Product Acceptance Service

Guidance Note

Network Rail Safety Technical & Engineering
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1 Purpose

The purpose of this document is to provide clear guidance on the management of the Product Acceptance service, practices to be followed, authorities and policy.

The document is to support the successful delivery of a professional, effective, and transparent Product Acceptance service.

Systems, sub-systems, modules, components, and equipment will be collectively referred to as ‘Products’ throughout this document.

2 Terms and definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRAP</td>
<td>Network Rail Assurance Panel</td>
</tr>
<tr>
<td>TSI</td>
<td>Technical Specification for Interoperability</td>
</tr>
<tr>
<td>CSM</td>
<td>Common Safety Method on Risk Evaluation and Assessment</td>
</tr>
<tr>
<td>RIDC</td>
<td>Rail Innovation and Development Centre</td>
</tr>
<tr>
<td>STE</td>
<td>Safety Technical and Engineering Directorate</td>
</tr>
<tr>
<td>NSC</td>
<td>National Supply Chain</td>
</tr>
<tr>
<td>IRIS</td>
<td>International Rail Industry Standard</td>
</tr>
<tr>
<td>RGS</td>
<td>Railway Group Standard</td>
</tr>
<tr>
<td>Hazard Record</td>
<td>The document in which identified hazards, their related measures, their origin and the reference to the organisation which has to manage them are recorded and referenced;</td>
</tr>
<tr>
<td>TRL</td>
<td>Technology Readiness Level</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organisation for Standardisation</td>
</tr>
<tr>
<td>SRP</td>
<td>System Review Panel</td>
</tr>
<tr>
<td>PADS</td>
<td>Parts and Drawings System. A database owned by SERCO. The data is managed by Network Rail Catalogue Management Team (NSC). This includes the creation and revision of controlled catalogue (PADS) numbers.</td>
</tr>
<tr>
<td>Controlled Catalogue Numbers (PADS Numbers)</td>
<td>Numbers allocated to items that are deemed critical and requiring approval as defined in the NR standards NR/L2/RSE100/05 and NR/L2/RSE100/06.</td>
</tr>
<tr>
<td>istore</td>
<td>Network Rail’s online procurement site for the searching and ordering of “controlled or uncontrolled” products. Note: This site is available to Network Rail employees only.</td>
</tr>
<tr>
<td>Uncontrolled Catalogue Numbers</td>
<td>Numbers allocated to items within istore that are deemed uncontrolled and fall outside of the scope of items that require Product Acceptance. Note: numbers are applied for and allocated via the istore site. .</td>
</tr>
</tbody>
</table>
3 Scope

Critical Products that have reached Technology Readines Level (TRL) 7 are assessed for Product Acceptance via the methods described in the Network Rail standards NR/L2/RSE/100/05 and NR/L2/RSE/100/07

The Products deemed critical and requiring approval are based on risk to the business and are currently defined in the Network Rail standard NR/L2/RSE/100/06

When products identified in NR/L2/RSE/100/06 are assessed via NR/L2/RSE100/05, this guidance note may support the management of the process.

It is relevant to:

- the introduction of new or modified Products by Network Rail or other applicants that may affect Network Rail Infrastructure.
- a change of application of a critical Product;
- a change of manufacturer of a critical Product;
- the installation of a Product owned by another Duty Holder on, or about, Network Rail’s infrastructure where there may be issues of compatibility with Network Rail’s infrastructure.

For further guidance please email us at prodacc@networkrail.co.uk
4 Management

The Network Rail Safety Technical and Engineering Directorate (STE) is responsible for the management of the service.

Roles and responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Duties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Manager (Route Services)</td>
<td>Category Manager for Asset Group who determines whether products are in line with commercial strategy and that they meet business requirements.</td>
</tr>
<tr>
<td>Catalogue Manager (Route Services)</td>
<td>Responsible for the allocation of “controlled” catalogue numbers for items within a products configuration and for the management of those items within the SERCO PADS and NR istore database’s.</td>
</tr>
<tr>
<td>Approval Manager</td>
<td>Member of the central Product Acceptance team responsible for the management of applications, liaison with Customers, tracking costs, KPI, performance reporting, and guidance to stakeholders.</td>
</tr>
<tr>
<td>Asset Group Lead</td>
<td>Responsible for leading individual asset groups, co-ordinating and prioritising workload, and allocating resource.</td>
</tr>
<tr>
<td>Lead Reviewer</td>
<td>Engineer within the relevant engineering asset group responsible for setting the approval requirements, assessing, and recommending approval of the Product. Lead Reviewers shall hold appropriate qualifications and be competent to do so, to the satisfaction of the Professional Head(s).</td>
</tr>
<tr>
<td>Head Of Asset Discipline</td>
<td>Authority and signatory for the approval of Products for use in or on Network Rail infrastructure. May delegate certain duties.</td>
</tr>
<tr>
<td>Applicant (Sponsor)</td>
<td>The Applicant will be someone from within Network Rail (Internal Applicant), who wishes to have a Product considered for Approval and is willing to act in a sponsorship capacity.</td>
</tr>
<tr>
<td>Supplier Quality Assurance</td>
<td>Responsible for defining and providing Supplier Quality Assurance (SQA) activities appropriate to risk.</td>
</tr>
</tbody>
</table>

Resources

The resources allocated to the service shall be agreed within the relevant STE Engineering discipline. STE will offer a service* to applicants seeking to gain approval for the use of a Product on or about Network Rail’s infrastructure.

*provision of service is dependent on the applications meeting the requirements of initial reviews and commercial category/engineering strategy checks. Applications will be rejected if they do not include sufficient detail including robust business case, or are not at the required Technology Readiness Level (TRL).
5 Process

Application
    Applicant (Sponsor)

Initial Assessment
    STE & Route Services

Initial Requirements
    STE

Assessment
    STE

Technical Requirements
    STE Engineering

Submission Of Evidence
    Applicant (Sponsor)

Assessment Of Evidence
    STE Engineering

Operational Trial (If Required)
    Applicant (Sponsor)

Trial Requirements
    STE Engineering

Submission Of Trial Evidence
    Applicant (Sponsor)

Certification (Approval)
    STE Engineering
**Application phase**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Stage</th>
<th>Who</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Application</td>
<td>Applicant</td>
<td>• Submit application</td>
</tr>
</tbody>
</table>
| 1.2  | Initial review            | Approval Manager           | • Determine if the Product requires approval.  
• Determine if the Product is critical.  
• Determine or seek clarification that the Product is at the required Technology Readiness (TRL) Level.  
• Determine the lead and any affected asset groups.  
• Determine if review by SRP is required.  
• Progress the application for Category Management, Engineering and SQA review.  
• Issue Generic Acceptance Requirements to Applicant. |
| 1.3  | Category Management Review| Category Manager (NSC)     | • Determine via Category Management check, the business need and whether the Product is in line with any applicable policy; or strategy |
| 1.4  | Engineering Review        | Asset Group Lead(s)        | • Determine whether the Product is in line with any applicable policy; or strategy with that discipline.  
• Determine the Products criticality level.  
• Determine if the Product is an Interoperability constituent.  
• Determine if Design for Reliability (DFR) process applies.  
• Allocate the Lead Reviewer. |
| 1.5  | Supplier Quality Assurance Review | Supplier Quality Assurance | • Determine whether the Product requires an SQA Audit.                                                                                                                                 |

**Assessment phase**

<table>
<thead>
<tr>
<th>Ref</th>
<th>Stage</th>
<th>Who</th>
<th>Tasks</th>
</tr>
</thead>
</table>
| 2.1  | Initiate assessment       | Approval Manager           | • Request that the Lead Reviewer sets the product specific engineering requirements.  
• Request that Supplier Quality Assurance activities to be carried out if required.  
• Notify Professional Development & Training of the new Product. |
| 2.2  | Set requirements          | Lead Reviewer              | • Review the information provided.  
• Specify product specific engineering requirements for approval.  
• Provide requirements to Applicant.  
(Affected Asset Groups shall also assign a Reviewer to set any approval requirements) |
| 2.3  | Submission                | Applicant                  | • Produce a submission providing evidence of compliance against the specific requirements set. |
| 2.4  | Assessment                | Lead Reviewer              | • Review the submission for completeness.  
• Assesses the Customer’s submission.  
(Affected Asset Groups also assess the submission) |
| 2.5  | Approval                  | Lead Reviewer              | • Decides whether approval is to be granted or declined  
• Requests catalogue numbers from NSC Catalogue Management for items within the configuration deemed “controlled”.  
• Drafts appropriate Approval Certification or provides advice on rejection. |
| 2.6  | Professional Head approval| Head of Asset Discipline   | • Authorises and “signs off” approval.                                                                                                                                 |
| 2.7  | Delivery                  | Approval Manager           | • Issue approval certification (for trial or full approval) or rejection advice to the Customer. |
Operational trial phase

If during the approval process it is not possible for Network Rail to be satisfied that the risk of introducing the new or changed Product is acceptable, a trial in operational service may be specified.

Should a trial in operational service (over and above any demonstration, testing, and initial off-infrastructure trialling) is required to be carried out, the applicant or STE (as appropriate) shall liaise with a Network Rail Route to determine a suitable trial location.

<table>
<thead>
<tr>
<th>Ref</th>
<th>Stage</th>
<th>Who</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Trial requirements</td>
<td>Lead Reviewer</td>
<td>• Specify requirements and success criteria for the trial.</td>
</tr>
<tr>
<td>3.2</td>
<td>Trial</td>
<td>Route/Project</td>
<td>• Undertake trial in operational service.</td>
</tr>
<tr>
<td>3.3</td>
<td>Trial report</td>
<td>Applicant/Route/Project</td>
<td>• Route/Applicant/Project to produce a trial report providing evidence that the trial requirements have been met.</td>
</tr>
<tr>
<td>3.4</td>
<td>Assess trial report</td>
<td>Lead Reviewer</td>
<td>• Lead reviewer assess the trial report and if satisfied recommends approval.</td>
</tr>
<tr>
<td>3.5</td>
<td>Approval</td>
<td>Lead Reviewer</td>
<td>• Decides whether approval is to be granted or declined.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Drafts appropriate Approval Certification or provides advice on rejection.</td>
</tr>
<tr>
<td>3.6</td>
<td>Final review</td>
<td>Approval Manager</td>
<td>• Undertakes a final review.</td>
</tr>
<tr>
<td>3.7</td>
<td>Professional Head approval</td>
<td>Head of Asset Discipline</td>
<td>• Authorises and “signs off” approval.</td>
</tr>
<tr>
<td>3.8</td>
<td>Delivery</td>
<td>Approval Manager</td>
<td>• Issue approval certification or rejection advice to the Customer.</td>
</tr>
</tbody>
</table>

6 Review by System Review Panel

The approval of infrastructure schemes or high risk systems, products and complicated multidisciplinary new and novel system or product applications are dealt with in accordance with Network Rail Standard NR/L2/RSE/100/07. This standard is owned by the Network Rail Assurance Panel (NRAP). For most infrastructure schemes and systems requiring assessment, NRAP delegates this to System Review Panels (SRP).

If at initial stages it is agreed that an SRP review by panel is required, the approval process described in NR/L2/RSE/100/07 is to be followed with a NRAP authorised person appointed as Chairperson of the panel, with panel membership comprising competent and independent individuals from each affected asset group.

In order to reach a conclusion, the Chairperson shall seek to achieve a consensus of members present at the meeting.

If a consensus cannot be achieved, the final decision shall be taken by the Chairperson.

The Chairperson of each panel is accountable to NRAP.

In addition to panel members, additional expert advice on specific issues may be called upon.

For further guidance relating to System Review Panels, please email us at prodacc@networkrail.co.uk

Whole life cost

The Product Acceptance process may consider whole life cost in its assessment of a Product.
7 Examples of items that require approval

The following list provides examples of the categories products and types of items that typically require Product Approval, please note that this list is not exhaustive and advice may be required to determine whether your product requires approval.

Please also refer to the Network Rail standard “NR/L2/RSE/06 - How to decide what needs product acceptance”, for further details on the products that this process applies to.

Signalling Applications

- Signals (mechanical, filament and LED colour light).
- Control Systems (lever frame, panel, VDU, ground frames/panels)
- Interlockings (mechanical, relay, electronic, disconnection boxes)
- Apparatus Housing (location cases, equipment buildings)
- Train Detection (track circuit, axle counters, treadles)
- Point End (mechanical, clamp lock, machine, HPSS)
- Train Protection (AWS, TPWS, ATP)
- Train Describers (mechanical, electronic)
- Signalling Power Supplies (transformers, UPS, battery, power cables)
- Infrastructure Specific Relays/Boxes (large plug in, BR930, sub- miniature cradle, shelf type, DCPI)
- Event Logging and Condition Monitoring Systems.
- Line side Signage to Support Signalling (operational and non-operational signage).

Level Crossing Applications

- Control Systems (manually controlled, automatically controlled, passive/user worked)
- Barriers (manually controlled barriers, automatic barriers)
- Signalling and Communication (road traffic lights, pedestrian warning lights, audible warnings, crossing CCTV cameras, telephones, panel indicators, panel monitors)
- Track Bed (surface, deck, track, drainage, road markings, trespass guards, fencing, rail signage, crossing signage, gates and stiles, vegetation management, CCTV lifting equipment, lighting, electrical supplies)
- Buildings and Civils (lighting and columns, CCTV columns)
- Highway Authority (road signage)

Electrification & Power Applications

- HV Switchgear AC (oil filled, vacuum, SMOS, air, vacuum GIS).
- HV Cables (solid/ XLPE, oil filled/ paper).
- Contact Systems (OLE and components, CRE and components)
- HV Transformers (standard, auto, booster)
- DC Electrification (oil filled, vacuum, vacuum GIS, transformers/rectifiers, LV cables)
- Electrical points and Conductor Rail Heating (systems and components, cabling)
- Tools and equipment (live line, non live line)
- Power Supplies (systems, cables, switchgear and transformers, power generation).
- Miscellaneous (electrical equipment enclosures, monitoring and control).
Telecommunications Applications

- Transmission System (transport layers optical and copper, LAN/WAN node/ data network)
- Network Management (hardware, software)
- Trunk Cabling (copper, fibre, immunisation, cable routes)
- Operational Voice Comms (concentrators, public emergency telephone systems, voice recorders, operator MMI, CSR/RETB/NRN/ORN, radio spot scheme, BSS, NSS, cab mobile, GSM-R handheld, FTS, tunnel and lineside telephone systems)
- Sub-surface Station Management Control (customer information system, public address, surveillance CCTV)
- Train Dispatch (DOO CCTV, DOO mirror)
- Power Supply (power supply chargers, earthing, UPS, rectifier, inverter, battery)

Plant Applications

- On Track Plant OTP (MEWPS, RRV, rail lifters, sleeper layers, mobile flashbutt welders, rail clippers, powered trolleys, access platforms, excavation machines, track access systems, grinders, cranes, rollers, dozers, multipurpose vehicles)
- On Track Machines OTM (tampers, rail cutting machines, ballast cleaners, tilting wagons, multipurpose vehicles)
- Manually Propelled Powered Equipment (rail clippers/ clip removers, track jacks, rail grinders, rail stressing equipment, rail straighteners/ benders, welding machines, rail head cleaners, sleeper replacers, rail thimbles)
- Manually Propelled non Powered Equipment (hand trolleys, rail skates)
- Non Rail Mounted Plant or Machinery (chippers, dozers, cranes, scaffold, mowers, lifting beams)
- Tools and Equipment (rail saws, track measuring devices TMD’s, detection systems. Cable locators, total stations, rail stressing equipment, testing and diagnostic equipment, data loggers and condition monitoring equipment, generators, train/ track warning systems, grinders, communication systems)
- Non Powered Tools and Equipment (lifting accessories, tension meters, insulated hand tools)

Track Applications

- Plain Line (rail, sleepers, ballast, formation)
- Drainage (drainage, formation)
- Monitoring Systems (temperature, inspection)
- Tools (gauges)
- Welding (track welding processes, welding peripherals)
- Miscellaneous (lubricants, grease distribution units)

S&C (Switches & Crossings) Applications

- S&C (rail, bearers, crossings, half sets sleepers, ballast, formation)
- Drainage (drainage, formation)
- Monitoring Systems (temperature, inspection)
- Tools (gauges)
- Welding (track welding processes, welding peripherals)
- Miscellaneous (lubricants, grease distribution units)
8 Technology Readiness Levels (TRL's)

Applications should only be submitted for Product Acceptance when the Products or Systems have been fully developed and have reached Technology Readiness Level (TRL) 7.

The following provides guidance on TRL’s 1-9.

<table>
<thead>
<tr>
<th>TRL</th>
<th>Levels</th>
<th>Description</th>
<th>Supporting Guidance</th>
<th>NWR Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Research and Development</td>
<td>Product technology has basic principles observed and reported.</td>
<td>* Scientific research is undertaken.</td>
<td>Technology and Innovation</td>
</tr>
<tr>
<td>2</td>
<td>Research and Development</td>
<td>Product technology concept and/or application is formulated.</td>
<td>* Speculative applications have been identified.</td>
<td>Technology and Innovation</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Product technology has a proof-of-concept model built.</td>
<td>* Analytical and experimental assessments have identified critical functionality and/or characteristics.</td>
<td>Technology and Innovation</td>
</tr>
<tr>
<td>4</td>
<td>Innovation and Demonstrate</td>
<td>Prototype Product's validation testing completed in the Lab environment</td>
<td>* Product component and/or basic subsystem have been validated in the laboratory or test house environment.</td>
<td>Technology and Innovation</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Prototype Product's validation testing completed in the rail relevant environment</td>
<td>* Product’s basic components are integrated with reasonably realistic supporting elements so that it can be tested as a prototype simulation.</td>
<td>Technology and Innovation</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Prototype Product's validation testing completed as a part of a wider system in rail relevant environment</td>
<td>* Prototype is validated in a test house or test track setting with integrated components as a system specifications.</td>
<td>Technology and Innovation</td>
</tr>
<tr>
<td>7</td>
<td>System testing and ready for Rail use</td>
<td>Prototype Product's validation testing completed as a part of a wider system on UK rail infrastructure</td>
<td>* Performance results validates the product’s viability for use on Railways. * Product is demonstrated as part of a system simulation and validates all system specifications in an operational environment.</td>
<td>Product Acceptance</td>
</tr>
<tr>
<td>8</td>
<td>System testing and ready for Rail use</td>
<td>Actual Product ready for integration into a wider system on UK rail infrastructure</td>
<td>* Product’s FMEA, MTTR and FMSAF are completed * Product’s supply chains are established and are stable * Product is safe and reliable to be used on Railways * Product’s supplier quality assurance is assessed.</td>
<td>Product Acceptance</td>
</tr>
<tr>
<td>9</td>
<td>System testing and ready for Rail use</td>
<td>Actual Product is successfully integrated and tested as a part of wider system on UK rail infrastructure</td>
<td>* Test and demonstration phases have been completed to customer’s satisfaction. * The technology has been proven to work in its final form and under expected conditions. * Performance has been validated, and confirmed. * Overall system design post new product introduction have features that are stable and proven in test and evaluation.</td>
<td>Product Acceptance</td>
</tr>
</tbody>
</table>

**Note:** work undertaken through the R&D/ Innovation stages should be undertaken outside of the Product Acceptance process, your product does not need to have been entered into the PA system prior to contacting or working with the relevant NR Engineering or Innovation teams through these phases.
9 Interoperability

Network Rail has a duty to comply with the Railways Interoperability Regulations 2011 (and subsequent amendments) referred to as RIR2011.

This is a European Commission initiative to promote a single market in the Rail sector. The Legislation aims to remove technical barriers to the supply of equipment and the running of trains between member states.

Interoperability is the ability of a system or a product to work with other systems or products without special effort on the part of the customer. Interoperability is made possible by the implementation of standards.

The Railways (Interoperability) Regulations 2006 (RIR) came into force on 1 April 2006 and incorporates the European Directives on railway interoperability into UK Law (Directives 96/48/EC, 2001/16/EC and 2004/50/EC). The Regulations replaced the previous 'High Speed' Regulations (of 2002). They provide a process for the authorization and placing in service of interoperable railway subsystems.

The Purpose of the Directives

- This is to allow common technical standards, Technical Specifications for Interoperability (TSIs) to be applied across Europe’s Railways. This is to establish a common European verification and authorisation process for placing new, upgraded or renewed infrastructure into service; and to provide a process for putting certain rail components known as interoperable constituents onto the rail market, without duplication of process in each Member state.

- RIR extends the assessment and authorisation process provided by the High-speed regulations to the conventional rail part of the Trans-European Network (TEN).

Nb - Changes to the infrastructure not subject to authorisation under RIR need to be managed under the provision of ROGS.

How do I know which items of equipment are (or should be) interoperability constituents?

- Interoperability constituents are listed in the applicable TSIs Technical Specifications for Interoperability (TSIs).

- In addition, manufacturers can declare an assembly of listed interoperability constituents as an interoperability constituent. This could be useful where listed interoperability constituents are routinely used together in a defined combination, and by verifying and declaring that combination as sort of “super” interoperability constituent, the workload associated with verification at the sub-system level is further reduced.

- Apart from the point immediately above, there is no freedom to “invent” new types of interoperability constituents that are outwith the listed definitions in the TSIs. This does not, of course, prevent a manufacturer from developing and marketing all sorts of constituents – but he cannot declare them to be interoperable if they are not within the scope of the listed definitions in the TSIs.

Further information is regarding ICs and TSIs available via the Office Of the Rail Regulator (ORR) website here:

10 How to apply for Product Acceptance

To apply for a new item or for a change request* to an existing item, the Network Rail applicant must complete our online application form which is available via the NR corporate website and can be found via the following link:

http://www.networkrail.co.uk/aspx/3262.aspx

The applicant will need to provide justification by demonstrating monetary, safety and / or performance benefits to Network Rail.

The applicant will receive an email notification when we have processed your application successfully. This will include your unique Product Acceptance reference number and details of the next approval steps.

For further guidance please email us at prodacc@networkrail.co.uk

* Change Requests should be submitted for the following:
  - a change to the product configuration (to the actual product or its application)
  - a change of manufacturer
  - requests for products to be approved outside of already approved geographic locations

This list is not exhaustive and guidance should be sought prior to making an assumption regarding whether the change needs approval.
11 Further guidance

Catalogue Numbers

“Operational” means any product / plant / equipment used to directly control, monitor, support and power the railway. In case of uncertainty the Product Acceptance team or relevant Engineering function shall be consulted. Safety Critical items that are required for use on the operational railway are required to be assessed via the Product Acceptance process and will be allocated Controlled catalogue numbers.

“Controlled” means catalogue numbers for which Network Rail Engineering asserts control. For any items falling into this category, it is mandatory that the product acceptance process is followed as explained in NR/L2/RSE/100/05 and this document.

“Uncontrolled” means catalogue numbers for which Network Rail Engineering asserts no control. Products in this category are low risk items that do not require acceptance. The issuing of uncontrolled numbers is managed by the Network Rail Catalogue Management Team.

How to find an approved product

There are more than 85,000 products already accepted for use* on our infrastructure.

The catalogue of accepted products is available on the PADSnet website at: https://www.padsnet.co.uk/

PADS** (Parts and Drawings System) is owned by SERCO and the data is managed by the Network Rail Route Services Catalogue Management team. This includes the creation and revision of PADS numbers.

iStore is Network Rail’s online procurement site where you can search for and order products. This site is available to Network Rail employees only via the connect portal.

If you have any queries relating to catalogue numbers or PADSnet, please contact the Catalogue Management team, Route Services) at cataloguequeries@networkrail.co.uk.

*Applicants are required to check PADS, prior to the submission of an application for acceptance, to establish whether suitably approved products are already approved for use.

**PADS is not an approval process. Items are registered in PADS after successfully gaining approval via the NR Product Acceptance process.

Network Rail Standards

There are a number of ways for suppliers, principal contractors and subcontractors to access Network Rail standards and the standards awareness briefing report:

Online: SAI Global – a new digital format available for hand-held devices at: http://www.i2isolutions.net/networkrailproducts. Call SAI Global for more details on 01344 636300


Hard copy: To buy individual standards, call IHS Customer Services on 01344 328039 or emeastore@ihs.com.