Committee of the Championship
Official site	Website of the Championship containing complete, reliable, updated information about the Championship
Site	The site of the nomination, the place where the Participant /team of Participants complete the Tasks for the final stage of the Championship
Participant / Team of Participants	Specialist / Team of specialists taking part in the Championship competitions
Technical expert	A Developer Organization representative who works on the site of the final stage of the Championship and ensures holding of the nomination competitions and the work of Expert Jury
Finalist	Specialist participating in the final competitions of the Championship
Championship	World Construction Championship (WCC) shall mean the international championship in industrial construction

3. REGULATIONS

The list of regulatory and technical documentation used during the development of the Tasks:

Eurocodes:

- EN 1990:2002+A1: 2005/2011 Eurocode - basic design of bearing structures;
- EN 1991-1-1: 2002/2011 Eurocode 1. Impact on bearing structures. Part 1-1.General effects. Self-weight, permanent and temporary loading on the building;
- EN 1991-1-3: 2004/2011 IMPACTS on BEARING STRUCTURES Part 1-3. General effects Snow load;
- EN 1991-1-4: 2005/2011 IMPACTS on BEARING STRUCTURES Part 1-4. General effects Wind impacts;
- EN 1991-1-5: 2003/2011 IMPACTS on BEARING STRUCTURES Part 1-5. General effects Temperature effect;
- EN 1992-1-1: 2004/2011 DESIGN of REINFORCE CONCRETE STRUCTURES Part 1-1. General rules and regulations for buildings;
- EN 1993-1-1: 2005/2011 DESIGN of STEEL STRUCTURES Part 1-1. General rules and regulations for buildings.

National Documents:

- SP 52.13330.2016 Natural and artificial lighting. Updated version of SNiP 23-05-95* (with Amendment No. 1);

- TKP 45-2.04-153-2009. Natural and artificial lighting. - Minsk: Ministry of Architecture and Construction of the Republic of Belarus, 2010;
- SNiP II-4-79 Natural and artificial lighting. Moscow: Stroyizdat, 1980;
- BR RK (Building regulation of the Republic of Kazakhstan) 2.04-01-2011 “Natural and artificial lighting”;
- BR KR (Building regulation of the Kyrgyz Republic) 23-05:2019 “Natural and artificial lighting”;
- SNiP 23-05-95* Natural and artificial lighting (with Amendment No.1);
- IBC 22-01-2011 "Natural and artificial lighting";
- SNRA II-8.03-96 “Artificial and natural lighting”;
- CP 51.13330.2011 "Noise protection". Updated version of SNiP 23-03-2003 (with Amendment No. 1), 2012
- BR RK (Building regulation of the Republic of Kazakhstan) 2.04-02-2011 “Noise protection”;
- SNiP 23-03-2003 "Noise protection", 2004;
- TKP45-2.04-154-2009 "Noise protection". Building design standards, 2010;
- SP 50.13330.2012 Thermal protection of buildings. Updated version of SNiP 23-02-2003 (with Amendments No. 1);
- TKP 45-2.04-43-2006 "Construction thermotechnics". Building design standards, 2015;
- BR 23-101-2004 Design of thermal protection of buildings, 2004;
- BR RK (Building regulation of the Republic of Kazakhstan) 2.04-03-2011 “Thermal protection of building”, 2015
- BR RK (Building regulation of the Republic of Kazakhstan) 2.04-04-2013 “Construction thermotechnics”;
- BRRA 24-01-2016 “Thermal protection of building”
- CP 16.13330.2017 "Steel structures. Updated version of SNiP II-23-81*“ (with Amendment, with Amendments No. 1, 2);
- Steel structure design manual (to SNiP II-23-81*);
- CP 20.13330.2019 Loads and impacts with amendments: (July 5, 2018, January 28, 2019). Updated version of SNiP 2.01.07-85*;
- NTP RK (Normative and Technical Manual of the Republic of Kazakhstan) 01-01-3.1 (4.1)-2017 Loads and impacts on buildings;
- CP 63.13330.2018 Concrete and reinforced concrete structures. Basic principles. SNiP 52-01-2003 (with Amendment No. 1);
- CP 63.13330.2012 Concrete and reinforced concrete structures. Basic principles. Updated version of SNiP 52-01-2003 (with Amendments No. 1, 2, 3);
- CSB (Construction Standards of the Republic of Belarus) 5.03.01-02. Concrete and reinforced concrete structures;

NTP RK (Normative and Technical Manual of the Republic of Kazakhstan) 02-01-1. 2-2011 Design of concrete and reinforced concrete structures made of heavy concrete with pre-stressed reinforcement;

- SNRA IV-15.13330.2012 “Stone and reinforced masonry structures”; Updated version of SNiP II-22-81* (with Amendments No. 1, 2, 3);

- SNRA IV-13.01-96 “Stone and reinforced masonry structures”;

- TKP 45-5.02-308–2017. Stone and reinforced masonry structures. Building design standards / Ministry of Construction and Architecture of the Republic of Belarus - Minsk, 2017;

- BR RK (Building regulation of the Republic of Kazakhstan) 5.03-07-2013 Bearing and enclosing structures.

CP 14.13330.2018 Construction in seismic areas. Updated version of SNiP II-7-81* (with Amendment No. 1);

- SNRA II-6.02-2006 “Antiseismic Construction”, 2nd edition;

- BR KR (Building regulation of the Kyrgyz Republic) 20-02:2018 Antiseismic construction. Design standards

4. REQUIREMENTS TO PARTICIPANTS

Specialists who meet the following requirements are allowed to participate in the Championship:

No.	Name	Contents
1	Requirements for qualifications / profession	Specialist of the organization who implements design of the architectural and construction part
2	Requirements for the Participants’ level of education	A specialist with a specialized higher (higher professional) education in the areas of training or specialties in industrial and civil construction, or with a higher education in non-specialized areas of training and specialties that have gone through professional advanced training in industrial and civil construction. Period of employment: no less than 1 year.
3	Requirements for special permits and documents	Documents are required that validate the relevant education and level of qualification, and professional advanced training (if that exists). No special permits are required
4	Job Functions Requirements	Preparing project documentation is prepared to build industrial facilities to provide to stakeholder organizations
5	Requirements for advanced training	None established (given a higher specialized (higher professional) education in the areas of training or specialties in industrial and civil construction)
6	Knowledge Requirements	<i>Needs to know:</i> The legislative regulatory acts, technical regulations, and governing documents that regulate urban planning and development activities in EEU member countries Legislative regulatory acts in the area of technical and fire safety

		<p>in EEU member countries</p> <p>The makeup, content, and requirements in the documentation about creating (reconstructing, repairing, functioning) the facilities involved in urban planning and development activities in EEU countries</p> <p>The technologies used in construction work</p> <ul style="list-style-type: none"> - Construction materials, and their properties, that are used in the structures of industrial facilities - Modern automation equipment used in the area of urban planning and development activities, including automated information systems - Engineering drawings and construction draftsmanship, applied software (including the skill of using a PC using AutoCAD, SCAD software) - The governing documents for developing and compiling the technical documentation in urban planning and development activities in EEU member countries - Cutting-edge experience in the area of building industrial facilities - Labor protection requirements - Sanitary rules and regulations - National and international quality standards
7	Skill Requirements	<p><i>Must know how to:</i></p> <ul style="list-style-type: none"> - Find, analyze, and do research on information on facilities with engineered utility systems that is necessary to develop and draft the design-basis solutions - Develop solutions to put together engineered utility system project solutions for architectural and construction activities - Prepare proposals on whether it is worthwhile to make adjustments to the design-basis solutions that have been adopted - Use information and communication technologies in professional activities to do work on designing the utility systems for facilities during architecture and construction work - Ensure that the facilities being erected comply with industry standards, and with the statement of work for doing the construction work. - Use and provide the necessary information during communications in the context of professional activities on work on designing the utility systems for facilities during architecture and construction work - Draft documentation to do work on designing the utility systems for facilities during architecture and construction work in accordance with established requirements - Receive and process information from various sources, analyze the information gained, pick out the main points, and to generate

		<p>new knowledge using that</p> <p>Use regulatory and reference materials and instructions (including knowing how to work in the reference document systems Konsultant Plyus, Tekhekspert, Yurist, ADVISER, IPS TOKTOM, Arlis, or their equivalents that are used in EEU countries)</p> <p>Work with a computer as a user and use specialize software (AutoCAD, MS Office)</p>
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5. ORDER OF THE PRELIMINARY STAGE OF THE CHAMPIONSHIP (if applicable)

5.1 The purpose of the preliminary stage of the Championship is to identify and select the Finalists who are able to demonstrate a high level of knowledge and skills that meet international requirements.

5.2. The preliminary stage of the Championship is held within the terms established by the Organizing Committee: from 03 August to 11 December 2020.

5.3. Participant Organizations shall independently organize and hold the preliminary stage using the Tasks developed for the preliminary stage of the Championship and the Methodology.

5.4 Operating mode for the preliminary stage of the Championship: full-time, on an on-the-job basis in the Participant Organizations.

5.5 The Organizer does not provide any clarifications about the Task for the Participants during the organization and conduct of the preliminary stage of the Championship.

5.6 The Organizer communicates on the issues of holding the preliminary stage of the Championship only with persons officially authorized and responsible in the Participant Organizations for organizing and holding the Championship (hereinafter - Responsible person (people)).

5.7 For additional information and clarifications on the preliminary stage of the Championship, the Participants must only contact the Responsible Persons in their organization.

5.8 The Responsible Person provides organizational and technical support to the Participants during the preliminary stage of the Championship.

5.9 The Participant Organizations shall choose the time and place for the preliminary stage, and organize workplaces for the Participants. The organizer shall neither go to the site for the execution of the Task nor participate in the organization and conduct of the preliminary stage. Participants are allowed to go through the preliminary stage using personal electronic devices.

5.10 Holding the theoretical and practical part of the Task of the preliminary stage of the Championship:

5.10.1 The tasks of the theoretical and practical part of the preliminary stage of the Championship is either posted on the information and educational resource of the private institution run by the State Atomic Energy Corporation “ROSATOM” called “The Branch center of the capital construction” (hereinafter referred to as the Resource), or provided by the Organizer in electronic form at the official request of the Participant Organizations (indicating the contact details of the Responsible person (people)).

5.10.2 Participant Organizations can independently choose a tool for testing Participants: either a Resource, or the organization’s own electronic resource, or another tool. Information about selecting a tool to test the Participants shall be sent to the Organizer.

5.10.3 If a Resource is selected as the tool to conduct the testing part of the Task, the Organizer shall only perform the following works for Participant Organizations:

- confirm the registration for Participants, and provide Participants with access to the Resource from a personal computer, as well as to the Task, from a mobile device
- shall publish Tasks involved in the preliminary stage,
- shall generate uploads with the results of the Participants completing the tasks for those responsible in Participant Organizations, but no more frequently than 1 (one) time in 3 (three) work days
- in case errors occur in how the Resource functions, the Organizer shall correct them no later than 2 (two) working days.

5.10.4 The Organizer does not provide Participants with an Internet connection (hereinafter referred to as the Internet) and if an Internet failure occurs then the Organizer shall not be responsible for the result of the Participants performing their theoretical tasks.

5.11 At the Site where the Preliminary stage is Executed (if applicable):

5.11.1 Workplace and Task Familiarization

Participants are allowed to perform the Task only after passing the briefing on labor protection and safety at the workplace.

Immediately before the beginning of the Task, the Jury Experts (if applicable) or the Responsible Person shall conduct an induction briefing for Participants regarding work regulations at workplaces, and acquaint the Participants with the content of the Task and the evaluation criteria.

No more than 30 minutes are allotted to conduct an introductory briefing and provide explanations on the work regulations, which are not included in the total time for completing the Task.

No more than 30 minutes are allotted for familiarization with a workplace and study of the Task, which are not included in the total time for completing the Task. Based on the results, a protocol shall be prepared (Annex No. 2, Form 1, 2, 3).

5.11.2 Beginning and completion of work

The Participant shall wait for the instructions of the Responsible Person or the Jury Expert (if applicable) to start and finish the work. If, for reasons beyond the control of the Participant, he/she had to interrupt the Task, then he/she shall immediately report the forced stop to the Jury Expert (if applicable), or to the Responsible Person. In this case, the start and end time of the stop shall be recorded.

After confirmation by the Jury Expert (if applicable), or by the Responsible Person, the Participant shall have the right to receive additional time equal to the time of the forced stop. The amount of extra time shall be determined individually, and shall be recorded in the Protocol for an abnormal situation (Annex No. 2, form 4).

5.11.3 Abnormal Situations

Any deviations from this Methodology and the provisions of The General Order of the Championship shall be considered as an abnormal situation. The decision on an abnormal situation shall be made by the Jury Experts (if applicable) by voting or by the Responsible person with the execution of the corresponding protocol (Annex No. 2, form 4).

5.11.4 Communication and Contacts by Participants

The Participants may not legally communicate with unauthorized persons during the official time of the preliminary stage of the Championship, including contacts of Participants with each other are prohibited. Periods of time (15-30 minutes) allocated for official communication of Participants can be held before the start of the Task and after the end of work on the site. Using any equipment for personal communications (mobile phones, electronic devices) is prohibited.

5.13.8 Illness or Accident

If any of the Participants gets sick, or falls victim to an accident, the Responsible Person or the Jury Chair (if applicable) shall be immediately notified of this, and shall decide whether to award points to the Participant for the amount of work performed.

5.13.9 Industrial Safety

All Participants on the site shall comply with labor protection and safety requirements.

In order to support the measures to prevent the spread of the novel coronavirus infection inside the Russian Federation, all people that are present at the Championship site shall comply with a set of protective measures to help combat the COVID-19 infection.

6. ORDER OF THE FINAL STAGE OF THE CHAMPIONSHIP

6.1 The Organizing Committee shall establish the dates and venue of the final stage of the Championship annually and publish them on the official website of the Championship.

6.2 The form of participation in the Championship is full-time, with a day release.

6.3 The Participants shall arrive at the venue of the final stage of the Championship no later than 1 (one) day before the start of the competition.

6.4 Prior to the start of the Championship competitions, the Participants shall receive registration badges, undergo a General labor protection and occupational safety briefing, and participate in a General organizational meeting in the Championship region. The time and place shall be determined by the Organizer and notified additionally no later than 5 (five) days before the start of the Championship competitions.

6.5 During the first day of the final stage, the Participants on the site where it is held receive registration badges, participate in the official opening ceremony for the Championship's final stage, and start to perform their Tasks.

6.6 At the site where the final stage is executed:

6.6.1 Becoming familiar with the workplace and Task

Participants are allowed to perform the Task only after passing the briefing on labor protection and safety at the workplace.

Immediately before the beginning of the Task, the Technical Experts will conduct an induction briefing for Participants regarding the work regulations at workplaces, and acquaint the Participants with the content of the Task and the evaluation criteria.

No more than 30 minutes are allotted to conduct an introductory briefing and provide explanations on the work regulations, which are not included in the total time for completing the Task.

No more than 30 minutes are allotted for familiarization with a workplace and study of the Task, which are not included in the total time for completing the Task. Based on the results, the Technical Expert shall execute a protocol (Annex No. 2, Form 1, 2, 3).

6.6.2 Beginning and Completion of Work

The participant must wait for the instructions of the Technical Expert to begin and complete the work. In case for reasons beyond the control of the Participant, he/she had to interrupt the Task, he/she shall immediately report the forced stop to the expert of the Jury. In this case, the start and end time of the stop shall be recorded.

After confirmation by the Jury Expert, the Participant shall have the right to receive additional time equal to the time of forced stop. The amount of extra time shall be determined individually and shall be recorded in the Protocol of an emergency situation (Annex No. 2, form 4).

6.6.3 Abnormal Situations

Any deviations from this Methodology and the provisions of The General Order of the Championship shall be considered as an abnormal situation. The decision on an abnormal situation shall be made by the Jury experts (if applicable) by voting or by the Responsible person with the execution of the corresponding protocol (Annex No. 2, form 4).

6.6.4 Communication and Contacts by Participants, Technical experts, and Jury Experts

Any communication during the performance of Tasks by Participants shall be regulated by The General Order of the Championship.

6.6.5 Illness or Accidents

In case of an accident or sudden illness, the Participant shall first report the incident to the Expert jury on the site, who shall take measures to provide first aid to the victims, call an ambulance, and, if necessary, send the victim to the nearest medical facility.

The Expert jury shall make a collective decision on whether it is possible to compensate for the lost time. If a Participant has to withdraw from further participation in the Championship, he/she receives points for the amount of work performed.

6.6.6 Industrial safety

All Participants on the site shall comply with labor protection and safety requirements.

In order to support the measures to prevent the spread of the novel coronavirus infection inside the Russian Federation, all people that are present at the Championship site shall comply with a set of protective measures to help combat the COVID-19 infection.

7. TASK AND EVALUATION STRATEGY

7.1 Preliminary stage (if applicable)

7.1.1 The task of the preliminary stage contains a theoretical and practical part and shall be conducted in the testing format. The test contains a total of sixty (60) questions. The total time for completing the Task is no more than 60 minutes.

7.1.2 The tasks of the theoretical part are 50 (fifty) test questions with multiple choice answers, of which 1 (one) will be correct. Time to complete is 40 minutes

7.1.3 The section with practical tasks (cases) includes ten (10) calculation case studies for each of the sections in the nomination in the form of text and (or) graphic tasks, which allows determining the level of proficiency in engineering calculations. Time to complete is 20 minutes

7.1.4 The Tests are performed individually by each Participant.

7.1.5 Tests may contain both text and graphical questions.

7.1.6 During the preliminary stage for Task execution, each Participant shall answer all theoretical questions, and solve the practical tasks (case studies).

7.1.7 The Task is assessed on a 70-point scale.

7.1.8 Each correct answer of the theoretical part of the Task corresponds to 1 (one) point.

7.1.9 The maximum number of points for the theoretical part of the Task is 50 (fifty) points.

7.1.10 Each correct answer in the theoretical part of the Task earns 2 (two) points.

7.1.11 The maximum number of points for the theoretical part of the Task is 20 (twenty) points.

7.1.12 Calculating the total number of correct answers for the Task shall be performed either automatically (if the Resource or the Participant Organization's own electronic resources are used as a testing tool), or manually by the Responsible Person, or by the Jury.

7.1.13 The results of the Tasks completed by the Participants shall be drawn up in the final report in accordance with Annex 4 (form 3) to the Methodology.

7.2 Final stage

7.2.1 in the final stage, Participants complete a Task for the design of an industrial facility, which contains such tasks as:

- Draw up a plan of an industrial building, develop drawings of specific sectional views of the building and nodal points in AutoCAD;
- Collect loads on the cross frame of an industrial facility and perform its static calculation using the SCAD 21 software and computing system;
- Perform a structural calculation of the specified bearing structural element (column, beam, truss, etc.) with performance of General Layout Drawing or Reinforce-Concrete Structures Drawing;
- Perform the calculation and design of the internal independent stack-frame with the specified geometric parameters and the specified dynamic load from the industrial equipment installed on the independent stack-frame.

7.2.2 The time allowed to complete the Task is no more than 20 hours over two days, including the lunch break.

7.2.3 The Task and assessment criteria for the final stage of the Championship are verified in accordance with the Verification Procedure.

7.2.4 Criteria consist of quantitative and qualitative indicators. Quantitative indicators allow you to determine how much a Participant has done during the competition, and qualitative indicators is the level instrument to access Task completion. Together, this criteria shows a level of professionalism by the Participant in this field of engineering.

7.2.5 Tasks contain groups for testing: theoretical knowledge of general physical principles, standard technical documents and rules, and the level of awareness of participants in the field of information modeling.

7.2.6 The results of the Task completed by the Participants shall be evaluated by the Jury in accordance with the assessment criteria within 2 (two) days of the final competition. The Jury shall provide the participants with final results and valuation sheets for review. Participants confirm that they have familiarized themselves with the results by signing the valuation sheets.

7.2.6 The Jury's Decisions on the results of the Tasks completed by the Participants shall be drawn up in the final report sheet in accordance with Annex 4 to the Methodology. The report form sheet can be supplemented by a decision made by the Organizer..

8. EXPERT JURY

8.1 Preliminary stage (if applicable)

8.1.1 In order to assess the performance of the Tasks of the preliminary stage, the Participant Organizations can independently create an Expert Jury on individual nomination "Design of the architectural and construction part". Assessment of the Tasks performed by the Participants may be done either automatically (if the Resource or the Participant Organization's own electronic resources are used as a testing tool), or manually by the Responsible Person.

8.1.2 The Jury for individual nomination "Design of the architectural and construction part" consists of the Chairman and 2 (two) Jury members.

8.1.3 The Chairman of the Jury shall be determined by a simple drawing method - a random selection of a conditional subject from a variety of similar subjects.

8.2 Final stage

8.2.1 In order to assess how the Tasks were executed by the Participants in the Final Stage, a Jury for the individual nomination "Design of the architectural and construction part", consisting of experts from the Participant Organizations, is formed.

8.2.2 The requirements for the Expert jury and the principle of forming the personal composition of the Jury in the final stage of the Championship are established by The Regulations on the Work of the Expert Jury.

8.2.3 The activity of the Expert Jury is regulated by official documents: The General Order of the Championship, The Regulations on the Work of the Expert Jury, and The Methodology.

9. PROCEDURE FOR DETERMINING THE FINALISTS AND WINNERS OF THE CHAMPIONSHIP

9.1 Procedure for determining the Finalists (if applicable)

9.1.1 The Winners of the preliminary stage of the Championship are determined by the Jury based on the maximum score gained by the Participants. The final scores of the Participants are compared, and an overall rating of Participants by nomination is generated.

9.1.2 Participant Organizations, based on the results of the preliminary stage of the Championship, shall form and approve the final Protocol as per Annex 4 to the Methodology.

9.1.3 The Organizations-Participants shall determine the Finalists independently on the basis of the overall rating of the winners of the preliminary stage in accordance with Quotas according to The General Order of the Championship.

9.1.4 In case several Participants scored the same number of points, the winners shall be determined by the time of completion of the Task, the Participants who completed the Tasks faster go to the final stage of the Championship.

9.1.5 All finalists shall register on the official website of the Championship, and fill out a Participant questionnaire in the "For Participants" section.

9.1.6 The Participant Organizations shall send an official email to the Organizer's email address with the list of Finalists approved by the organization's director, or an authorized representative (main and reserve members), for the nominations in the form prescribed as per Appendix No. 6 to the Methodology, in both PDF and Excel format, within the period established by the Organizer and published on the Official website of the Championship.

9.2 Procedure for determining the winners of the Championship

9.2.1 The Jury shall sum up the results of the Championship in the nomination and determine the winners in the final stage of the Championship.

9.2.2 The Participant who has received the highest number of points based on the results of Tasks and has taken the 1 (first) place in the overall rating of the Participants shall be named the winner in the nomination.

9.2.3 In case several Participants have scored the same number of points, the winners shall be determined by the introduction of an additional assessment criterion, which the Technical expert and the Jury shall announce to the Participants before the start of the competition.

9.2.4 The Jury shall create a list of winners of the final stage of the Championship and draw up the final Protocol, which shall be submitted to the Organizer along with the Protocols and rating sheets with the results of Tasks.

10. REPLACEMENTS

10.1. Participant Organizations shall ensure a reserve team of Participants for the nomination to replace Finalists in the event of unforeseen circumstances and forced cancellation of participation of Participants from the first team in the final stage of the Championship.

10.2. The number of reserve Participants shall be equal to the number of the main Participants.

10.3. Participants of the reserve team shall meet the qualification criteria specified in the Methodology.

10.4. Reserve team participants shall register on the official website of the Championship, and fill out a Participant questionnaire in the "For Participants" section.

10.5. Participants can be replaced no later than 2 (two) weeks before the start of the final stage of the Championship. The date of replacement shall be the date when the Organizer sends a response to the Participant Organizations with confirmation of the replacement.

10.6. The Organization participating in the Championship shall replace the Participant from the reserve team of Participants by sending an official notification to the Organizer indicating the reason for the replacement, indicating data about the Participants of the main and reserve teams and receiving a response from the Organizer confirming the replacement.

11. APPEALS

11.1 Within the framework of the final stage of the Championship, the Participants may appeal against the quality of the evaluation of the results and the work of the Jury on the evaluation and summing up procedure.

11.2 The appeal is filed on the terms and conditions established by the Regulation on the appeal commissions for nominations.

11.3 Appeals are reviewed by the Appeals Commissions.

12. RIGHTS, POWERS AND OBLIGATIONS

The rights, powers and obligations of the Participants, Expert Juries, Technical Experts, the Organizer are established in The General Order of the Championship.

13. AWARDS

The winners and laureates of the Championship are provided with monetary awards in accordance with The General Order of the Championship.

Example of the theoretical and practical part of the Tasks for the preliminary stage of the Championship

1. Example of the theoretical part:

1. What elements of steel structures are calculated using effective lengths?

- Flexural when calculating stability
- Flexural, centrally compressed, compressed off-center, and also when testing local steadiness of elements.
- Reduced off-center when testing stability.
- When testing the local steadiness of the elements of walls and belts being flexural, centrally compressed and off-center compressed elements in an implicit form (through the general slenderness of a bar).

2. Vibrating strength of the element. What does this concept mean?

Ability of an AC element to keep its strength during vibration action.

- The ability of the AC element to perform its functions and maintain its parameters within the values specified in the standards exposed to vibration effects in the specified modes.

Ability of an AC element to keep its strength in post vibration effect.

Ability of an AC element to keep its strength during and in post vibration effect

3. A single floor industrial facility with a plan size of 72 x 168 m and a height of 18.8 m (from the level of the fire passage to the parapet) has 2 P1 stairs leading to the roof along the perimeter. Please define whether there is an upset here, and if so, which one?

- Yes, the stairs must be of type P2.
- No.
- Yes, there must be at least 3 stairs foreseen.
- Yes, there must be at least 3 stairs of type P2.

2. Example of the practical part:

Define the optimal reference to the center axis of precast reinforced concrete columns of single floor single span industrial facility with the following parameters: bay of the building ____ m (roof framing - assemble reinforced concrete trusses without diagonal members), the load capacity of the crane ____ t, column spacing ____ m, height of roof framing to bottom ____ m, crane operation ____.

Recommended forms of protocols for the work of the Jury

Form 1

**Report Sheet on Familiarizing the Participants with
Workplaces**

Nomination _____

Chairman of the
Jury _____

We, the undersigned, confirm that we were given the opportunity to fully familiarize ourselves with the equipment and workplaces on the site, test the equipment during the time necessary for familiarization. We confirm the skill of using the equipment.

No.	Participant's Full Name	Comments on information received	Signature

Date _____ 2021

Chairman of the Jury _____

Report Sheet on Familiarizing the Participants with the Task and Assessment Criteria

Nomination _____

Chairman of the
Jury _____

We, the undersigned, confirm that we have been given the opportunity to fully familiarize ourselves with the Task and the assessment criteria.

No.	Participant's Full Name	Comments and Misunderstandings on Information Received	Signature

Date _____ 2021

Chairman of the Jury _____

Form 3

Report Sheet on Familiarizing the Participants with Safety and Labor Protection Rules

Nomination _____

Safety and labor protection briefing was conducted by

Chairman of the Jury

No.	Participant's Full Name	Comments	Signature

Date _____ 2021

The briefing was conducted by _____ / _____ /

**Jury Decision Record Sheet
on an abnormal situation**

Nomination _____

Chairman of the Jury

The Jury decided on _____

We confirm our agreement with this decision.

Jury member Full name	Signature

Date _____ 202

Chairman of the Jury _____

Form of providing the Organizer with a list of Finalists

First team of Finalists:

No.	Full Name	Position	Organization	E-mail	Contact phone	Specialty within the nomination (if applicable)	Registration mark on the Official website (yes / no)
Nomination							
Nomination							
...							

Reserve team of Finalists:

No.	Full Name	Position	Organization	E-mail	Contact phone	Specialty within the nomination (if applicable)	Registration mark on the Official website (yes / no)
Nomination							
...							

Head of organization (authorized person)

_____ / _____ /

Responsible employee:

_____ / _____ /

Recommended forms of final reporting documents for the work of the Jury

Form 1

LIST**of Championship Participants**

Nomination « _____ ».

Period of conducting: _____.

Place of conducting: _____.

No.	Participant's Full Name	Position	Organization	Contacts
1.				
2.				
3.				
4.				
...				

Form 2
LIST
of Jury members

No.	Full name	Position	Organization	Contact details/e-mail	Nomination
1.					
2.					
3.					
4.					
5.					
6.					
...					

Form 3

Final Report sheet
The Jury

Date _____2021

Nomination «_____».

Period of conducting: _____.

Place conducted: _____.

No.	Participant's Full Name	Position	Point count for completing the Task	Final score (points awarded)	Place
1.					
2.					
3.					
4.					
5.					
6.					

...					
Jury members					
1.	Full name	Position	Organization	Signature	Date
2.	Full name	Position	Organization	Signature	Date
...					
Chairman of the Jury:					
1.	Full name	Position	Organization	Signature	Date

Head of organization (authorized person)

_____ / _____ /

Responsible employee:

_____ / _____ /

