**OTIF**

**ORGANISATION INTERGOUVERNEMENTALE POUR LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN INTERNATIONALEN EISENBAHNVERKEHR**

**INTERGOVERNMENTAL ORGANISATION FOR INTERNATIONAL CARRIAGE BY RAIL**

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# National Technical Requirements
## Discussion document for WG TECH 17

This document consists of:

1. A general part, containing basic principles and recommendations
2. An annex containing a comparative analysis of the use of NTRs in EU regulations and OTIF regulations.

# Part 1: General

### Introduction

In accordance with Article 2 of the Convention, the Organisation aims to improve and facilitate international traffic by rail. The more particular aims include contributing to interoperability and technical harmonisation and to the establishment of uniform procedures for the technical admission of vehicles.

Technical rules which differ between Contracting States may create barriers for the admission of vehicles in international traffic, such as excessive cost, legal and technical uncertainty and delays. Reducing the burden that NTRs cause for the admission of vehicles in international traffic therefore accords with the aims of the Organisation.

The present document and its annex provide an overview of the purpose and use of National Technical Requirements (NTRs) and recommendations for optimising the use of NTRs.

### Basic principles

Assuming all relevant UTPs for a particular category of vehicles (e.g. wagons) are in force, the following principles should apply:

- The basis for acceptance of vehicles is compliance with UTPs. Compliance with UTP provisions is mandatory. If a requirement in a UTP cannot be (fully) applied due to national circumstances, the alternative requirement should be included in the UTP as a specific case.



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- Specific cases must be clear and assessable. They must relate to requirements in UTPs, by clearly stating which part of which requirement is concerned and for which reason. Such reasons may in principle only relate to the technical compatibility with the network. There are two kinds of specific cases; restrictive ones and permissive ones.
    - Permissive specific cases, where a MS's network permits a variation from the harmonised solution as set out in the UTP, e.g. if the gauge of the network is wider than the UTP gauge and therefore vehicles bigger than defined in the UTP may be authorised. In such a case the operation of UTP compliant vehicles is permitted. Permissive specific cases tend to have an economic justification. Vehicles built to a permissive specific case are not interoperable and therefore permissive specific cases are in principle not relevant in the scope of COTIF. Several permissive specific cases are however contained in the EU's TSIs, in particular for use in domestic traffic.
    - Restrictive specific cases: where a MS's network cannot accommodate standard UTP compliant vehicles, e.g. the gauge of the heritage network is smaller than the minimum defined standard gauge for UTP compliant vehicles. In such a case the operation of vehicles built according to the UTP is not possible. Vehicles meeting such a specific case are still UTP compliant and thus interoperable. Restrictive specific cases tend to have a technical justification. [1]
- When a UTP contains open points, NTRs relating to these open points should be notified. The CSs, with the assistance of the OTIF Secretariat, should try to harmonise the NTRs relating to these open point with a view to facilitating the cross acceptance of these rules and to close the open point when the UTP is revised.
- When justified by reasons relating to compatibility with a network, NTRs may apply in addition to UTPs and its specific cases and beyond its open points; however, NTRs may not contradict UTPs (if there is a contradiction the rule should be included in the UTP as a specific case).

**Suggestions**

Taking into account the basic principles listed above and the findings set out in the annex, the OTIF Secretariat suggests embedding the following principles in the future development of the rules for the admission of vehicles in international traffic:

Regarding Specific Cases in UTPs:

1. Where necessary for technical compatibility with the national network for international traffic, NTRs should be included as specific cases in UTPs. Specific cases should define which UTP parameter cannot be applied and which precise parameters and assessment criteria should be used instead.
2. Requests for specific cases should be submitted during the UTP drafting phase. Such requests should be accompanied by a technical justification, explaining the need for the specific case.

[1] A UTP compliant vehicle does not automatically mean that the vehicle can run on all networks, as there are different classes of vehicles and lines/tracks. It will be always up to the operator to check whether the vehicle selected fits the specific conditions of the lines where he wants to use it

3. Requests for specific cases should be scrutinised before being taken over into a draft UTP in order to avoid rules which may harm international traffic.

Regarding Open points in UTPs:

4. UTPs may contain open points for which NTRs should be notified.
5. Where possible, UTPs should include particular technical solutions relating to these open points which, when applied on a voluntary basis, close the open point in a particular way (by analogy with appendix C of the revised WAG TSI). An applicant may then choose to apply the particular technical solution which may not be rejected by any Contracting State [2].

Regarding technical compatibility with the network:

6. NTRs and checks for the admission of vehicles in international traffic, which are not sufficiently justified, should be eliminated. Where possible, compatibility issues should be covered by UTP requirements or specific cases in UTPs.
7. NTRs should be kept to a minimum, in particular when harmonised international technical rules are in place in the form of UTPs. Therefore NTRs should only be imposed when this is strictly necessary for compatibility with the network.
8. NTRs should be clear and assessable by pass/fail criteria and available to all parties concerned. They should be fair, non-discriminatory and should not give a potential applicant any advantage over another. However, exceptions are conceivable. NTRs should not in principle relate to operating rules practised by the incumbent operator.
9. NTRs should be defined in such a way that assessment of compliance with the NTRs does not require the opinion of any of the entities listed in ATMF Article 5 § 2 a) to e), without prejudice to the responsibilities that some of these entities may have when themselves acting as an applicant for vehicle admission.

Regarding the role and tasks of Contracting States:

10. CSs should notify the OTIF Secretariat of all NTRs that need to stay in force after the adoption of a UTP. This notification should be finalised before the entry into force of a new or revised UTP. When they do this, it would also be preferable if the CSs were to indicate which NTRs would no longer be needed, in order to inform applicants and other CSs.

Acceptance of NTRs:

11. Appendix F – APTU Article 12 sets limits and conditions for imposing NTRs on international traffic. CSs have to justify the NTRs which are required to ensure technical compatibility between the vehicle and the network. Such justification should be the subject of independent examination.
12. The justification of NTRs imposed on vehicles used in international traffic under OTIF rules should be subject of independent examination. The findings of such examination should be shared with the Committee of Technical Experts (CTE).

[2] without prejudice to specific cases on the same subject

# Part 2: Annex

## National Technical Rules/Requirements used for vehicle authorisation

***This annex contains an analysis of the EU requirements and practices relating to National Technical Rules for vehicle authorisation and compares them to the OTIF regulations on this subject.***

*This annex refers in particular to issues in the following areas:*

- *Accessibility of EU Member States' National Technical Rules (NTRs) to other EU Member States, OTIF Contracting States and others.*
- *Availability of OTIF Contracting States' National Technical Regulations (NTRs) to other OTIF Contracting States, EU Member States and others.*
- *Legal relations between provisions in TSIs/UTPs and provisions in the NTRs dealing with the same matter.*

## 1. Validity of National Rules/Regulations in their application to vehicle authorisation

### 1.1a EU Notification of National Technical Rules

Directive 2008/57/EC calls for the notification of, or makes reference to National Technical Rules (NTRs) in several Articles, i.e. 8(3)(a), 17(3) 21(5), 21(11), 22(2)(b), 23(4), 23(5), 24(2), 25(4), 26(3) and 27.

In accordance with Article 17(3) of the Directive such rules have to be notified to the Commission, when:

- *No relevant TSI exists*,
- A derogation (not to apply a TSI) has been notified under Article 9, or
- A specific case requires the application of technical rules not included in the relevant TSI.

With the entry into force of the CR LOC&PAS TSI on 1 June 2012, *relevant TSIs do exist* for operation on Trans-European Network (TEN) lines. Therefore the scope of the rules which have to be notified in accordance with Article 17(3) is now limited to rules for vehicles intended to run on non-TEN lines, derogations, compatibility with non-TSI conform infrastructure and specific cases.

Article 16 implies that vehicles which comply with the essential requirements applicable to them should be authorised:

> *"Member States may not, in their territory and on grounds relating to this Directive, prohibit, restrict or hinder the construction, placing in service and operation of structural subsystems constituting the rail system which meet the essential requirements*."

In addition, Article 17(2) requires that:

> *"Verification of the interoperability, in accordance with the essential requirements, of a structural subsystem constituting the rail system shall be established by reference to TSIs, where they exist. "*

From these articles it is concluded that applicable TSI rules take precedence over NTRs in the verification of essential requirements. If all essential requirements are verified by the application of the TSIs, there is no need additionally to verify anything according to NTRs.

| Where they exist TSI rules take precedence over NTRs. |
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The use of NTRs in the first and additional authorisations of different categories of vehicles will be discussed in section 2 of the present document.

### 1.1b OTIF Notification of National Technical Requirements

In OTIF regulations the notification of National Technical Requirements (NTRs) is set out in Article 12 of the *Uniform Rules concerning the Validation of Technical Standard and the Adoption of Uniform Technical Prescriptions applicable to Railway Material intended to be used in International Traffic* (APTU – Appendix F to the COTIF 1999 Convention). Contracting States (CSs) had to inform the Secretary General (SG) of these NTRs by 1 March 2011. This deadline has been extended until 1 November 2012. The SG will then publish these NTRs.

NTRs automatically become obsolete when an 'analogous requirement' is brought into force in a Uniform Technical Prescription (UTP). Only those NTRs which remain necessary for:

- technical compatibility between the vehicles and its network
- open points in the UTPs
- specific cases in the UTPs

may be retained, but only if the CS informs the SG with justification of the need. This information must be submitted within 6 months after the entry into force of the related UTP.

| By default, notified OTIF NTRs lose their validity for international traffic 6 months after the related UTP enters into force. Only a justified request from CSs may prevent this. |
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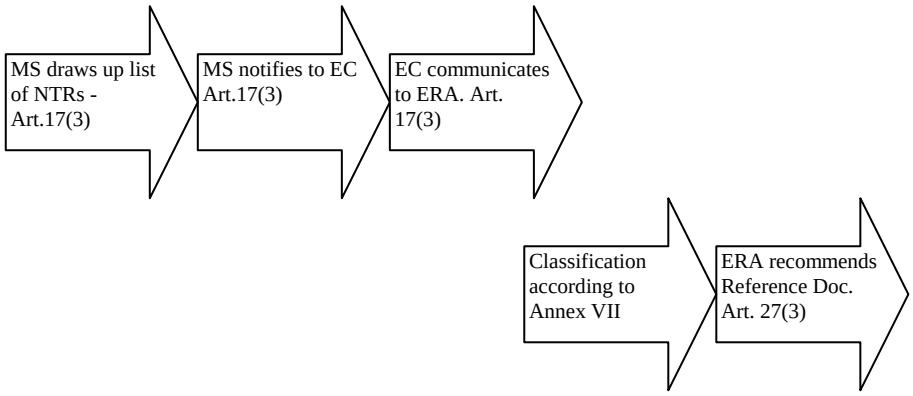
According to APTU Article 13, the NTRs will be classified under the responsibility of the Committee of Technical Experts (CTE). This activity has not yet started. At present, 6 of the 17 non-EU CSs have notified rules.

### 1.2a The EU classification of rules and the Reference Document

The processes for the notification and implementation of National Rules according to Directive 2008/57/EC is as follows:

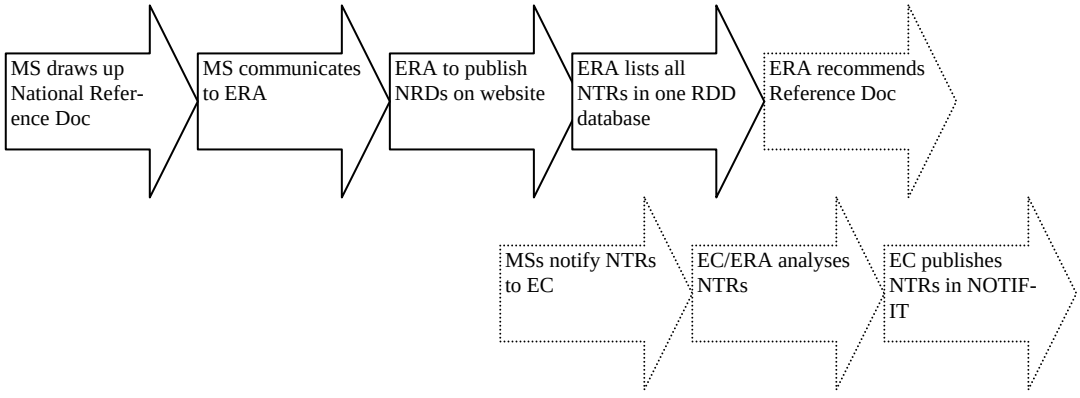



*Scheme 1: two processes as defined in 2008/57/EC*

The classification of NTRs is required in 2008/57/EC Article 27. Two related EU Commission Decisions have entered into force:

- Decision 2009/965/EC, setting out the list of parameters to be used for classifying national rules in the reference document.
- Decision 2011/155/EU, on the publication and management of the reference document.

One reference document has been created for each Member State, called the National Reference Document (NRD). The flowchart below attempts to summarise the activities which have been performed and those which have not been performed.




*Scheme 2: process as rolled out in practice. The arrows with dotted lines indicate processes that are not yet defined.*

Up to now ERA has only published the NRDs without any analysis of the NTRs contained in these NRDs. For this reason the legal status of these NTRs, in particular vis-à-vis EU regulations, is not confirmed.

In the process of preparing one Reference Document, National Reference Documents (NRDs) http://www.era.europa.eu/Core-Activities/Cross-Acceptance/Pages/Reference-Document-

Database.aspx are published on the ERA website. In these NRDs the national rules are listed and in some cases also classified. These rules have not been analysed or validated by ERA. The aim of the NRDs is to provide transparency by publishing all the rules that are applied today. The NRDs make frequent reference to obsolete standards and UIC leaflets. Many of these rules cover aspects that are already harmonised at TSI level for new vehicles to be used on TEN lines and may therefore be redundant for such authorisations.

In the process to arrive at one Reference Document from about 25 NRDs, all the rules will be classified into three groups:

Group A:

- international standards,
- national rules deemed to be equivalent, in railway safety terms, to national rules of other Member States.

Group B:

- 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:

- 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).

From Articles 25 and 27 of Directive 2008/57/EC and Decisions 2009/965/EC and 2011/155/EU, it is understood that:

- One Reference Document will be composed, consisting of three parts. Part 1 is the application guide, part 2 consists of the 25 National Reference Documents and part 3 contains the National Legal Frameworks.
- The future single Reference Document will facilitate, list and classify all the NTRs in groups A, B or C. This will allow comparison between and cross-acceptance of the rules of different Member States.
- Article 27(1) sets out that National Rules are classified in order to facilitate the authorisation of vehicles referred to in Article 25.
- Article 25 applies to:
    1. The additional authorisation for vehicles that were authorised prior to 19 July 2008 (as defined in Article 21(12)), and to
    2. The additional authorisation of vehicles that were non-TSI conform at their first authorisation (as defined in Article 24).

Decisions 2009/965/EC and 2011/155/EU clarify that the national reference document shall contain (reference to) all the rules applied for vehicle authorisation. It is understood that the national reference document also covers network compatibility. Since the Notified Technical Rules are the input to the Reference Document, this would mean that:

The TSIs and National Technical Rules contained in the National Reference Document to-

gether fully cover all aspects related to vehicle authorisation. There should be no other rules applied for the authorisation of vehicles than the ones in the NRD. In addition the railway undertaking must check, under its own responsibility, compatibility with the lines where it intends to run the vehicle.

### 1.2b The OTIF classification of rules and the Reference Document

According to COTIF 1999, Appendix F (APTU), Article 13, a Reference Document will be drawn up, which will cross-reference all the NTRs. It will also indicate the relevant UTP and TSI provisions. The Reference Document will be published on the OTIF website. The Committee of Technical Experts (CTE) has the competence to declare rules equivalent, e.g. equivalence between NTRs from different CSs, or equivalence between UTP requirements and NTRs.

This work has not yet started.

### 1.3a The EU National Safety Rules in relation to vehicle authorisation

Article 8(3)(b) of the Interoperability Directive makes reference to the National Safety Rules in relation to vehicle authorisation for vehicles occasionally used off-TEN:

> *"authorisations for the placing in service of vehicles to be used occasionally on the part of the network that does not yet fall within the scope of the TSIs, in respect of that part of the network, shall be granted in accordance with Articles 21 to 27 and the national rules referred to in Article 8 of Directive 2004/49/EC, or, where applicable Article 17(3) of this Directive."*

If it is necessary to impose rules over and above those required by TSIs to maintain the level of safety in a particular MS, these requirements should take the form of Specific Cases in the TSIs. This assertion is confirmed by the last sentence of section 4.3.2 of Commission Recommendation 2011/217/EU (former working title 'DV29'):

> *"MS should not invoke Directive 2004/49/EC to impose additional requirements for authorisation for placing in service."*

Thus: safety rules should not contain requirements related to the design and construction of vehicles. This is further confirmed in Part 1 of the Reference Document envisaged by Article 27 of the Railway Interoperability Directive, which is called "application guide" and is available from the ERA website http://www.era.europa.eu/Document-Register/Pages/Application_Guide_EN.aspx . It sets out in part 3.4:

> *"All references to requirements and procedures for vehicle authorisation in the Safety Directive have been removed and all aspects of vehicle authorisations are now covered by the Interoperability Directive. Rules used for vehicle authorisation are therefore explicitly not national safety rules."*

National Safety Rules as notified under Safety Directive 2004/49/EC should not contain requirements related to vehicle authorisation.

### 1.3b The OTIF National Safety Rules

There is no equivalent concept in OTIF regulations to the EU concept of National Safety Rules. All rules related to the admittance of vehicles are covered by UTPs and NTRs.

### 1.4a Conflicts between EU National Rules and TSI requirements

Article 15(1) of Directive 2008/57/EC requires MSs to take all steps to ensure that all essential requirements are met and particularly to check the technical compatibility with the system and the safe integration of subsystems. The article also refers to the Safety Directive and its Common Safety Methods on Risk Assessment for the verification of safe integration. According to Article 17(1) vehicles covered by an EC Declaration are presumed to conform with these essentials requirements. Article 17(2) gives priority to TSI rules over NTRs once these TSI rules exist.

The scope of application of TSIs and NTRs differ; TSIs are applied to new, modified or substantially changed vehicles, whilst NTRs are applied to existing vehicles and to new vehicles in case they are authorised to run off-TEN.

In practice many new vehicles will need an authorisation to run both on TEN and off-TEN. For that reason new vehicles could be subject to both TSIs and NTRs.

The TSIs presently in force are not mandatory for off-TEN but can be "voluntarily" applied to off-TEN as well if the MS decides to do so. ERA is reportedly supporting this solution and many EU MSs are willing to embrace TSIs for off-TEN. In the coming years, the scope of TSIs will be extended to the entire network, which will give a clearer legal framework and will render many NTRs obsolete for new vehicles.

In principle, compatibility between a new vehicle and TEN lines is covered by TSIs (including the specific cases). In addition, the TSIs cover the essential requirement of safety (i.e. all relevant hazards). Therefore:

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| The compatibility and safe integration of new vehicles to run on TEN lines are demonstrated through the application of the TSI, including its specific cases. In such cases NTRs should not be imposed. Compatibility between the vehicle and the line it is intended to run on is checked by the railway undertaking under its full responsibility. |

In cases where the TSI does not apply or does not fully cover the safe integration and network compatibility, NTRs to ensure this technical compatibility and safe integration may be imposed. NTRs may only cover requirements applicable to vehicles, when at least one of the following conditions apply:

- The vehicle or its intended use is outside the scope of the TSIs, e.g. off-TEN, or
- The vehicle is subject to a derogation from application of (parts of) TSIs, or
- The TSI contains a specific case applicable to the vehicle and no alternative requirement is contained within the TSI, or
- The rule is necessary to ensure technical compatibility of subsystems within the vehicle, as long as this compatibility is not ensured by TSIs. (e.g. a class B CCS system's compatibility with the rolling stock's brake system), or

- The rule is necessary to ensure safe integration with the non-TSI compliant network, but only when this safe integration is not covered by the TSIs.

TSIs and NTRs may be incompatible in different ways. As concluded before, when TSIs apply, the NTRs should cover only open points, network compatibility, safe integration and specific cases. In practice many rules that cover the same parameters as TSI rules are contained in National Reference Documents.

Annex I of the LOC&PAS TSI lists the open points, divided into open points which relate to compatibility between the vehicle and the network and those which do not. All EU MSs should at least notify rules covering these open points.

The following list gives examples of how NTRs may conflict with TSIs:

- An NTR may cover a parameter that is not covered in TSIs or by the list of parameters set out in 2009/965/EC (e.g. imposing particular rules for air compressors, or for automatic fire extinguishers in passenger areas). In such cases the parameter is considered irrelevant for interoperability and should not be imposed as binding rules for the admission of vehicles and should therefore not be part of NTRs.
- An NTR may cover a parameter that is included in the TSI as an open point. For the first authorisation, national rules should cover all the open points. For additional authorisations, only the National Rules applied to the open points which relate to compatibility with the network may be applied. The technical solutions covering the other open points which are not related to infrastructure compatibility (such as safety levels) should in principle be cross-accepted for additional authorisations, since they have no relation to a particular network.
- A NTR may be an additional rule to the TSI which still allows TSI compliance (e.g. automatic fixed fire extinguisher in passenger units): by meeting the rule TSI compliance is not jeopardised, although interoperability is hampered when this rule is imposed on international traffic because standard TSI compliance trains will not comply with this additional rule. If strictly necessary for network compatibility, such rules should be defined as specific cases (e.g. for the restricted UK gauge, where the UK gauge vehicle comfortably fits the TSI gauge).
- An NTR may be an additional rule to the TSI which makes it more difficult or impossible to obtain TSI compliance. Through application of such NTR, TSI compliance is not ensured and interoperability is affected. Only if the NTR is necessary to ensure compatibility with the existing non-TSI conform infrastructure may such an NTR be imposed. If necessary the TSI conflict should be resolved e.g. by a derogation.
- An NTR may be a specific technical solution to meet functional TSI requirements (e.g. a specific type of driver's activity control). Only if the parameter is necessary to ensure compatibility with the existing non-TSI conform infrastructure may it be imposed (in the example this is not the case).
- An NTR may cover the same parameter as set out in the TSI, but with a solution that does not comply with the TSI. This category of rules must be identified as specific cases in the TSI and should not exist in other forms.

NTRs are often heritage rules, developed before the introduction of TSIs. Although their existence may be justified by network compatibility needs, NTRs also form an obstacle to-

wards interoperability and may result in a (non-)deliberate obstacle to opening the market. They also make it more difficult for the industry to offer standardised rail vehicles.

As a principle; compatibility problems between the TSI requirements and the heritage parts of TEN networks should be contained in the TSIs as specific cases. A specific case is only included in the TSI when application of the TSI would lead to technical or economic problems in a particular MS. Specific cases are justified by an economic evaluation which is approved (by vote) by the other MSs. Specific cases can be of different types:

- Permissive specific cases, where a MS's network permits a variation to the harmonised solution as set out in the TSI. E.g. the gauge of the network is wider than the TSI gauge and therefore vehicles bigger than defined in the TSI may be authorised. In such a case the operation of TSI conform vehicles is permitted. Vehicles built to a permissive specific case are not interoperable. Permissive specific cases tend to have an economic justification.
- Restrictive specific cases: where a MS's network cannot accommodate standard TSI conform vehicles. E.g. the gauge of the heritage network is smaller than the minimum defined standard gauge for TSI conform vehicles. In such a case the operation of vehicles built to either of the three standard TSI gauges is not possible. Vehicles meeting such a specific case are however still TSI conform and thus interoperable. Restrictive specific cases tend to have a technical justification. [3]

Specific cases should only include parameters that are related to compatibility with the (non TSI conform) network. Other parameters such as: car body structure and crashworthiness, braking, passenger related items, driver's cab and fire safety should not be subject to specific cases. For vehicles in the scope of the CR LOC&PAS TSI, Annex I defines which open points are related to compatibility between the vehicle and the network and which ones are not.

EU specific cases can be considered as a type of national rules to ensure compatibility with the non-TSI conform parts of the network. In contrast with NTRs, specific cases have been the subject of independent review and have been justified on technical or economic grounds and have been the subject of approval by other MSs through a vote in RISC.

### 1.4b Conflicts between OTIF National Technical Requirements and UTP requirements

According to ATPU Article 12 §1, UTPs automatically render NTRs obsolete for application to vehicles in international traffic when a UTP enters into force. The NTR may be continued to be applied for vehicles only running domestically. If specific NTRs are still required to complement UTPs in order to ensure technical compatibility, cover open points and specific cases, these NTRs must be (re)notified.

Theoretically there should not be any conflicts between NTRs and UTPs. However, there is not yet any practical experience because UTPs do not yet fully cover all vehicle requirements.

[3] A TSI conform vehicle does not automatically permit the vehicle to run on a TSI conform network as there are different classes for vehicles and lines. It will be always up to the operator to check whether the vehicle selected fits the specific conditions of the lines where he wants to use it

In UTPs there should in principle be no permissive specific cases, because the application of such specific cases would render the vehicle unfit for international operation, as a result of which it would fall outside the scope of OTIF regulations. An exception would be possible only if two or more neighbouring CSs apply the same specific case.

## 2. Scope of application of the NTRs in the process of vehicle authorisation

### 2.1a EU: The first authorisation of (new) vehicles which are TSI conform (as defined in Article 22)

If a TSI conform vehicle is intended to be used on TSI conform lines and there are no derogations and all relevant specific cases are complied with, then no additional checks are necessary (Article 22(2)(a)) and authorisation is granted on the basis of TSI compliance.

From 1 June 2011 the CR LOC&PAS TSI has applied to new vehicle designs within the scope of that TSI. Therefore:

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| Without prejudice to transitional measures defined in the TSIs and derogations and specific cases, NTRs may not be imposed on new vehicle designs contracted after 1 June 2011 and intended to be used only on TSI compliant TEN networks. For these vehicles the TSIs must be applied. |

The TSIs presently in force do not yet cover off-TEN lines in the geographical scope. In most cases therefore, vehicles only intended for domestic use must be authorised for on-TEN and off-TEN at the same time. It is for this reason that MS may still impose additional checks according to their NTRs over and above the requirements described in TSIs. For such use on non-TSI conform networks and off-TEN lines the additional checks may cover only the provisions contained in the National Reference Document relating to:

- Open points in the TSIs,
- Specific cases in TSIs and
- Measures ensuring safe integration and
- Measures ensuring compatibility with the network.

For the authorisation of vehicles intended to run on TEN lines and only occasionally off-TEN, TSIs apply in accordance with Article 8(3). This interpretation is confirmed by Commission Recommendation 2011/217/EU.

### 2.1b OTIF: The first admission of (new) vehicles which are UTP conform (as defined in ATMF Article 6 §3)

Unlike EU rail regulations which apply to both domestic and international traffic, OTIF regulations only apply to international traffic. OTIF makes no distinction between TEN and off-TEN lines. The geographical scope comprises all lines used for international transport, without defining them.

In this respect ATMF Article 6 §2 says that the responsibility to ensure that the vehicle is only operated on compatible infrastructure lies with the rail transport undertaking. For this reason the compatibility checks in the admission process may only cover the open points contained within the UTPs relating to technical compatibility with the infrastructure.

A first request for admission will by definition have the aim either of being valid in other OTIF Contracting States in accordance with Article 6 §3, or it will be followed by at least one additional request for admission in accordance with Article 6 §4.

When all essential requirements are covered in UTPs and the vehicle is not subject to specific cases, derogations or open points relating to compatibility with the infrastructure, the vehicle will be automatically admitted for international operation in all OTIF CSs once admitted in the first CS.

### 2.2a EU: The additional authorisation of vehicles which are TSI conform (as defined in Article 23)

In the EU, not all vehicles will need additional authorisations, because a large number of vehicles are only intended for domestic use. The situation discussed in the present section concerns TSI conform vehicles which have already been authorised in at least one EU MS.

For running TSI conform vehicles on TSI conform networks in other EU MSs, Directive 2008/57/EC Article 23(1) applies;

> *"Vehicles in complete conformity with TSIs covering all aspects of the relevant subsystems without specific cases and without open points strictly related to technical compatibility between vehicle and network, shall not be subject to any additional authorisation for placing in service as long as they run on TSI conform networks in the other Member States or under the conditions specified in the corresponding TSIs.*"

Authorisations for purely TSI compliant networks are not currently granted, as such purely TSI compliant networks do not actually exist, and vehicle-related TSIs still have a series of open points and specific cases, so the statement "*not [be] subject to any additional authorisation*" is theoretical.

Commission Recommendation 2011/217/EU states in section 5.4.1, which relates to additional authorisations of TSI conform vehicles:

> "*It means that the reference document, in the context of TSI conform vehicles, is only used in the case of open points related to the technical compatibility between the vehicle and the network, or in specific cases.*"

Safe integration of the subsystems within the vehicle is deemed to have been assessed during the first authorisation. Therefore, for use on non-TSI conform networks, the additional checks may cover only the provisions contained in the National Reference Document relating to:

- Open points in the TSIs, but only those which relate to network compatibility,
- Specific cases in TSIs and
- (Other) national rules required to ensure compatibility with the network.

These are the rules which are classified in group B and C in the Reference Document. Group A rules may not be used for additional authorisations, because they are cross-accepted be-

tween MSs and the assessment of such parameters for the first authorisation is therefore valid for additional authorisations.

### 2.2b OTIF: The additional admission of vehicles which are UTP conform (as defined in ATMF Articles 3a and 6)

ATMF Article 6 sets out the conditions under which vehicles which have been placed in service in OTIF CSs are admitted in other OTIF CSs. Article 3a sets out the equivalence between EU authorisation rules and OTIF admission rules. Vehicles which have been placed in service in one OTIF CS are also admitted to operate in all other CSs when the following conditions apply:

- UTPs and TSIs cover all aspects of vehicles and;
- UTPs and TSIs have full equivalence and;
- There are no open points relating to infrastructure compatibility and;
- There are no derogations.

If these conditions are not met, additional technical information may be requested by the competent authorities. On the EU side this is defined in Directive 2008/57/EC and on the non-EU side in Article 6 § 4. These OTIF regulations and EU regulations for additional vehicle authorisation are not identical. In particular ATMF Article 3a appears to impose a stronger cross-acceptance principle than EU Directive 2008/57/EC Article 23 with respect to the additional admission/authorisation of vehicles which comply with UTPs/TSIs.

On the EU side TSI conform vehicles are automatically authorised in other MSs only if they run on TSI conform networks (which do not yet exist widely ). In all other cases EU MSs may make additional checks relating to technical compatibility and specific cases.

On the OTIF side, vehicles which have been placed in service and which are UTP/TSI conform are automatically admitted to operation on international lines in other CSs, provided they are not covered by specific cases, open points relating to technical compatibility or derogations. In the latter case it is the responsibility of the rail transport undertaking to ensure infrastructure compatibility.

In the EU regulations the need for an additional authorisation is related to <u>where the vehicle will be operated</u>. Even if the vehicle is TSI conform and not subject to specific cases, open points and derogation, additional authorisations are needed for running on non-TSI conform lines in other MSs. Checking network compatibility is therefore also a task of the competent authority.

In the OTIF regulations the need for additional authorisations is <u>not related to the infrastructure</u> it will run on. If a vehicle is TSI/UTP conform and is not subject to specific cases, open points and derogation, additional authorisations are not needed. Ensuring network and line compatibility is therefore a task of the rail transport undertaking in accordance with ATMF Article 6 §2.

### 2.3 EU: Additional authorisation for vehicles authorised prior to 19 July 2008 (as defined in Article 21(12))

Article 21(12) of 2008/57/EC sets out that vehicles authorised prior to the entry into force of Directive 2008/57/EC will remain authorised. This principle takes precedence over the authorisation rules as set out in Articles 22 to 25. The rules in the NRD rules may be used for additional authorisations (in other MSs) of existing vehicles authorised before 19 July 2008.

### 2.4a EU: The first authorisation of vehicles that are non-TSI conform (as defined in Article 24)

The process for the first authorisation of (new) vehicles that are non-TSI conform is defined in Article 24 of 2008/57/EC. Two main reasons for vehicles not being TSI compliant are given:

- Vehicles authorised at a time when a significant part of the essential requirements is not 'laid down' in TSI(s), and
- Vehicles subject to derogations.

With the entry into force of the CR LOC&PAS TSI on 1 June 2011, all TSIs relevant to vehicle authorisation exist and *'lay down a significant part of the essential requirements'*. However, application of this TSI is not mandatory until 1 June 2017 for certain cases. These cases include contracts which were already signed before 1 June 2011, projects at an advanced stage at that date and rolling stock types that are of a design that 'existed' before 1 June 2011 (cf. section 7.1.1.2.4 of the LOC&PAS TSI). For all of these cases the applicant may decide to apply the LOC&PAS TSI fully on a voluntary basis, after which Article 22 would apply.

It is assumed that for every new vehicle at least some TSI requirements will have to be applied (e.g. from the NOI TSI, the SRT TSI and the PRM TSI). Basic parameters covered by TSIs and certified in accordance with the EC verification procedures should not be covered by NTRs. For all other parameters the National Rules as contained in the NRD or in the Reference Document apply.

### 2.4b OTIF: The first admission of vehicles that are non-UTP conform

In accordance with ATMF Article 7 §2, the first admission of a vehicle which is not based on UTP compliance will be based on NTRs in force according to APTU Article 12. Such NTRs are only in force as long as there are no analogous UTP requirements in force.

### 2.5a EU: The additional authorisation of vehicles that were non-TSI conform at their first authorisation (as defined in Article 25)

The rules contained in the National Reference Documents may be used for additional authorisations of non-TSI conform vehicles, as far as these are the rules which are classified in group B and C in the Reference Document. Group A rules may not be used for additional authorisations, because the subjects covered by these rules must be cross-accepted.

### 2.5b OTIF: The additional admission of vehicles that were non-UTP conform at their first authorisation (as defined in Article 6 §4)

For the additional admission of non-UTP conform vehicles, competent authorities may ask the applicant for additional technical information. For the part of the vehicle that is UTP

compliant, the competent authorities have to accept the verifications that have been made according to the UTP. For the other parts similar rules as in the EU regulations apply, which means that NTRs that have been qualified as being equivalent must be cross-accepted between competent authorities.

# 3 Conclusion

In the transitional phase towards a fully harmonised TSI/UTP conform rail system, NTRs to maintain compatibility with the heritage parts of the system remain necessary. The application of such NTRs should be limited to the strict minimum, because they constitute an obstacle to interoperability and harmonisation and may increase costs and lead-times for the admission/authorisation of vehicles.

EU and OTIF are harmonising technical rules in TSIs and UTPs respectively. The technical requirements in both types of regulations should be fully equivalent.

Since June 2011 a full set of TSIs exists and they are in most cases the basis for future authorisations of vehicles of a new design. With the entry into force of the TSIs an important reason for the application NTRs no longer exists. The specific cases contained in TSIs cover compatibility with the existing TEN infrastructures and have been subject to a cost/benefit analysis. There may however remain cases where NTRs need to be applied. The main reasons to apply NTRs in the EU are:

- Transitional phase in which TSIs are not applicable to all new vehicles.
- Authorisations for operation of TSI compliant vehicles on off-TEN lines.

The latter reason will be ruled out (presumably in 2014), because the TSIs are being revised and their scope is being extended to the entire network.

For authorisations in EU MSs:

- The regulations cover authorisations for vehicles used only in domestic traffic as well as vehicles used internationally.
- TSIs are the basis for vehicle authorisations. However, TSIs do not yet cover all elements necessary for vehicle authorisation, partly because they contain open points and partly because the Member States' existing networks are not harmonised.
- For the first authorisation of TSI conform vehicles which run almost exclusively on TEN lines, NTRs may only be imposed to cover open points and specific cases in TSIs, safe integration and compatibility with the existing network.
- For the first and for additional authorisations, NTRs may be imposed on vehicles which travel off-TEN. The existing set of TSIs does not cover non-TEN lines. However, TSIs are being revised in order to cover the entire EU rail network.
- NTRs are applied to cover open points in TSIs. For additional authorisations of TSI conform vehicles, the open points not relating to compatibility with the infrastructure may not be reassessed. During TSI revision, the open points are closed as much as possible.
- For the first and for additional authorisations, NTRs apply to cover specific cases which are contained within TSIs, but for which the TSIs do not give detailed alternative requirements. This category is rather small, because the main TSIs do in many cases give alternative requirements. Specific cases can be restrictive or permissive.

For admissions in non-EU OTIF CSs:

- The regulations cover only admissions for vehicles used in international traffic.
- UTPs will become the basis for vehicle admission as soon as they enter into force.
- For the first admission, NTRs apply which are needed to ensure technical compatibility between the vehicle and the network.
- For the first admission, NTRs apply to cover open points in UTPs. For additional authorisations only the open points related to compatibility with the infrastructure may be reassessed.
- For the first and for additional admissions NTRs apply to specific cases which are contained within UTPs, but for which the UTPs do not give detailed alternative requirements.
- If the vehicle is subject to a derogation in its first authorisation, NTRs to ensure interoperability apply. Additional authorisations will then be subject to additional checks.

The main differences between the EU and non-EU OTIF domains are:

- A full set of vehicle-related TSIs is in force, no vehicle-related UTP is in force yet.
- The geographical scope of TSIs is defined by the networks on which the vehicle will run; the scope of UTPs is defined by the type of operation, namely vehicles intended for ‘international operation’.
- For the additional authorisation of TSI conform vehicles, MSs may impose NTRs to ensure technical compatibility. For the additional admission of UTP conform vehicles, MSs may not impose NTRs related to technical compatibility (except in case of open points relating to compatibility).