

Ref:	NR/L2/RVE/0001
Issue:	2
Date:	04/06/2011
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Level 2

Design, Acquisition and Engineering Change of Rail Vehicles and On-Track Plant

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Issue record

Issue	Date	Comments
~~1~~	~~December 2007~~	~~Original Issue~~
~~2~~	~~January 2009~~	~~Revised following 2a re-organisation~~
1	December 2010	Revised (by strikethrough) to show the Policy requirements that have now been incorporated in the new Level 1 RMVP standard - NR/L1/RMVP/0001 – NR's Plant and T&RS Policy. This standard has been re-numbered to a Level 2 standard to reflect that it now contains only lower requirements which remain in force until they are superseded by new Level 2 or 3 Standards.
2	June 2011	Revised to correct minor errors to referenced documents.

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 3 September 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.

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Supply

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Key to Strikethrough Changes

Text struck through in red font is superseded by NR/L1/RMVP/0001

Text struck through in green font is no longer required (as it is no longer a requirement or is adequately addressed by the Health & Safety Management System)

Text in plum font has been amended to reflect the organisational or document changes made since November 2009.

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Reference documentation

Ref. Number	Document title
	Network Rail Health & Safety Management System ROGS Transition Supplement
SI2006/599	The Railway and Other Guided Transport Systems (Safety) Regulations 2006
SI2006/397	The Railways (Interoperability) Regulations 2006 Managing Fatigue in Safety Critical Work Regulations July 2006
RIS-1530-PLT	Engineering Acceptance of Possession only Rail Vehicles and Associated Equipment
BS 5892 Part 6	Rolling Stock Materials
~~GK/RT0106~~ GERT8106	Management of Safety Related ~~Control, Command and Failures of~~ Signalling (CCS) Failures and ~~Operational Telecommunications (as applicable to train-borne signalling equipment)~~
GM/RC2515	Engineering Development of Rail Vehicles – Code of Practice
~~GM/RT1403~~	~~Use of Plant and Work Equipment~~
RIS-1700-PLT	Rail Industry Standard for Safe Use of Plant for Infrastructure Work
GM/RT2000	Engineering Acceptance of Rail Vehicles
GM/RT2001	Design Scrutiny for the Engineering Acceptance of Rail Vehicles
GM/RT2004	Requirements for Rail Vehicle Maintenance
GM/RT2005	Certification Processes for NDT Operatives, Equipment and Facilities used for Inspecting Rail Vehicles
GM/RT2030	Axle Bearing Maintenance
GM/RT2273	Post Incident and Post Accident Examination and Testing of Vehicles
GM/RT2400	Engineering Acceptance and Design of On-Track Machines
GM/RT2450	Qualification of Suppliers of Safety Critical Engineering Products and Services
GM/RT2453	Registration of Rail Vehicles and Mandatory Data Requirements
GM/RT2466	Railway Wheelsets

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Ref. Number	Document title
GM/RT2468	~~Rail Vehicles — Overall Design, Risk Assessment and Certification~~
GM/RT2470	~~Wheelset Supplier Qualification~~
GO/RT3260	~~Competence Management for Safety Critical Work.~~
GO/RT3471 GORT3118	Incident Response Planning & Management
GO/RT3472	~~Incident Management and Evidence Gathering~~
GO/RT3473 GORT3119	Accident and Incident Investigation – Rapid Response
GC/RT5101	~~Technical Approval Requirements for Changes to the Infrastructure~~
GE/RT8047	Reporting of Safety Related Information.
GE/RT8250	Reporting High Risk Defects
GE/RT8270	Route Acceptance of Rail Vehicles including Changes in Operation or Infrastructure
GI/RT7002	~~Acceptance of Systems, Equipment for use in Railtrack Controlled Infrastructure~~
	Network Rail Safety Management System Manual
NR/01071	Breakdown and Recovery Engineering Manual – Volume 1
NR/CS/OPS/046	The Train Operations Manual
NR/L1/ACC/029	Product and Plant Acceptance
NR/L3/AIF/005	Management of asset data and information in the Rail Vehicle Asset Register
NR/L1/CPR/103	Supplier Assurance Framework
NR/L2/CTM/027	Competency & Training for the Maintenance of Traction & Rolling Stock and Ontrack Machines
NR/L2/CTM/205	
NR/L2/RMVP/0203	Planning and Undertaking Lifting Operations using On-track Plant
NR/L2/RMVP/0206	Safe Use of Plant
NR/L2/RMVP/0207	On/Off & Cross Tracking of On-track Plant
NR/L3/RMVP/047/TMR05	Handling Serviceable Rail & with Road Rail Excavator Cranes in Rail Mode, including Thimbling.
NR/L3/RMVP/047/TMR12	Safety Related Defect Reporting & Performance Monitoring for Hired-in RRVs & RMMMs
NR/L3/RMVP/048/TMM001	Machine Controller Competency
NR/L3/RMVP/048/TMM002	Trailers and Attachments with RRVs and RMMMs

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Ref. Number	Document title
NR/L3/RMVP/048/TMM003	Machine Controller Check Lists
NR/L2/RSE/015	Network Rail Acceptance Board
NR/L2/RVE/0002	Maintenance, Operation and Use of Rail Vehicles.
NR/L2/RVE/0003	Assurance, Performance and Monitoring of Rail Vehicles
NR/L2/RMVP/0004	Management of the Private Wagon Registration Agreements
NR/L2/RMVP/1326	Assurance Plans
NR/L2/RVE/1327	Depot Facilities
NR/L2/RMVP/1332	Wheelset and Axle Bearing Manual
NR/L2/RVE/1350	Control of Rail Vehicle Testing
NR/L3/RVE/1006	Technical Audit Procedure
NR/SP/STP/045	Managing the Process for Non-compliance Authority
PM 07	GRIP Project Management Manual
RT/CESM/3/01300	New Rail Vehicles
RT/CESM/3/01301	Maintenance and Overhaul, Repair, Modification of Rail Vehicles
RT/CESM/3/01302	Systems, Equipment, Components and Spare Parts.
RT/CESM/3/01303	Maintenance Services, Facilities and Test Equipment
RT/CESM/3/01304	Certification, Consent, Approvals and Related Records for Rail Vehicles
RT/CESM/3/01305	Asset Management, Performance Monitoring & Defect Reporting of Rail Vehicles
RT/CESM/3/01306	Safety Systems
RT/CES/3/01311	Handover / Handback of Rail Vehicles
RT/CES/3/01312	Heavy Maintenance
RT/CES/3/01313	Retrieval and Storage of Data Recorders and other On-Train Monitoring and Recording Equipment
RT/CES/3/01314	Engineering Change and Non-compliances
RT/CES/3/01315	Format for Standards of Network Rail, Rail Vehicle Drawings
RT/CES/3/01316	Livery for Network Rail, Rail Vehicles
RT/CES/3/01317	Design and Build Standards Applicable to Network Rail T&RS
RT/CES/3/01318	Production of Vehicle Overhaul Instructions

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Document title

RT/CES/3/01319	Engineering Standards applicable to Rail Vehicles. (Note this document invokes a considerable number of other Network Rail engineering specifications).
RT/CES/3/01320	Client Scrutiny of New and Modified Rail Vehicles
RT/CES/3/01321	Safety and Performance Monitoring
RT/CES/3/01322	Engineering Document Review
~~RT/CES/3/01325~~	~~Rail Vehicle Emergency Services Data~~
RT/CES/3/01328	Accidents and Incidents Concerning Rail Vehicles
~~RT/CES/3/01329~~	~~Requirements for Delivery Unit Handbooks~~
RT/CES/3/01333	Wheelset Activation
RT/CES/3/01334	Component Tracking Database
RT/CES/3/01335	Experiments and Trials
RT/CES/3/01336	Hot Axle Box Deactivation
RT/CES/3/01338	Mandatory Technical Content of Vehicle Maintenance Instructions and Vehicle Overhaul Instructions
RT/CES/3/01345	Hot Axle Bearing Detection for Network Rail Vehicles
RT/CES/3/01346	Production of Safety, Maintenance and Technical Bulletins
RT/CES/3/01347	Production of Component Overhaul Instructions
RT/CES/3/01348	Production of Illustrated Lists Of Parts
RT/CES/3/01349	Network Rail Engineering T&RS Adopted Engineering Specifications
RT/CES/3/01352	Software Policy
~~*RT/CESM/3/01399~~	~~Chief Engineer's Rail Vehicle Engineering Manual and Instructions~~
~~RT/ENGP/07~~	~~Chief Engineer's Rail Fleet Asset Engineering Policy~~

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1 Purpose

Many of the requirements of this standard have been migrated to a new Level 1 standard NR/L1/RMVP/0001 – “*Network Rail’s Plant and T&RS Policy*” which details only the high level requirements (e.g. the “What” needs to be done) for Network Rail Plant and Traction and Rolling Stock (T&RS).

However, there are many lower level requirements (*the Who, When, Where and How elements*) that still need to remain in force until they are incorporated into lower Level 2 or 3 RMVP standards. This amended standard underpins the new Level 1 Policy and highlights (*by strikethrough, see Key to Changes on page 2*) which high level requirements have been transferred or are no longer required and which lower level requirements still remain in force for the management of Network Rail, Rail Mounted Vehicles and Plant.

This company standard describes the engineering technical requirements for design, acquisition and engineering change management processes for rail vehicles owned by Network Rail. ~~This standard supersedes the Train Operations Manual chapters detailed in Appendix C.~~

~~Compliance with the arrangements described in this Company Standard will verify:~~

- ~~• that Network Rail owned rail vehicles and Rail Vehicle ‘Safety Critical Engineering Systems, Products, Facilities and Services’ (RVSCPS) remain compliant with statutory legislation, the Network Rail Safety Management System (including ‘Railways and other Guided Transport Systems Regulations 2006’ (ROGS) and ‘Railways Interoperability Regulations’ (RIR) Transition Supplement(s), Railway Group Standards and other mandatory requirements.~~
- ~~• that any engineering change associated with Network Rail’s rail vehicles is managed in such a way that meets Network Rail engineering requirements, ensures the safety of the vehicle is not compromised, that attendant risks are ‘As Low as Reasonably Practicable’ (ALARP), and where applicable any “re-certification” required is identified at an early date and sought before change is implemented.~~
- ~~• that where an issue of a ‘Deviation’ arises it is thoroughly investigated, the mitigating circumstances are identified and fully understood so that an engineering plan can be put into place to enable the condition to be overcome.~~

~~NOTE It may not always be possible to overcome a deviation.~~

Technical requirements underpinning the above are defined and discharged through various engineering requirements and specifications within this and related Company Standards NR/L2/RVE/0002 - “*Maintenance, Operation and Use of Rail Vehicles*” and NR/L2/RVE/0003 - “*Assurance, Performance and Monitoring of Rail Vehicles*”.

~~Management of Rail Vehicle Acquisition and/or Engineering Change is controlled in accordance with the principles for whole life asset management of rail vehicles described in engineering specification RF/ENG/P/07 – “*Chief Engineer’s Rail Fleet Asset Engineering Policy*”. This is underpinned further by the engineering specifications referred to within the Company Standard.~~

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2 Scope

This Company Standard is applicable to rail vehicles and associated rail vehicle safety critical engineering systems, products, facilities and services under the engineering management and control of Network Rail that:

- Network Rail owns (including finance lease arrangements)
- It has an Engineering responsibility for

or,

- It hires-in from 3rd Parties (and Network Rail has agreed engineering responsibility for - see Network Rail document RF/ENG/P/07 – “*Chief Engineer’s Rail Fleet Asset Engineering Policy*”).

This includes agents acting on behalf of Network Rail without a Safety Management System (SMS) accredited by the Office of the Rail Regulator (ORR).

This Company Standard is also applicable to all Network Rail staff [including agents acting on behalf of Network Rail] involved in, or actively considering the maintenance, operation or use of Rail Vehicles. It is also applicable to the post delivery elements of new rail vehicle projects, including warranty defects, strategic spares and retrospective work arising from deficiencies in original build activities.

~~The Professional Head is supported by a Rail Vehicle, National Specialist Team (RV NST) who may exercise duties assigned to the role of Professional Head detailed in this standard, through delegation of authority to other roles within these teams. It is the responsibility of the Professional Head to document arrangements of delegated authority within their RV NST in local Working Instructions (WI's).~~

~~It is the responsibility of each Network Rail Delivery Unit function using Rail Vehicles (known as a Delivery Unit) to demonstrate compliance with this standard through their respective Delivery Unit Handbooks.~~

NOTE The organisational arrangements for the engineering management of the Private Wagon Registration Agreement (PWRA) and International Vehicles are covered in a separate company standard - NR/L2/RMVP/0004 -“Management of the Private Wagon Registration Agreements (PWRAs).

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~~3 Roles and Responsibilities~~

NOTE The Professional Head responsibilities defined in this standard are now the responsibility of the Professional Head [Plant and T&RS].

4 Definitions

General definitions that are applicable to the entire Rail Mounted Vehicle & Plant engineering management standards are stated in this Company Standard.

~~Accident~~

~~Assigned Person~~

AWS

Automatic Warning System.

Balanced Maintenance

A rail vehicle maintenance regime that “balances” the workload to provide a consistent downtime for maintenance. This could be applicable to either routine or heavy maintenance or a combination of both.

Certificate of Conformity

A certificate issued to confirm compliance of a product with a designated specification and/or standard.

Competent Authority

Secretary of State (Department for Transport) in Great Britain, except in relationship to the Channel Tunnel where it is the Inter-Governmental Commission.

~~Competent Person~~

Contingency Plan

A defined list of expedencies to secure the recovery of the operational process in all aspects of instances of failure under the remit of the Delivery Unit Rail Fleet Manager.

Contracting Entity

The person (e.g. Project Engineer) or organisation who is responsible for the design, manufacture or marketing of new or amended Rail Vehicles or associated Interoperability Sub-systems or Interoperability Constituent and for seeking a decision relating to the level of authorisation to place the vehicle into service.

Delivery Unit

A Network Rail Delivery Unit is an organisation using Rail Vehicles. It carries out or supports various functions including: infrastructure maintenance, monitoring and renewal; critical activities such as Network Availability, special operations, major projects support.

~~Delivery Unit Handbook~~