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Delegations will find attached document D033701/03.

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Brussels, **XXX**  
[...] (2014) **XXX** draft

**COMMISSION DECISION**

of **XXX**

**amending Commission Decision 2012/88/EU on the technical specification for interoperability relating to the control-command and signalling subsystems of the trans-European rail system**

(Text with EEA relevance)

## COMMISSION DECISION

of **XXX**

**amending Commission Decision 2012/88/EU on the technical specification for interoperability relating to the control-command and signalling subsystems of the trans-European rail system**

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community<sup>1</sup>, and in particular Article 6 thereof,

Whereas:

- (1) With Decision C(2010) 2576<sup>2</sup>, the Commission gave the European Railway Agency (the Agency) a mandate to develop and review the technical specifications for interoperability (TSI) with a view to extending their scope to the entire rail system in the Union in accordance with Article 1(4) of Directive 2008/57/EC. On 10 January 2013 the Agency submitted its recommendation amending the TSI relating to the control-command and signalling subsystems of the trans-European rail system.
- (2) According to Article 8(4) of Directive 2008/57/EC on TSI scope extension, a Member State should not apply the revised TSI in the case of projects at an advanced stage of development or subject to a contract in the course of performance, which was out of the scope of the previous TSI.
- (3) The revised control-command and signaling TSI (CCS TSI) should apply to networks with 1435 mm, 1520 mm, 1524 mm, 1600 mm, and 1668 mm nominal track gauge. This would provide interoperability within one-track-gauge systems and make it possible to develop and operate vehicles for multiple metric gauges. It would also make it possible to develop and use control-command and signaling subsystems and interoperability constituents independently of the track gauge. A high percentage of vehicles run both on the trans-European rail network and on the off-TEN rail network. The parameters of the on-board and the track-side control-command and signaling subsystems should therefore be the same for the whole network.
- (4) Certain open points related to the compatibility of train detection systems may be closed, taking into account requirements for different track gauges (specification referenced as

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<sup>1</sup> OJ L 191, 18.7.2008, p. 1.

<sup>2</sup> Commission Decision C(2010) 2576 final of 29 April 2010 concerning a mandate to the European Railway Agency to develop and review Technical Specifications for Interoperability with a view to extending their scope to the whole rail system in the European Union

Index 77 in Annex A ).The open point related to safety requirements for ETCS Driver-Machine Interface (DMI) function may be closed and progress have been made to clarify the open point on ‘reliability/availability’.

- (5) The provisions on assessment of interoperability constituents and subsystems, in the case where requirements are partially fulfilled, need to be clarified.
- (6) In its role of system authority for the European Rail Traffic Management System (ERTMS), the Agency has prepared an update of the mandatory ERTMS specifications referenced in Annex A of the CCS TSI. Until the time the specifications related to train interface (FFFIS - Form Fit Functional Interface Specification) have reached, at both sides of the interface, a level of consensus among all stakeholders to be considered as mandatory, the Agency should refer to them in the application guide so that they can be used in call for tenders.
- (7) The Agency should publish tests specifications related to baseline 3 as soon as possible.
- (8) Errors have been detected in the text of Commission Decision 2012/88/EU<sup>3</sup> and need to be corrected.
- (9) The availability and quality of the GSM-R signals is essential for railway operations.
- (10) GSM-R roaming to public networks is an optional function. If it is used in a Member State, its implementation should be indicated in line number 1.1.1.3.3.3 of the register of railway infrastructure in accordance with Commission Implementing Decision [2014/XXX/EU] on the common specifications of the register of railway infrastructure and repealing Commission Implementing Decision 2011/633/EU.
- (11) The measures provided for in this Decision are in conformity with the opinion of the Committee established in accordance with Article 29(1) of Directive 2008/57/EC,

HAS ADOPTED THIS DECISION:

#### *Article 1*

Decision 2012/88/EU is amended as follows:

- (1) The title is replaced by the following: “on the technical specification for interoperability relating to the control-command and signalling subsystems”.
- (2) Annex III is amended as follows:
  - (a) The following text is added at the end of section 1.1.:

"This TSI is applicable to control-command and signalling track-side Subsystems of the rail network defined in the section 1.2. (Geographical scope) of this TSI and to the control-command and signalling on-board subsystems of vehicles which are (or are intended to be) operated on it. These vehicles are of one of the following types (as defined in Annex I sections 1.2. and 2.2. of Directive 2008/57/EC):

    - (1) self-propelling thermal or electric trains;

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<sup>3</sup> Commission Decision 2012/88/EU of 25 January 2012 on the technical specification for interoperability relating to the control-command and signalling subsystems of the trans-European rail system (OJ L 51, 23.2.2012, p. 1)

- (2) thermal or electric traction units;
  - (3) passenger carriages, if equipped with a driving cab;
  - (4) mobile railway infrastructure construction and maintenance equipment, if equipped with a driving cab and intended to be used in transport mode on its own wheels.";
- (b) The text of section 1.2. is replaced by the following:

'the geographical scope of this TSI is the network of the whole rail system, composed of:

- (1) the trans-European conventional rail system network (TEN) as described in Annex I section 1.1 "Network" of Directive 2008/57/EC;
- (2) the trans-European high-speed rail system network (TEN) as described in Annex I section 2.1 "Network" of Directive 2008/57/EC;
- (3) other parts of the network of the whole rail system, following the extension of scope as described in Annex I section 4 of Directive 2008/57/EC.

and excludes the cases referred to in Article 1(3) of Directive 2008/57/EC.

The TSI shall apply to networks with 1435 mm, 1520 mm, 1524 mm, 1600 mm and 1668 mm track gauges. However, it shall not apply to short border crossing lines with 1520 mm track gauges that are connected to the network of third countries';

- (c) The text of the fifth paragraph of section 2.2 is replaced by the following:

'Class B systems for the trans-European rail system network are a limited set of legacy control-command and signalling systems that were in use in the trans-European rail network before 20 April 2001.

Class B systems for other parts of the network of the rail system in the European Union are a limited set of legacy control-command and signalling systems that were in use in that networks before [*date of the application of the Decision*].

The list of Class B systems is established in the European Railway Agency technical documents 'List of CCS Class B systems, ERA/TD/2011-11, version 2.0'

- (d) In the table of section 4.1., "4.2.1" is added to the basic parameters related to control-command and signalling track-side subsystem, part train protection and "4.2.1.2" is added to the basic parameters related to control-command and signalling on-board subsystem, part radio communication, and to control-command and signalling track-side subsystem, part radio communication;
- (e) The text of section 4.2.1.2 is replaced by the following text:

'4.2.1.2 Availability/Reliability

This section refers to the occurrence of failure modes not causing safety hazards but creating degraded situations, the management of which could decrease the overall safety of the system.

In the context of this parameter, “failure” means the termination of the ability of an item to perform a required function with the required performance and “failure mode” means the effect by which the failure is observed.

To ensure that the relevant infrastructure managers and railway undertakings are given all the information they need to define appropriate procedures for managing degraded situations, the technical file accompanying the EC declaration of verification for an on-board or track-side CCS subsystem shall contain the calculated availability/reliability values related to failure modes having an impact on the capability of the CCS subsystem to supervise the safe movement of one or more vehicles or to establish radio voice communication between traffic control and the train drivers.

Compliance with the following calculated values shall be ensured:

- (1) Mean time of hours of operation between failures of a CCS on-board subsystem requiring the isolation of the train protection functions: [open point];
- (2) Mean time of hours of operation between failures of a CCS on-board subsystem preventing radio voice communication between traffic control and the train driver: [open point].

To allow the infrastructure managers and railway undertakings to monitor, during the life of the subsystems, the level of risk and the respect of the reliability/availability values used for the definition of procedures to manage degraded situations, the requirements for maintenance stated in Section 4.5 (Maintenance rules) shall be respected'

- (f) The second row of the table in sections 4.3.2 Interface to the rolling stock subsystem is amended as follows:

Electromagnetic compatibility between rolling stock and Control-Command and Signalling track-side equipment	4.2.11	Rolling stock characteristics to be compatible with train detection systems based on track circuits	HS RS TSI LOC & PAS TSI Wagon TSI	4.2.6.6.1 4.2.3.3. <u>1</u> .1 None
		Rolling stock characteristics to be compatible with train detection systems based on axle counters	HS RS TSI LOC & PAS TSI Wagon TSI	4.2.6.6.1 4.2.3.3. <u>1</u> .2 None

- (g) The following text is added at the end of section 6.1.1.:

'With regard to checking if essential requirements are fulfilled through compliance with the basic parameters, and without prejudice to the obligations set out in Chapter 7 of this TSI, control-command and signalling interoperability constituents and subsystems that do not implement all functions, performance and interfaces as specified in Chapter 4 (including the specifications referred to in Annex A), can obtain EC certificates of conformity or, respectively, EC certificates of verification, under the following conditions for issuing and using the certificates:

- (1) The applicant for EC verification of a track-side control-command and signalling subsystem is responsible for deciding which functions, performance and interfaces need to be implemented to meet the objectives for the service and to ensure that no requirements contradicting or exceeding the TSIs are exported to the on-board control-command and signalling subsystems;
- (2) The operation of an on-board control-command and signalling subsystem, that does not implement all functions, performance and interfaces specified in this TSI, may be subject to conditions or restrictions due to compatibility and/or safe integration with track-side control-command and signalling subsystems. Without prejudice to the tasks of a notified body described in respective EU legislation and related documents, the applicant for EC verification is responsible for ensuring that the technical file provides all the information that an operator needs to identify such conditions and restrictions;
- (3) The Member State may refuse for duly justified reasons the authorisation for placing in service, or place conditions and restrictions on the operation, of control-command and signalling subsystems that do not implement all functions, performance and interfaces specified in this TSI.

If some essential requirements are fulfilled by national rules or if a control-command and signalling interoperability constituent or subsystem does not implement all functions, performance and interfaces specified in this TSI, the provisions of section 6.4.2 shall apply.'

- (h) The text of the second paragraph of section 6.1.2 is amended as follows: in sub-paragraph 2 'See Annex A 4.2.2c' is deleted and in sub-paragraph 3 'unless otherwise specified in Annex A 4.2.2c' is deleted.
- (i) The text of section 6.4 is replaced by the following:

'6.4 Provisions in case of the partial fulfilment TSI requirements

6.4.1. Assessment of parts of control-command and signalling subsystems

Pursuant to Article 18(5) of the Railway Interoperability Directive, the notified body may issue certificates of verification for certain parts of a subsystem, if allowed to do so under the relevant TSI.

As pointed out in section 2.2 (Scope) of this TSI, the track-side control-command and signalling subsystem contains three parts, while the on-board control-command and signalling subsystem contains two parts, specified in section 4.1 (Introduction).

A certificate of verification may be issued for each part specified in this TSI; the notified body only checks if that particular part fulfils the TSI requirements.

Regardless of which module is chosen, the notified body shall check that:

- (1) the TSI requirements for the part in question have been fulfilled and
- (2) the TSI requirements already assessed for other parts of the same subsystem are still fulfilled.

6.4.2. Control-command and signalling subsystems' partial fulfilment of the requirements due to limited application of the TSI.

If some essential requirements are fulfilled by national rules, the EC certificate of conformity for an interoperability constituent and the EC certificate of verification for a subsystem shall make precise reference to the parts of this TSI whose conformity has been assessed and the parts whose conformity has not been assessed.

If an interoperability constituent does not implement all functions, performance and interfaces specified in this TSI, an EC certificate of conformity may only be issued if the unimplemented functions, interfaces or performance are not required to integrate the interoperability constituent into a subsystem for the use indicated by the applicant, for example<sup>4</sup>,

- (a) the on-board ERTMS/ETCS interface to STM if the interoperability constituent is intended for installation on vehicles in which no external STM is needed,
- (b) the RBC interface to other RBCs, if the RBC is intended for use in an application for which no neighbouring RBCs are planned.

The EC certificate of conformity (or accompanying documents) for the interoperability constituent shall fulfil all the following requirements:

- (a) it indicates which functions, interfaces or performance are not implemented,
- (b) it provides enough information to make it possible to identify the conditions under which the interoperability constituent can be used,
- (c) it provides enough information to make it possible to identify the conditions of and restriction on the use that will apply to the interoperability of a subsystem incorporating it.

If a control-command and signalling subsystem does not implement all functions, performance and interfaces of this TSI (e.g. because they are not implemented by an interoperability constituent integrated into it), the EC certificate of verification shall indicate which requirements have been assessed and the corresponding conditions and restrictions on the use of the subsystem and its compatibility with other subsystems.

In any event, notified bodies shall coordinate with the Agency the way in which conditions and limits of use of interoperability constituents and subsystems are managed in the relevant certificates and technical files in the working group set up under Article 21a (5) of Regulation (EC) No 881/2004 of the European Parliament and of the Council<sup>5</sup>.

6.4.3. Intermediate Statement of Verification.

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<sup>4</sup> The procedures described in this Chapter do not prejudice the possibility of grouping constituents together.

<sup>5</sup> Regulation (EC) No 881/2004 of the European Parliament and of the Council of 29 April 2004 establishing a European Railway Agency (Agency Regulation) (OJ L 164, 21.6.2004, p. 1)



If conformity is assessed for parts of subsystems specified by the applicant and different from the parts allowed by section 4.1 (Introduction) of this TSI, or if only certain stages of the verification procedure have been performed, only an intermediate statement of verification may be issued.'

- (j) In section 7.2.9.3, the following rows are added at the end of the table::

4.2.10 Track-side Train Detection Systems	T3	Applicable in North Ireland
Index 77, Section 3.1.3.1:  The minimum wheel rim width ( $B_R$ ) for 1600 mm track gauge network is 127 mm		
4.2.10 Track-side Train Detection Systems	T3	Applicable in North Ireland
Index 77, Section 3.1.3.3:  The minimum flange thickness ( $S_d$ ) for 1600 mm track gauge network is 24 mm		

- (k) The title of section 7.2.9.6 is replaced by 'Lithuania, Latvia and Estonia'

- (l) The table in section 7.2.9.6 is replaced by

Specific case	Category	Notes
4.2.10 Track-side Train Detection Systems	T3	This specific case is needed as long as ČME locomotives operate on 1520 mm network
Index 77, Section 3.1.3.3:  The minimum flange thickness ( $S_d$ ) for 1520 mm track gauge network is 20 mm		
4.2.10 Track-side Train Detection Systems	T3	This specific case is needed as long as ČME locomotives operate on 1520 mm network
Index 77, Section 3.1.3.4:  The minimum flange height ( $S_h$ ) for 1520 mm track gauge network is 26.25 mm		

- (m) In section 7.2.9.7, 'index 65' is replaced by 'index 33';

- (n) The text of section 7.3.3. is replaced by the following:

'7.3.3. ERTMS on-board implementation

#### 7.3.3.1. New vehicles

New vehicles authorised to be placed in service for the first time shall be equipped with ERTMS in line either with the set of specifications #1 or the set of specifications #2 listed in Table A2 of Annex A.

From 1 January 2018, new vehicles authorised to be placed in service for the first time shall be equipped with ERTMS only in line with the set of specifications # 2 listed in Table A2 of Annex A.

The requirement to be equipped with ERTMS does not apply to new mobile railway infrastructure construction and maintenance equipment, new shunting locomotives or other new vehicles not intended for high speed service, if they are intended exclusively for national service operated outside the corridors defined in section 7.3.4 and outside the lines ensuring the connections to the main European ports, marshalling yards, freight terminals and freight transport areas defined in section 7.3.5., or if they are intended for off-TEN cross-border service, i.e. service until the first station in the neighbouring country or to the first station where there are connections further in the neighbouring country.

#### 7.3.3.2. Upgrading and renewal of existing vehicles

It is mandatory to fit ERTMS/ETCS on-board existing vehicles if installing any new train protection part of a control-command and signalling on-board subsystem on existing vehicles intended for high-speed service

#### 7.3.3.3. Additional requirements

Member States may introduce additional requirements at national level, in particular with a view to

- (1) allowing only ERTMS-equipped vehicles to access ERTMS-equipped lines, so that existing national systems can be decommissioned;
  - (2) requesting that new and upgraded or renewed mobile railway infrastructure construction and maintenance equipment, shunting locomotives and/or other vehicles, even if intended exclusively for national service, be equipped with ERTMS.'
- (o) Annex A is amended in accordance with the Annex to this Decision;
- (p) The table of Annex G is amended as follows:
- (1) The line related to 'Vehicle metal mass' is deleted;
  - (2) The line related to 'DC and low frequency components of traction current' is deleted;
  - (3) The line related to 'safety requirements for ETCS DMI functions' is deleted.

#### *Article 2*

The following article is added to Commission Decision 2012/88/EU:

'Article 7a

1. By 1 July 2015 the European Railway Agency shall publish the mandatory specifications referred to in Table A2 of Annex A to this Decision, at Index 37b and 37c, column 'Set of specifications # 2'.

Before their publication, it shall send to the Commission a technical opinion on the insertion of these documents in Table A2 of Annex A to this Decision, with reference, name and version. The Commission shall inform accordingly the Committee established under Article 29 of Directive 2008/57/EC.

2. The European Railway Agency shall publish the specifications related to train interface (FFFIS - Form Fit Functional Interface Specification – Index 81 and 82 of Table A2 of Annex A to this Decision) when it considers that they are mature. The European Railway Agency shall regularly report on the assessment of this maturity to the Committee established under Article 29 of Directive 2008/57/EC. Before their publication, it shall send to the Commission a technical opinion on the insertion of these documents in Table A2 of Annex A to this Decision, with reference, name and version. The Commission shall inform accordingly the Committee established under Article 29 of Directive 2008/57/EC.'

*Article 3*

This Decision shall apply from 1 July 2015.

This Decision is addressed to the Member States and to the European Railway Agency.

Done at Brussels,

*For the Commission*  
*Siim KALLAS*  
*Vice-President*