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RECOMMENDATION N. 006REC1072
OF THE EUROPEAN UNION AGENCY FOR RAILWAYS

ON

The amendment of Commission Regulation (EU) No 1304/2014 on the technical specification for interoperability relating to the subsystem 'rolling stock — noise' amending Decision 2008/232/EC and repealing Decision 2011/229/EU

THE EXECUTIVE DIRECTOR

HAVING REGARD TO Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004, hereafter referred to as the 'Agency Regulation', in particular Articles 4 and 19 thereof,

HAVING REGARD TO Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union, hereafter referred to as the 'the Interoperability Directive', in particular Articles 4 and 5 thereof,

HAVING REGARD TO Commission Delegated Decision (EU) 2017/1474 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, in particular Article 6 thereof,

Whereas:

(1) The European Commission requested the European Union Agency for Railways, pursuant to Article 5 paragraph 2 of the Interoperability Directive, to prepare a recommendation proposing "a clause or clauses specifying the application of the TSI NOI to the existing freight wagons following the 'quieter routes' implementation strategy".

(2) The Annex to Commission Regulation (EU) No 1304/2014 of 26 November 2014 on the technical specification for interoperability relating to the subsystem 'rolling stock — Noise' amending Decision 2008/232/EC and repealing Decision 2011/229/EU, hereafter referred to as the 'TSI Noise' needs to be amended in order to make it applicable to the existing freight wagons.

(3) In accordance with Article 5 of the Agency Regulation and with the work programme of the Agency, a working party has been established for making a proposal for a recommendation as regards changes to TSI Noise. The working party has completed its work in April 2018.

(4) The proposed amendments have direct impact in the social environment and the rail freight customers. Therefore, a consultation of the social partners and rail freight customers, as provided for in Articles 6 and 7 of the Agency Regulation, has been carried out.

(5) An impact assessment in accordance with Article 8 of the Interoperability Directive has been carried out during the revision of this TSI. The proposed amendments are covered by that impact assessment.

(6) The application of the Noise TSI to the existing wagons should be aimed at reducing the maximum noise immission levels. To this end, the 'quieter routes' definition should be formulated with reference to the number of train circulating and to a reference population density affected along the tracks. However, since it was not possible to reach a consensus on the value of the population density to be possibly included in the definition of the 'quieter route', the quieter routes criteria applies to any level of population density.

HAS ADOPTED the following recommendation:

1. Commission Regulation (EU) No 1304/2014 of 26 November 2014 on the technical specification for interoperability relating to the subsystem 'rolling stock — Noise' amending Decision 2008/232/EC and repealing Decision 2011/229/EU (TSI Noise) should be amended as follows:

- a) A new Article 5a should be inserted setting out:
 - i. The definition of the concept of quieter routes, as set out in Appendix D.1.
 - ii. The deadline for the operation of trains not compliant with point 7.2.2.2 on quieter routes, as set out in point 7.2.2.
 - iii. The deadline for the provision of quieter routes, as set out in Appendix D.2.

iv. The procedure to be used by Member States to update the list of quieter routes, as set out in the Appendix D.3.

b) The Annex should be amended as set out in the Annex of this recommendation.

2. This recommendation is addressed to the European Commission.

Valenciennes, 28.05.2018



Josef DOPPELBAUER
Executive Director

Annex: Amendments to the technical specification for interoperability relating to the subsystem 'rolling stock — noise' (Annex to Regulation (EU) No 1304/2014)

1. In chapter 1 'Introduction', the section 1.1 'Technical scope' is replaced by the following:

'1.1 Technical scope**1.1.1 Scope related to rolling stock**

This TSI applies to all rolling stock within the scope of Regulation (EU) No 1302/2014 (LOC&PAS TSI) and Regulation (EU) No 321/2013 (WAG TSI);

1.1.2 Scope related to operational aspects

On top of Decision 2012/757/EU (OPE TSI), this TSI applies to the operation of freight wagons which are used on infrastructure designated as 'quieter routes.'

2. The chapter 2 'Definition of the subsystem' is replaced by the following:

'2. Definition of the subsystem

A 'unit' means the rolling stock which is subject to the application of this TSI, and therefore subject to the 'EC' verification procedure. Chapter 2 of the LOC&PAS TSI and chapter 2 of the WAG TSI describe what a unit can consist of.

The requirements of this TSI apply to the following categories of rolling stock set out in section 1.2 in Annex I of Directive 2008/57/EC:

- (a) *Self-propelling thermal or electric trains.* This category is further defined in chapter 2 of the LOC&PAS TSI and shall be referred to in this TSI as multiple units, EMU (electrified) or DMU (diesel).
- (b) *Thermal or electric traction units.* This category is further defined in chapter 2 of the LOC&PAS TSI and shall be referred to in this TSI as locomotives. Power units that form part of a 'self-propelling thermal or electric train' and railcars are not included in this category and belong to the category under point (a).
- (c) *Passenger carriages and other related cars.* This category is further defined in chapter 2 of the LOC&PAS TSI and shall be referred to in this TSI as coaches.
- (d) *Freight wagons, including vehicles designed to carry lorries.* This category is further defined in chapter 2 of the WAG TSI and shall be referred to in this TSI as wagons.
- (e) *Mobile railway infrastructure construction and maintenance equipment.* This category is further defined in chapter 2 of the LOC&PAS TSI and consists of on-track machines (referred to in this TSI as OTMs) and infrastructure inspection vehicles, which belong to the categories in points (a), (b) or (d) depending on their design.'

3. In chapter 4 'Characterisation of the subsystem', the section 4.3 'Functional and technical specifications of the interfaces' is replaced by the following:

'4.3 Functional and technical specifications of the interfaces

This TSI has the following interfaces with the rolling stock subsystem:

Interface with subsystems of points (a), (b), (c) and (e) of chapter 2 (dealt with in the LOC&PAS TSI) with regard to:

- stationary noise,
- starting noise (not applicable to coaches),
- pass-by noise,
- interior noise within the driver's cab, where applicable.

Interface with subsystems of point (d) of chapter 2 (dealt with in the WAG TSI) with regard to:

- pass-by noise,
- stationary noise.

This TSI has the following interface with the operation and traffic management subsystem dealt with in Decision 2012/757/EU (OPE TSI) with regard to:

- pass-by noise.'

4. In chapter 4 'Characterisation of the subsystem', the section 4.4 'Operating rules' is replaced by the following:

'4.4 Operating rules

Requirements concerning the operating rules for the subsystem rolling stock are set out in section 4.4 of the LOC&PAS TSI and in section 4.4 of the WAG TSI.

4.4.1 Specific rules for the operation of wagons on quieter routes in case of degraded operation

The contingency arrangements as defined in point 4.2.3.6.3 of the OPE TSI include the operation of wagons not compliant with point 7.2.2.2 on quieter routes.

This measure can be applied to address capacity restrictions or operational constraints caused by rolling stock failures, extreme weather conditions, accidents or incidents and infrastructure failures.

4.4.2 Specific rules for the operation of wagons on quieter routes in case of infrastructure works and wagons maintenance

The operation of wagons not compliant with point 7.2.2.2 on quieter routes is possible in case of wagons maintenance activities where only a quieter route is available in order to access the maintenance workshop.

Contingency arrangements set out in clause 4.4.1 are applicable in case of infrastructure works where a quieter route is the only suitable alternative.'

5. In chapter 4 'Characterisation of the subsystem', the section 4.5 'Maintenance rules' is replaced by the following:

'4.5 Maintenance rules

Requirements concerning the maintenance rules for the subsystem rolling stock are set out in section 4.5 of the LOC&PAS TSI and in section 4.5 of the WAG TSI.'

6. In chapter 6 'Conformity assessment and EC verification', in point 6.2.2.3.2.1 'EMU, DMUs, locomotives and coaches' and in point 6.2.2.3.2.2 'Wagons', the text 'V_{test}' is replaced by 'v_{test}' (four replacements).

7. In chapter 7 'Implementation', the section 7.2 'Application of this TSI to renewed and upgraded subsystems' is replaced by the following:

'7.2 Application of this TSI to existing subsystems

7.2.1 General provisions in case of renewal or upgrade

The applicant shall demonstrate that the noise levels of renewed or upgraded units remain below the limits set out in the TSI which was applicable when the unit in question was first authorised. If no TSI existed at the time of the first authorisation, it shall be demonstrated that the noise levels of renewed or upgraded units are either not increased or remain below the limits set out in Decision 2006/66/EC or Decision 2002/735/EC.

The demonstration shall be limited to the basic parameters affected by the renewal/upgrade.

If the simplified evaluation is applied, the original unit may represent the reference unit in accordance with the provisions of point 6.2.3.

The replacement of a whole unit or (a) vehicle(s) within a unit (e.g. a replacement after a severe damage) does not require a conformity assessment against this TSI, as long as the unit or the vehicle(s) are identical to the ones they replace.

7.2.2 Additional provisions for the application of this TSI to existing wagons

From 8 December 2024, wagons which do not fulfil the conditions set out in point 7.2.2.2 of this TSI shall not be operated on the quieter routes as defined in Appendix D.

The provision above does not apply to wagons operated on lines with a gradient of more than 40 ‰, wagons with a maximum operating speed higher than 120 km/h, wagons with an axle load higher than 22.5 t, wagons exclusively operated for infrastructure works and wagons used in rescue trains.

If a wagon is being equipped with quieter brake blocks as defined in 7.2.2.1 and no noise sources are added to the wagon, then it shall be assumed that the requirements of point 4.2.3 are met without further testing.

7.2.2.1 Quieter brake blocks

A quieter brake block is a brake block belonging to one of the following categories:

- (a) Brake block listed in Appendix G of the WAG TSI;
- (b) Brake block assessed in accordance with the procedure set out in Appendix F of this TSI.

7.2.2.2 Wagons operated on quieter routes

Wagons belonging to one of the categories below can be operated on the quieter routes:

- Wagons holding an EC declaration of verification against Commission Decision 2006/66/EC concerning the technical specification for interoperability relating to the subsystem 'rolling stock — noise' of the trans-European conventional rail system;
- Wagons holding an EC declaration of verification against Commission Decision 2011/229/EU concerning the technical specifications of interoperability relating to the subsystem 'rolling stock — noise' of the trans-European conventional rail system;
- Wagons holding an EC declaration of verification against this TSI;
- Wagons fitted with quieter brake blocks as defined in point 7.2.2.1 or brake discs for the service brake function;

- Wagons fitted with composite brake blocks listed in Appendix E for the service brake function. The operation of these wagons on the quieter routes is limited in accordance with the conditions described in this appendix.'
8. In chapter 7 'Implementation', the point 7.3.2.1 'General specific case' is replaced by the following:
- '7.3.2.1. General specific cases
- a) Specific case Estonia, Finland, Latvia, Lithuania and Poland
- ('P') For units which are in shared use with third countries, the track gauge of which is different from that of the main rail network within the Union, the application of national technical rules instead of the requirements in this TSI is permitted.
- b) Specific case Finland
- ('T') Decision 2011/229/EU may continue to be applied for freight wagons to be used only on the territory of Finland and until the relevant technical solution in relation to Nordic winter conditions is found, but in any case not later than until 31st December 2032. This shall not prevent freight wagons from other Member States to operate on the Finnish network. Thus, the concept of quieter routes is not applicable for Finnish 1524 mm network.'
9. In chapter 7 'Implementation', the point 7.3.2.4 'Limits for pass-by noise (point 4.2.3)' is replaced by the following:
- '7.3.2.4. Limits for pass-by noise (point 4.2.3)
- a) Specific case Channel Tunnel
- ('P') For the Channel Tunnel, the limits for pass-by shall not apply to wagons dedicated to the transport of heavy goods vehicles between Coquelles (France) and Folkestone (United Kingdom).
- b) Specific case Sweden
- ('T') For locomotives with total tractive power of more than 6 000 kW and a maximum axle load of more than 25 t the limit values for pass-by noise $L_{pAeq,Tr}$ (80 km/h) in Table 4 may be raised up to 85 dB.'
10. In chapter 7 'Implementation', the new point 7.3.2.5 is added below point 7.3.2.4 'Limits for pass-by noise (point 4.2.3)':
- '7.3.2.5. Additional provisions for the application of this TSI to existing wagons (point 7.2.2)
- a) Specific case Finland
- ('T') Concept of quieter routes will not be applied on Finnish network due to uncertainties related to the operation in severe winter conditions with composite brake blocks until 31st December 2032.'
11. In chapter 7 'Implementation', the new section 7.4 'Particular implementation rules for wagons operated on quieter routes (point 7.2.2.2)' is added below section 7.3 'Specific cases':
- '7.4. Particular implementation rules for wagons operated on quieter routes (point 7.2.2.2)
- a) Particular implementation rules for wagons operated on quieter routes of Belgium
- ('T') On top of the wagons listed in point 7.2.2.2, the following existing wagons can be operated on quieter routes in the territory of Belgium:

- Wagons with tyred wheels until 20xx¹
- Wagons which require the fitting of a kink valve in order to replace the cast iron block with composite brake blocks until 20xx²
- Wagons fitted with cast iron blocks which require the replacement of wheels with wheels compliant with the requirements set out in EN 13749-1 in order to be retrofitted with composite brake blocks until 20xx³

b) Particular implementation rules for wagons operated on quieter routes of Channel Tunnel

(‘P’) On top of the wagons listed in point 7.2.2.2, the following existing wagons can be operated on quieter routes in the Channel Tunnel concession:

Wagons dedicated to the transport of heavy goods vehicles between Coquelles (France) and Folkestone (United Kingdom)¹

c) Particular implementation rules for wagons operated on quieter routes of Czech Republic

(‘T’) On top of the wagons listed in point 7.2.2.2, the following existing wagons can be operated on quieter routes in the territory of Czech Republic:

- Wagons with tyred wheels, until 1st January 2027 .
- Wagons with bogies of type 26-2.8 fitted with cast iron blocks until 1st January 2035
- Wagons which require the fitting of a kink valve in order to replace the cast iron block with composite brake blocks, until 1st January 2035

d) Particular implementation rules for wagons operated on quieter routes of France

(‘T’) On top of the wagons listed in point 7.2.2.2, the following existing wagons can be operated on quieter routes in the territory of France:

- Wagons with 1Bg or 1Bgu brake configuration fitted with cast iron brake blocks until 2030
- Wagons fitted with small wheels (diameter under 920mm) until 2030

e) Particular implementation rules for wagons operated on quieter routes of Italy

(‘T’) On top of the wagons listed in point 7.2.2.2, the following existing wagons can be operated on quieter routes in the territory of Italy:

- Wagons with tyred wheels until 2026
- Wagons which require the fitting of a kink valve in order to replace the cast iron block with composite brake blocks until 2026
- Wagons fitted with cast iron blocks which require the replacement of wheels with wheels compliant with the requirements set out in EN 13749-1 in order to be retrofitted with composite brake blocks until 2026

Furthermore, it is not mandatory to use composite brake blocks on quieter routes for existing wagons not covered by the three bullet points above and for which there exists no 1-to-1-solution for replacement of cast iron brake blocks until 2030.

f) Particular implementation rules for wagons operated on quieter routes of Norway

¹ Date to be specified in agreement with the respective Member State

² Date to be specified in agreement with the respective Member State

³ Date to be specified in agreement with the respective Member State

(‘T’) The use of composite brake blocks on any freight wagon for use on quieter routes within the Norwegian railway network is not mandatory.

When wagons equipped with composite brake blocks are used during severe winter conditions the RU shall take necessary provisions through their SMS in order to assure satisfactory braking performance for the train composition.

(‘T’) Furthermore, it is not mandatory to use composite brake blocks on quieter routes for wagons for which there exists no 1-to-1-solution for replacement of cast iron brake blocks.’

g) Particular implementation rules for wagons operated on quieter routes of Poland

(‘T’) On top of the wagons listed in point 7.2.2.2, the following existing wagons can be operated on quieter routes in the territory of Poland until 1st January 2037:

- Wagons with tired wheels
- Wagons with 1Bg or 1Bgu brake configuration fitted with cast iron blocks
- Wagons designed for ‘S’ traffic equipped with ‘SS’ brake fitted with cast iron blocks
- Wagons fitted with cast iron blocks and designed for ‘SS’ traffic for which retrofitting with LL brake blocks would require fitting with wheels complying with EN 13979-1 and a kink valve

h) Particular implementation rules for wagons operated on quieter routes of Sweden

(‘T’) The use of composite brake blocks is not mandatory on freight wagons for use on quieter routes within the Swedish railway network.

The railway undertakings must take necessary operative provisions when using wagons equipped with composite brake blocks in severe winter conditions in order to assure satisfactory braking performance for the train composition.

(‘P’) It is not mandatory to use composite brake blocks on existing freight wagons for which there exists no 1-to-1-solution for replacement of cast iron brake blocks on quieter routes within the Swedish railway network until 20xx¹.

i) Particular implementation rules for wagons operated on quieter routes of UK for Great Britain

(‘P’) For units intended to operate solely on the GB Network, where existing wagons are equipped with composite brake blocks published in GMGN 2688 it shall be permissible to operate over quieter routes.

This specific case does not prevent the access of TSI compliant rolling stock to the national network

(‘T’) The following types of existing wagons equipped with cast iron brake blocks intended to operate on the GB Network shall be permitted to operate over quieter routes:

- Wagons equipped with a non-UIC braking system for which there are no compatible silent brake blocks available for retrofitment (until 2030)
- Wagons with a designed braking distance of 810m or less from 60 mph in Goods timing / 75 mph in Passenger timing, where they are operated in trains with wagons braked to GB domestic stopping distance criteria (until 2030)
- Wagons used exclusively for the transport of nuclear products (until 2050)

This specific case does not prevent the access of TSI compliant rolling stock to the national network.’

¹ Date to be specified in agreement with the respective Member State

12. In Appendix A 'Open points', the text 'This TSI does not contain any open points', is replaced by the following table:

Element of the rolling stock subsystem	Clause of this TSI	Technical aspect not covered by this TSI	Comments
Quieter brake block	7.2.2.1 and Appendix F	Assessment of the acoustic properties of the brake blocks	Alternative technical solutions available (see point 7.2.2)

13. The following text is added at the end of the TSI:

'Appendix D

Quieter routes

D.1 Definition

A 'quieter route' is a part of the network with a minimum length of 20 km in the geographical scope of this TSI, on which the annual average daily operated freight trains in the year ...¹ during night time was higher than 12.

Night time is defined for each Member State in its national legislation transposing Directive 2002/49/EC.

D.2 Identification of quieter routes

The Member States shall provide the Agency with a list of quieter routes no later than 6 months after the date of publication of this TSI.

The list shall be provided in a format allowing further processing by the users with IT-tools and shall contain at least the following information:

- Start and end point of the quieter route and their corresponding sections. If one of these points is at the border of the Member State, it shall be reflected
- Identification of the sections making up the quieter route

The list shall be provided using the template below:

Quieter route	Sections in the route	Unique section ID	Quieter route starts/finishes at the border of the Member State
Point A - Point E	Point A - Point B	201	POINT E (Country Y)
	Point B - Point C	202	
	Point C - Point D	203	
	Point D - Point E	204	
Point F - Point I	Point F - Point G	501	N

¹ To be filled in with the year preceding the *publication date of Regulation (EU) xxxx/xxxx [current amendment to TSI Noise]*

	Point G - Point H	502	
	Point H - Point I	503	

In addition, the Member States may provide maps illustrating the quieter routes on a voluntary basis. All lists and maps shall be published on the Agency website (<http://www.era.europa.eu>) no later than 6 months after the date of publication of this TSI.

D.3 Update of quieter routes

Member States shall update the quieter routes at least every 5 years after 8th December 2024. The traffic data used shall refer to the year preceding the update. Member States shall provide the Agency with the updated quieter routes for their publication. In case of new or upgraded lines added to the existing network, the expected traffic shall be used for classification.

The Agency shall publish the updated quieter routes on its website (<http://www.era.europa.eu>) no later than 3 months after their reception and they shall be applicable from the next December timetable change following one year after their publication.

The Agency shall inform the Commission of any changes to the quieter routes. The Commission shall inform the Member States of these changes through the committee referred to in Article 51 of Directive (EU) 2016/797.

Appendix E

Historic composite brake blocks

E.1 Historic composite brake blocks for international use.

Existing wagons equipped with the brake blocks listed below are allowed to be used on the EU railway network, including quieter routes, until the relevant date set out in Appendix N of UIC 541-4.

Manufacturer/name of product	Designation/type of block	Type of friction coefficient
Valeo/Hersot Wabco/Cobra	693 W554	K
Ferodo	I/B 436	K
Abex	229	K (Fe - sintered)
Jurid	738	K (Fe - sintered)

E.2 Historic composite brake blocks for national use

Existing wagons equipped with the brake blocks listed below are only allowed to be used on the railway networks, including quieter routes, of the corresponding Member States.

Manufacturer/name of the product	Designation/type of block	Member State	Remarks
Becorit	929-1	Switzerland	

Manufacturer/name of the product	Designation/type of block	Member State	Remarks
Cobra/Wabco	V133	Italy	
Cofren	M128 Mix S153	Norway, Sweden	
Cofren	229	Italy	
Federal Mogul	J816M	Italy	Nominal wheel diameter of 680 mm, brake blocks arrangement 2x Bg
ICER	904	Spain	
ICER	905	Spain, Portugal	
Jurid	816	Switzerland	
Jurid	838	Spain	
	S 153	Norway, Sweden	
Wabtec	333	Norway, Sweden	

Appendix F

Assessment of acoustic performance of a brake block

The purpose of this procedure is to demonstrate the acoustic performance of a composite brake block at interoperability constituent level.

This procedure is an open point.'