

Level 2

Alterations to Authorised Line Speeds

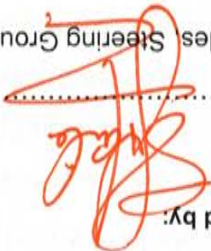
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Issue record

Issue	Date	Comments
1	June 2008	First issue
2	Sept 2011	Maintenance of document, no change to requirements (CCMS document number 61379407)

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 03/09/2011.

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

GE/RT8000/SP	Rule Book Module SP - Speeds
GK/RT0038	Signing of Permissible Speeds and Speed Restrictions
GI/RT7033	Lineside Operational Safety Signs
NR/L2/OPS/031	Risk Assessment and Briefing of Timetable Change
NR/L2/RSK/00001	Integrated Risk Management Process
NR/SP/SIG/11201	Signalling Design : Production
NR/WI/ACC/0001	Safety Verification
NR/WI/ACC/0002	Interoperability

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1 Purpose

The purpose of this standard is to set out the process requirements prior to making alterations to Authorised Line Speeds. The aim is to provide a consistent means of managing such changes so that the risk to passengers, the workforce and public is reduced so far as is reasonably practicable. It also defines the documentation to be produced and retained of the considerations made and decisions taken in the process.

2 Scope

This standard applies when making an alteration to the Authorised Line Speed on a section of line for one or more Category of Train. This includes introduction of an Authorised Line Speed for a different Category of Train on that line that did not exist previously.

The requirements of this standard apply specifically to those responsible for sponsoring the change and those involved in managing the change.

The requirements of this standard shall be applied in any of the following circumstances:

- an increase, decrease, introduction or withdrawal of:
 - permissible speeds
 - standard differential speeds (i.e. freight trains)
 - non-standard differential speeds (i.e. HST, MU, EMU, DMU, SP or CS)
 - Enhanced Permissible Speeds (EPS)
- an increase or decrease in junction/turn-out speeds
- a change from mph to kph (or vice versa)
- introduction of speeds on newly constructed or regenerated sections of line
- conversion of Temporary Speed Restrictions (TSRs) to Permanent Speed Restrictions (PSRs) of the same value

NOTE This standard should be regarded as best practice when removing long-term TSRs (defined as those that have been in place for 6 months or more) and reverting to the original PSR.

Specific requirements of this standard, detailed in Section 6.3, apply when making an alteration to the location of a speed change but where the speed values remain unchanged.

The means of indicating/recording the Authorised Line Speed covered by this standard are as follows:

- by permanent lineside signage (or temporary lineside signage in the case of TSRs)
- within Table A of the Sectional Appendix
- on the Signalling Plan

Measurements of speed covered by this standard include:

- miles per hour (mph)

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- kilometres per hour (kph)

2.1 Specific Exclusions

Specifically excluded from the scope of this standard are the following:

- determination of the need for, and the application of, TSRs or Emergency Speed Restrictions (ESRs)
- conversion of one TSR speed to a different value TSR
- the detailed process by which TSRs and ESRs are applied, changed or removed on site
- risk assessment of long-term TSRs that have not been converted to PSRs
- the detailed process by which speed signage is commissioned or taken-out of use
- changes to speeds indicated by in-cab displays e.g. ATP, ERTMS
- introduction of trains with a higher maximum speed, higher acceleration characteristic or lower braking force than those that currently operate on the route where there is no change to the Authorised Line Speed
- unsigned speed permissions as covered by the '[RT3973](#)' process
- unsigned speeds as detailed in NRAP Certificates
- unsigned speeds as detailed in Section Appendix Route Clearance/Acceptance tables (e.g. Table D)

3 Roles and responsibilities

Alterations to Authorised Line Speeds shall be treated as a Project. As such the Project shall have a Sponsor and a Project Manager.

Sponsor – individual within Network Rail who is requesting that an alteration to the Authorised Line Speed be made. The request may be to satisfy either a safety or performance need. The change may also be being requested by the Sponsor on behalf of an external party (e.g. government, Railway Undertaking). The Sponsor prepares the business case to obtain the funding/budget for the Project and be the primary risk taker. The Sponsor is ultimately accountable for the Project and delivery of the anticipated benefits.

Project Manager – individual within Network Rail (or contracted to Network Rail) tasked by the Sponsor as having the overall responsibility for delivering the alteration(s) to the Authorised Line Speed(s). The Project Manager has the responsibility for establishing and managing the Project Team. The Project Manager also has the overall responsibility for managing the change so that the risk to passengers, the workforce and public is reduced so far as is reasonably practicable.

Project Team – group of one or more individuals who are responsible for assisting, advising, informing and/or executing the requests of the Project Manager. Depending on the organisational structure the Project Team members may directly or indirectly report to the Project Manager. They may be Network Rail employees or contracted to Network Rail.

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Discipline Expert – individual with the relevant knowledge and experience of a particular engineering discipline (e.g. signalling, track, electrification) or other specialism. The individual may directly or indirectly report to the Project Manager. They may be Network Rail employees or contracted to Network Rail.

Functional Expert – individual with the relevant knowledge and experience to be able to represent a particular function (e.g. Maintenance, Operations) on the behalf of Network Rail.

Mitigation Owner – individual who has been given the responsibility for overseeing that a particular Mitigation is put in place. Also responsible for providing regular progress updates to the Project Manager. Alternative terms commonly used are Plan Owner (see Company Standard [NR/L2/RSK/00001](#)) or Action Holder.

Approval Body – a body from whom consent needs to be sought and obtained to permit the change to be undertaken. Such bodies can be internal to Network Rail, or depending on the extent of the change, this may also involve external bodies. Such bodies could include; Network Rail Acceptance Panel, relevant Professional Head, GRIP panel, Safety Review Panel, Railway Undertaking (e.g. Network Change), HMRI/ORR, Department for Transport, Notified Body, Competent Person. Depending on the required approvals/consents the applications may need to be phased.

NOTE Further detail relating to Safety Verification and Interoperability is contained in Company Work Instructions [NR/WI/ACC/0001](#) and [NR/WI/AC/0002](#) respectively.

4 Definitions

Authorised Line Speed – the maximum speed for a particular Category of Train, or for all trains, on a section of line. This includes permissible speeds, differential permissible speeds and enhanced permissible speeds.

Category of Train – an agreed population of vehicles/trains/units which may travel at the published Authorised Line Speed for that Category of Train as defined in Module SP of the Rule Book [GE/RT8000](#) (e.g. MU).

Permissible speed – the published Authorised Line Speed which applies to all trains using a line (except where specifically authorised by a differential or enhanced permissible speed).

Differential permissible speed – a published Authorised Line Speed applicable to trains which satisfy the requirements for the relevant Category of Train. A standard differential speed applies to freight and passenger train types. A non-standard differential speed (e.g. HST, MU, EMU, DMU, SP, CS) applies to specific Categories of Train as defined in Module SP of the Rule Book [GE/RT8000](#).

Enhanced Permissible Speed – a published Authorised Line Speed applicable to a Category of Train where an active suspension/tilt system is operational.

Sectional Appendix – document containing the published Authorised Line Speeds for each Category of Train on each section of line.

Master Record – the master record for Authorised Line Speeds is the Signalling Plan from which the published arrangements are shown in the Sectional Appendix. In the absence of the Signalling Plan for area concerned the master record shall be considered to be the Sectional Appendix.

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Project – a collection of activities resulting in a change of state of the infrastructure including design, construction, installation, modification, maintenance, renewal and disposal activities.

Project Lifecycle – the sequence of phases through which a Project evolves that provides the structure and approach for progressively delivering the required outputs.

Proposed Scope of Operation - in the context of this standard, this term is used to describe the intended operation and infrastructure configuration following commissioning of the alteration(s) to the Authorised Line Speed(s).

Suitability – in the context of this standard, this term is used to describe an evaluation of the assets current design and condition to permit the Proposed Scope of Operation.

Sustainability – in the context of this standard, this term is used to describe an evaluation of the ability to maintain the asset in the future, following the change, to the required standards.

Hazard – any situation that could potentially contribute to an accident.

Issue – a Project or business related consideration/question, that if not addressed through suitable Mitigation, could potentially result in unsatisfactory company/industry performance e.g. could the Proposed Scope of Operation have a detrimental impact on longer term Sustainability ?

Mitigation – a control measure that is put in place to mitigate risk arising from a hazardous event or to address an identified Issue.

5 Abbreviations

ALCRM	All Level Crossing Risk Model
APC	Automatic Power Control
AWS	Automatic Warning System
ATP	Automatic Train Protection
CIS	Customer Information System
CS	Class 67 specific speed restriction (i.e. lower than the permissible speed)
CSR	Cab Secure Radio
DMU	Diesel Multiple Unit specific speed restriction
EMU	Electric Multiple Unit specific speed restriction
EPS	Enhanced Permissible Speed (applicable to tilting trains)
ERTMS	European Rail Traffic Management System
ESR	Emergency Speed Restriction
GRIP	Guide to Railway Investment Projects
GSM-R	Global System for Mobile telecommunication - Railways
HABD	Hot Axle Box Detector

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HMRI	Her Majesty's Railway Inspectorate
HST	High Speed Train specific speed restriction
IVRS	Interim Voice Radio System
LSP-ABC	Line Speed Profile – As Built Configuration
LSP-IDC	Line Speed Profile for Interdisciplinary Check
MU	Multiple Unit specific speed restriction
NRAP	Network Rail Acceptance Panel
NRN	National Radio Network
OLE	Overhead Line Equipment
ORR	Office of the Rail Regulator
PSR	Permanent Speed Restriction
ROGS	Railways & Other Guided transport Systems regulations
RU	Railway Undertaking
SAT-DA	Signal Assessment Tool – Detailed Assessment
SCADA	Signalling Control And Data Acquisition
SP	'Sprinter' specific speed restriction
SPAD	Signal Passed At Danger
SPT	Signal Post Telephone
SRP	Safety Review Panel
TASS	Tilt Authorisation & Speed Supervision
TNC	Temporary Non-Compliance
TOC	Train Operating Company
TOWS	Train Operated Warning System
TPWS	Train Protection & Warning System
TSR	Temporary Speed Restriction

6 Requirements

The following clauses specify the process requirements prior to making alterations to Authorised Line Speeds. The Process Map contained in Figure B.1 within Appendix B also outlines the key process steps and should be read in conjunction with the text in this section.

6.1 Establishing the Project Team

Once the need to alter an Authorised Line Speed has been identified, the Sponsor shall appoint a Project Manager. The Project Manager shall establish a Project Team with the skills and competencies considered necessary. The Project Manager shall also identify the required Discipline and Functional Experts to advise and support the Project either as part of the Project Team itself or through providing input to it.