

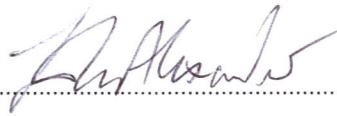
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Level 2

Signalling Power Circuit Principles

Endorsement and Authorisation

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Issue record

Issue	Date	Comments
1	Dec 2008	First Issue

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 06 June 2009.

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.

The Signalling Functional Power Loads database shall be established and populated by 01/01/2010.

Reference documentation

GI/RT7017	Signalling and Safety-Related Telecommunications Power Supplies and Circuits
NR/SP/ELP/27243	Specification for Signalling Power Supplies
NR/GN/ELP/27310	Management of Signalling Power Supplies
NR/GN/ELP/27315	Management of Power Supplies for Telecomms Equipment
NR/L2/INI/02009	Engineering Management of Projects
NR/L2/SIG/11201	Signalling Design: Production
NR/GN/SIG/11205	Symbols for Signalling Circuit Diagrams
NR/SP/SIG/11221	Signalling Works Testing
NR/SP/SIG/11231	Signalling Maintenance Testing Handbook
NR/L3/SIG/10663	Signal Maintenance Specifications
RT/E/C/11210	Signalling Installation
BS7671:2008	IEE Wiring Regulations
BS EN 50122-1	Railway Applications – Fixed Applications – Part 1 Protective Provisions relating to Electrical Safety and Earthing

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1 Purpose

The responsibilities for signalling power supplies have traditionally been with the signal and telecommunications engineers, however the distribution systems have been transferred to the electrification and plant engineer.

This standard states the requirements on designers, suppliers, installers and testers of functional signalling power supply circuits and equipment. Additionally it identifies the need for the designer of the functional circuits to agree load requirements and protection arrangements with the designer of the distribution system.

2 Scope

This standard applies to new functional signalling power circuits (both ac and dc) typically comprising busbars, protective devices, transformers, rectifiers and batteries fed from a functional supply point with a nominal output voltage of less than 175V, typically of the 2 wire IT type (non-earth referenced) and any operational equipment fed from such supplies.

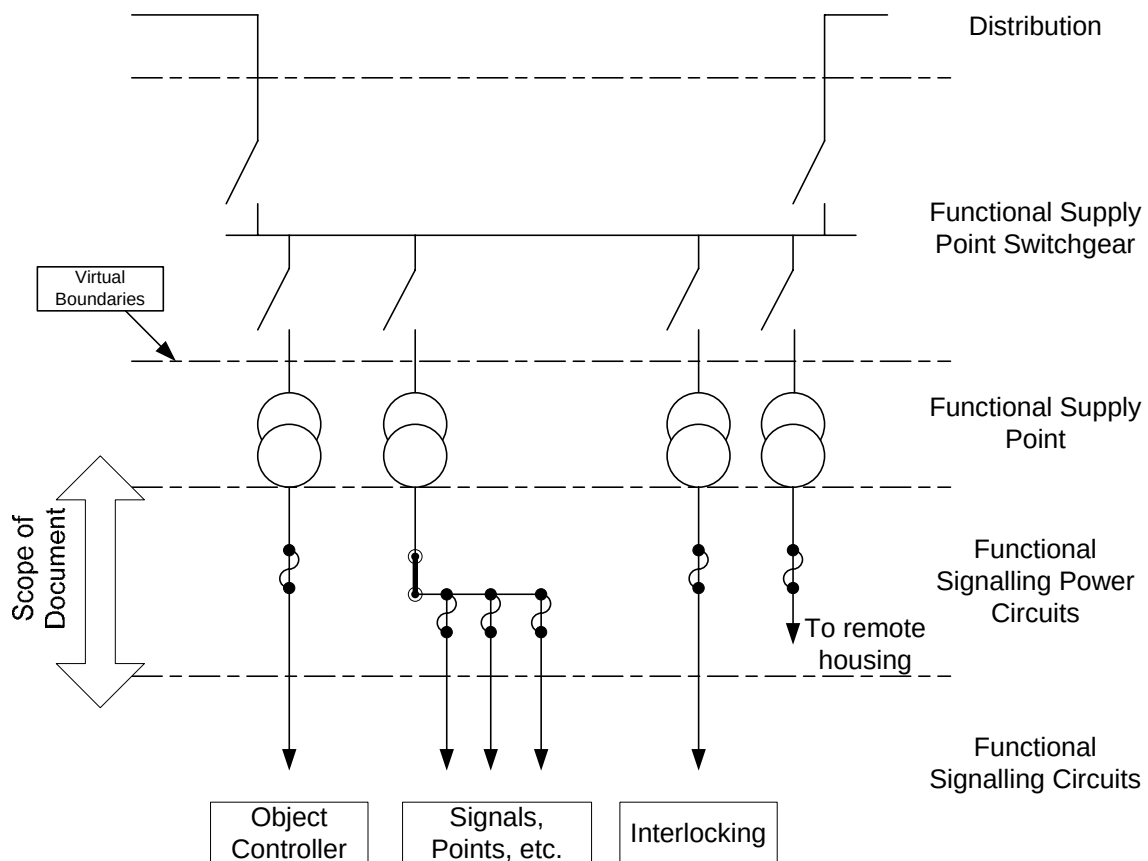


Figure 1 – Parts of a typical Signalling Power Supply System

This standard also applies to alterations to existing functional signalling power circuits and covers transitional arrangements for circuits not designed or installed in accordance with the standards for new installations.