

**MEETING:** Control Command and Signalling  
Rolling Stock  
TOM

**DATE:** 18/11/2021  
11/02/2022  
01/02/2022

**SUBJECT:** Five-year review of RIS-8019-CCS Issue 1 - Tilting Trains: Controlling Tilt Systems to Maintain Clearances

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## **1. Purpose of the paper**

- 1.1 This paper sets out the assessment of the five-year review of RIS-8019-CCS Issue 1 - Tilting Trains: Controlling Tilt Systems to Maintain Clearances. It seeks Standards Committee approval on the recommendation and way forward.

## **2. Background**

- 2.1 RIS-8019-CCS Issue one sets out requirements and guidance intended to assist can assist Proposers in applying the CSM RA before planned changes to systems that control tilt to maintain clearances are put into use.
- 2.2 RIS-8019-CCS Issue one in conjunction with RIS-8012-CCS have been applied to systems supporting tilting operations on the West Coast Main Line (WCML) by class 390 and Class 221 tilting trains. To date this is the only application of these standards on the GB network.
- 2.3 In 2017, a review of GERT8019 Issue one, Tilting Trains: Controlling Tilt Systems to Maintain Clearances, identified that its content was not in scope of RGSs, being neither a National Technical Rule (NTR) nor a National Safety Rule (NSR). However, the Control Command and Signalling Standards Committee (CCS SC) confirmed that the requirements were valid and useful to the industry and should be retained in a Rail Industry Standard (RIS) (decision 17/CCS/04/083). As a result, the content of GERT8019 Issue one, and the associated Guidance Note GERC8517 Issue one, Recommendations for Systems for the Supervision of Enhanced Permissible Speeds and Tilt Enable, were reproduced in their entirety as an Annex to new RIS-8019-CCS Issue one. There were no changes to requirements or guidance because of transferring the content into the RIS.
- 2.4 Deviations 04-001-NC and 06-028-NC against GERT8019 were included as an Annex to RIS-8019-CCS Issue one, with the intent that changes resulting from these deviations would be incorporated in the RIS at the next revision. These two deviations are related to clause 7.8 of the standard and permit differences in the display of information provided by the Tilt Authorisation and Speed Supervision (TASS) system in the driving cabs of Class 390 and Class 221 tilting trains.

## **3. Impacts of the document(s) following publication/entering into force**

- 3.1 Consideration has been given to the following during the assessment:

- a **Business case for change** – The industry was not required to do anything differently because of the re-classification of GERT8019 as a RIS. There were no changes to requirements, and requirements in the RIS have an equivalent authority to those in an RGS when included in an organisation’s Safety Management System.
- b **Deviations** – The two deviations, 04-001-NC and 06-028-NC, registered against GERT8019 and included in Annexes to RIS-8019-CCS Issue one, relate to clause 7.8 of the standard and permit differences in the display of information provided by the Tilt Authorisation and Speed Supervision (TASS) system in the driving cabs of Class 390 and Class 221 tilting trains.
- c **Current projects or proposals being processed** – There are no current RSSB projects or proposals to revise RIS-8019-CCS Issue one.
- d **Limited change release** – There are no limited change releases related to RIS-8019-CCS Issue one.
- e **Amendments and clarifications** – There have been no amendments or clarifications made for RIS-8019-CCS issue one.
- f **Enquiries** – There have been no enquiries raised on RIS-8019-CCS Issue one.
- g **Research projects** – There are no current or published research projects that impact on RIS-8019-CCS Issue one.
- h **Changes in regulations** – There are no changes in regulations that result in a need to change the requirements in RIS-8019-CCS Issue one.
- i **Changes in technology** – Although the introduction of ETCS on the WCML may result in changes to the technical means by which tilt is authorized on tilting trains (Class 390) on this line, the content of RIS-8019-CCS Issue one is considered to remain valid and not to require change because of this.
- j **National Technical Specification Notices (NTSNs) and European standards** – There are no changes in NTSN or European standards that necessitate a change to the requirements in RIS-8019-CCS Issue one.
- k **Published list of NTRs** – RISs do not contain NTRs.
- l **Any other observations:**
  - i. The standard could be brought up to date through including minor editorial corrections and changes, for example updating standards references, updating abbreviations and definitions etc.
  - ii. The standard could be improved through minor formatting amendments, for example correcting the diagrams obscuring text in Annex A, section A.5.
  - iii. Transferring the content of the standard into the new RIS template would involve providing rationale requirements, however this is not considered justifiable because no new tilting trains are planned to be introduced on the network.
  - iv. Requirements developed by the Digital Railway Programme for the implementation of European train Control System (ETCS) include those on the integration and/or co-existent operation of ETCS and Tilt Authorisation and Speed Supervision (TASS), the system currently employed on the WCML to meet the requirements of RIS-8019-CCS for the operation of Class 390 and Class 221 tilting trains. These requirements, currently captured as Open Points in RIS-0797-CCS Issue one, ERTMS/ETCS Baseline 3 Onboard Subsystem Requirements: Retrofit, and RIS-0798-CCS Issue one, ERTMS/ETCS Baseline 3 Onboard Subsystem Requirements: New trains, are not considered to require changes to the requirements in RIS-8019-CCS Issue one, but

references to these standards could be included. Work being undertaken on the integration of TASS and ETCS on Class 390 tilting trains may generate additional requirements or guidance; it is considered that it would be better to include this in RIS-0797-CCS and RIS-0798-CCS when it becomes available.

## **4. Discussion**

### **4.1 Consultee Feedback**

- 4.1.1 Feedback obtained from initial consultation with identified industry representatives, including suppliers and ROSCOs, suggests that:
- a) the requirements in RIS-8019-CCS Issue one remain valid and applicable and do not hinder, or require change for, the integration of existing or future tilting systems with onboard ETCS systems.
  - b) There is no known plan to introduce new tilting trains on the GB rail network, and even if there was, the requirements in RIS-8019-CCS Issue one remain valid and applicable.
  - c) In future, it may be required that Class 390s and Class 221s, which currently operate in tilting mode on the WCML utilising TASS, are moved to operate on a different line and:
    - i. If operations on this new line require tilting, then either the existing RIS-8019-CCS Issue one compliant TASS system will be utilised (requiring roll out of the trackside element on the new line), or an integrated ETCS/TASS solution may be implemented.
    - ii. If tilting is not required, then the TASS and/or tilting system could be isolated or disabled (the tilt equipment on Class 221s operated by Cross Country has been locked out of use completely), or they could remain active with the tilting and speed supervision function deactivated by the absence of TASS information from the trackside.

### **4.2 Review assessment**

- 4.2.1 The standard is rarely used, if at all, and there is no known intent to introduce additional tilting trains to the GB network in the future. If new tilting trains are introduced, the requirements in RIS-8019-CCS Issue one remain valid.
- 4.2.2 The expansion of tilting operations by the existing tilting stock to areas other than those already covered is also a possibility, albeit the expectation would be that tilt enable and supervision functionality would be supported by the existing TASS system, which is compliant with RIS-8019-CCS Issue one, or would be provided using an integrated ETCS/TASS solution compliant with the guidance in RIS-0797-CCS. The scope of the requirements in RIS-8019-CCS Issue one includes their use with a cab-signalling system – these requirements are considered to remain valid for operation under ETCS.
- 4.2.3 Although there may be additional requirements or guidance generated by ongoing investigations into the integration of ETCS and TASS on Class 390 tilting trains, it is considered that this should be included in RIS-0797-CCS and RIS-0798-CCS if and when it becomes available.
- 4.2.4 The assessment from section 3 suggests there is currently no case for an update of RIS-8019-CCS Issue one.

## **5. Recommendations**

- 5.1 The Control Command and Signalling Standards Committee is asked to:

- a DISCUSS the five-year review assessment.
- b SUPPORT the recommendation that although formatting and editorial changes are required there is currently no business case for doing so, and as the requirements remain valid the standard should be retained without change.
- c APPROVE the review assessment for consultation with industry.

5.2 Supporting Standards Committees are asked to:

- a DISCUSS the five-year review assessment.
- b SUPPORT the recommendation that although formatting and editorial changes are required there is currently no business case for doing so, and as the requirements remain valid the standard should be retained without change.
- c SUPPORT the review assessment for consultation with industry.

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RSSB completion: [\[do not delete\]](#)

<i>Lead Standards Committee</i>	<i>Meeting date</i>	<i>Recommendation approved</i>	<i>Minute numbers</i>		<i>Next review date</i>
			<i>Pre-consultation review</i>	<i>Post-consultation review</i>	
Control Command and Signalling	01/07/2021				

## Appendix A Associated information to support the review

*The information in this appendix is provided by the industry groups information manager to assist with the review. This appendix should be deleted prior to submitting the review form to the SCs.*

Deviations	List current deviations: Nil (against RIS-8019-CCS) 04-001-NC and 06-028-NC against GERT8019	List deviations in progress: Nil
Request for Help	Nil	
Proposals	List approved proposals: Nil	List proposals not yet approved by the standards committee: Nil
7. RSSB Standards Programme	This document is currently not on the RSP.	
Amendments or clarifications	Nil	
Limited change releases	Nil	
Enquiries	Nil	
Business case for change	<a href="#">17 IA18</a>	
Information from RMDB Note: update RMDB to reflect action/decision	Nil (This document is not listed in the RMDB CCS sub-system, therefore there is no file 'Considerations for revisions' relating to this standard) There are no considerations for revision in CDB.	

Related documents:

Process procedure for the 12 month and five-year review of Railway Group Standards and other documents