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Issue:	3
Date:	05/09/2015
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SSI Data Preparation

Signal Group Replacement Control

Endorsement and Authorisation

For endorsement, authorisation and issue record of this document, please refer to the SSI Applications Manual Contents, NR/L2/SIG/17002.

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Issue record

Issue	Date	Comments
1	01/02/2001	1 st issue
2	04/10/2010	2 nd issue
3	05/09/2015	Section 3.2 amended to include guidance on the SGRC data required on schemes with axle-counters Section 3.4 amended to correct an error in the data example

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 06/12/2015.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference Documentation

[RT/E/S/10131](#) (issue 2) – Requirement Specification for 'Signals On' Controls for SSI Schemes

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1 Introduction

Company standard [NR/L2/SIG/10131](#) (Issue 1) specifies two separate functions:

- Emergency Signals On Control (ESOC), which affects all signals within an interlocking, and is independent of the CI and Control Centre hardware, programs and data.
- Signal Group Replacement Control (SGRC), which provides an operational function affecting a group of signals. This relies on the correct operation of the CI and Control System.

ESOC is only intended for use when technical failure may render the normal means of signal replacement inoperable. Details for implementing ESOC are contained in [SSI8500](#), primarily in Chapter F.

Details for implementing SGRC follow below.

2 Principles

Basic rules of allocation are as follows:

- A SGRC area may include signals controlled by one or more Central Interlockings.
- A signal may be in zero, one or more SGRC areas.
- A Central Interlocking may contain several SGRC areas.

It is expected that a SGRC will cover a geographical area such as a junction or a level crossing. The allocation of signals to groups is to be agreed in consultation with operators, and is to be accepted along with the Scheme Plan.

Individual signals, e.g. those in long auto sections, may be omitted from SGRC control at the discretion of the Infrastructure Controller. However, this shall not be taken as meaning that all signals can be omitted from SGRC control.

The groups of signals are to be readily recognisable and labelled as a group such that the Signaller is not delayed in determining which SGRC is to be operated. This may lead to SGRC areas including signals controlled by one or more Central Interlockings, but otherwise SGRC areas should be confined to one Interlocking wherever possible to avoid unnecessary complication in application. Where ARS is provided, it is recommended that SGRC areas coincide with ARS sub-areas or multiples thereof.

Different routes from a signal may be controlled by different SGRC areas. Thus a signal on the Down Main, say, with one route to the Down Main and another to the Down Relief, may have a Main Lines SGRC applying to both routes but a Relief Lines SGRC applying just to the second route.

A SGRC is to have two states, operated (on) and cancelled (off). The default SGRC state within the CI(s) on start-up is to be the cancelled state.