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frontiers.

## Annex 2 - Report

*Transfer of requirements from RID to TSI WAG, amending it to add requirements on spark arresters and WE marking*

<i>Version</i>	<i>Date</i>	<i>Comments</i>
1.0	08/11/2023	Final version of the document covering the changes brought in Recommendation 1175-2.
2.0	08/01/2024	Final version of the document covering all changes.

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## 1. Introduction

### 1.1. Background to the assignment

#### 1.1.1. *Transfer of requirements from RID to TSI*

Commission Delegated Decision (EU) 2017/1474 set out specific objectives for the revision of the TSIs in its 2022 revision cycle.

In particular, article 5 states that:

*'Article 5*

*Specific objectives applicable to WAG TSI*

*[...]*

*4. The WAG TSI shall ensure consistency and avoid any overlap with the Regulations concerning the International Carriage of Dangerous Goods by Rail ('RID') as regards technical requirements applicable to vehicles.*

*[...]*

#### 1.1.2. *Additional requirements on spark arresters and marking*

The additional requirements on spark arresters are considered in the new mandate of the Commission from August 2024 (point IU-03).

The additional requirement on WE marking is related to the transfer of requirements from RID to TSI. Therefore, its legal basis is considered in point 1.1.1 above.

### 1.2. Contents of the report

This report is the deliverable of the Agency activities related to the transfer of requirements from the RID to the TSI WAG included in the ERA Recommendation 1175-2 and the amendment with additional requirements on spark arresters and WE marking.

As far as the content of the report is concerned, it details the composition of the working groups involved and focuses on the topics dealt with during the meetings held by such groups. It lists the conclusions reached when discussing these topics and the positions of the working groups representatives on the most important ones. Where required, the chapters below are split into two sections to address specific information concerning the recommendation 1175-2 and the additional work addressed afterwards, i.e, spark arresters and WE marking.

## 2. Workgroups

### 2.1. Specific workgroup for the transfer of requirements from RID in the context of the revision of the TSIs – recommendation 1175-2.

#### 2.1.1. *The Working Party, Core Groups and Topical Working Groups*

Since October 2019, the procedure to revise the TSIs is:

- Any change to the TSI must be proposed by fulfilling a Change Request (CR), through the IT tool Clear Quest
- 3 ERA Core Teams are created to check the change requests, provide with a first analysis and if needed, assign the change request to a TWG. These 3 core teams are: Fixed Installation, Rolling Stock and Operations
- Change Requests are then processed by Topical Working Groups composed by sector representatives and NSAs and managed by ERA.

The change request applicable to the transfer of requirements is TSI\_C00000603: 'Review TSI WAG to ensure consistency with RID'.

The Topical Working Group responsible for this change is the TWG Freight. Since this change implies the coordinated modification of three regulations (UTP WAG, TSI WAG and RID), a specific working methodology was defined. Further details are given below.

### 2.1.2. Specific methodology

A first workshop to identify requirements to be transferred from RID to TSI/UTP and a risk analysis to identify new requirements to be addressed, such as 'domino effect' and 'ATEX', held on 12.10.2022.

The Agency invited the RID experts and all the experts already attending to the TWG Freight to participate in this workshop.

Experts of the following organisations attended: NSA IT, CER, UK DfT, UIP, NSA FR, NSA BE, UNIFE, DG MOVE, UIRR, UIC, EU Rail EDDP, ALE, IT MoT, OTIF Secretariat, NSA FI, NL MoT, NSA LV, NSA AT, CEFIC.

This workshop defined the following working methodology:

- The workshop to identify all requirements and develop the concrete TSI text would meet as many times as required. The workshop met 5 times between 12.10.2022 and 5.6.2023, with the following participants: NSA IT, CER, UK DfT, UIP, NSA FR, NSA BE, UNIFE, DG MOVE, UIRR, UIC, EU Rail EDDP, ALE, IT MoT, OTIF Secretariat, NSA FI, NL MoT, NSA LV, NSA AT, CEFIC.
- A subgroup of experts in both TSI and RID would meet to ensure consistency in the changes brought to these three regulations. This subgroup met 3 times between 17.01.2023 and 19.04.2023, with the following participants: CER, CEFIC, UK DfT, UIP, NSA BE, UNIFE, DG MOVE, OTIF Secretariat, OTIF, NSA AT, UIRR.

The amendments proposed to the TSI WAG and RID have been agreed in both the workshop and subgroup meetings.

Taking into consideration that TSIs are normally transferred without significant changes into UTPs, the groups concentrated on the development of consistent RID and TSI requirements. However, the groups noted that UTP should consider reviewing in addition the case of rolling stock intended to be operated on 1520 mm track gauge, which is outside the scope of the TSI.

The TWG Freight@DAC chaired by the Agency continues its working process on the development of a complete specification of DAC for any wagon type to be included in the TSIs. The agency ensures the coordination between this group and the two working groups above focussing on the specific requirements for the transport of Dangerous Goods. The following TWGs met three times between 14.12.2022 and 4.4.2023 and feedbacks were provided.

The resulting proposal was endorsed in the WP meeting n.22 of 29.09.2023.

## 2.2. Specific workgroup for the additional work on spark arresters and marking

NSA Italy triggered the JNS Urgent procedure 'Thermal overload in special cases of freight wagons', following an increased number of fixed brakes resulting in fires and wheel tread damages in the North of Italy on 2.11.2021. The work continued as a normal procedure on the "Consequences of unintended brake applications with LL blocks" on 10.02.2022.

The final report of this JNS was published on 29.02.2024 and included a proposal for a change request to WAG TSI, adding specifications for spark arresters.

The Agency created on 11.04.2024 the change request TSI\_C00000669. Based on this change request, the Agency prepared a first draft of amendments to the TSI WAG including the proposal of the JNS, the

recommendation ERA-1175-2 plus additional requirements for the vehicle marking fitting equipment requested for transport dangerous goods – even if the wagon itself does not transport dangerous goods. Due to the reduced impact of the additional work to the TSI, no specific topical working group (TWG) was created.

The Agency presented the amendments in the TSI WP meeting n.27 on 10.09.2024.

The amendment was presented and discussed during the Railway Interoperability and Safety (RISC) meeting n°103 on 6 November 2024.

The OTIF Standing Group of RID Experts adopted the WE marking amendments and positively discussed the spark arresters amendments to RID in its 18th session held in Madrid on 20 November 2024.

During the meetings above, the NSA FR, DE, AT, CER and OTIF proposed changes to improve definitions, better define the marking, improve the technical document and ensure consistency with RID.

The new version of the amendment was reviewed again and agreed in the meetings above in the TSI Working Party meeting of 17 December 2024.

This work does not prevent adding more mandatory markings if decided in the on-going revision of TSI WAG.

### **3. Working methods**

#### **3.1. Working methods for the transfer of requirements from RID in the context of the revision of the TSIs – recommendation 1175-2.**

The Extranet workspace of the project for the TWG, workshop and subgroup meetings is the one already existing for the TWG Freight:

<https://eraeuropa.eu.sharepoint.com/sites/TWG-Freight>

This workspace gathers all documents of the project and is accessible to TWG, workshop and subgroup members and their deputies as well as to all experts involved in other working parties organised by ERA.

#### **3.2. Working methods for the additional work on spark arresters and marking.**

No specific Extranet workspace was needed for this additional work.

### **4. Technical scope**

The technical requirements regarding the freight wagons intended for the transport of dangerous goods currently in the RID are transferred into the TSI WAG and UTP WAG. This does not apply to the clauses related to the tank, which remain in RID.

Additional requirements on spark arresters for certain vehicle geometries and additional marking requirements for wagons compliant with RID provisions (even if they are not intended for transport of dangerous goods)

### **5. Geographical scope**

Unless otherwise stated, the geographical scope of this report is the same as the TSI WAG art 2.3): All EU network (1 435 mm, 1 524 mm, 1 600 mm, and 1 668 mm) except railway lines with 1 520 mm track gauge.

### **6. Technical aspects covered in the TSI**

The detailed proposed amendments of TSI include the following aspects:

- Points 4.2.6.1.2.1 and 6.2.2.8.1 'Barriers' changed to 'Barriers and Spark arresters'. These points contain the freight wagon designs that must be fitted with spark arresters (on top of wagons intended

- for the transport of dangerous goods) and specify the conformity assessment for spark arresters, which is further detailed in a new Technical Document.
- Introduction of the new point 4.2.7 and Appendix I, which specifically addresses the vehicle-related provisions in Chapter 7.1 of RID, including
    - Construction requirements, moved from the pre-existing RID sections:
      - Strength of vehicle body
      - Energy absorbing requirements for coupling systems (both manual or central automatic)
      - Overriding related provisions
      - Derailment prevention or mitigation provisions (former note 7.1.1 of RID)
      - Spark arresters
    - Addition of new ATEX general provision.
  - Amendment of table 1 to include the new essential parameter (point 4.2.7) and the corresponding essential requirements.
  - Amendment of point 4.8, to include compliance with WE of RID as new parameters to be recorded in the Technical File.
  - Point 7.1.2 (g) contains additional marking requirements for wagons compliant with appendix I below (even if they are not intended for transport of dangerous goods)
  - New ERA TD referred in points 6.2.2.8.1 and Appendix I, on detailed assessment process of spark arresters.

## 7. Impact Assessment

The proposal is transferring wagon-related provisions in UTP/TSI without affecting the current RID requirements. This will allow the assessment of the already existing requirements in the RID by the notified bodies of the TSI and avoid the risk of double checks or inconsistency in the assessment process.

In addition to the transfer of pre-existing RID vehicle requirements, this proposal is fully considering and facilitating the on-going revision process of the TSI WAG and the TSI LOC&PAS to introduce the DAC and its future use in freight wagons intended to carry dangerous goods with equivalent or higher safety level.

The benefits foreseen with this proposal are significantly higher than the effort required to adapt TC and TE marking and to introduce WE marking.

The proposal clarifies the requirements to be assessed by the Assessing Entities / Notified Bodies and will have a positive effect on Safety and Interoperability, including the vehicle-authorisation process.

Fitting spark arresters in non-RID vehicles is deemed to have no impact as it is already the current practice. The NoBo will assess the spark arresters as part as the already mandatory requirements regarding fire safety.

## 8. Items for next revision process

The new Appendix I of the TSI will evolve with additional requirements specific of freight wagons intended for transport of dangerous goods, such as specific requirements for freight wagons fitted with Digital Automatic Coupling system.

Following the discussions held in the Working Party, the Agency recommends the revision of clause 6.2.2.8.1 to align the assessment of fire barriers with EN 45545-7, in particular regarding the minimum thickness and material of fire barriers exempted from testing.

## Annex 1 Country codes and other abbreviations

Table 1: Country codes

<i>Definition</i>	<i>Description</i>
AT	Austria
BE	Belgium
FI	Finland
FR	France
IT	Italy
LV	Latvia
NL	The Netherlands
UK	United Kingdom

Table 2: Abbreviations

<i>Abbreviation</i>	<i>Description</i>
ALE	European Autonomous Train Drivers Union
CEFIC	European Chemical Industry Council
CER	Community of European Railway and Infrastructure Companies
CEN/CENELEC	European Committee for Standardization/Comité européen de normalisation en électronique et en électrotechnique
CR	Change Request
DAC	Digital Automatic coupling system
DfT	Department for Transport
DG MOVE	Directorate-General for mobility and transport
EU Rail/EDDP	Europe's Rail - European DAC Delivery Program
EIM	European Rail Infrastructure Managers
ERA	European Union Agency for Railways
ERA TD	ERA Technical Document
IA	Impact Assessment

Table 2: Abbreviations

<i>Abbreviation</i>	<i>Description</i>
IC	Interoperable Constituent
JNS	Joint Network Secretariat
MoT	Ministry of Transport
NSA	National Safety Authority
NB-Rail	Notified Body - Rail
RfU	Recommendation for Use
OTIF	Intergovernmental Organisation for International Carriage by Rail
TWG	Topical Working Group
UIC	International Union of Railways
UIP	International Union of Wagon Keepers
UIRR	International Union for combined transport Rail-Road
UNIFE	Association of the European Rail Industry
UTP	Uniform Technical Prescription
WAG TSI	Technical specification for interoperability relating to the 'rolling stock — freight wagons' subsystem of the entire European Union's rail system
WP	Working Party



## Annex 2 Reference legislation

Table 3: Reference legislation

<i>N°</i>	<i>Title</i>	<i>Reference</i>	<i>Version</i>
[1]	Regulation (EU) 2016/796 of the European Parliament and of the Council on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004	Regulation (EU) 2016/796	
[2]	Directive (EU) 2016/797 of the European Parliament and of the Council on the interoperability of the rail system within the European Union	Directive (EU) 2016/797	
[3]	Commission Regulation (EU) No 321/2013 of 13 March 2013 concerning the technical specification for interoperability relating to the subsystem 'rolling stock — freight wagons' of the rail system in the European Union	TSI WAG or WAG TSI	
[4]	Commission Delegated Decision (EU) 2017/1474 of 8 June 2017 supplementing Directive (EU) 2016/797 of the European Parliament and of the Council with regard to specific objectives for the drafting, adoption and review of technical specifications for interoperability	Commission Delegated Decision (EU) 2017/1474	
[5]	Commission Implementing Regulation (EU) 2018/545 of 4 April 2018 establishing practical arrangements for the railway vehicle authorisation and railway vehicle type authorisation process pursuant to Directive (EU) 2016/797 of the European Parliament and of the Council	Commission Implementing Regulation (EU) 2018/545	
[6]	The Regulation concerning the International Carriage of Dangerous Goods by Rail	RID	