Briefing Note





Background

The management of control command and signalling (CCS) system performance, and control of risk arising from failures, is increasingly dependent on multi-party collaboration, particularly for digital systems such as the European Train Control System (ETCS). Accountabilities and responsibilities for managing safety and performance are distributed across a wider range of organisations in comparison to legacy CCS systems. No single organisation is wholly accountable for the overall CCS system and its performance and reliability data. Organisations need to share data, cooperate, manage and mitigate risk so far as is reasonably practicable, in a structured and standardised manner.

What is it about?

The standard sets out requirements for the management of failures of CCS functions that rely on integration of a CCS onboard subsystem with a CCS trackside subsystem. It also sets out the requirements for the capabilities of the future National CCS Defect Recording, Analysis and Corrective Action System (DRACAS).

It details how organisations cooperate and share information about CCS subsystem failures so that risks can be managed, and actions taken to mitigate them. Conformity with the requirements in this standard supports consistency in the management of CCS subsystem failures and helps infrastructure managers and railway undertakings identify trends and defects, which can be precursors for future unwanted events such as failures, incidents and accidents.

What has changed?

RIS-0707-CCS has been updated and rewritten to set out:

- The capability requirements for the proposed National CCS DRACAS, based on the RSSB Concept of Operations, in Part 3;
- The process requirements for managing information and data about CCS subsystem failures, in Part 4;
- The standardised risk classifications that apply to CCS subsystem failures, in Appendix A;
- The rationale underpinning requirements; and
- Guidance on managing CCS subsystem failures, faults and defects, in Parts 2, 3 and 4.

What are the benefits?

The capability provided by the National CCS DRACAS will enable improvements to reliability and safety of CCS subsystems that is estimated to realise £231M potential benefits over ten years and mitigate a predicted £351M disbenefit to the industry of 'doing nothing'. The requirements and guidance aid projects implementing a DRACAS and support the longer-term realisation of a National CCS DRACAS. It is considered that the system model of the DRACAS process, a Concept of Operations and the proposed issue of the standard will support the realisation of 35% of potential benefits (~£80.8M).

Until the National CCS DRACAS is implemented, the cross-industry processes and risk classification will continue to be used in the:

- Mitigation of the shared risk arising from CCS subsystem failures; and
- Management of CCS subsystem reliability and availability.

Who is it for?

Railway undertakings, infrastructure managers and organisations that manage any part of the CCS subsystem lifecycle, including CCS subsystem suppliers, owners, operators and maintainers.