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## **NATIONAL TECHNICAL REQUIRMENTS FOR VEHICLES**

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Analysis of the need for further action

## 1. INTRODUCTION

This paper presents the scope of the national technical requirements (NTRs) and their application to vehicle admissions. It also explains the differences and relationship between NTRs and specific cases in the scope of COTIF.

This paper is part of the follow-up to the 11<sup>th</sup> session of the Committee of Technical Experts, which requested WG TECH *to analyse the need for further action concerning National Technical Requirements, including possible modification of the provisions of APTU Articles 12 and 13 (publication and alignment of national technical requirements), and bearing in mind that NTR under COTIF only concern international traffic.*

The first version of this paper was discussed at the 35<sup>th</sup> session of the working group technology (WG TECH) on 11-12 September 2018. The second version was discussed at the 36<sup>th</sup> session of WG TECH on 27-18 November 2018.

This ~~second~~<sup>third</sup> version of the paper is a modified version that takes into account the discussion and feedback from WG TECH's 35<sup>th</sup> session. ~~At that meeting, delegates supported the objective of making national requirements more transparent. However, delegates were also of the view that the proposed way forward, i.e. of publishing national technical requirements in the form of specific cases only, might be too ambitious. WG TECH therefore proposed that additional analysis concerning the notification of NTRs, or the lack thereof, would be carried out by the Secretariat.~~

Note: new and modified text compared to the second~~initial~~ version is indicated in track changes. Texts that have been moved are not indicated.

## 2. NATIONAL PROVISIONS

The UTPs (Uniform Technical Prescriptions) are requirements which are necessary for the objectives set out in APTU and ATMF and which can be harmonised between the Contracting States. In order to ensure technical compatibility between rail vehicles and the variety of networks they are to be used on, it may be necessary for these vehicles to comply with specific national requirements in addition to the harmonised UTP requirements. These specific national requirements may come in two sorts; NTRs and specific cases. Both NTRs and specific cases specify requirements which are particular to a state. The main difference is that NTRs are documented at national level and specific cases are documented in the UTP and, in the case of members of the European Union, in the TSIs<sup>1</sup>.

### 2.1. SCOPE AND OBJECTIVES OF NTR

Provisions related to the scope of and procedures to be followed for national technical requirements<sup>2</sup> (NTRs) are laid down in Article 12 of APTU. In the context of APTU, NTRs are limited to vehicles and cannot therefore cover subsystems other than those related to vehicles. As the scope of COTIF concerns international traffic only, the scope of NTRs is therefore also limited to vehicles for use in international traffic.

NTRs are not defined in COTIF, but Article 12 § 2 of APTU sets out the objective and scope of NTRs:

<sup>1</sup> The UTPs do not deal with the specific case of states which are also members of the European Union, but make reference to the TSIs for this purpose.

<sup>2</sup> Although the scope and aims of NTRs partly overlap with the scope and aims of national rules in EU law the two concepts are not identical and should not be confused. One of the significant differences is that the COTIF NTRs only cover international traffic and do not therefore have to specify elements related to specific local or regional features of the network.

*“...to ensure the technical compatibility between the vehicles and its [the Contracting State’s] 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.”*

It should be noted that Article 12 is based on the idea that NTRs should be replaced by UTPs as far as possible. This is expressed in § 1 of Article 12:

*“...[NTR] 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.”*

Furthermore, Article 12 § 2 of APTU requires that every time a UTP is adopted or amended, the Contracting States must notify, with justification, the NTRs that are still required after the UTP enters into force. This notification must be given within 6 months after the entry into force of the UTP. Without such notifications the NTRs are assumed no longer to be required.

There are several possible justifications why NTRs may be necessary:

- In the absence of UTPs (for vehicles this concerns only the on-board part of the CCS system, as all other vehicle parameters are covered by UTPs)
- To cover open points in the UTPs. (An open point in the UTP means that the parameter is indispensable for the mutual acceptance of vehicles and their free circulation in international traffic, but that it has not yet been possible to harmonise the specification to cover the parameter.)
- To ensure technical compatibility with the particularities of a network.
- To provide (detailed) specifications related to a specific case.

National Technical Requirements are in some cases indispensable to ensure compatibility between vehicles and the network they are intended to run on. At the same, as they are not harmonised, NTRs are by definition undesirable for international traffic and the aim should therefore be either to harmonise them or create the conditions to ensure that they become obsolete.

The overarching objectives related to NTRs could be summarised as follows:

1. NTRs should be accessible and transparent, hence the requirement in Article 12 of APTU to notify them.
2. NTRs should be removed if they are not, or are no longer, strictly necessary for the objectives of APTU and ATMF, hence the concept in Article 12 § 2 of APTU that NTRs are rendered invalid if not re-notified within 6 months after a UTP enters into force.
3. NTRs which are necessary should be harmonised as far as possible, preferably in the form of UTPs.

With regard to the first objective, Contracting States should identify all the requirements that are necessary in addition to the UTPs for the admission of vehicles in international traffic on their network and notify them in accordance with Article 12 of APTU, including the methods and procedures to prove compliance with them, so that applicants and manufacturers can take them into account in their activities. At least the title and summary of the NTRs must be in one of the official languages of OTIF (French, German and English).

With regard to points 2 and 3, until now the requirements relevant to vehicles in international traffic have been set out in UTPs, with the exception of the on-board part of the signalling system.

## 2.2. SCOPE AND OBJECTIVES OF SPECIFIC CASES

Another type of national provision is the specific case contained in chapter 7 of the UTP. Contrary to NTRs, specific cases are not limited to vehicles but can relate to any subject covered by UTPs.

Specific Case is defined in Article 2 of ATMF as follows:

*““specific case” means any part of the rail system of the Contracting States which is indicated as a special provision in the UTP, either temporarily or definitively, because of geographical, topographical or urban environment constraints or those affecting compatibility with the existing system. This may include in particular railway lines and networks isolated from the rest of the network, the loading gauge, the track gauge or space between the tracks as well as vehicles strictly intended for local, regional or historical use, and vehicles originating from or destined for third countries;”*

In accordance with Article 8 § 4 of APTU each specific case must include requirements concerning the procedures to be used in order to assess conformity with it. Article 10 § 3a of ATMF stipulates as a general rule that conformity with UTPs (which includes specific cases) may be assessed by any assessing entity. It follows that if assessment of conformity with a particular specific case cannot be carried out by any assessing entity, ~~e.g. because it requires particular tests on a specific section of track, or because it can only be carried out by a specific entity~~, this should be indicated in the specific case in the UTP, bearing in mind that, in accordance with UTP GEN-E point 3, assessing entities must have access to equipment needed for exceptional checks.

## 3. THE APPLICATION OF NTR TO VEHICLE ADMISSION

As laid down in Article 7 § 1 of ATMF, in order to be admitted to circulation in international traffic, a vehicle must comply with the applicable UTPs and where applicable the RID requirements and all other specifications in order to meet the applicable essential requirements.

On the basis of ATMF, three different vehicle admission cases can be distinguished:

### Case 1: First admission valid in all Contracting States

**Concerns an initial vehicle admission in accordance with Article 6 § 3 of ATMF, which is directly valid for international traffic in all Contracting States.**

This is only possible if all the requirements relevant to the vehicle are covered in the UTPs, meaning that there are no open points related to the vehicle in question. Furthermore, the vehicle must not be subject to a specific case or NTR which affects the technical compatibility with the networks of the Contracting States concerned. The vehicle must also have undergone assessment in accordance with all the UTP requirements and not be subject to derogation in the meaning of Annex B to ATMF. Under the existing UTPs, this is only possible for freight wagons and only if these comply with the provisions of section 7.1.2 of the UTP WAG.

### Case 2: First admission valid in one State

**Concerns an initial vehicle admission in accordance with Article 6 § 4 of ATMF, for which the first admission is not directly valid in other Contracting States and which must therefore be supplemented by an additional admission issued for each further state where the vehicle is to be used.**

This concerns all newly admitted vehicles that do not satisfy the conditions of the first case. It means that the vehicle is not fully covered by harmonised requirements, e.g. because the UTPs contain open points, and will therefore be required to obtain separate admission from each state where it is intended to be used. All vehicles other than freight wagons complying with section 7.1.2 of the UTP WAG come under this case, including e.g. all locomotives, trains sets, etc.

These vehicles will be required to meet all the UTP requirements, including the applicable specific cases and, in addition, the NTRs of the state where the vehicle is (first) admitted to international operation.

### **Case 3: Complementary admissions (ATMF Article 6 § 4)**

**Concerns an additional admission of a vehicle which has already been admitted to international traffic by at least one other contracting state.**

The competent authority/ies issuing the additional admission(s) may ask the applicant for additional technical information, such as a risk analysis and/or tests, including, but not necessarily limited to, information and tests related to NTR. However, the verifications of the parts of the vehicle which are compliant with a UTP will be accepted without additional proof.

ATMF regulates only the requirements concerning the technical admission and use of railway vehicles in international traffic. Most vehicles will not be exclusively used in international traffic, i.e. all vehicles will at least sometimes also be operated in domestic traffic. This would mean that, at least in the state that initially admits it, a vehicle would be subject to admission for use in international traffic as per ATMF as well as to approval for use in domestic traffic as per the rules applicable for this purpose in the state concerned. From the strict legal perspective, these are two separate procedures, even though they might be combined for practical reasons. COTIF does not regulate or harmonise the procedures or technical requirements concerning approval of vehicles for use in domestic traffic.

## **4. SITUATION THEN AND NOW**

The requirement to notify NTRs can be understood from a historical perspective. At the time when APTU and ATMF were developed, there were not yet any UTPs. Until UTPs became available, vehicles were admitted solely on the basis of NTRs. Listing and categorising the NTRs of the various Contracting States was considered an important step towards harmonising the rules. The concept was to put all NTRs on the table, categorise them, identify overlaps between the NTRs of different Contracting States and, where possible, declare them equivalent. Over time, the UTPs would be developed and supersede the NTRs for parameters covered by the UTPs.

The situation has changed compared to about 20 years ago when APTU was drafted and adopted. The vast majority of parameters required for vehicles to be mutually accepted between states for the purpose of international traffic are now covered by UTP requirements and parameters which cannot be fully harmonised are either identified as open points or set out in specific cases.

Subsystems not covered by UTPs are by definition covered by national requirements, whether notified as NTR or not. The failure, for whatever reason, of a Contracting State to fulfil its obligations under APTU Article 12 to notify its national requirements does not mean that no requirements are applicable. For example, signalling systems are not yet covered by UTPs. However, it is safe to assume that before admitting a locomotive, each Contracting State will need to prove that the locomotive can be safely operated with the signalling system on its network. This is why Article 6 § 4 of ATMF permits Contracting States to request additional technical information from the applicant, such as risk assessments and tests, before granting a complementary admission to operation.

~~As a consequence of the above, Although~~ there ~~is~~ may be no direct benefit for states to notify their NTR, ~~the obligation to do so exists. neither is~~ Even though there might be no an immediate

consequence for states if they do not notify their requirements, as they can apply rules even without notification, the absence of clarity will affect manufacturers, vehicle keepers, railway undertakings etc., making their business less predictable and more risky. ~~Long term consequences might lead to less efficiency in the railway sector and waste resources.~~

~~Parties that benefit from the transparency of rules are mainly in the railway industry, including e.g. manufacturers, railway undertakings, vehicle keepers, etc.~~ Transparency of rules provides these parties with increased legal certainty and predictability in their projects and hence lower risks and greater efficiency.

The European Union, Switzerland and Norway went through the process, as required by EU law, of listing, classifying and harmonising the applicable national requirements of the states concerned. It should be noted that this effort was not limited to compatibility with lines open to international traffic, but also included domestic traffic. It is not therefore obvious that all the results are fully relevant in the scope of COTIF, as certain requirements for local lines are not necessarily the same for international lines.

The situation today is that only Switzerland has notified its NTRs in a way that complies with the provisions of Article 12 of APTU. The European Union has notified the Secretary General of the so-called 'notified national technical rules' in accordance with EU law. This notification was made in 2013, but since then, all the relevant UTPs have been adopted or amended. In order to comply with the provisions of Article 12, the re-notification of NTR applicable in the EU would be required, bearing in mind that undue burdens for any of the parties involved should be avoided.

## 5. PROPOSED WAY FORWARD

Discussion at the 35<sup>th</sup> and 36<sup>th</sup> sessions of WG TECH revealed that both NTRs and specific cases continue to be necessary. In order to highlight the issue, the Committee of Technical Experts ~~could~~ reminds states of their obligations under Article 12 of APTU to notify their NTRs. In so doing, states are recommended to take the following into account: ~~This reminder could be accompanied by explanatory notes and suggestions:~~

1. NTRs may cover vehicles only and should not repeat or contradict UTP provisions. NTRs may refer to open points or specific cases in the UTPs; in such cases the notification should indicate this relation.
2. Vehicle provisions required by states which replace or supplement provisions in chapters 4, 5 and 6 of a UTP should not become NTRs, but should be included as specific cases in chapter 7 of the same UTP. ~~A subsystem or part of subsystems covered by UTP specifications should not be subject to NTRs (except when linked to specific cases contained in the UTP). The definition of specific cases in ATMF and the meaning of NTRs set out in APTU could be reviewed and modified, where necessary.~~
3. States which are members of the European Union could jointly notify their NTR as per established practice. Account should be taken of the fact that there is a difference between the scope and aims of the NTRs under COTIF and the notified national technical rules (NNTRs) defined in European Union law.
4. Specific cases should indicate how conformity should be assessed and, if this cannot be done by any assessing entity, who can do it.
5. ~~It is suggested that only NTRs relevant to new vehicles be notified. For the additional admission of (older) pre-UTP vehicles, states could work on the basis of Article 6 § 4 of ATMF according to their internal provisions, without notifying their requirements.~~

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