

Executive Director

ADVICE

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OF THE EUROPEAN RAILWAY AGENCY

FOR

EUROPEAN COMMISSION

REGARDING

CONFORMITY ASSESSMENT AND AUTHORISATION FOR PLACING IN SERVICE (APIS) OF GSM-R

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1 General Context

- 1. With the note referenced as "Ares(2013)1022619 07/05/2013", the European Commission, Directorate General for Mobility and Transport, Directorate B, requested the European Railway Agency (hereafter referred to as the 'Agency' or 'ERA') for an advice regarding the conformity assessment and authorisation of placing in service of GSM-R. The request was triggered by a letter that was sent by the Polish Kancelaria Prawna to the European Commission on 5 April 2013.
- 2. The objective of the request is to resolve any doubt concerning the scope of verification of the GSM-R system. The request addresses two questions:
 - Is GSM-R subject of an EC verification procedure as a whole or only the constituents of GSM-R (a) directly mentioned in the TSI, (b) indicated as mandatory?
 - If the answer to the above question is 'only constituents', are Member States allowed to add more restrictive requirements for the authorisation for placing in service? If yes, is not it against Article 11(1) of 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 Community¹ (hereafter referred to as the 'Interoperability Directive')?

The advice should also consider whether 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 system² (hereafter referred to as the 'CCS TSI') should be clarified to eliminate doubts. If yes, draft provisions are expected.

3. As a background information, the first lines to be equipped with ERTMS in Poland are under deployment and the certification process is in the planning phase.

2 Legal Background

- In consideration of Regulation (EC) No 881/2004 of the European Parliament and of the Council of 29 April 2004 establishing a European Railway Agency³ (hereafter referred to as the 'Agency Regulation'), Article 21b provides the European Commission with the possibility to request an advice from the Agency in matters requiring specific know-how.
- 2. According to the Agency the following articles of the Interoperability Directive and the CCS TSI are considered as relevant for this advice:
 - 2.1. Relating to interoperability constituents and subsystems
 - a) Article 2 of the Interoperability Directive

"(e) 'subsystems' means the result of the division of the rail system, as shown in Annex II. These subsystems, for which essential requirements must be laid down, may be structural or functional;

(f) 'interoperability constituents' means any elementary component, group of components, subassembly or complete assembly of equipment incorporated or intended to be incorporated into a subsystem, upon which the interoperability of the rail system depends directly or indirectly. The concept of a 'constituent' covers both tangible objects and intangible objects such as software;"

¹ OJ L 191, 18.7.2008, p. 1.

² OJ L 51, 23.2.2012, p. 51

³ OJ L 164, 30.04.2004, p. 1.

b) Article 5 of the Interoperability Directive states that "1. [E]ach of the subsystems shall be covered by one TSI. Where necessary, a subsystem may be covered by several TSIs and one TSI may cover several subsystems. The decision to develop or to revise a TSI and the choice of its technical and geographical scope requires a mandate in accordance with Article 6(1).
2. Subsystems shall comply with the TSIs in force at the time of their placing in service, was a subsystem of the place shall be permanently.

upgrading or renewal, in accordance with this Directive; this compliance shall be permanently maintained while each subsystem is in use."

- c) Annex II of the Interoperability Directive includes trackside control-command and signalling and onboard control-command and signalling in the list of structural subsystems. Sections 2.2 and 4.1 of Annex III of the CCS TSI defines the parts of the control-command and signalling subsystems. The on-board control-command and signalling subsystem has two parts: train protection and radio communication. The trackside control-command and signalling subsystem has, in addition to the two parts which form part of the onbaord subsystem, a third part: train detection. It is clearly stated that the Class A radio system is GSM-R.
- d) In section 5.2 of Annex III of the CCS TSI the following interoperability constituents compose the GSM-R: GSM-R voice cab radio, GSM-R ETCS Data only radio and GSM-R SIM card. These interoperability constituents relate to the on-board control-command and signalling subsystem. The trackside control-command and signalling subsystem has no interopetability constituents for the GSM-R part.
- 2.2. Relating to conformity assessment procedure
 - a) Article 18(5) of the Interoperability Directive allows the possibility for the notified body to "...issue certificates of conformity for a series of subsystems or certain parts of those subsystems" if the relevant TSIs allow.
 - b) Section 6.1.2 of Annex III of the CCS TSI states as a principle for testing ERTMS/ETCS and GSM-R that "[A] Control-Command and Signalling On-board Subsystem covered by an 'EC' declaration of verification should be able to run on every Control-Command and Signalling Track-side Subsystem covered by an 'EC' Declaration of verification, under the conditions specified in this TSI, with no additional verifications."
 - c) As regards the provisions for partial conformity, section 6.4.1 makes reference only to Article 18(4) of the Interoperability Directive: "Pursuant to Article 18(4) of the Railway Interoperability Directive, 'the Notified Body may issue Intermediate Statement Verifications (ISVs) to cover certain stages of the verification procedure or certain parts of the subsystem'." However, section 6.4.2 acknowledges the possibility to carry out the conformity assessment procedure for individual parts of the control-command and signalling subsystem: "Assessing whether a Control-Command and Signalling Track-side or On-board Subsystem complies with the requirements of this TSI is a process that may be performed in successive steps one for each of the three parts. At each step, the assessor checks only whether that particular part complies with the TSI requirements."
- 2.3. Relating to national rules
 - a) The Interoperability Directive allows the Member States to use national rules in the following cases:
 - no relevant TSI exists, or
 - a derogation has been notified under Article 9, or
 - a specific case requires the application of technical rules not included in the relevant TSI in line with Article 17, or
 - in case of open points according to Article 5(6).

 b) Following from these principles and taking into account the specificities of the controlcommand and signalling subsystems, Article 3 of the CCS TSI requires the Member States to "... notify to the other Member States and to the Commission, with regard to Class B systems and to those issues identified as open points in Appendix G to the TSI adopted by this Decision, within 6 months of the notification of this Decision, the following: (a) the list of applicable technical rules."

3 Analysis

- 1. Under the conformity assessment procedures resulting in the 'EC' declaration of verification and then eventually in authorisation of placing in service of the control-command and signalling subsystems, the assessment of the relevant components of the GSM-R system relating to one of these subsystems respectively should also form part of the necessary procedures. The GSM-R network system is part of the trackside control-command and signalling subsystem. Therefore, it cannot be considered as a separate subsystem. Neither can the GSM-R on-board system be regarded as a separate subsystem.
- 3. As the GSM-R on-board system has three separate interoperability constituents, the GSM-R system cannot be seen as an interoperability constituent. The Interoperability Directive requires that the subsystems and the interoperability constituents including interfaces meet the essential requirements set out in general terms in Annex III to the Directive. The EC declaration of conformity of the interoperability constituents and its corresponding certificate shall be issued according to the provisions of section 6.2 of Annex III of the CCS TSI in order to put them on the market.
- 6. The EC declaration of verification of the control-command and signalling subsystems shall be issued based on the assessment of verification carried out and certified by the notified body in line with section 6.3 of Annex III of the CCS TSI.
- 7. The GSM-R on-board system and GSM-R network are respective parts of the on-board and track-side control-command and signalling subsystems that must be verified according to the provisions of section 6.3. An EC declaration of verification signed by the applicant is necessary to obtain the authorisation for placing in service the subsystems.
- 8. On one hand at the moment issuing certificates by the notified body for the GSM-R part of the controlcommand and signalling subsystems is possible only with intermediate statement verification in line with section 6.4.1 of Annex III of the CCS TSI. However, ISVs are the description of an intermediate state and are intended to be used by another assessor responsible for the final certificate. As follows, ISVs are not sufficient for the authorisation of placing the GSM-R part in service.
- 9. On the other hand, as the assessment of the verification of the control-command and signalling subsystems may take place in successive steps for the three different parts of the subsystems, it seems logical to allow the possibility to issue certificates for these parts separately which would then allow to place these parts individually on the market.



This subject has already been analysed by the Agency and a corresponding $advice^4$ has already been issued. In this advice the Agency advises the Commission to modify the current text of section 6.4 of Annex III of the CCS TSI in force. The exact text for modification of the CCS TSI is included in Annex III of that advice. As that advice states: "[T]his proposal:

- clarifies that for parts defined in the CCS TSI the NoBo may issue EC certificates of verification;
- clarifies that a certificate may be issued for a subsystem not assessed for full compliance with the TSIs, in accordance with the provisons of Article 9, 17(3) or 20 of the Interoperability Directive;
- confirms the requirements, already existing in the CCS TSI in force, on the content of the certificates and on the coordination between NoBos and ERA;
- clarifies that ISVs should not be used alone to support authorisation for placing in service. This principle is not specific to the CCS TSI".

4 <u>The advice</u>

- 1. GSM-R is not an interoperability constituent itself. The interoperability constituents for GSM-R onboard system are clearly identified in section 5.2. of the CCS TSI. These interoperability constituents are subject to assessment of conformity and/or suitability for use. There are no interoperability constituents for the GSM-R network system.
- 2. The GSM-R network system is the radio communication part of the trackside control-command and signalling subsystem and it has to be assessed by checking the requirements mandated in the CCS TSI.
- 3. The ERA Advice No. ERA/ADV/2013-6 analyses the situation for the parts of a subsystem and includes textual suggestions for modifying the relevant part of the CCS TSI in order to allow the possibility for the notified bodies to issue EC certificates of verification for the parts of the control-command and signalling subsystem.
- 4. No additional modification to the CCS TSI is considered as necessary following from this advice.

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⁴ ERA/ADV/2013-6 dated on 10 June 2013 available at www.era.europa.eu