



Product Acceptance Service

Guidance Note - How to decide what needs product acceptance

Purpose

The purpose of this document is to provide guidance on categories of typically approved items and also those items that do not require approval. These lists of items are non-exhaustive and additional guidance may be required from the Network Rail Product Acceptance Team or relevant Engineering function if items are not included.

The Network Technical Head of each Engineering function or delegate is responsible for deciding on the criticality of items within their asset ownership. If it is perceived that there is potential additional risk associated with a product or its use, an uncontrolled categorisation assigned within this document may be inappropriate. In these circumstances the Engineering function will determine the acceptance route and assessment criteria.

This document is intended to be read in conjunction with **NR/L2/RSE/100/05 – Product Acceptance and change to Network Rail operational infrastructure.**

All new items and changes to approved products or systems are required to be submitted via the Product Acceptance application form and will be assessed on receipt to determine their criticality, alignment against Engineering and Commercial strategy and/ or acceptance route.

Definitions

“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 Network Rail Technical Authority or Network Rail Telecommunications (NRT) Engineering function shall be consulted.

“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 or the submission of a Product Acceptance application. The issuing of uncontrolled numbers is managed by the Network Rail Catalogue Management Team within Route Services.

“Controlled - Limited Criticality” means that the item may be approved without further assessment on the basis that it is of low safety criticality proven to meet national standards (BSI's etc). These may be COTS products that are not going to be used in a way that differs from their originally intended use. It is mandatory that the product acceptance process is followed as explained in NR/L2/RSE/100/05 as these items require controlled catalogue numbers and may require certification if the asset owning function determines the need (i.e. for setting conditions of use in operational infrastructure environments).

This category is for products are used to support or provide low safety criticality services. Where these products are COTS, the Lead Reviewers will check their

British or International standards which these products have declared compliant with to attain their CE or UKCA certifications, to make sure they align with Network Rail's intended use and deployment locations. Where these products are built to Network Rail's specifications, the Lead Reviewers will check compliance with the applicable Network Rail specification.

“DFR” means Design For Reliability (refer to standard NR/L2/RSE/0005 for further details).

Table of products to ascertain whether acceptance is required or not

Product Group		Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments		
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
1.	Infrastructure components railway specific or for which there are no British or European Standards applicable	SIGNALLING & LEVEL CROSSINGS	<ul style="list-style-type: none"> ▪ Train Detection system - Track circuits (including Level crossings) - Axle counters - Treadles ▪ Lineside Signals, Indicators & Signs - Colour Light signals - Point indicators/Junction indicators/Route/ Speed indicators Point Operating Equipment Electronic & Mechanical Interlocking systems ▪ Signal Control Systems - Signal Control Panel - IECC Signal Control & Indication equipment - Traffic Management Systems Train Describers, including Mechanical and Electronic - Transformers 															
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		
				✓									✓			✓		

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- UPS's	✓				✓							✓			✓	
		- TJ's (Transformer Rectifiers)	✓				✓							✓			✓	
		• Train Protection systems																
		- AWS & TPWS	✓											✓			✓	
		▪ Event Logging & Condition Monitoring																
		- Loggers	✓											✓			✓	
		- Sensors	✓											✓			✓	
		- Routers/ Switches	✓							✓				✓			✓	
		▪ Location Cases																
		- DIS Boxes	✓											✓			✓	
		- Confined spaces/ restricted access cases.	✓														✓	
		▪ Infrastructure specific relays																
		- Miniature e.g. 930, 941, 966 F10	✓														✓	
		- Large Plug-in B-Style	✓														✓	
		- BR930	✓														✓	
		- Sub Miniature cradle relays & PO 3000 relays for indications	✓														✓	
		- Shelf Type relays	✓														✓	
		- DCPI	✓														✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
		Signs (As per specification of Group Standard)		✓													
		▪ VDU's and Ancillaries															
		- Commercial off the shelf products that meet specification		✓													
		▪ Signalling Cables															
		- Lineside Cabling	✓									✓				✓	
		- Internal Cabling - Fibre Optic - Underground (zero smoke/ low halogen).	✓													✓	
		- Ducting	✓													✓	
		▪ Level Crossing Equipment															
		- Barriers & Booms.	✓										✓			✓	
		- Track Circuits	✓										✓			✓	
		- Train Detection Systems	✓										✓			✓	
		- Overlays	✓										✓			✓	
		- Cameras	✓										✓			✓	
		- Obstacle Detection Devices	✓										✓			✓	
		- Railway Specific Signs	✓													✓	
	TRACK	▪ Track components															
		- Rail (all types)	✓													✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Sleepers/ Bearers (all types)	✓												✓	
		- Ballast	✓												✓	
		- Fastening Systems - bolts - clips - Baseplates - Pads - Insulators	✓									✓			✓	
		- Joints - Mechanical - welded	✓												✓	
		- Buffer stops	✓												✓	
		- Non Standard Track -slab track, -Longitudinal sleepers.	✓												✓	
		▪ Monitoring And Measuring Equipment														
		- Inspection systems	✓									✓			✓	
		- Intelligent Infrastructure	✓									✓			✓	
		- Sensor Equipment	✓									✓			✓	
		- Measurement Tools - Laser - Amber recorder -Temperature recording	✓									✓	✓		✓	
		▪ Off Track														
		- Fencing		✓												

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments		
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety	DFR Review
		- Access		✓													
		- Crossing systems (i.e road panels)		✓													
		▪ Miscellaneous															
		- Petrol's			✓												
		- Oils			✓												
		- Lubricants	✓											✓	✓		
		- De-icers	✓											✓	✓		
		- Degreasers	✓											✓	✓		
		- Defoliants	✓											✓	✓		
		▪ Track Drainage															Drainage products are assessed as per the requirements of NR Civil Engineering Std's
		- Pipes		✓											✓		
		- Connectors		✓											✓		
		- Catchpits		✓											✓		
		▪ Welding															
		- Thermic welding	✓										✓	✓	✓		
		- Alumino-thermic welding	✓										✓	✓	✓		
		- Arc welding	✓										✓	✓	✓		

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions														DFR	Comments
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- SkV-E Welding	✓										✓		✓	✓		
		- Flash Butt Welding equipment	✓										✓		✓	✓		
		Under-track Crossings (UTX)	✓												✓			
	S&C (Switches & Crossings)	▪ S&C Systems																
		▪ Bearers																
		- Concrete	✓													✓		
		- Timber	✓													✓		
		- Steel Hollow	✓													✓		
		- Bearer Joint Systems	✓													✓		
		- Under Bearer Pads.	✓													✓		
		▪ Switches																
		- Alternative Rail Steels	✓													✓		
		- Stretcher Bars	✓													✓		
		- Soleplates	✓													✓		
		▪ Crossings																
		- Cast Crossings (inc FBW)	✓													✓		
		- Part Fabricated Crossings	✓													✓		
		- Fabricated Crossings	✓													✓		

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
		▪ Fastenings & Rail Support															
		- Pads, Insulators & Clips	✓														✓
		- Baseplates	✓														✓
		- Slide Baseplates	✓														✓
		- Slab Track Systems	✓														✓
		▪ POE															
		- Primary Drives	✓														✓
		- Supplementary Drives	✓														✓
		- Supplementary Detectors	✓														✓
		- Drive & Connection Rods	✓														✓
		- Support Plates for Above	✓														✓
		▪ Rail (Other)															
		- Alternative Rail Steels	✓														✓
		- Rail Joints (inc Insulated)	✓														✓
		- Other Machined Rails	✓														✓
		- Transition Rails	✓														✓
		- Twist Rails	✓														✓
		▪ Miscellaneous															
		- De-railer Assemblies	✓														✓

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments		
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety	
		- Blanking Plates	✓													✓	
		- Drive Lugs	✓													✓	
		- S&C Gauges	✓													✓	
	TELECOMS	<p>Definitions for Telecoms assets:</p> <p>Trackside (on or near the line) telephones*: Self-contained weatherproof telephone handsets, that are within 3 meters of the track. This would include SPT's, Points Zone phones, Ground Frame phones. Handsets in this category typically are used as parts of concentrator systems.</p> <p>Lineside equipment room telephones**: Any telephone that is within the rail corridor, deployed within the railway boundary inside buildings including REBs (but does not come under categories trackside telephone or crossing telephone), example would be phones in Equipment Rooms, Sub Stations. This category includes handsets installed in buildings to support direct line and hotline applications (these are not the same as concentrator system application).</p> <p>Crossing telephones***: All phones that are associated with a crossing for public use, this would include Occupational crossing, User works crossing, AHB Crossing. Handsets in this category typically are used as parts of level crossing telephone systems.</p> <p>Other operational telephones****: Telephones (not covered in the other telephone categories) that can be used to make calls to and from individuals that are directly contributing to the running of the Operational Railway e.g. Signaller/ ECR staff/ Control Staff/Trackside workers.</p>															
		<p>▪ Operational Telecoms</p>															
		- Trackside (on or near the line) telephones*			✓	✓							✓	✓			
		- Lineside equipment room telephones**		✓													
		- Crossing telephones***	✓			✓						✓	✓		✓		

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
		- PETS/KETS	✓									✓				✓	
		- Concentrators for signallers and ECR applications	✓			✓						✓	✓			✓	
		- Voice Systems/Platforms/Solutions			✓												
		- Voice Media Gateway	✓									✓				✓	
		- Voice Recording equipment	✓									✓	✓			✓	
		- Other operational telephones****			✓												
		- Telephony switches for route control (ICC)	✓			✓	✓					✓				✓	
		- Transmission Networks, including network managers and associated with operational railway services (including SDH/PDH multiplexers, IP/MPLS Routers, Protocol Converters, SFP, xDS/DWDM/Modem equipment).	✓			✓	✓					✓				✓	
		- Synchronisation Equipment for Frequency and Phase synchronisation (including SSU, PRC, PRTC, T-GM)	✓			✓	✓					✓				✓	
		- Synchronisation Equipment for Time of Day synchronisation (including NTP servers)		✓													
		- Synchronized Ops floor Clocks			✓												

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
		<ul style="list-style-type: none"> ▪ Telecoms Power 															
		- UPS (excludes associated battery) and DC Power Systems (AC or DC output, all products that are below 10kVA, single phase type)	✓											✓			✓
		- Battery (for controlled UPS systems)			✓												
		- UPS small stand-alone			✓												
		▪ Radio components	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪	▪
		- GSM-R	✓			✓							✓				✓
		- GSM-R Dispatcher Terminal	✓			✓							✓	✓			✓
		- Antenna Systems (including: feeders, splitters, attenuators, filters, attenuators, connectors, arrestors, Telecoms eLoran and GNSS antennas)			✓												
		- Station Radios		✓													
		- Marine Radios		✓													
		- Wireless services (Wi-Fi, 4G/5G, microwave, excluding corporate Wi-Fi & 4G/5G networks)	✓										✓				✓
		- RETB	✓			✓							✓				✓

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments		
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety	DFR Review
		- Radio Masts (monopoles, lattice towers, columns, antenna bracketry, Fall arrest system)		✓													
		▪ Operational CCTV system and components															
		DOO Cameras	✓			✓						✓			✓		
		- DOO Monitors	✓			✓						✓			✓		
		- Non-operational non-station CCTV		✓													
		▪ Telecoms Infrastructure															
		- External Telecommunications cables (fibre, jumper wire and copper) terminations and ancillaries.	✓												✓		
		- Internal Telecommunications cables (fibre and copper) terminations and ancillaries, excluding copper jumper cables.		✓													
		- Copper jumper wires			✓												
		- Troughing	✓			✓	✓								✓		
		- Internal Cable containment products		✓													
		- Equipment housings, structures and enclosures			✓												

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- Telecoms logical security																
		- Firewall	✓										✓				✓	
		- Data Diodes	✓										✓				✓	
		- Telecoms REB access control locking systems (physical security)			✓													
		▪ Non-Operational Telecoms / SISS																
		PA speakers (excludes sub-surface station use)		✓														
		▪ PA control system		✓														
		- Platform Clocks		✓														
		- Network equipment for SISS applications		✓														
		- CIS HMI		✓														
		- CIS Displays		✓														
		- CIS HMI		✓														
		- CCTV (VSS) system including cameras (excludes sub-surface station use)		✓														
		- CCTV (VSS) Cameras (sub-surface station use)			✓													
		- PA Speakers for Sub- Surface Station use.			✓													

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments			
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety	DFR Review	
		- PAVA Systems including for Sub- Surface Station use.			✓													
		- CCTV (VSS) system – all components except cameras, for Sub- Surface Station use.			✓													
		Station Management System for telecom applications		✓														
		- Help points		✓														
	ELECTRIFICATION	- Small Part Steelwork including Bolt, Adaptor Plate, Washer, Studs, Tie Rod, Spacer, Fixing clip, Nut, Clamping Plate, Retaining Cap		✓														
		▪ 25kV AC:																
		25kV Switchgear																
		- SMOS Assemblies	✓									✓			✓			
		- GIS Assemblies	✓									✓			✓			
		- Containerised AIS Assemblies	✓									✓			✓			
		- Traditional AIS Assemblies	✓									✓			✓			
		- 25kV Circuit Breakers	✓									✓			✓			
- 25kV Disconnectors	✓									✓			✓					
- Earth Switches	✓									✓			✓					

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Motorised & Manual Switch	✓									✓			✓	
		- Mechanisms	✓												✓	
		- Critical Sensors (position feedback, gas pressures)	✓									✓			✓	
		- 25kV fuses	✓												✓	
		- Surge Arrestors	✓									✓			✓	
		25kV Auxiliary Equipment														
		- Harmonic Filters & Passive Components (inductors, capacitors)	✓									✓			✓	
		- Power Quality Equipment (SVC's, SFC's etc)	✓									✓			✓	
		- Auto-tap Changers	✓												✓	
		25kV Instrumentation														
		- Protection Class Current	✓									✓			✓	
		- Transformers	✓									✓			✓	
		- Protection Class Voltage Transformers	✓									✓			✓	
		- Other Instrument Transformers	✓									✓			✓	
		Single Phase 25kV Transformers														
		- Power Transformers	✓									✓			✓	
		- Auxiliary Transformers	✓									✓			✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Booster Transformers	✓									✓			✓	
		- Auto Transformers	✓									✓			✓	
		25kV Power Distribution														
		- 25kV Bushbars	✓									✓			✓	
		- 25kV Termination Assemblies (bushings, plugs & sockets)	✓												✓	
		- 25kV Cable	✓									✓			✓	
		- 25kv Cable Joints and Terminations	✓									✓			✓	
		- 25kV Sealing Ends	✓									✓			✓	
		- 25kV Cable Route Accessories (cleats, straps, hangers, trough, conduits etc)	✓												✓	
		- Red Bonds	✓									✓			✓	
		- Traction Return Current Bushbars	✓									✓			✓	
		- Return Screening Conductor & Associated Accessories	✓									✓			✓	
		- General Purpose Earth Cabling	✓									✓			✓	
		Procedural Equipment														
		- Live Line Testers	✓									✓			✓	
		- Safety Signage	✓												✓	
		- Portable Earth & Poles	✓									✓			✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments		
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety	DFR Review
		Overhead Line															
		- Contact Wire	✓														✓
		- Catenary Wire	✓														✓
		- Droppers & Jumpers	✓									✓					✓
		- Insulators	✓									✓					✓
		- Railway Specific OLE Wires	✓														✓
		- Neutral Sections	✓									✓					✓
		- Insulated Overlaps	✓									✓					✓
		- Section Insulators	✓									✓					✓
		- Sealing Ends	✓									✓					✓
		- Secondary Insulation	✓									✓					✓
		- Tensioning Equipment	✓									✓					✓
		- Support & Registration Equipment	✓									✓					✓
		- Conductor Beams & Associated Equipment	✓									✓					✓
		- APC Magnets & Equipment	✓									✓					✓
		▫ DC TRACTION POWER:															
		DC Switchgear															
		- Traditional AIS Assemblies	✓									✓					✓

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Solid Insulated Switchgear Assemblies	✓									✓			✓	
		- Circuit Breakers	✓									✓			✓	
		- Disconnectors	✓									✓			✓	
		- Short Circuiting Devices	✓									✓			✓	
		- Motorised & Manual Switch Mechanisms	✓									✓			✓	
		- Controlled Track Isolators	✓									✓			✓	
		- Critical Sensors (position feedback, gas pressures)	✓									✓			✓	
		- Fuses	✓												✓	
		- Surge Arrestors	✓												✓	
		DC Auxiliary Equipment														
		- Impedance Bonds	✓									✓			✓	
		- Track Current Relays	✓									✓			✓	
		DC Instrumentation														
		- Protection Class Current Transformers	✓									✓			✓	
		- Protection Class Voltage Transformers	✓									✓			✓	
		- Other Instrument Transformers	✓									✓			✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		Transformers & Rectifiers																
		- Power Transformers & Rectifiers	✓										✓				✓	
		- Auxiliary Transformers	✓										✓				✓	
		DC Power Distribution																
		- DC Bushbars	✓										+				✓	
		- DC Cable (inc rectifier return cables)	✓										✓				✓	
		- DC Cable Joints & Terminations	✓										✓				✓	
		- DC Cable Sealing Ends	✓										✓				✓	
		- DC Cable Route Accessories (cleats, trough, conduit etc)	✓														✓	
		- Red Bonds	✓										✓				✓	
		- General Purpose Earth Cabling	✓										✓				✓	
		Procedural Equipment																
		- Live Line Testers	✓										✓				✓	
		- Safety Signage	✓										✓				✓	
		- Conductor Rail Shields	✓										✓				✓	
		- Portable Earthing & Straps	✓										✓				✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		Conductor Rail														
		- Conductor Rail Connectors, Cable Terminations, Fishplates, Base Plates, Anchors	✓												✓	
		- Insulators	✓									✓			✓	
		- Baseplates	✓												✓	
		▪ AC/DC INTERFACE & SPECIFIC EQUIPMENT:														
		Interface Hardware														
		- Isolation Transformers	✓									✓			✓	
		- Isolation Transformers Return Current Switches	✓									✓			✓	
		- Voltage Limiting Devices	✓									✓			✓	
		- Switch Contactor Suites	✓									✓			✓	
		- Non Linear Resistors	✓												✓	
		▪ 3 PHASE HIGH VOLTAGE (>1kV) AC:														
		Traction Power Switchgear														
		- SMOS Assemblies	✓									✓			✓	
		- GIS Assemblies	✓									✓			✓	
		- Containerised AIS Assemblies	✓									✓			✓	
		- Traditional AIS Assemblies	✓									✓			✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Circuit Breakers	✓									✓			✓	
		- Disconnectors	✓												✓	
		- Earth Switches	✓												✓	
		- Motorised & Manual Switch Mechanisms	✓												✓	
		- Critical Sensors (position feedback, gas pressures)	✓												✓	
		- Fuses	✓												✓	
		- Surge Arrestors	✓												✓	
		Non-Traction Power Switchgear														
		- SMOS Assemblies	✓									✓			✓	
		- GIS Assemblies	✓									✓			✓	
		- Containerised AIS Assemblies	✓									✓			✓	
		- Traditional AIS Assemblies	✓									✓			✓	
		- Circuit Breakers	✓									✓			✓	
		- Disconnectors	✓												✓	
		- Earth Switches	✓												✓	
		- Motorised & Manual Switch Mechanisms	✓												✓	
		- Critical Sensors (position feedback, gas pressures)	✓												✓	
		- Fuses	✓												✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- Surge Arrestors	✓														✓	
		Auxiliary Equipment																
		- Harmonic Filters & Passive Components (inductors, capacitors)	✓										✓				✓	
		- Power Quality Equipment	✓										✓				✓	
		- Auto-tap Changers	✓										✓				✓	
		Instrumentation																
		- Protective Class Current Transformers	✓										✓				✓	
		- Protection Class Voltage Transformers	✓										✓				✓	
		- Other Instrument Transformers	✓										✓				✓	
		Transformers																
		- Power Transformers	✓										✓				✓	
		- Auxiliary Transformers	✓										✓				✓	
		Power Distribution																
		- Busbars	✓														✓	
		- Termination Assemblies (bushings, plugs & sockets e.g. pfisterer type, cable boxes)	✓														✓	
		- Cable	✓														✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- Cable Joints & Cable Terminations	✓														✓	
		- Cable Sealing Ends	✓														✓	
		- Cable Route Accessories (cleats, straps, hangers, trough, conduit etc)	✓														✓	
		- General Purpose Earthing Equipment	✓									✓					✓	
		▪ PROTECTION CONTROL & AUXILIARIES:																
		Protection Control & Auxiliary Equipment																
		- Protection Relay/ Intelligent Electronic Devices (inc but not limited to distance/ impedance, bay control, feeder, unit, transformer differential) for 3 Phase Applications	✓									✓					✓	
		- Protection Relay/ Intelligent Electronic Devices (inc but not limited to distance/ impedance, bay control, feeder, unit, transformer differential, frame leakage) For DC or 25kV Single Phase Applications	✓									✓					✓	
		- Phasor Measurement Units (PMUs)	✓									✓					✓	
		- Remote Terminal Units (RTUs)	✓									✓					✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- SCADA Cabinets & Assemblies, Racks, Screens/ Monitors, System Routers, System VOIP elements	✓						✓								✓	
		- Processors & Firmware	✓														✓	
		- Analog & Digital IO Modules	✓														✓	
		- Switchgear Control Modules	✓														✓	
		- Power Supply Equipment	✓									✓					✓	
		- HMI Displays	✓														✓	
		- GPS Clocks & Associated Equipment	✓														✓	
		- Communications Modules (e.g. ethernet cards)	✓						✓								✓	
		- Modems	✓						✓								✓	
		- Elements	✓														✓	
		- Point to Point Controllers	✓														✓	
		- Remote Condition Monitoring Equipment	✓									✓					✓	
		- Asset Management Equipment (e.g. cable theft monitors)	✓									✓					✓	
		- Master Station Equipment	✓									✓					✓	
		- Workstations	✓														✓	
		- Control/ Operating System Software	✓														✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Configuration Software	✓												✓	
		- Configuration Management Tools	✓												✓	
		- Insulation Monitors	✓												✓	
		- Auto-reconfiguration Systems	✓												✓	
		- Fault Locators	✓												✓	
		- Equipment Interfacing to Intelligent Infrastructure	✓												✓	
		- Uninterruptible Power Supplies	✓												✓	
		- Batteries & Battery Chargers	✓												✓	
		- Building Services Equipment (LVAC, air conditioners, heating, ventilation etc)	✓									✓			✓	
		▪ SIGNALLING POWER SUPPLIES:														
		Switchgear														
		- FSP 01, 02, 03 or 04 Assemblies	✓									✓			✓	
		- 650V Switchgear for Class 1 Assemblies	✓									✓			✓	
		- 650V Switchgear for Class 2 Assemblies	✓									✓			✓	
		- 230 & 400V Three Phase Switchgear	✓									✓			✓	
		- LV AC Changeover Panels (e.g. for PSPs)	✓									✓			✓	

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Power Pedestals	✓									✓			✓	
		- Cabinets & Enclosures of Insulating Construction or for Outdoor use	✓									✓			✓	
		- General Purpose Cabinets, Enclosures & Cubicles for Indoor use	✓									✓			✓	
		- Distribution Feeder Soft-Start Equipment	✓									✓			✓	
		- Fixed-Charismatic Protective Devices	✓									✓			✓	
		- Transient Voltage and Surge Suppressors	✓									✓			✓	
		Signalling Power Transformers & Transformer Rectifiers														
		- Transformers up to 10kVA for Signalling Loads	✓									✓			✓	
		- Transformers over 10kVA for Signalling Loads	✓									✓			✓	
		- Transformers for non-critical Applications	✓									✓			✓	
		- Transformer Rectifiers for Signalling Loads	✓									✓			✓	
		- Distribution Interface Transformer Assemblies	✓									✓			✓	
		Signalling Power Cabling														
		- Enhanced Unarmoured Cables	✓									✓			✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
		- Cable Joints & Terminations for Enhanced Unarmoured Cables	✓														✓	
		- Conduit & Glands constituting part of the Insulation for Enhanced Unarmoured Cables	✓														✓	
		- Cable & Route Accessories (cleats, Trough etc)	✓														✓	
		- Bimetallic Cable Connectors, Crimps, Lugs	✓														✓	
		- Other 600/1000V Cables & Accessories	✓										✓				✓	
		Other Signalling Power Components																
		- Standby & Emergency Diesel Generator sets for Principal Supply Points	✓										✓				✓	
		- Mobile Generators for Emergency Repairs	✓										✓				✓	
		- Earth Electrodes & Associated Components	✓										✓				✓	
		- Earth Busbars	✓														✓	
		▪ RAIL HEATING:																
		DNO Supplies																
		- Isolation Transformers	✓														✓	
		- Switchgear	✓														✓	
		- Enclosures	✓														✓	

Product Group	Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments		
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety	DFR Review
		Conductor Rail Heating & Points Heating															
		- Cables	✓									✓			✓		
		- Heating Strips	✓									✓			✓		
		- Controllers	✓									✓			✓		
		- Transformers	✓									✓			✓		
		- Enclosures	✓									✓			✓		
		▪ OTHER LV POWER SUPPLIES:															
		Switchgear															
		- 230/400V Components	✓												✓		
		- Equipment & Assemblies CE Marked to the LV Directive & Conforming to BS EN 61439 General LV use			✓												
		- Fuses	✓												✓		
		- Over-voltage Devices	✓												✓		
		- Enclosures	✓												✓		
		▪ ELECTRICAL POWER - OTHER:															
		- Small Part Steelwork (SPS) including Bolt, Adaptor Plate, Washer, Studs, Tie Rod,		✓													

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments				
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review						
		Spacer, Fixing clip, Nut, Clamping Plate, Retaining Cap																			
		- Operational Lighting		✓																	
2a	Non-railway specific infrastructure components conforming to British or European Standards	SIGNALLING	- Signalling equipment not covered by Group 1	✓													✓	Operational applications within the scope of the relevant British or European Standards and where in addition there are railway specific requirements or risks not covered by the British or European Standard.			
			- UPS (TPWS applications)	✓															✓		
		TRACK	- Railway ballast	✓																✓	
		TELECOMS	- Equipment to be used in sub-surface stations	✓																✓	
		ELECTRIFICATION	- HV Cables, Non-railway specific Earthing & Bonding components (e.g. cable terminations, red bond boxes)	✓																	✓
			- Electrification signage	✓																	✓
			- Battery Chargers and Batteries (including DC distribution and non-traction applications)	✓																	✓
			- Low Voltage (LV) -AC Panels	✓																	✓
			- 3-phase HV cabling, joints and terminations	✓																	✓
			- Cable route materials for Electrical power use i.e. Troughing	✓																	✓
			- UPS power supply conditioning equipment	✓																	✓
	- DNO cubicles	✓																✓			

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
	cables, HV (>1kV) and DC traction feeder cables, signalling power supply transformers)		- 400V & 230V LV cabling		✓													
			- Earth cabling (below 1kV applications)		✓													
			- Lighting control kiosk and switchgear		✓													
3a	Non-railway specific standard building materials conforming to recognised British or European Standards	TRACK	- Sealing Ring for Track Drainage		✓													Intended to be used as an alternative to a component that is already accepted under Group 1 or 2a product
		S&C SYSTEMS	- A standard Bolt to replace a missing bolt in a point Assembly	✓												✓		
			- Washer for use on RT60 S&C	✓													✓	
		ELECTRIFICATION	- Fuses	✓													✓	
3b		VARIOUS	- Screws, nails, cement, bricks, shovel, pliers, studs		✓													Any application not covered by 3a
4a	Powered tools and equipment		- TI21 frequency selective meters	✓									✓				✓	Intended to be used on a Group 1 or 2a product that could be adversely affected if the tool or equipment is not fit for purpose
			- Simulators	✓													✓	
			- Rail drills	✓					✓		✓				✓		✓	
			- CAT scanning equipment	✓			✓		✓				✓				✓	
			- Rail stressing equipment	✓				✓		✓				✓	✓		✓	
			- Track Jack	✓				✓		✓				✓	✓		✓	
			- Test equipment			✓												
	- Diagnostic tools			✓												✓		

Product Group		Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions											DFR	Comments		
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
			- Design tools			✓											✓	
			- Data loggers and Condition monitoring equipment			✓											✓	
			- Drop shunt boxes	✓													✓	
			- Measuring Probe			✓											✓	
			- Thermometers			✓											✓	
			- Multimeters			✓											✓	
			- Insulation testers			✓											✓	
			- Protection relay injection test sets	✓													✓	
			- Pressure test sets for cable/switchgear testing + accessories	✓				✓									✓	
			- Trip coil testers and TPWS meter	✓			✓										✓	
			- Hand Tampers	✓					✓		✓			✓	✓			
			- Rail Grinders	✓					✓		✓							
			- Torque Wrench	✓					✓									
4b		PLANT	- Grinders (hand tool type & pedestal)		✓													Proprietary equipment which is not railway specific or not covered by Group 4a
			- Static Lamp		✓													
			- Total Station instruments (Theodolites)		✓													

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
			- Laser Scanners (scanning or mapping)		✓														
		VARIOUS	- Thermometers, Multimeters and Insulation testers not intended for use on a Group 1 or 2a product		✓														
5a	Non-powered tools and equipment	SIGNALLING	- AWS S&P indicator	✓												✓	Intended to be used on a Group 1 or 2a product that could be adversely affected if the tool is not fit for purpose		
		TRACK	- Track gauge	✓												✓			
		ELECTRIFICATION	- OLE Live Line indicator/testers/gauges/tools	✓														✓	
			- OLE Height & Stagger Gauges	✓														✓	
		PLANT	- lifting accessories when used on Group 1 or 2 products	✓												✓		✓	✓
			- Non-proprietary insulated tools	✓												✓		✓	✓
			- Tensionmeter	✓					✓									✓	✓
- OLE Height sticks	✓						✓								✓	✓			
		- Insulated tools for use on or in the vicinity of DC Conductor Rail, Ladders used near live OLE	✓				✓							✓	✓	✓			
5b		- DC Ramper		✓													Any application not covered by Group 5a Generally, these do not require acceptance however section 5a will apply in cases where their		
		- Ratchet Podger Tools		✓															
		- Hand Tools (Hammers, screwdrivers, spanners, shovels).		✓															

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
		- Road Rail Vehicle	✓									✓	✓	✓	✓	Attachments are considered to be attachments to a Group 6a, 7 or 10 products. Noting that where an attachment is modified for the rail environment it is a controlled product.
		- Demountable module	✓									✓		✓	✓	
		- Demountable machine	✓									✓	✓	✓	✓	
		- Trailer	✓									✓		✓	✓	
		Attachments														
		- Augers, Profile Blades, Ballast Excavator, Ballast Ploughs, , Cable Drum Carriers, Grabs (Sleeper and Log where used for scrap rail recovery), Knuckle Boom Cranes, Piling Hammers & Heads, Scarifiers, Thimbles, Vacuum Excavator, Wood Chipper, Ballast Brush.	✓									✓	✓	✓	✓	
		- Buckets, Quick Hitch, Tilt Rotators, Ripper Tooth, Hydraulic Breakers, Compactor Plates. Bowsers, Flails, Vacuum Lifter, Tree Cutting Head.		✓												
		- MEWP Attachments	✓				✓						✓	✓	✓	
		- Rated Capacity Indicator / Movement Limiting Device	✓													

Product Group	Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								DFR	Comments	
			Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics			Occupational Safety
6b		- Tilting Wagons	✓											✓	✓	Transporting or moving people or other equipment, or other application not covered by Group 6a
		- Rail Transportation, Long Welded Rail Train (LWRT), Rail Delivery Train (RDT)	✓							✓				✓	✓	
		- Rail Head Scrubbing Machine	✓							✓				✓	✓	
		- Mobile Elevated Work Platforms (MEWP)	✓					✓						✓	✓	
		- Powered trolleys	✓											✓	✓	
		- Portable Road Rail Access Platform	✓							✓				✓	✓	
		- Track Access System	✓							✓				✓	✓	
7	On Track Machines (OTM) and associated attachments.	▪ OTM (On Track Machines)														Automated installation, maintenance, inspection or monitoring of a Group 1 or 2a product. OTM definitions are not an exhaustive list and should an OTM be used within a possession it will likely be a controlled product.
		- Ballast Cleaners and Ballast Cleaning System (BCS)	✓							✓				✓	✓	
		- Tampers	✓							✓				✓	✓	
		- Grinders	✓							✓				✓	✓	
		- Rail Cutting Machine	✓							✓				✓	✓	
		- Excavation Machine	✓							✓				✓	✓	
		- Mobile Maintenance Train (MMT)	✓							✓				✓	✓	
		- Stoneblower	✓							✓				✓	✓	
- Overhead Line Engineering Train	✓					✓						✓	✓			

Product Group		Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review			
8	Manually propelled powered Equipment Also referred to as Portable Transportable Mobile Plant (PTMP)		• Manually propelled powered Equipment															Intended to be used on a Group 1 or 2a product that could be adversely affected if the tool is not fit for purpose. Also referred to as Portable Transportable Mobile Plant (PTMP)	
			- Rail grinders	✓							✓		✓	✓	✓	✓			
			- Cutters	✓								✓		✓	✓	✓	✓		
			- Profile grinder	✓								✓		✓	✓	✓	✓		
			- Rail Head Cleaner	✓								✓			✓	✓	✓		
			- Rail Clip remover	✓								✓		✓	✓	✓	✓		
			- Sleeper Replacer	✓								✓		✓	✓	✓	✓		
- Rail Welding Machine	✓								✓		✓	✓	✓	✓					
9	Manually propelled non powered Equipment Also referred to as Portable Transportable Mobile Plant (PTMP)		• Manually propelled non powered Equipment	✓													✓		
			- Hand trolleys	✓										✓	✓	✓			
			- Rail Handling trolley	✓											✓	✓	✓		
			- Rail skates etc	✓											✓	✓	✓		
10	Non rail mounted plant or machinery		• Non Rail Mounted Plant or Machinery															Any plant or machinery used on and does not have the potential to infringe on or damage the infrastructure (but that is not rail mounted)	
			- Chippers			✓													
			- Dozers			✓													

Product Group		Asset Owning Discipline	Examples	Affected Engineering disciplines or other Business Functions													DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	DFR Review		
	Civils Construction Machines (CCM)		- Cranes			✓												
			- Scaffold towers			✓												
			- Mower			✓												
11	Equipment fitted to a Group 10 product.		-Equipment fitted to a Non Rail Mounted Plant or Machinery															
			- Lifting Beam	✓											✓	✓		Intended to be used on a Group 1 or 2a product that could be adversely affected if the equipment is not fit for purpose
			- Crane Fork	✓										✓	✓			

Abbreviations

AWS = Advanced Warning system
 CAT = Cable Avoidance tool
 DC = Direct current
 AC = Alternating current
 CCM = Civils Construction Machines
 CCTV = Closed Circuit television
 CIS = Customer Information system
 DCPI = DC Polar Moving Iron
 DFR = Design For Reliability (refer to standard NR/L2/RSE/0005 for further details).
 DNO = Distribution Network operator
 DOO = Driver-only operation
 FTN = Fixed Telecoms network
 FPL = Facing Point Lock
 GSM-R = Global system for Mobile railway
 HV = High voltage
 IC = Interoperable Constituent
 IECC = Integrated Electronic Control centre
 ISDN = Integrated Services Digital network
 kV = Kilo volts
 LV = Low voltage
 OLE = Overhead Line equipment
 OTM = On Track Machine
 OTP = On Track Plant
 PA = Public Address
 PETS = Public Emergency Telephone system (PETS)
 PTMP = Portable Transportable Mobile Plant
 SCADA = Supervisory Control and Data acquisition
 SkV-E = Welding process
 S&C = Switches & Crossings
 SISS = Station Information & Security Systems
 SQA = Supplier Quality Assurance
 TA = Technical Authority
 TI21 = Type of track circuit
 TPWS = Train Protection Warning system
 VDU = Video Display unit
 UPS = Uninterruptible Power supply (UPS)
 VOIP = Voice Over Internet protocol
 DWDM = Dense wavelength division multiplexing
 SFP = Small Form-factor Pluggable (optical transceiver module)
 DSL = Digital Subscriber Line
 MODEM = Modulator-Demodulator