Recommendation

on

omnibus amendment of TSIs

(ERA/REC/07-2011/INT)

Version:	1.00
Date:	8/9/2011
Status:	final
Author:	ERA Interoperability Unit

European Railway Agency

RECOMMENDATION ON THE OMNIBUS AMENDMENT OF TSIs (ERA/REC/07-2011/INT)

THE DIRECTOR,

HAVING REGARD to Regulation (EC) No 881/2004 of the European Parliament and of the Council of 29 April 2004 establishing a European Railway Agency[1] (Agency Regulation), and in particular Articles 2 and 12 thereof,

HAVING REGARD to the note of the European Commission to the Head of Interoperability Unit of the Agency of 4 April 2011 (MOVE/D/2-AG/sh D(2011)367223) with a request for an ERA recommendation concerning the updating and correction of TSIs in view of the RIS Committee meeting of October 2011,

Whereas:

(1) The Agency is tasked in Article 12 of the Agency Regulation to *"propose to the Commission amendments to the TSIs which it considers necessary"*.

(2) Several deficiencies have been identified in the TSIs. These deficiencies have been addressed in technical opinions adopted by the Railway Interoperability and Safety Committee (RISC). The corresponding TSIs should be amended for correcting these deficiencies.

(3) Several other minor deficiencies have been identified in the TSIs. For these deficiencies alone an amendment of the TSIs would not be proportionate. However, taking the opportunity of this omnibus amendment, these minor deficiencies should be amended as well.

(4) RISC gave a positive opinion on the draft Commission Decisions on the European register of authorised types of railway vehicles (ERATV) and Register of infrastructure (RINF). These draft decisions include the lists of parameters that need to be recorded in the ERATV and RINF. Some of the TSIs in force include requirements on the same subject. Such duplication of requirements in different legal documents should be avoided. Agency Recommendation ERA/REC/04-2011/INT[2] included amendments to the TSIs necessary for avoiding such duplication. This recommendation was limited to the TSIs that were in force at the moment of the delivery of the recommendation. Several TSIs have been adopted since then and some of these TSIs should also be amended as a result of the draft decisions on ERATV and RINF.

[1] OJ L 164, 30.4.2004, p. 1, Corrigendum OJ L 220, 21.6.2004, p. 3, as amended by Regulation (EC) No 1335/2008 of the European Parliament and of the Council of 16 December 2008, OJ L 354, 31.12.2008, p. 51

[2] Recommendation on Specification of the Register of Infrastructure and Procedure demonstrating the level of compliance with the basic parameters of Technical Specifications for Interoperability for existing lines and Amendments to technical specifications for interoperability

(5) The Agency drafted lists of amendments necessary for the TSIs in force taking into account the abovementioned deficiencies and duplication of requirements with draft ERATV and RINF specifications.

(6) The lists of proposed amendments have been discussed with working parties established in accordance with Article 3 of the Agency Regulation.

(7) Due to the nature of the proposed amendments, an impact assessment study is not considered to be necessary.

(8) These amendments have no direct impact on the social environment or working conditions of workers in the industry, nor on the rail freight customers or passengers. Therefore, consultation of neither the social partners nor rail freight customers and passengers, as provided for in Articles 4 and 5 of the Agency Regulation, correspondingly, is necessary.

HAS ADOPTED the following recommendation:

1. Annex to Decision 2006/861/EC[3] (WAG TSI) should be amended as set out in Annex 1 of this recommendation.
2. Annex to Decision 2008/163/EC[4] (SRT TSI) should be amended as set out in Annex 2 of this recommendation.
3. Annex to Decision 2008/164/EC[5] (PRM TSI) should be amended as set out in Annex 3 of this recommendation.
4. Annex to Decision 2008/217/EC[6] (HS INF TSI) should be amended as set out in Annex 4 of this recommendation.
5. Annex to Decision 2008/232/EC[7] (HS RST TSI) should be amended as set out in Annex 5 of this recommendation.
6. Annex to Decision 2008/284/EC[8] (HS ENE TSI) should be amended as set out in Annex 6 of this recommendation.
7. Annex to Decision 2011/229/EU[9] (CR RST Noise TSI) should be amended as set out in Annex 7 of this recommendation.
8. Annex to Decision 2011/274/EU[10] (CR ENE TSI) should be amended as set out in Annex 8 of this recommendation.

[3] OJ L 344, 8.12.2006, p.1, as amended by Commission Decision 2009/107/EC, OJ L 45, 14.02.2009, p. 1
[4] OJ L 64, 7.3.2008, p.1, as amended by Decision 2011/291/EU, OJ L 139, 26.5.2011, p.88
[5] OJ L 64, 7.3.2008, p.72
[6] OJ L 77, 19.3.2008, p.1
[7] OJ L 84, 26.03.2008, p.132
[8] OJ L 104, 14.4.2008, p.104
[9] OJ L 99, 13.4.2011, p.1
[10] OJ L 126, 14.5.2011, p. 1

9. Annex to Decision 2011/275/EU[11] (CR INF TSI) should be amended as set out in Annex 9 of this recommendation.

10. Annex to Decision 2011/291/EU[12] (CR LOC&PAS TSI) should be amended as set out in Annex 10 of this recommendation.

11. The amendments of the TSIs referred to in points 1 to 10 should be taken into account together with the amendments included in Annex 3 of Agency Recommendation ERA/REC/04-2011/INT.

This recommendation is addressed to the European Commission.

Valenciennes, 8 September 2011

Marcel VERSLYPE
Executive Director

[signed]

[11] OJ L 126, 14.5.2011, p. 53
[12] OJ L 139, 26.5.2011, p.88

Annexes

1. Amendments to the Annex to Decision 2006/861/EC (WAG TSI)
2. Amendments to the Annex to Decision 2008/163/EC (SRT TSI)
3. Amendments to the Annex to Decision 2008/164/EC (PRM TSI)
4. Amendments to the Annex to Decision 2008/217/EC (HS INF TSI)
5. Amendments to the Annex to Decision 2008/232/EC (HS RST TSI)
6. Amendments to the Annex to Decision 2008/284/EC (HS ENE TSI)
7. Amendments to the Annex to Decision 2011/229/EU (CR RST Noise TSI)
8. Amendments to the Annex to Decision 2011/274/EU (CR ENE TSI)
9. Amendments to the Annex to Decision 2011/275/EU (CR INF TSI)
10. Amendments to the Annex to Decision 2011/291/EU (CR LOC&PAS TSI)

ANNEX 1

The Annex to Decision 2006/861/EC[1] (WAG TSI) is amended as follows:

(1) Clause 4.2.3.2 "Static axle load and linear load" is replaced by the following:

"4.2.3.2 *Static axle load, mass per unit length and geometrical characteristics of axle spacing*

The permissible payload that a wagon may carry, for lines up to 25t, shall be determined by application of clauses 6.1 and 6.2 of EN 15528:2008. For the train detection systems characteristics additional requirements are imposed on wagons (see CCS TSI Annex A, Appendix 1)".

(2) In Clause 4.2.4.1.2.8 "Parking Brake", the last paragraph is replaced by the following:

"The minimum parking brake performance, considering no wind, shall be determined by calculations as defined in clause 6 of EN 14531-6:2009. The minimum performance of the parking brake shall be marked on the unit. The marking shall comply with EN 15877-1:2010 (clause 4.5.25)".

(3) Clause 4.3.2.1 "Static axle load, dynamic wheel load and linear load (section 4.2.3.2)" is replaced by the following:

"4.3.2.1 *Static axle load, mass per unit length and geometrical characteristics of axle spacing (section 4.2.3.2)*

Section 4.2.3.2 of the present TSI specifies the mass per unit length and geometrical characteristics of axle spacing, including, requirements imposed on wagons (see CCS TSI Annex A, Appendix 1) for the train detection systems characteristics".

(4) Clause 4.3.5.4 "Static axle load, dynamic wheel load and linear load" is replaced by the following:

"4.3.5.4 *Static axle load, mass per unit length and geometrical characteristics of axle spacing*"

(5) Annex D is deleted.

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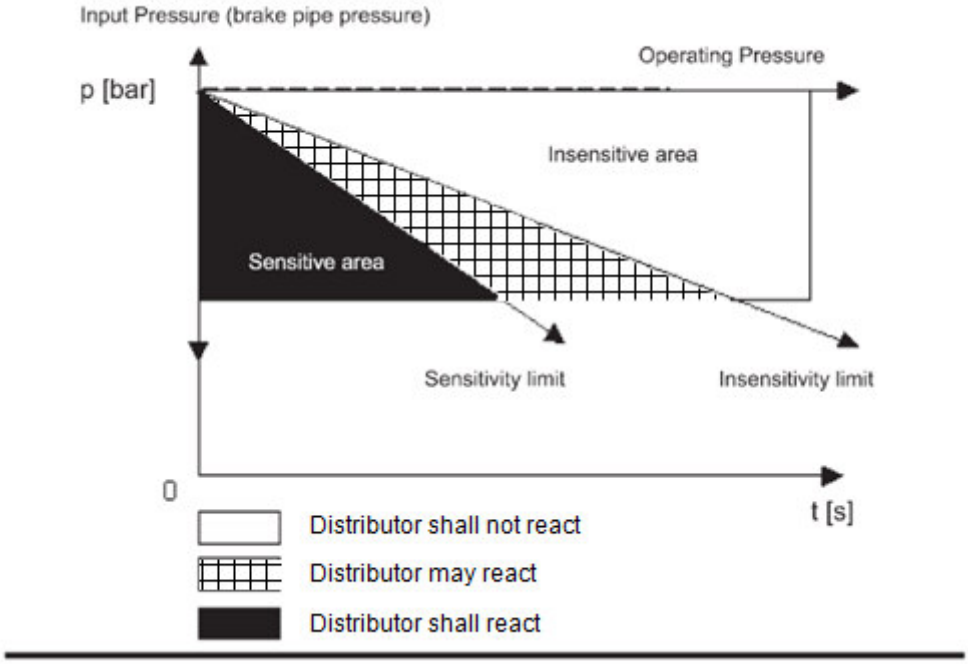
[1] OJ L 344, 8.12.2006, p.1

(6) In Annex I, Figure I.5 is replaced by the following:



(7) In Annex P, Table P.3 is amended as follows:

(a) The text in the forth row “First stroke in percent of the maximum brake shoe pressure for ‘goods’ brake”, last column “Limit Value” is replaced by the following:

“Passenger Setting: Up to 10 seconds

Goods Setting: Up to 40 seconds”.

(b) The text in the sixth row “Release time of a train after a full application” from the top of the table, last column “Limit Value” is replaced by the following:

“Passenger Setting: Up to 25 seconds

Goods Setting: Up to 60 seconds”.

(8) In Annex Q, Table Q.1 is amended as follows:

(a) The text in the fifth column “In service experience (Module V)”, the fifth row from the bottom “Brake pad and disk” is replaced by the following:

“12 Month”.

(b) The text in the fifth column “In service experience (Module V)”, the forth line from the bottom for “Brake blocks” is replaced by the following:

“12 Month”.

(9) In Annex FF, Table FF 2.1 is amended as follows:

(a) Note (g) is replaced by the following:

"Standard functions up to a maximum of 14 l brake cylinder volume or control volume (dummy volume)".

(b) Note (k) is replaced by the following:

"SW 4/3 — with the C3W cut-off valve, filling of control and auxiliary reservoirs has to take almost identical times".

(10) In Annex FF, Table FF 2.2 is amended as follows:

(a) The text in the last column "Compressed-air brake", ninth row from the bottom "Oerlikon/ ESH 100" is replaced by the following:

"G/P brake with non-universal action where the connected brake cylinder or pre-adjusted volumes are up to 14 l".

(b) Note (b) is replaced by the following:

"SW 4C — controlled filling of control reservoir with protection against overcharge when brake is released".

(c) Note (d) is replaced by the following:

"Distributor choke should be adapted in stages to the vehicle's auxiliary reservoir volumes".

(11) In Annex FF, Table FF 3, the fifth and sixth rows from the bottom are replaced by the following:

DAKO	Load-proportional valve SL1 or SL2	DAKO-DSS
DAKO	Load-proportional valve SL1 or SL2	DAKO-DS

(12) In Annex FF, Table FF 8, the last but one row is replaced by the following:

CNTK	Warsaw

ANNEX 2

The Annex to Decision 2008/163/EC[2] (SRT TSI) is amended as follows:

(1) In the title page, the title "DRAFT TECHNICAL SPECIFICATION FOR INTEROPERABILITY" is replaced by the following:

"TECHNICAL SPECIFICATION FOR INTEROPERABILITY".

(2) Clause 4.2.5.9 "Emergency lighting system in the train" is replaced by the following:

"4.2.5.9. Emergency lighting system in the train

The provisions in clause 4.2.7.12 'Emergency lighting' of HS RST TSI apply also to CR passenger rolling stock, except that an autonomy of 90 minutes after the main energy supply has failed is required."

(3) In Clause 4.3.2 "Interfaces with the Infrastructure subsystem", the header of the first column in the table is replaced by "SRT TSI".

(4) Clause 4.3.2.1. "Escape walkways" is replaced by the following:

"4.3.2.1. Escape walkways

The definition of escape walkways is described in section 4.2.2.7 of the present TSI."

(5) In Clause 4.3.3 "Interfaces with the Energy subsystem", the header of the first column in the table is replaced by "SRT TSI".

(6) In Clause 4.3.4 "Interfaces with the Control-Command-Signalling subsystem", the header of the first column in the table is replaced by "SRT TSI".

(7) In Clause 4.3.5 "Interfaces with the Traffic Management and Operation subsystem", the header of the first column in the table is replaced by "SRT TSI".

(8) Clause 4.3.6. "Interfaces with the rolling stock subsystem" is amended as follows:

(a) The header of the first column in the table is replaced by "SRT TSI".

(b) Rows 9 and 10 of the table are replaced by following:

"4.2.5.9 Emergency lighting system in the train"	"4.2.7.12"	
"4.2.5.10 Switching off of air conditioning in the train"	"4.2.7.11.1"	

(9) In Clause 4.3.7 "Interfaces with the PRM subsystem", the header of the first column in the table is replaced by "SRT TSI".

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2 OJ L 64, 7.3.2008, p.1

(10) In Clause 6.2.1 “Conformity assessment (general)”, the text “CR SRT TSI” in all the rows, in the second column of the table, is replaced by “SRT TSI”.

ANNEX 3

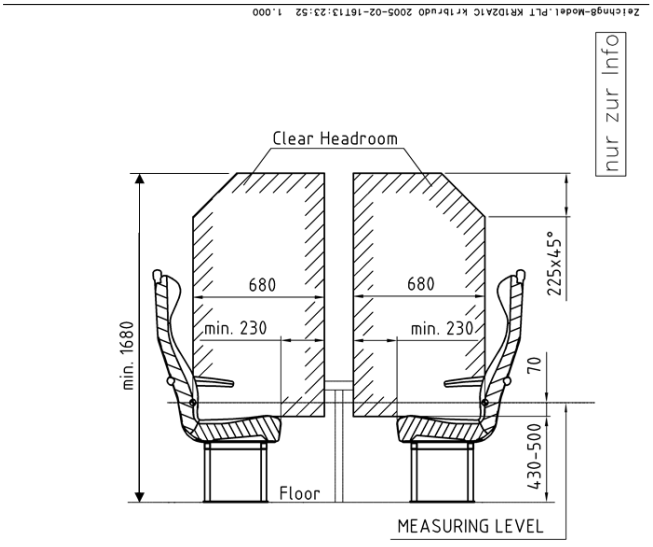
The Annex to Decision 2008/164/EC[3] (PRM TSI) is amended as follows:

(1) In Clause 4.1.2.18.1 "Platform height" the first paragraph is replaced by the following text:

"For platforms on the High Speed network where trains complying with the High-Speed Rolling Stock TSI are intended to stop in normal commercial operation, values are set in the HS INS TSI (clause 4.2.20.4).

For platforms on the High Speed network where no train complying with the High-Speed Rolling Stock TSI is intended to stop in normal commercial operation and for platforms on the Conventional Rail Network, two nominal values are permissible for platform height: 550mm and 760mm above the running surface. The tolerances of these dimensions shall be within –35mm/+ 0mm."

(2) In Clause 4.2.2.2.2.1 "Priority seats. General", figure 3 is replaced by the following:

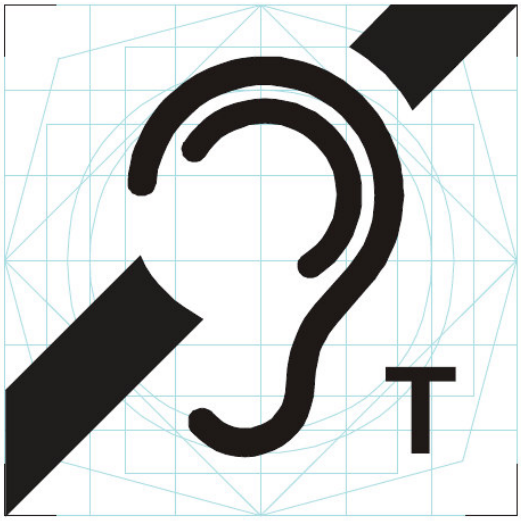


(3) In Clause 7.3.2 ""Rolling Stock", the third paragraph is replaced by the following:

"This TSI does not apply to Rolling Stock being renewed or upgraded under the terms of a contract already signed or under final phase of tendering procedure at the date of entry into force of this TSI."

3 OJ L 64, 7.3.2008, p.72

(4) In Annex N “PRM Signage”, figure 1 is replaced by the following:



ANNEX 4

The Annex to Decision 2008/217/EC[4] (HS INF TSI) is amended as follows:

(1) Clause 4.2.9.2 "Design values" is amended as follows:

(a) The first paragraph and the four indents following it are replaced by the following:

"Design values of track gauge, rail head profile and rail inclination for plain line shall be selected to ensure that the equivalent conicity limits set out in Table 1 are not exceeded when the following wheelsets are modelled passing over the designed track conditions (simulated by calculation according to EN 15302:2008+A1:2010).

- S 1002 as defined in EN 13715:2006+A1:2010 with SR = 1 420 mm
- S 1002 as defined in EN 13715:2006+A1:2010 with SR = 1 426 mm
- GV 1/40 as defined in EN 13715:2006+A1:2010 with SR = 1 420 mm
- GV 1/40 as defined in EN 13715:2006+A1:2010 with SR = 1 426 mm"

(b) Table 1 is replaced by the following:

Speed range (km/h)	Equivalent conicity limit values
$v \leq 160$	Assessment not required
$160 < v \leq 280$	0.20
$v > 280$	0.10

(2) In Clause 4.2.9.3.1 "Minimum values of mean track gauge", the table is replaced by the following:

Speed range (km/h)	Minimum value of mean track gauge (mm) over 100 m in service
$v \leq 200$	1430
$200 < v \leq 230$	1432
$230 < v \leq 250$	1433
$v > 250$	1434

(3) Clause 4.2.14.1 "Vertical loads" is replaced by the following:

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4 OJ L 77, 19.3.2008, p.1

"4.2.14.1 Vertical loads

Structures shall be designed to support vertical loads in accordance with the following load models, defined in EN 1991-2:2003:

- Load model 71, as set out in EN 1991-2:2003 paragraph 6.3.2(2)P
- Load model SW/0 for continuous bridges, as set out in EN 1991-2:2003 paragraph 6.3.3(3)P

The load models shall be multiplied by the factor alpha (α) as set out in EN 1991-2:2003 paragraphs 6.3.2(3)P and 6.3.3(5)P. The value of α shall be equal to or greater than 1.

The load effects from the load models shall be enhanced by the dynamic factor phi (Φ) as set out in EN 1991-2:2003 paragraphs 6.4.3(1)P and 6.4.5.2(2).

The maximum vertical deflection of a bridge deck shall not exceed the values set out in paragraph A2.4.4.2.3(1) of Annex A2 of EN 1990:2002 + EN 1990:2002/A1:2005."

(4) In Clause 4.2.14.2 "Dynamic analysis", the third paragraph is replaced by the following:

"The maximum permitted peak design values of bridge deck acceleration calculated along the line of a track shall not exceed the values set out in paragraph A2.4.4.2.3(1) of Annex A2 of EN 1990:2002 + EN 1990:2002/A1:2005. The design of bridges shall take into account the most unfavourable effects of either the vertical loads specified in § 4.2.14.1 or load model HSLM, in accordance with EN 1991-2:2003 paragraph 6.4.6.5(3)."

(5) Clause 4.2.14.4 "Nosing forces" is replaced by the following:

"4.2.14.4 Nosing forces

The nosing force shall be taken into account in the design of structures as set out in EN 1991-2:2003 paragraphs 6.5.2 (2)P and (3). It shall be applied on both straight track and curved track."

(6) In Clause 4.2.14.5 "Actions due to traction and braking (longitudinal loads)", the first paragraph is replaced by the following:

"Traction and braking forces shall be taken into account in the design of structures as set out in EN 1991-2:2003 paragraphs 6.5.3 (2)P, (4), (5) and (6). The direction of the traction and braking forces shall take account of the permitted directions of travel on each track."

(7) In Clause 4.2.18 "Electrical characteristics", the second paragraph is deleted.

(8) In Clause 4.7 "Health and safety conditions", the third paragraph is replaced by the following:

"Staff engaged in the maintenance of the high speed infrastructure subsystem, when working on or near the track, shall wear reflective clothes, which bear the EC mark".

(9) Clause 5.3.1.1 'Railhead profile" is amended as follows:

(a) Point (a) "Plain line" is replaced by the following:

"(a) Plain line

The railhead profile shall be selected from the range set out in EN 13674-1:2011 annex A".

(b) Point (b) "Switches and crossings" is replaced by the following:

"(b) Switches and crossings

The railhead profile shall be selected from the range set out in Annex A of EN 13674-1:2011 and in Annex A of EN 13674-2:2006+A1:2010."

(10) Clause 5.3.1.3 "Steel grade" is replaced by the following:

"a) Plain line

The steel grade of the rail shall comply with EN 13674-1:2011 Chapter 5.

b) Switches and crossings

The steel grade of the rail shall comply with EN 13674-2:2006+A1:2010 Chapter 5".

(11) In Clause 5.3.2 "The rail fastening systems", point (d) is deleted.

(12) In Clause 6.1.6.2 "Assessment of fastening system", the second indent is deleted.

(13) In Clause 7.3.5 "Particular features on the Finnish network", the table in the subsection "Equivalent conicity" is replaced by the following:

Speed range (km/h)	Minimum value of mean track gauge over 100 m (mm)
$v \leq 160$	Assessment not required
$160 < v \leq 200$	1519
$200 < v \leq 230$	1521
$230 < v \leq 250$	1522
$v > 250$	1523

(14) In Annex A, in Table A1, row "5.3.2.d Electrical resistance" is deleted.

(15) In Annex A, in Table A2, row "4.2.18 Electrical characteristics" is deleted.

(16) In Annex B1, in Table B1, row “4.2.18 Electrical characteristics” is deleted.

(17) In Annex C, the chapter title: ‘Module A: Internal Design Control with Production Verification’ is replaced by the chapter title: ‘Module A1: Internal Design Control with Production Verification’.

(18) Annex F is deleted.

(19) In Annex H, the last line is deleted.

ANNEX 5

The Annex to Decision 2008/232/EC[5] (HS RST TSI) is amended as follows:

(1) In Clause 4.2.3.4.7 "Design values for wheel profiles", in table 4, the text in the column "rail head profile" for rows of "test condition No" 5 and 6 is replaced by the following:

"rail section 60 E 2 defined in EN 13674-1:2003/A1:2007".

(2) In Clause 4.2.7.2.2. "Measures to prevent fire", the last paragraph is replaced by the following:

"The conformity requirements are addressed in Clause 7.1.7".

(3) In Clause 4.2.7.4.2.1 "Horns – General", the following text is added at the end of the clause:

"or

(e) Two separately sounded warning horns. The fundamental frequencies of the warning horn notes shall be:

high note: 660 Hz ± 30 Hz

low note: 370 Hz ± 20 Hz"

(4) In Clause 4.2.7.4.2.5 "Horns – Interoperability constituent requirements", the following text is added at the end of the clause:

"or

660 Hz ± 30 Hz"

(5) Clause 7.1.3 "Rolling stock of an existing design" is replaced by the following text:

"7.1.3 Newly built rolling stock of an existing design not certified to the previous version (2002) of the HS RST TSI

For newly built rolling stock of an existing design, in case of class 2 rolling stock, which was not in the scope of the previous (2002) version of the HS RST TSI, it is permitted, during a transitional period of 4 years starting at the date of application of the present TSI (i.e. 1 September 2008), to authorise such rolling stock to be placed in service without application of the present HS RST TSI. In this case, the notified national rules shall apply. After the end of the transitional period of 4 years, an assessment of conformity to the present HS RST TSI shall be performed to allow the concerned newly built rolling stock to be placed in service.

An existing design as mentioned in clauses 7.1.2 and 7.1.3 above is a particular design which has already been used to produce a type of rolling stock, which

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5 OJ L 84, 26.03.2008, p.132

has already been authorized to be placed into service in a Member State before the date of application of the present TSI."

(6) Clause 7.1.8.2 "Future agreements" is replaced by the following:

"7.1.8.2 Future agreements

Any future agreement or modification of existing agreements, in particular those which include the procurement of rolling stock whose design is not certified in accordance with the TSIs, shall take into account EU legislation and this TSI. Member States shall notify the Commission of such agreements/modifications. The same procedure as set out in clause 7.1.8.1 then applies".

(7) In Annex N, on figure N1, the last two numbers at the right side of the horizontal axis ("Wavelength, m") are replaced by "0.004" and "0.003", correspondingly.

(8) In Annex P, part P.1. "Introduction", the first paragraph is replaced by the following:

"This annex describes the procedure that shall be followed to determine the deceleration a_i (m/s^2) for the speed range [v_{i-1}, v_i] in the degraded conditions of case B in table 6 of clause 4.2.4.1 of this TSI and the corresponding maximum stopping distances in Table 7 of clause 4.2.4.1 of this TSI".

ANNEX 6

The Annex to Decision 2008/284/EC[6] (HS ENE TSI), is amended as follows:

(1) In Clause 4.2.6 "External electromagnetic compatibility", the first paragraph is replaced by the following:

"External electromagnetic compatibility is not a specific characteristic of the trans-European high-speed rail network. Energy supply installations shall comply with EN 50121-2:2006 to meet all requirements concerning electromagnetic compatibility".

(2) In Clause 4.2.20 "Current capacity, DC systems, trains at standstill", the last paragraph is replaced by:

"Conformity assessment shall be carried out in accordance with EN 50367:2006, Annex A.4.1".

(3) In Clause 4.2.21 "Phase separation sections", sub-clause "Lines of category II and III", the second paragraph is replaced by the following:

"For category II and III lines, separation sections as specified for category I lines or a design according to Figure 4.2.21 may be adopted. In the case of Figure 4.2.21, the centre section shall be connected to the current return path, the neutral sections (d) may be formed by neutral section insulators and the dimensions shall be as follows:"

(4) Clause 4.2.25 "Harmonics and Dynamic Effects" is replaced by the following:

"4.2.25 Harmonics and Dynamic Effects

The High Speed Energy subsystem shall withstand overvoltages generated by rolling stock harmonics up to the limits stated in EN 50388:2005 clause 10.4 for AC supply. Conformity assessment shall consist of a compatibility study that demonstrates that the subsystem element can withstand harmonics up to the defined limits according to EN 50388:2005, clause 10. Conformity assessment shall be conducted according to EN 50388:2005 clause 10".

(5) In Clause 6.2.2.1 "General", the first paragraph is replaced by the following:

"For the assessment procedure of the Energy subsystem the Contracting Entity or its authorised representative established within the Union may choose either:

- the unit verification procedure (module SG) indicated in Annex A.3 to this TSI, or

- the full quality management system with design examination procedure (module SH2) indicated in Annex A.3 to this TSI."

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6 OJ L 104, 14.4.2008, p.104

ANNEX 7

The Annex to Decision 2011/229/EU[7] (CR RST Noise TSI) is amended as follows:

(1) Clause 4.8.2 is replaced by the following:

"4.8.2. European register of authorised types of vehicles

The data to be provided for the register provided for in Articles 34 of Directive 2008/57/EC are those indicated in Decision [number of the Decision on ERATV]".

[7] OJ L 99, 13.4.2011, p.1

ANNEX 8

The Annex to Decision 2011/274/EU[8] (CR ENE TSI) is amended as follows:

(1) In Clause 4.1 "Introduction", the third paragraph is replaced by the following:

"Taking account of all the applicable essential requirements, the energy subsystem is characterised by the specifications set out in clauses 4.2 to 4.7".

(2) In Clause 4.2.3 "Voltage and frequency", the last paragraph is deleted.

(3) In Clause 4.2.4.1 "Maximum train current", the first paragraph is deleted.

(4) In Clause 4.2.6 "Current capacity, DC systems, trains at standstill", the third paragraph is deleted.

(5) In Clause 4.2.7 "Regenerative braking", the last paragraph is deleted.

(6) In Clause 4.2.13.1 "Contact wire height", the last paragraph is deleted.

(7) In Clause 4.2.13.3 "Lateral deviation", the last paragraph is deleted.

(8) In Clause 4.2.17 "Pantograph spacing", the last paragraph including its three indents (text after Table 4.2.17) is deleted.

(9) In Clause 4.2.18 "Contact wire material", the third paragraph is replaced by the following:

"For AC lines the contact wire shall be designed to permit the use of plain carbon contact strips (CR LOC&PAS TSI clause 4.2.8.2.9.4.2)."

(10) In Clause 4.2.19 "Phase separation sections", the last paragraph is deleted.

(11) In Clause 4.2.20.1 "General", the last paragraph is replaced by the following:

"The neighbouring Infrastructure Managers shall agree either (a) or (b) according to the prevailing circumstances."

(12) In Clause 4.2.20.2 "Pantographs raised", the last paragraph is deleted.

(13) Clause 4.4.2.1 "Management of power supply under normal conditions" is replaced by the following:

"4.4.2.1. Management of power supply under normal conditions

Under normal conditions in order to conform to clause 4.2.4.1, the maximum permissible train current shall not exceed the value contained in the Register of Infrastructure."

(14) Clause 4.4.2.2 "Management of power supply under abnormal conditions" is replaced by the following:

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8 OJ L 126, 14.5.2011, p.1

"4.4.2.2. Management of power supply under abnormal conditions

Under abnormal conditions the maximum permissible train current can be lower. The Infrastructure Manager shall give notice of the variation to the Railway Undertakings".

(15) Clause 4.8 "Register of Infrastructure and European register of authorised typed of vehicles" is replaced by the following:

"4.8 Register of Infrastructure and European register of authorised typed of vehicles

The data to be provided for the register provided for in Article 35 of Directive 2008/57/EC are those indicated in Decision [number of the Decision on RINF]".

(16) In Clause 7.4.1 "Introduction", the last paragraph is replaced by the following:

"An existing subsystem may allow the circulation of TSI-conform vehicles whilst meeting the essential requirements of Directive 2008/57/EC. The infrastructure manager should be able in this case, on a voluntary basis, to demonstrate compliance of the existing subsystem with the basic parameters of this TSI"

(17) Clause 7.4.4 "Existing subsystem that are not subject to a renewal or upgrading project" is replaced by the following:

"7.4.4. Existing subsystem that are not subject to a renewal or upgrading project

A subsystem in current operation may permit trains conforming to the requirements of the HS and CR rolling stock TSIs to operate whilst meeting the essential requirements".

(18) Annex C is deleted.

(19) Annex D is deleted.

ANNEX 9

The Annex to Decision 2011/275/EU[9] (CR INF TSI) is amended as follows:

(1) In section 4.2.1 "TSI categories of line", clause (4) is deleted.

(2) In section 4.2.2 "Performance parameters", clauses (6), (7) and (8) are deleted.

(3) Section 4.2.3.2 "Requirements for basic parameters" is amended as follows:

(a) Clause (6) is replaced by the following:

"A short section of track with devices to allow transition between different nominal track gauges is permitted".

(b) Clause (8) is replaced by the following:

"The performance levels of conventional trains can be enhanced by adopting specific systems, such as vehicle body tilting. Special conditions are permitted for running such trains, provided they do not entail restrictions for other trains not equipped with such systems".

(4) In section 4.2.4.2 "Distance between track centres", clause (3) is deleted.

(5) In section 4.2.4.4 "Minimum radius of horizontal curve", clause (5) is deleted.

(6) In section 4.2.5.1 "Nominal track gauge", clause (2) is deleted.

(7) In section 4.2.5.2 "Cant", clause (2) is deleted.

(8) In section 4.2.5.7.1 "Plain line", clause (3) is deleted.

(9) In section 4.2.7.2.2 "Compatibility with braking systems" is amended as follows:

(a) Cause (2) is deleted.

(b) Clause (3) is replaced by the following:

"Where the track is compatible with the use of braking systems independent of adhesion conditions local climatic conditions and the expected number of repeated brake applications at a given location shall be taken into account. Braking systems independent of wheel-rail adhesion conditions include magnetic track brakes and eddy current track brakes."

(10) In section 4.2.10.1 "Usable length of platforms", clause (3) is deleted.

(11) In section 4.2.12.1 "Distance markers", clause (2) is deleted.

(12) In section 4.2.13.1 "General", clause (2) is deleted.

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9 OJ L 126, 14.5.2011, p.53

(13) Section 4.8 “Register of Infrastructure” is replaced by the following:

“The data to be provided for the register provided for in Article 35 of Directive 2008/57/EC are those indicated in Decision [number of the Decision on RINF]”.

(14) In section 5.3.1.1 “Railhead profile”, clause (2) is deleted.

(15) In section 6.1.4.2 “EC declaration of conformity for the rail”, clause (1) is deleted.

(16) Section 6.5 “Assessment of Register of Infrastructure” is deleted.

(17) Section 7.3.4 “Existing lines that are not subject to a renewal or upgrading project” is amended as follows:

(a) Clause (1) is replaced by the following:

“An existing subsystem may allow the circulation of TSI-conform vehicles whist meeting the essential requirements of Directive 2008/57/EC. The infrastructure manager should be able in this case, on a voluntary basis, to demonstrate compliance of the existing subsystem with the basic parameters of this TSI”

(b) Clause (2) is deleted.

(18) In section 7.6.3.1 “Performance parameters (4.2.2)”, clause (6) is deleted.

(19) In section 7.6.10.1 “Structure gauge (4.2.4.1)”, clause (4) is deleted.

(20) Annex D “Items to be included in the Register of Infrastructure” is deleted.

ANNEX 10

The Annex to Decision 2011/291/EU[10] (CR LOC&PAS TSI) is amended as follows:

(1) In Clause 4.1.1 “General”, the last paragraph is deleted.

(2) In Clause 4.2.2.2.3 “End coupling”, Subclause (a) “End coupling — General”, the second indent of the first paragraph is deleted.

(3) In Clause 4.2.2.10 “Load conditions and weighted mass”, the last paragraph is deleted.

(4) In Clause 4.2.3.1 “Gauging”, the second last and the last paragraphs are deleted.

(5) In Clause 4.2.3.3.1 “Rolling stock characteristics for the compatibility with train detection systems”, the second paragraph is deleted.

(6) In Clause 4.2.4.5.2. “Emergency braking”, the last paragraph is deleted.

(7) Clause 4.2.4.5.4 “Calculations related to thermal capacity” is amended as follows:

(a) The second last paragraph is deleted.

(b) The last paragraph is replaced by the following:

“The following ‘reference case’ for the slope to be considered is suggested: maintain the speed of 80 km/h on a slope of 21 ‰ constant gradient over a distance of 46 km”.

(8) In Clause 4.2.4.5.5 “Parking brake”, the last paragraph is replaced by the following:

“The unit (train or vehicle) parking brake performance shall be calculated as defined in the standard EN14531-6:2009”.

(9) In Clause 4.2.5.9 “Internal air quality”, the second paragraph, second indent, second subparagraph is replaced by the following:

“If this emergency provision is ensured through battery supplied forced ventilation, measurements shall be performed in order to define the duration in which the CO_2 level will remain below 10 000 ppm, assuming a passenger load derived from the load condition ‘design mass under normal payload’. The duration shall not be less than 30 minutes”.

(10) In Clause 4.2.6.1 “Environmental conditions”, the sixth paragraph is deleted.

(11) In Clause 4.2.6.1.1 “Altitude”, the last paragraph is deleted.

(12) In Clause 4.2.6.1.2 “Temperature”, the second paragraph is deleted.

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[10] OJ L 139, 26.5.2011, p.88

(13) In Clause 4.2.6.1.5 “Snow, ice and hail”, the last paragraph is deleted.

(14) In Clause 4.2.8.1.2 “Requirements on performance”, the fifth paragraph is deleted.

(15) In Clause 4.2.8.2.2 “Operation within the range of voltages and frequencies”, the last paragraph is deleted.

(16) In Clause 4.2.8.2.4 “Maximum power and current from the overhead contact line”, the last paragraph is deleted.

(17) In Clause 4.2.8.2.5 “Maximum current at standstill for DC systems”, the last paragraph is replaced by the following:

“Limit values are specified in clause 4.2.6 of the CR energy TSI”.

(18) In Clause 4.2.8.2.8 “Energy consumption measuring function”, the third paragraph is deleted.

(19) In Clause 4.2.8.2.9.2 “PANTOGRAPH HEAD GEOMETRY (IC LEVEL)”, the second paragraph is deleted.

(20) In Clause 4.2.10.1 “General and categorisation”, the last paragraph is deleted.

(21) Clause 4.8 “European register of authorised types of vehicle” is replaced by the following:

“4.8 European register of authorised types of vehicle

The data to be provided for the register provided for in Article 34 of Directive 2008/57/EC are those indicated in Decision [number of the Decision on ERATV]”.