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Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic (APTU – Appendix F to the Convention)

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The Secretariat's note. This text is an unofficial consolidated version of the Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic (APTU – Appendix F) to the Convention concerning International Carriage by Rail (COTIF) of 9 May 1980, as amended by the Protocol of Modification of 3 June 1999 (Vilnius Protocol) and the subsequent modifications which have entered into force, including any relevant corrections. This text is meant purely for information purposes and has no legal effect. OTIF does not assume any liability for its contents. The authentic versions of the Convention concerning International Carriage by Rail (COTIF) of 9 May 1980 in the version of the Modification Protocol of 3 June 1999 (Vilnius Protocol), and the subsequent modifications, are available on OTIF's website.

Modifications, including any relevant corrections, to the Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic (APTU – Appendix F) to the Convention concerning International Carriage by Rail (COTIF) in the version of the Modification Protocol of 3 June 1999 (Vilnius Protocol) ¹

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¹ With regard to the 1999 Vilnius Protocol itself, two corrigenda were issued: A 56-01/506.2000 on 31.03.2000 and A 56-01/502.2001 on 29.06.2001

Contents

Uniform Rules concerning the Validation of Technical Standards and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic (APTU - Appendix F to the Convention)		4
Article 1	Scope	4
Article 2	Definitions	4
Article 3	Aim	5
Article 4	Preparation of technical standards and UTP	5
Article 5	Validation of technical standards	5
Article 6	Adoption of UTP	6
Article 7	Form of applications	6
Article 7a	Assessment of consequences	6
Article 8	UTP	7
Article 8a	Deficiencies in UTP	8
Article 9	Declarations	9
Article 10	Abrogation of Technical Unity	9
Article 11	Precedence of the UTP	9
Article 12	National technical requirements	10
Article 13	Equivalence table	10
Annex	Parameters to be checked in Conjunction with the Technical Admission of Non-UTP Conform Vehicles and Classification of the National Technical Requirements	12

**Uniform Rules concerning the Validation of Technical Standards
and the Adoption of Uniform Technical Prescriptions
applicable to Railway Material intended to be used in International Traffic
(APTU - Appendix F to the Convention)**

**Article 1
Scope**

These Uniform Rules lay down, for railway material intended to be used in international traffic, the procedure for the validation of technical standards and the adoption of Uniform Technical Prescriptions (UTP).

**Article 2
Definitions**

For the purposes of these Uniform Rules, their Annex(es) and the UTP, in addition to the terms defined in Article 2 of ATMF, the term

- a) “carriage” (or “coach”) means a railway vehicle, not provided with a means of traction, which is intended to carry passengers; the term includes a luggage wagon which is intended to be carried in a passenger train;
- b) “project in an advanced stage of development” means any project whose planning/construction stage has reached a point where a change in the technical specifications would be unacceptable to the Contracting State concerned. Such an impediment may be legal, contractual, economic, financial, social or environmental in nature and must be duly substantiated;
- c) “substitution in the framework of maintenance” means any replacement of components by parts of identical function and performance in the framework of preventive or corrective maintenance;
- d) “technical prescription” means a rule, other than a technical standard, included in the UTP, relating to the construction, operation, maintenance or safety aspects, or relating to a procedure concerning railway material;
- e) “technical standard” means a voluntary standard adopted by a recognised international standardisation body, according to the procedures applicable to it;
- f) “traction unit” means a railway vehicle provided with a means of traction;
- g) “wagon” means a railway vehicle, not provided with a means of traction, which is intended to carry goods.

Article 3

Aim

- § 1 The validation of technical standards relating to railway material and the adoption of UTP applicable to railway material shall have as its aim to
- a) facilitate the free circulation of vehicles and the free use of other railway material in international traffic,
 - b) contribute to ensuring the safety, efficiency and the availability for international traffic,
 - c) take account of the protection of the environment and public health.
- § 2 When technical standards are validated or UTP are adopted, only those prepared at the international level shall be taken into account.
- § 3 To the extent possible
- a) it is appropriate to ensure interoperability of technical systems and components necessary for international traffic;
 - b) technical standards and UTP shall be performance related; if appropriate, they shall include variants.

Article 4

Preparation of technical standards and UTP

- § 1 The preparation of technical standards concerning railway material and the standardisation of industrial products and procedures shall be the responsibility of recognised national and international standardisation bodies.
- § 2 The preparation of UTP shall be the responsibility of the Committee of Technical Experts assisted by appropriate working groups and the Secretary General on the basis of applications made in accordance with Article 6.

Article 5

Validation of technical standards

- § 1 The Committee of Technical Experts shall decide whether to validate a technical standard or specific parts of it in accordance with the procedure laid down in Articles 16, 20 and 33 § 6 of the Convention. The decisions shall enter into force in accordance with Article 35 §§ 3 and 4 of the Convention.
- § 2 An application for validation of a technical standard may be made by:
- a) any Contracting State;
 - b) any regional organisation as defined in Article 2 x) of ATMF;

- c) any national or international standardisation body having the task of standardisation in the railway field; Article 3 § 2 shall be taken into account;
- d) any representative international association for whose members the existence of technical standards relating to railway material is indispensable for reasons of safety and economy in the exercise of their activity.

§ 3 The references to validated technical standards shall be published by the Secretary General on the website of the Organisation. Once the reference is published, the application of this technical standard gives presumption of compliance with the corresponding UTP.

§ 4 The application of validated technical standards is voluntary; however, a standard or a part of it may be made obligatory through provisions in a UTP.

Article 6 Adoption of UTP

§ 1 The Committee of Technical Experts shall decide whether to adopt a UTP or a provision amending it in accordance with the procedure laid down in Articles 16, 20 and 33 § 6 of the Convention. The decisions shall enter into force in accordance with Article 35 §§ 3 and 4 of the Convention.

§ 2 An application for adoption of a UTP or a provision amending it according to § 1 may be made by:

- a) any Contracting State;
- b) any regional organisation as defined in Article 2 x) of ATMF;
- c) any representative international association for whose members the existence of UTP relating to railway material is indispensable for reasons of safety and economy in the exercise of their activity.

Article 7 Form of applications

Applications referred to in Articles 5 and 6 shall be sent to the Secretary General and addressed to the Committee of Technical Experts in one of the working languages according to Article 1 § 6 of the Convention. The Committee of Technical Experts may reject any application, if it considers the application not to be complete, coherent, properly reasoned or justified. The application shall include an assessment of social, economic and environmental consequences.

Article 7a Assessment of consequences

§ 1 The Committee of Technical Experts shall take its decision after consideration of the reasoning and justification provided by the applicant.

§ 2 The assessment shall indicate the likely impact for all Contracting States, operators and other relevant actors concerned. If the proposal has an impact on UTP other than the one for which the proposal is directly intended, these interfaces shall also be taken into account.

§ 3 All concerned entities shall participate in the assessment by providing free of charge the requisite data unless covered by intellectual property rights.

Article 8 **UTP**

§ 1 The adopted UTP shall be published on the website of the Organisation.

§ 2 In principle, each subsystem shall be subject to one UTP. Where relevant, a subsystem may be covered by several UTP and one UTP may cover several subsystems.

§ 2a The UTP shall apply to new subsystems. They shall also apply to an existing subsystem when it is renewed or upgraded. The application shall be in accordance with the migration strategy referred to in § 4 f).

§ 3 After the notification process according to Article 35 §§ 3 and 4 of the Convention and at least one month before entry into force, the Secretary General shall publish on the website of the Organisation

- a) the adopted and notified UTP;
- b) the date of its entry into force;
- c) the list of Contracting States to which this UTP applies;
- d) the updated list of UTP and their date of entry into force.

§ 4 To the extent necessary to achieve the aim set out in Article 3, the UTP referring to subsystems shall at least:

- a) indicate its intended scope (part of network or vehicles; subsystem or part of subsystem);
- b) lay down essential requirements for each subsystem concerned and its interfaces vis-à-vis other subsystems;
- c) establish the functional and technical specifications to be met by the subsystem and its interfaces vis-à-vis other subsystems. If need be, these specifications may vary according to the use of the subsystem, for example according to the categories of line, hub and/or vehicles;
- d) determine the elements of construction or interoperability constituents and interfaces which must be covered by technical standards, which are necessary to achieve interoperability within the rail system;

- e) state, in each case under consideration, which procedures are to be used in order to assess the conformity with the provisions of the UTP. These procedures shall be based on the assessment modules defined in a general UTP referred to in § 8;
- f) indicate the strategy for implementing the UTP. In particular, it is necessary to specify the stages to be completed in order to make a gradual transition from the existing situation to the final situation in which compliance with the UTP shall be the norm; for each stage, appropriate transitional provisions shall be included and
- g) indicate, for the staff concerned, the professional qualifications and health and safety conditions at work required for the operation and maintenance of the subsystem concerned, as well as for the implementation of the UTP.

§ 5 Each UTP shall be drawn up on the basis of an examination of an existing subsystem and indicate one or more target subsystems that may be obtained gradually within a reasonable time scale. Accordingly, the gradual adoption of the UTP and compliance therewith will help gradually to achieve the interoperability of the rail system.

§ 6 The UTP shall retain, in an appropriate manner, the compatibility of the existing rail system of each Contracting State. With this objective, provision may be made in each UTP for “specific cases” covering one or more Contracting States, with regard to both network and vehicles; special attention must be given to the loading gauge, the track gauge or space between the tracks and to vehicles originating from or destined for third countries. For each specific case, the UTP shall stipulate the implementing rules of the elements indicated in § 4 c) to g).

§ 7 If certain technical aspects corresponding to the essential requirements cannot be explicitly covered in the UTP, they shall be clearly identified in it as “open points”.

§ 8 The Committee of Technical Experts may adopt UTP which do not refer to subsystems, such as general provisions, essential requirements or assessment modules.

§ 9 The UTP shall have a two column format. Text which appears in full width without columns is identical to corresponding texts of the European Union Technical Specifications for Interoperability (TSI). Text which is split into two columns is different for the UTP and for the corresponding TSI or other corresponding European Union regulations. The left-hand column shows the UTP text (OTIF regulations), while the right-hand column shows the European Union TSI text. On the far right the TSI reference is indicated.

Article 8a Deficiencies in UTP

§ 1 If it comes to the attention of the Committee of Technical Experts that an adopted UTP contains errors or deficiencies including where an adopted UTP does not fully meet the essential requirements, the Committee shall take the appropriate measures including:

- a) the decision whether the relevant UTP may need to be amended in accordance with Articles 6 and 8 and

b) recommendations for justified provisional solutions.

§ 2 The Contracting States, regional organisations and assessing bodies have the obligation to inform the Secretary General without delay if they discover errors or deficiencies in a UTP.

Article 9 Declarations

§ 1 Any Contracting State may, within a period of four months from the day of notification of the decision of the Committee of Technical Experts by the Secretary General, make a reasoned declaration notifying him that it will not apply or will apply only partially, the validated technical standard or the adopted UTP, so far as it concerns the railway infrastructure situated on its territory and the traffic on that infrastructure.

§ 2 The Contracting States which have made a declaration in accordance with § 1 shall not be taken into account in determining the number of States which must formulate an objection in accordance with Article 35 § 4 of the Convention, in order that a decision of the Committee of Technical Experts should not enter into force.

§ 3 A State which has made a declaration in accordance with § 1 may withdraw it at any time by notification to the Secretary General. This withdrawal shall take effect on the first day of the second month following the notification.

Article 10 Abrogation of Technical Unity

The entry into force of the UTP, adopted by the Committee of Technical Experts in accordance with Article 6 § 1, in all the States parties to the 1938 version of the International Convention on the Technical Unity of Railways, signed at Berne on 21 October 1882, shall abrogate that convention.

Article 11 Precedence of the UTP

§ 1 With the entry into force of the UTP, adopted by the Committee of Technical Experts in accordance with Article 6 § 1, the technical standards and the UTP shall take precedence, in relations between Contracting States, over the provisions of the 1938 version of the International Convention on the Technical Unity of Railways, signed at Berne on 21 October 1882.

§ 2 With the entry into force of the UTP, adopted by the Committee of Technical Experts in accordance with Article 6 § 1, these Uniform Rules as well as the technical standards and the UTP, shall take precedence, in the Contracting States, over the technical provisions

a) of the Regulation governing the reciprocal use of carriages and brake vans in international traffic (RIC),

b) of the Regulation governing the reciprocal use of wagons in international traffic (RIV).

Article 12
National technical requirements

§ 1 Contracting States shall ensure that the Secretary General is informed of their national technical requirements which apply to railway vehicles. The Secretary General shall publish these requirements in the data bank referred to in Article 13 of the ATMF Uniform Rules.

The information shall be received by the Secretary General within 3 months from the day when the revised Uniform Rules enter into force.

Such a requirement may stay in force only until it or an analogous requirement is brought into force through the adoption of prescriptions according to the Articles above. The Contracting State may at any time withdraw the temporary provision and notify this to the Secretary General.

§ 2 When a UTP has been adopted or amended, the Contracting State shall ensure that the Secretary General is informed - with justification - of those national technical requirements mentioned in § 1 which it will still require to be complied with in order to ensure the technical compatibility between the vehicles and its network concerned; this includes national rules applicable to “open points” in the technical prescriptions and applicable to the specific cases duly identified in the technical prescription.

The information shall include indication of the “open point(s)” and/or “specific case(s)” in the UTP to which each national technical requirement relates.

The national technical requirements shall only remain valid if the notification is received by the Secretary General within 6 months from the day when the technical prescription in question or the change to it has entered into force.

§ 3 The information shall include the full text of the national technical provision in an official language of the Contracting State as well as the title and a summary in one of the official OTIF languages.

Article 13
Equivalence table

§ 1 In order to minimise the assessments and thereby the costs for applying for a technical admission, national technical requirements in accordance with Article 12 shall be classified pursuant to the list of parameters and the principles set out in the Annex to these Uniform Rules. The classification shall be carried out under the responsibility of the Committee of Technical Experts. The Contracting States and the regional organisations shall cooperate with the Committee of Technical Experts and the Secretary General in this task.

§ 2 The Committee of Technical Experts may review the Annex taking account of the experience with the cross-acceptance of vehicles in the Contracting States.

§ 3 The Committee of Technical Experts shall ensure that a reference document is drawn up cross-referencing all the notified national technical requirements. The reference document shall also indicate the relevant provisions in the UTP and the corresponding

TSI (Article 8 § 9). The reference document shall be published on the website of the Organisation and shall be kept up to date.

§ 4 Taking due account of the opinion of the Contracting States concerned and of the regional organisations involved, the Committee of Technical Experts may decide to declare the equivalence in railway safety terms:

- a) between national technical requirements of different Contracting States;
- b) between provisions in the UTP and the corresponding TSI; and
- c) between national technical requirements of one or more Contracting States and provisions in the UTP and/or provisions in the TSI.

The declared equivalence shall be indicated in an equivalence table in the reference document mentioned in § 3 above.

Annex

Parameters to be checked in Conjunction with the Technical Admission of Non-UTP Conform Vehicles and Classification of the National Technical Requirements

1. List of Parameters

1.1 General documentation

General documentation (including description of new, renewed or upgraded vehicle and its intended use, design, repair, operation and maintenance information, technical file, etc.)

1.2 Structure and mechanical parts

Mechanical integrity and interface between vehicles (including draw and buffer gear, gangways), strength of vehicle structure and fittings (e.g. seats), loading capability, passive safety (including interior and exterior crashworthiness)

1.3 Track interaction and gauging

Mechanical interfaces to the infrastructure (including static and dynamic behaviour, clearances and fits, gauge, running gear, etc.)

1.4 Braking equipment

Braking-related items (including wheel-slide protection, braking control, and braking performance in service, emergency and parking modes)

1.5 Passenger-related items

Passenger facilities and passenger environment (including passenger windows and doors, requirements for persons with reduced mobility, etc.)

1.6 Environmental conditions and aerodynamic effects

Impact of the environment on the vehicle and impact of the vehicle on the environment (including aerodynamic conditions and both the interface between the vehicle and the trackside part of the railway system and the interface with the external environment)

1.7 External warning, marking, functions and software integrity requirements

External warnings, markings, functions and integrity of software, e.g. safety-related functions with an impact on train behaviour including train bus

- 1.8 Onboard power supply and control systems
Onboard propulsion, power and control systems, plus the interface of the vehicle with the power supply infrastructure and all aspects of electromagnetic compatibility
- 1.9 Staff facilities, interfaces and environment
On-board facilities, interfaces, working conditions and environment for staff (including drivers' cabs, driver machine interface)
- 1.10 Fire safety and evacuation
- 1.11 Servicing
Onboard facilities and interfaces for servicing
- 1.12 Onboard control, command and signalling
All the on-board equipment necessary to ensure safety and to command and control movements of trains authorised to travel on the network and its effects on the trackside part of the railway system
- 1.13 Specific operational requirements
Specific operational requirements for vehicles (including degraded mode, vehicle recovery etc.)
- 1.14 Freight related items
Freight-specific requirements and environment (including facilities specifically required for dangerous goods)

Explanations and examples *in italics* above are for information only and are not definitions of the parameters.

2. Classification of the National Technical Requirements

The national technical requirements relating to the parameters identified in section 1 shall be attributed to one of the following three groups. Rules and restrictions of a strictly local nature are not involved; their verification involves checks to be put in place by mutual agreement between the railway undertakings and the infrastructure managers.

Group A

Group A covers:

- international standards,
- national rules deemed to be equivalent, in railway safety terms, to national rules of other Member States,
- national rules deemed to be equivalent, in railway safety terms, to the provisions in the UTP and/or provisions in the TSI.

Group B

Group B covers all rules that do not fall within the scope of Group A or Group C, or that it has not yet been possible to classify in one of these groups.

Group C

Group C covers rules that are strictly necessary and are associated with technical infrastructure characteristics, in order to ensure safe and interoperable use in the network concerned (e.g. the loading gauge).