

RAILTRACK

Safety & Standards

SAFETY JUSTIFICATION

ISSUE: I

DOCUMENT INFORMATION

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PART 1 – SCOPE OF SAFETY JUSTIFICATION

This safety justification describes the rationale behind Railway Group Standard (RGS) GK/RT0209 Testing and Commissioning of Train Control and Operational Telecommunications Systems.

The Standard represents an amalgamation of the core requirements from GK/RH0730 Signalling Testing Handbook and GK/RH0740 Signalling Maintenance and Testing Handbook into a single Railway Group Standard GK/RT0209, and facilitates the devolution of all other requirements to Railtrack Line.

So far as the testing of signalling systems is concerned, no fundamentally new controls are being introduced in GK/RT0209, although some existing controls are being reviewed and reworded for clarity.

However the standard also includes within its scope the testing of operational telecommunications systems. Testing requirements for these systems have not previously been mandated at Railway Group level.

PART 2 – RISKS BEING CONTROLLED

Application of the measures contained within GK/RT0209 will control the risk associated with train control and operational telecommunications system being commissioned and entered (or re-entered) into service, by testing against pre-defined processes and procedures. Specifically it addressed the risks of a) introducing a threat to safety during testing and b) commissioning an unsafe system. It will contribute to controlling major railway risks including

- passenger and freight train collisions
- trains colliding with obstructions at level crossings
- collisions with buffers
- train derailments

and so help to ensure the safe running of the operational railway.

PART 3 SUMMARY OF CONTROLS

The standard addresses the principles to be observed, and the key processes required to support the testing and commissioning of train control and operational telecommunications systems. The level and type of testing will be commensurate with the initial reasons for requiring testing.

The controls mandated by the standard include:

- the general requirements for testing and commissioning procedures
- competency requirements
- supervision and audit requirements
- specific requirements for testing and commissioning of new / altered systems
- specific requirements for testing in connection with like-for-like replacement of equipment
- specific requirements for testing after equipment failure
- requirements for establishing safe systems of work
- requirements for monitoring and test equipment.

PART 4 – COSTS AND BENEFITS

The development of GK/RT0209 establishes the high level requirements for the testing and commissioning of train control and operational telecommunications systems. In addition, unnecessary prescription has been transferred to Railtrack Line and the existing control measures have been reviewed and, where appropriate, re-drafted to add greater clarity. These changes provide benefit through consistent requirements being clearly laid out in a single document.

The scope of the Standard has been extended to complete the coverage of S&T equipment by incorporating telecommunications related controls in a Railway Group Standard for the first time. This is beneficial in terms of ensuring that a complete and robust framework of controls is in place, at a level appropriate for a Railway Group Standard

The RGS ensures a consistency of approach and alignment with a single suite of high level requirements while detailed prescription is devolved to Railtrack Line which provides flexibility at the level of implementation. The costs of compliance with the Standard are considered minor, because the signalling related requirements are already mandated, and the telecommunication related controls reflect the good practice established under current arrangements.

PART 5- CONCLUSIONS

The development of GK/RT0209 establishes a complete set of high level requirements for the testing and commissioning of train control and operational telecommunications systems, devolves unnecessary prescription to Railtrack Line and improves the clarity of existing control measures. The cost of compliance is judged minor because the controls are either currently mandated or reflect existing industry good practice. On this basis it is concluded that the Standard is justified.