

Making the railway system
work better for society.

RECOMMENDATION N°006REC1072-1 OF THE EUROPEAN UNION AGENCY FOR RAILWAYS

on

the amendment of Commission Regulation (EU) No 1299/2014 on the technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union, Commission Regulation (EU) No 1301/2014 on the technical specifications for interoperability relating to the 'energy' subsystem of the rail system in the European Union and 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 3 thereof,

Whereas:

1. The Annex to Commission Regulation (EU) No 1299/2014 on the technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union, hereafter referred to as the 'INF TSI', needs to be adapted to the Interoperability Directive.
2. The Annex to Commission Regulation (EU) No 1301/2014 on the technical specifications for interoperability relating to the 'energy' subsystem of the rail system in the European Union, hereafter referred to as the 'ENE TSI', needs to be adapted to the Interoperability Directive.
3. The European Commission requested the European Union Agency for Railways by a letter of 22nd September 2017 (ref. MOVE/C.4/BC/tg), pursuant to Article 5(2) of the Interoperability Directive, to prepare a recommendation integrating additional chapters as required in Article 4 of the Interoperability Directive in 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 'NOI TSI'.
4. The European Union Agency for Railways sent on 29th May 2018 a recommendation to the European Commission 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 concerning the application of the NOI TSI to existing wagons. The NOI TSI as proposed to be amended by the recommendation from 29th May 2018 should be taken as a reference document for this recommendation as far as the NOI TSI is concerned.
5. The NOI TSI as proposed to be amended by the recommendation from 29th May 2018 needs to be further amended in order to align it with the Interoperability Directive.
6. The working parties in charge of the INF and ENE TSIs were consulted as far as the adaptation of the INF and ENE TSIs to the Interoperability Directive are concerned.
7. In accordance with Article 5 of the Agency Regulation and with the work programme of the European Union Agency for Railways for 2018, a working party has been established for making a

proposal for this recommendation as far as the NOI TSI is concerned. This working party completed its work in October 2018.

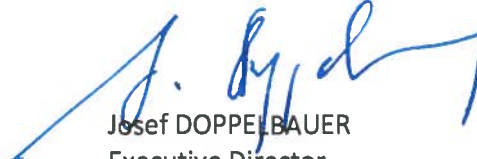
8. The proposed amendments do not have a direct impact on the social partners and the rail freight customers and passengers. Therefore, a consultation of the social partners and the rail freight customers and passengers, as provided for in Articles 6 and 7 of the Agency Regulation and in Article 5(7) and (9) of the Interoperability Directive, has not been carried out.
9. 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.

HAS ADOPTED the following recommendation:

1. The technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union set out in the Annex to Commission Regulation (EU) No 1299/2014 should be amended as proposed in the Annex 1 to this recommendation.
2. The technical specifications for interoperability relating to the 'energy' subsystem of the rail system in the European Union set out in the Annex to Commission Regulation (EU) No 1301/2014 should be amended as proposed in the Annex 2 to this recommendation.
3. The technical specification for interoperability relating to the subsystem 'rolling stock — noise' set out in the Annex to Commission Regulation (EU) No 1304/2014 and proposed to be amended by the recommendation from 29th May 2018 should be further amended as proposed in the Annex 3 to this recommendation.

This recommendation is addressed to the European Commission.

Valenciennes, 29.11.2018



Josef DOPPELBAUER
Executive Director

Annex 1: Amendments to the technical specifications for interoperability relating to the 'infrastructure' subsystem of the rail system in the European Union (Annex to Regulation (EU) No 1299/2014)

1. In Chapter 1, point 1.1. is replaced as follows:

This TSI concerns the infrastructure subsystem and part of the maintenance subsystem of the Union rail system in accordance with Article 1 of Directive (EU) 2016/797.

The infrastructure and the maintenance subsystems are defined in Annex II (2.1 and 2.8, respectively) to Directive (EU) 2016/797.

The technical scope of this TSI is further defined in Article 2(1), 2(5) and 2(6) of this Regulation.

2. In Chapter 1, point 1.3., paragraph (1) is replaced as follows:

(1) In accordance with Article 4(3) of Directive (EU) 2016/797, this TSI:

- (a) indicates its intended scope (section 2);*
- (b) lays down essential requirements for the infrastructure and part of the maintenance subsystems (section 3);*
- (c) establishes the functional and technical specifications to be met by the infrastructure and part of the maintenance subsystems and its interfaces vis-à-vis other subsystems (section 4);*
- (d) specifies the interoperability constituents and interfaces which must be covered by European specifications, including European standards, which are necessary to achieve interoperability within the Union rail system (section 5);*
- (e) states, in each case under consideration, which procedures are to be used in order to assess the conformity or the suitability for use of the interoperability constituents, on the one hand, or the EC verification of the subsystems, on the other hand (section 6);*
- (f) indicates the strategy for implementing this TSI (section 7);*
- (g) indicates, for the staff concerned, the professional qualifications and health and safety conditions at work required for the operation and maintenance of the infrastructure subsystem, as well as for the implementation of this TSI (section 4);*
- (h) indicates the provisions applicable to the existing 'infrastructure' subsystem, in particular in the event of upgrading and renewal and, in such cases, the modification work which requires an application for a new authorisation;*
- (i) indicates the parameters of 'infrastructure' subsystem to be checked by the railway undertaking and the procedures to be applied to check those parameters after the delivery of the vehicle authorisation for placing on the market and before the first use of the vehicle to ensure compatibility between vehicles and the routes on which they are to be operated.*

In accordance with Article 4(5) of the Directive (EU) 2016/797, provisions for specific cases are indicated in section 7.

3. In Chapter 2, point 2.1. is replaced as follows:

This TSI covers:

- (a) the infrastructure structural subsystem*

- (b) *the part of the maintenance functional subsystem relating to the infrastructure subsystem (that is: washing plants for external cleaning of trains, water restocking, refuelling, fixed installations for toilet discharge and electrical shore supplies).*

The elements of the infrastructure subsystem are described in Annex II (2.1. Infrastructure) to Directive (EU) 2016/797.

The elements of the maintenance subsystem are described in Annex II (2.8 Maintenance) to Directive (EU) 2016/797.

The scope of this TSI therefore includes the following aspects of the infrastructure subsystem:

- (a) *Line layout,*
- (b) *Track parameters,*
- (c) *Switches and crossings,*
- (d) *Track resistance to applied loads,*
- (e) *Structures resistance to traffic loads,*
- (f) *Immediate action limits on track geometry defects,*
- (g) *Platforms,*
- (h) *Health, safety and environment,*
- (i) *Provision for operation,*
- (j) *Fixed installations for servicing trains.*

Further details are set out in point 4.2.2 of this TSI.

4. In Chapter 2, point 2.5. is replaced as follows:

Necessary processes to manage safety according to the requirements in the scope of this TSI, including interfaces to humans, organisations or other technical systems, shall be designed and implemented in the infrastructure manager's safety management system as required by Directive (EU) 2016/798.

5. In Chapter 3, point 3, first paragraph is replaced as follows:

The following table indicates basic parameters of this TSI and their correspondence to the essential requirements as set out and numbered in Annex III to Directive (EU) 2016/797.

6. In Chapter 4, point 4.1. paragraph (1) is replaced as follows:

(1) *The Union rail system, to which Directive (EU) 2016/797 applies and of which the infrastructure and maintenance subsystems are parts, is an integrated system whose consistency needs to be verified. This consistency must be checked in particular with regard to the specifications of the infrastructure subsystem, its interfaces in relation to the other subsystems of the Union rail system in which it is integrated, as well as the operating and maintenance rules.*

7. In Chapter 4, point 4.1. paragraph (3) is replaced as follows:

(3) *The functional and technical specifications of the infrastructure and part of the maintenance subsystems and their interfaces, described in points 4.2 and 4.3, do not impose the use of specific technologies or technical solutions, except where this is strictly necessary for the interoperability of the Union rail system.*

8. In Chapter 4, point 4.2. the title is replaced as follows:
4.2. Functional and technical specifications of the infrastructure subsystem
9. In Chapter 4, point 4.2.1., paragraphs (1) to (3) are replaced as follows:
- (1) *The elements of the Union's rail network are set out in point 1, Annex I to Directive (EU) 2016/797. In order to deliver interoperability cost-effectively, each element of the Union's rail network shall be assigned a 'TSI category of line'.*
- (2) *The TSI category of line shall be a combination of traffic codes. For lines where only one type of traffic is carried (for example, a freight only line), a single code can be used to describe the performances; where mixed traffic runs the category will be described by one or more codes for passenger and freight. The combined traffic codes describe the envelope within which the desired mix of traffic can be accommodated.*
- (3) *These TSI categories of line shall be used for the classification of existing lines to define a target system so that the relevant performance parameters will be met.*
10. In Chapter 4, point 4.2.1., paragraph (10) is replaced as follows:
(10) *Article 4(7) of Directive (EU) 2016/797 states:*
- "TSIs shall not prevent the Member States from deciding on the use of infrastructures for the movement of vehicles not covered by the TSIs."*
- It is therefore allowed to design new and upgraded lines able to accommodate:*
- *gauges larger*
 - *axle loads higher,*
 - *speeds greater,*
 - *usable length of platform greater,*
 - *trains longer*
- than those specified in Table 2 and Table 3.*
11. In Chapter 4, point 4.4., paragraph (1) is replaced as follows:
(1) *Operating rules are developed within the procedures described in the infrastructure manager's safety management system. These rules take into account the documentation related to operation which forms a part of the technical file as required in Article 15(4) and set out in Annex IV (point 2.4) of Directive (EU) 2016/797.*
12. In Chapter 6, point 6.1.4.1. is replaced as follows:
(1) *Article 13(3) of Directive (EU) 2016/797, states "Where the interoperability constituents are the subject of other legal acts of the Union covering other matters, the EC declaration of conformity or suitability for use shall state that the interoperability constituents also meet the requirements of those other legal acts."*

(2) According to Annex I of **Commission Implementing Regulation (EU) No XXXX/20XX**, the EC declaration of conformity or suitability for use shall include a list of restrictions or conditions of use.

13. In Chapter 6, point 6.2.1., paragraph (1) is replaced as follows:

(1) *At the request of the applicant, the notified body carries out the EC verification of the infrastructure subsystem in accordance with Article 15 of Directive (EU) 2016/797 and in accordance with the provisions of the relevant modules.*

14. In Chapter 6, point 6.2.1., paragraph (6) is replaced as follows:

(6) *The applicant shall draw up the EC declaration of verification for the infrastructure subsystem in accordance with Article 15 of Directive (EU) 2016/797.*

15. In Chapter 6, point 6.4., paragraph (3) is replaced as follows:

(3) *The notified body shall include a reference to the maintenance file required by point 4.5.1 of this TSI in the technical file referred to in Article 15(4) of Directive (EU) 2016/797. The applicant shall draw up the EC declaration of verification for the infrastructure subsystem in accordance with Article 15 of Directive (EU) 2016/797.*

16. In Chapter 6, point 6.5.2, paragraph (2), letter (c) is replaced as follows:

(c) *For those interoperability constituents, the reason(s) why the manufacturer did not provide an EC Declaration of conformity and/or suitability for use before its incorporation into the subsystem, including the application of national rules notified under Article 14 of Directive (EU) 2016/797.*

17. In Chapter 7, first paragraph is replaced as follows:

Member States shall develop a national plan for the implementation of this TSI, considering the coherence of the entire rail system of the European Union. This plan shall include all new, renewal and upgrade projects of infrastructure subsystem, in line with the details mentioned in points 7.1 to 7.7 here below.

18. In Chapter 7, points 7.3.1. and 7.3.2 are replaced as follows:

7.3.1. *Upgrading or renewal of a line*

(1) *In accordance with Article 2(14) of Directive (EU) 2016/797, "upgrading" means any major modification work on a subsystem or part of it which results in a change in the technical file accompanying the 'EC' declaration of verification, if that technical file exists, and which improves the overall performance of the subsystem.*

(2) *The infrastructure subsystem of a line is considered to be upgraded in the context of this TSI when at least the performance parameters axle load or gauge, as defined in point 4.2.1, are improved in order to meet the requirements of another traffic code.*

(3) *In accordance with Article 2(15) of Directive (EU) 2016/797, "renewal" means any major substitution work on a subsystem or part of it which does not change the overall performance of the subsystem.*

- (4) *For this purpose, major substitution should be interpreted as a project undertaken to systematically replace elements of a line or a section of a line. Renewal differs from a substitution in the framework of maintenance, referred to in point 7.3.2 below, since it gives the opportunity to achieve a TSI compliant line. A renewal is the same case as upgrading, but without a change in performance parameters.*
- (5) *The scope of the upgrading or renewal of the infrastructure subsystem may cover the entire subsystem on a given line or only certain parts of the subsystem. According to Article 18(6) of Directive (EU) 2016/797, the national safety authority shall examine the project and decide whether a new authorisation for placing in service is needed.*
- (6) *Where a new authorisation is required, parts of the infrastructure subsystem falling under the scope of the upgrading or renewal shall comply with this TSI and shall be subject to the procedure established in Article 15 of Directive (EU) 2016/797, unless a permission for non-application of TSI is granted according to Article 7 of Directive (EU) 2016/797. According to Article 15(7) and Annex IV of Directive (EU) 2016/797, the notified body issues certificates of verification for those parts of the infrastructure subsystem under the scope of the upgrading or renewal. Other elements that remain outside the scope of work, do not need to meet the requirements of this TSI, and do not need to be subject of the EC verification procedure.*
- (7) *Where a new authorisation for placing in service is not required, compliance with this TSI is recommended. Where compliance is not possible, the contracting entity shall inform the Member State of the reasons thereof.*

19. In Chapter 7, point 7.6. is replaced as follows:

7.6. Route compatibility checks before the use of authorised vehicles

- (1) *The parameters of the infrastructure subsystem to be used by the railway undertaking, for the purpose of route compatibility check, are described in the appendix D1 of OPE TSI.*

Annex 2: Amendments to the technical specifications for interoperability relating to the 'energy' subsystem of the rail system in the European Union (Annex to Regulation (EU) No 1301/2014)

- (1) section 1.1 is replaced by the following:

'1.1. Technical Scope

This TSI concerns the energy subsystem and part of the maintenance subsystem of the Union rail system in accordance with Article 1 of Directive (EU) 2016/797.

The energy and the maintenance subsystems are defined respectively in points 2.2 and 2.8 of Annex II to Directive (EU) 2016/797.

The technical scope of this TSI is further defined in Article 2 of this Regulation. ';

- (2) points (1) and (2) of section 1.3 are replaced by the following:

'(1) In accordance with Article 4(3) of Directive (EU) 2016/797, this TSI:

- (a) indicates its intended scope (section 2);
- (b) lays down essential requirements for the energy and part of the maintenance subsystems (section 3);
- (c) establishes the functional and technical specifications to be met by the energy and part of the maintenance subsystems and its interfaces vis-à-vis other subsystems (section 4);
- (d) specifies the interoperability constituents and interfaces which must be covered by European specifications, including European standards, which are necessary to achieve interoperability within the Union rail system (section 5);
- (e) states, in each case under consideration, which procedures are to be used in order to assess the conformity or the suitability for use of the interoperability constituents, on the one hand, or the EC verification of the subsystems, on the other hand (section 6);
- (f) indicates the strategy for implementing this TSI (section 7);
- (g) indicates, for the staff concerned, the professional qualifications and health and safety conditions at work required for the operation and maintenance of the energy subsystem, as well as for the implementation of this TSI (section 4);
- (h) indicates the provisions applicable to the existing energy subsystem, in particular in the event of upgrading and renewal and, in such cases, the modification work which requires an application for a new authorisation;
- (i) indicates the parameters of energy subsystem to be checked by the railway undertaking and the procedures to be applied to check those parameters after the delivery of the vehicle authorisation for placing on the market and before the first use of the vehicle to ensure compatibility between vehicles and the routes on which they are to be operated.

(2) In accordance with Article 4(5) of the Directive (EU) 2016/797, provisions for specific cases are indicated in Section 7. ';

- (3) in point (3) of section 2.1, section 3 and point (1) of section 4.1, the references to 'Directive 2008/57/EC' are replaced by the references to 'Directive (EU) 2016/797';

- (4) section 4.2.11. (4) is replaced by:
'(4) The curves apply to speed up to 360 km/h. For speeds above 360 km/h procedures set out in point 6.1.3 shall apply. ';
- (5) section 4.4. (1) is replaced by:
'Operating rules are developed within the procedures described in the infrastructure manager safety management system. These rules take into account the documentation related to operation, which forms a part of the technical file, as required in Article 15(4) and as set out in Annex IV of Directive (EU) 2016/797.';
- (6) in point (1) of section 5.1, the reference to 'Directive 2008/57/EC' are replaced by the reference to 'Directive (EU) 2016/797';
- (7) section 6.2.1 is modified as follows:
point (1) is replaced by:
'At the request of the applicant, the notified body carries out EC verification in accordance with Article 15 of Directive (EU) 2016/797 and in accordance with the provisions of the relevant modules.';
- point (4) is replaced by:
'The applicant shall draw up the EC declaration of verification for the energy subsystem in accordance with Article 15(1) of and Annex IV to Directive (EU) 2016/797.';
- (8) point (c) of Section 6.3.2 is replaced by:
'(c) for those interoperability constituents, the reason(s) why the manufacturer did not provide an EC declaration of conformity and/or suitability for use before its incorporation into the subsystem, including the application of national rules notified under Article 13 of Directive (EU) 2016/797.';
- (9) the first paragraph of section 7 is replaced by:
'Member States shall develop a national plan for the implementation of this TSI, considering the coherence of the entire rail system of the European Union. This plan shall include all projects regarding new, renewal and upgrading of energy subsystem, in line with the details mentioned in points 7.1 to 7.4 here below.';
- (10) point (3) in Section 7.2.1 is deleted;
- (11) section 7.3.1 Introduction is modified as follows:
'In case this TSI shall apply to existing lines and without prejudice to point 7.4 (specific cases), the following elements shall be considered:
- (a) The scope of the upgrading or renewal of the energy subsystem may cover the entire subsystem on a given line or only certain parts of the subsystem. In accordance with Article 18(6) of Directive (EU) 2016/797 the national safety authority shall examine the project and decide whether a new authorisation for placing in service is needed,
 - (b) Where a new authorisation is required, parts of the energy subsystem falling under the scope of the upgrading or renewal shall comply with this TSI and shall be subject to the procedure established in Article 15 of Directive (EU) 2016/797, unless a permission for non-application of TSI is granted according to Article 7 of Directive

(EU) 2016/797. In accordance with Article 15(7) and Annex IV of Directive (EU) 2016/797, the notified body may issue certificates of verification for those parts of the energy subsystem under the scope of the upgrading or renewal. Other elements that remains outside the scope of work, do not need to meet the requirements of this TSI, and do not need to be subject of conformity assessment,

- (c) Where a new authorisation for placing in service is required, the Contracting Entity shall define the practical measures and different phases of the project, which are necessary to achieve the required levels of performance. These project phases may include transition periods for placing equipment into service with reduced levels of performance,
- (d) Where a new authorisation for placing in service is not required, compliance with this TSI is recommended. Where compliance is not possible, the contracting entity shall inform the Member State of the reasons thereof.’;

(12) point (2) in Section 7.3.2. is deleted;

(13) a new section 7.3.5 is added:

‘7.3.5. Route compatibility checks before the use of authorised vehicles

The parameters of the infrastructure subsystem to be used by the railway undertaking, for the purpose of route compatibility check are described in the appendix D1 to Regulation XXX/2018 (OPE TSI)¹.’;

(14) section 7.4.1 is replaced by the following:

‘7.4.1. General

(1) The specific cases, as listed in point 7.4.2, describe special provisions that are needed and authorised on particular networks of each Member State.

(2) These specific cases are classified as:

— ‘P’ cases: ‘permanent’ cases,

— ‘T’ cases: ‘temporary’ cases, where the target system shall be reached by 31 December 2025. ’.

¹ Commission Implementing Regulation (EU) .../... of XXX concerning the technical specification for interoperability relating to the ‘operation and traffic management’ subsystem of the rail system in the European Union and repealing Commission Decision 2012/757/EU

Annex 3: 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 text 'Directive 2008/57/EC' is replaced by 'Directive (EU) 2016/797'.

2. Chapter 2 'Definition of the subsystem' is replaced by the following text:

'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 2 in Annex I of Directive (EU) 2016/797:

- (a) *Locomotives and passenger rolling stock including thermal or electric traction units, self-propelling thermal or electric passenger trains and passenger coaches.* This category is further defined in chapter 2 of the LOC&PAS TSI and shall be referred to in this TSI as locomotives, electric multiple units (EMU), diesel multiple units (DMU) and coaches;
- (b) *Freight wagons, including low-deck vehicles designed for the entire network and 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;
- (c) *Special vehicles, such as on-track machines.* 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) or (b) depending on their design.'

3. In chapter 3 'Essential requirements', the text 'Directive 2008/57/EC' is replaced by 'Directive (EU) 2016/797'.

4. In chapter 3 'Essential requirements', Table 1 is replaced by the table below:

'Table 1

Basic parameters and their link to the essential requirements

Point	Basic parameter	Essential requirements					
		Safety	Reliability and availability	Health	Environmental protection	Technical compatibility	Accessibility
4.2.1	Limits for stationary noise				1.4.4		
4.2.2	Limits for starting noise				1.4.4		
4.2.3	Limits for pass-by noise				1.4.4		
4.2.4	Limits for driver's cab interior noise				1.4.4		

5. In chapter 4 'Characterisation of the subsystem', the text 'Articles 5(5) and 2(l) of Directive 2008/57/EC' is replaced by 'Articles 4(5) and 2(13) of Directive (EU) 2016/797'.

6. In chapter 7 'Implementation', point 7.2.1 'General provisions in case of renewal or upgrade' is replaced by the following text:

'The principles to be applied by the applicants and authorising entities in case of change(s) to an existing rolling stock or rolling stock type are defined in point 7.1.2 of the LOC&PAS TSI and section 7.2 of the WAG TSI.

7.2.1 Provisions in case of changes to existing rolling stock or rolling stock type

The applicant shall ensure that the noise levels of rolling stock subject to change(s) remain below the limits set out in the TSI which was applicable when the rolling stock in question was first authorised. If no TSI existed at the time of the first authorisation, it shall be ensured that the noise levels of the rolling stock subject to change(s) are either not increased or remain below the limits set out in Decision 2006/66/EC or Decision 2002/735/EC.

If an assessment is required, it shall be limited to the basic parameters affected by the change(s).

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.'