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Level 2

Installation of Operational Telecommunications Equipment

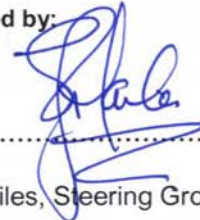
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Issue record

Issue	Date	Comments
1	April 2001	First issue
2	October 2005	Revised to meet the Network Rail Standards Framework. Renumbered from RT/E/S/30028
3	March 2010	Revised to reflect the Engineering reorganisation.

Reference documentation

NR/L1/TEL/30029, *Telecoms installation*

NR/GN/TEL/10117, *Competence Management Systems for Work on Control and Communications Systems*

GK/RT0208, *Installation of Signalling and Operational Telecommunications Equipment for telecoms installations*

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 6 March 2010.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 4 to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 4 was reached and not to comply with requirements contained herein, unless the designated Standard Owner has stipulated otherwise in the accompanying Briefing Note.

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1 Purpose

This specification in support of [NR/L1/TEL/30029](#) sets out the minimum requirements for the management of installation of Operational Telecommunications equipment on Network Rail Infrastructure. These requirements are based on Railway Group Standard [GK/RT0208](#).

2 Scope

These processes shall be applied to all forms of installation work affecting Operational Telecommunications equipment on Network Rail Controlled Infrastructure, whether the installation work is carried out as part of a capital investment project, minor renewals or as a requirement of routine maintenance or failure rectification.

3 Definitions

Engineering Details

A suite of documents that provide the detailed information necessary for the construction/installation of the Operational Telecommunications equipment. It may also include application-specific software/data for the equipment, where it is produced as a part of the design process. See "Additional Requirements for New Work" section below for a list of engineering details that are relevant to installation work.

Infrastructure Records

The definitive records of the operational telecommunications equipment which reflect the actual configuration of the installed equipment, wiring and software. Such records are created, retained and may be physical drawings or electronically stored data.

Like for Like Replacement

The removal and restoration of an item of equipment in a previously working and commissioned system, where the work does not change the configuration or functionality of the system. Engineering details are not provided for the work, and instead the existing infrastructure records are used as the reference documents.

Typically, such work is carried out to repair/replace defective or life-expired equipment or wiring. The work may involve restoring the original item of equipment or replacing it with an operationally equivalent new item (an operationally equivalent item is one that is functionally identical to the item it replaces).

New Work

The installation of new or modified wiring, equipment and software, where the work changes the configuration or functionality of the system. The work is carried out in accordance with engineering details supplied for the purpose. For the purposes of this document, the definition includes:

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- the installation of totally new systems; and
- the alteration of existing systems; and
- the abolition (or “recovery”) of existing systems.

Operational Equipment/ Circuits/Wiring

Equipment, circuits or wiring that are part of a working system. Where a possession has been arranged for the safety of trains and the public, or a telecoms equipment disconnection has been agreed, then the equipment, circuits and wiring that are covered by the possession are regarded as “not operational” for the duration of the possession (i.e. they are not within the scope of this definition).

Operational Telecommunications Equipment

Equipment or systems that are used for:

- Authorising and safeguarding the movement of trains
- Safety related communication systems used for the direct operation of the railway

For the purposes of the installation standards, all cable installations shall be defined as operational telecommunications equipment and as such must comply fully with this standard and its associated documentation.

The definition includes application-specific software and data, as well as equipment and wiring.

4 Control of Installation Work

The requirements of this section apply to all installation work (like for like replacement and new work) affecting equipment that is (or will be) owned by Network Rail, whether taking place on Network Rail Controlled Infrastructure or not.

4.1 Competency Requirements

4.1.1

Operational Telecommunications installation work shall be planned only by personnel who possess sufficient knowledge of the following for the purposes of preparing the plans and method statements:

- the procedures, techniques and practices relevant to the work; and
- the equipment to be installed.

4.1.2

Operational Telecommunications installation work shall be performed only by personnel who: