



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 Professional 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, 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. 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. These items require controlled catalogue numbers and may require entry into the product acceptance process and certification if the asset owning function determines the need (i.e. for setting conditions of use in operational infrastructure environments).

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

The Product Acceptance team will be able to assist with any clarifications.

Table of products to ascertain whether acceptance is required or not

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
1.	Infrastructure components railway specific or for which there are no British or European Standards applicable	SIGNALLING & LEVEL CROSSINGS	▪ Train Detection system																
			- Track circuits (including Level crossings)	✓									✓			1	✓		
			- Axle counters	✓									✓			1	✓		
			- Treadles	✓									✓			1	✓		
			▪ Lineside Signals, Indicators & Signs																
			- Colour Light signals	✓									✓			1	✓		
			- Point indicators/Junction indicators/Route/ Speed indicators	✓									✓			1	✓		
			▪ Point Operating Equipment	✓								✓	✓			1	✓		
			▪ Electronic & Mechanical Interlocking systems	✓									✓			1	✓		
			▪ Signal Control Systems																
			- Signal Control Panel	✓									✓			3	✓		
			- IECC Signal Control & Indication equipment	✓									✓			3	✓		
			- Traffic Management Systems	✓									✓			3	✓		
			▪ Train Describers, including Mechanical and Electronic	✓									✓			2	✓		
			- Transformers	✓				✓					✓				✓		

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- UPS's	✓				✓					✓				✓	
			- TJ's (Transformer Rectifiers)	✓				✓					✓				✓	
			• Train Protection systems															
			- AWS & TPWS	✓									✓			2	✓	
			▪ Event Logging & Condition Monitoring															
			- Loggers	✓									✓			3	✓	
			- Sensors	✓									✓			3	✓	
			- Routers/ Switches	✓						✓			✓			3	✓	
			▪ Location Cases															
			- DIS Boxes	✓									✓			4	✓	
			- Confined spaces/ restricted access cases.	✓												4	✓	
			▪ Infrastructure specific relays															
			- Miniature e.g. 930, 941, 966 F10	✓												1	✓	
			- Large Plug-in B-Style	✓												1	✓	
			- BR930	✓												1	✓	
			- Sub Miniature cradle relays & PO 3000 relays for indications	✓												1	✓	
			- Shelf Type relays	✓												1	✓	
			- DCPI	✓												1	✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	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.	✓										✓			1	✓	
			- Track Circuits	✓										✓			1	✓	
			- Train Detection Systems	✓										✓			1	✓	
			- Overlays	✓										✓			1	✓	
			- Cameras	✓										✓			1	✓	
			- Obstacle Detection Devices	✓										✓			1	✓	
			- Railway Specific Signs	✓													3	✓	SQA rating may depend on the function of the sign (e.g. fixed distant semaphore board vs. a

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
																		pedestrian sign).	
		TRACK	▪ Track components																
			- Rail (all types)	✓												1	✓		
			- Sleepers/ Bearers (all types)	✓												3	✓		
			- Ballast	✓												3	✓		
			- Fastening Systems - bolts - clips - Baseplates - Pads - Insulators	✓									✓			3	✓		
			- Joints - Mechanical - welded	✓												3	✓		
			- Buffer stops	✓												2	✓		
			- Non Standard Track -slab track, -Longitudinal sleepers.	✓												2	✓		
			▪ Monitoring And Measuring Equipment																
			- Inspection systems	✓									✓				✓		
			- Intelligent Infrastructure	✓									✓				✓		
			- Sensor Equipment	✓									✓				✓		
			- Measurement Tools - Laser	✓									✓	✓			✓		

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			- Amber recorder -Temperature recording																
			▪ Off Track																
			- Fencing		✓										✓				
			- Access		✓										✓				
			- Crossing systems (i.e road panels)		✓										✓				
			▪ Miscellaneous																
			- Petrol's			✓										✓			
			- Oils			✓										✓			
			- Lubricants			✓										✓			
			- De-icers			✓										✓		✓	
			- Degreasers			✓										✓		✓	
			- Defoliants			✓										✓		✓	
			▪ Track Drainage																
			- Pipes			✓												✓	
			- Connectors			✓												✓	
			- Catchpits			✓												✓	
			▪ Welding																

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			- Thermic welding	✓									✓		✓	2	✓		
			- Alumino-thermic welding	✓									✓		✓	2	✓		
			- Arc welding	✓									✓		✓	2	✓		
			- SkV-E Welding	✓									✓		✓	2	✓		
			- Flash Butt Welding equipment	✓									✓		✓	2	✓		
			▪ Under-track Crossings (UTX)	✓													✓		
		S&C (Switches & Crossings)	▪ S&C Systems																
			▪ Bearers																
			- Concrete	✓														3	✓
			- Timber	✓														3	✓
			- Steel Hollow	✓														3	✓
			- Bearer Joint Systems	✓														3	✓
			- Under Bearer Pads.	✓														3	✓
			▪ Switches																
			- Alternative Rail Steels	✓															✓
			- Stretcher Bars	✓														1	✓
			- Soleplates	✓														3	✓

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review					
			▪ Crossings																			
			- Cast Crossings (inc FBW)	✓														✓				
			- Part Fabricated Crossings	✓															✓			
			- Fabricated Crossings	✓															✓			
			▪ Fastenings & Rail Support																			
			- Pads, Insulators & Clips	✓														3	✓			
			- Baseplates	✓														3	✓			
			- Slide Baseplates	✓														3	✓			
			- Slab Track Systems	✓														3	✓			
			▪ 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	✓																	✓	

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review			
			- Transition Rails	✓													✓			
			- Twist Rails	✓														✓		
			▪ Miscellaneous																	
			- De-railer Assemblies	✓															✓	
			- Blanking Plates	✓															✓	
			- Drive Lugs	✓															✓	
			- S&C Gauges	✓															✓	
		TELECOMS	▪ Operational Telecoms																	
			- Trackside telephones	✓											✓			3	✓	
			- PETS/KETS	✓											✓			3	✓	
			- Signal Post Telephone	✓											✓			3	✓	
			- Concentrators	✓											✓			3	✓	
			- Voice Media Gateway	✓											✓			3	✓	
			- Voice Recording equipment	✓											✓			3	✓	
			- Other operational telephone	✓											✓			3	✓	
			- exchanges/telephony switches	✓											✓			3	✓	
			- Telecoms Power																	
			- UPS	✓						✓					✓			3	✓	
			- AC power systems and	✓						✓					✓			3		

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			inverters																
			- DC power systems	✓				✓					✓			3	✓		
			- Battery back-up	✓									✓			3	✓		
			▪ Transmission Networks (carrying operational railway services)																
			- SDH Multiplexers	✓			✓	✓								3	✓		
			- PDH Mutiplexers	✓			✓	✓								3	✓		
			- IP/MPLS Routers	✓			✓	✓					✓			3	✓		
			- Ethernet equipment	✓			✓	✓					✓				✓		
			- Protocol converters	✓			✓	✓									✓		
			- SFP	✓			✓	✓					✓			3	✓		
			- xDSL equipment	✓			✓	✓					✓			3	✓		
			- DWDM equipment	✓			✓	✓					✓			3	✓		
			- MODEM equipment	✓			✓	✓					✓			3	✓		
			- Copper/Fibre termination	✓			✓	✓					✓			3	✓		
			▪ Radio components																
			- GSM-R	✓									✓				✓		
			- GSM-R Dispatcher Terminal	✓									✓	✓			✓		
			- Antenna Systems	✓									✓				✓		

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review				
			- Station Radios	✓									✓				✓				
			- Wireless services (wifi, 4g/5g)			✓								✓			3	✓			
			- RETB	✓			✓							✓				✓			
			▪ Operational CCTV system and components																		
			▪ DOO Cameras	✓										✓				3	✓		
			- DOO Monitors	✓										✓				3	✓		
			- DOO Mirrors	✓										✓				3	✓		
			- Level Crossing CCTV	✓										✓				3	✓		
			▪ Telecoms Infrastructure																		
			- Access Chambers	✓															3	✓	
			- Ducting	✓															3	✓	
			- Troughing	✓															3	✓	
			- Duct Adapters	✓															3	✓	
			- Masts and other antenna structures	✓											✓					✓	
			- Equipment housings, structures and enclosures	✓																✓	
			▪ Station Management System for telecom applications	✓															3	✓	
			▪ Telecommunications cables and ancillaries	✓															3	✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments		
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review			
			▪ Telecoms logical security																	
			- Firewall	✓														✓		
			- Logging	✓															✓	
			- SIEM	✓															✓	
			- IDS/IPS	✓															✓	
			- DDOS	✓															✓	
			- Centralised authentication	✓															✓	
			- PA Speakers for Sub- Surface Station use.	✓															✓	
			- PAVA Systems (section 12 stations)	✓															✓	
			- CCTV for Sub- Surface Station use.	✓															✓	
			- Access control(physical security)	✓															✓	
			▪ Non Operational Telecoms																	
			- PA speakers (excludes sub-surface station use)			✓									✓					
			- PA amplifiers			✓									✓					
			- Station Clocks and timing systems			✓									✓					
			- Network equipment for non-operational applications			✓									✓					
			- Station Radio Comms			✓									✓					

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			- CIS VDU Screens			✓													
			- CCTV (excludes Sub- Surface Station use).		✓								✓						
			- Small Part Steelwork including Bolt, Adaptor Plate, Washer, Studs, Tie Rod, Spacer, Fixing clip, Nut, Clamping Plate, Retaining Cap		✓														
			- Antennae			✓													
		ELECTRIFICATION	▪ 25kV AC:																
			25kV Switchgear																
			- SMOS Assemblies	✓										✓				✓	
			- GIS Assemblies	✓										✓				✓	
			- Containerised AIS Assemblies	✓										✓				✓	
			- Traditional AIS Assemblies	✓										✓				✓	
			- 25kV Circuit Breakers	✓										✓				✓	
			- 25kV Disconnectors	✓										✓				✓	
			- Earth Switches	✓										✓				✓	
			- Motorised & Manual Switch	✓										✓				✓	
			- Mechanisms	✓														✓	
			- Critical Sensors (position	✓										✓				✓	

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			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	✓										✓				✓	
			- Booster Transformers	✓										✓				✓	
			- Auto Transformers	✓										✓				✓	

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			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	✓										✓				✓	
			Overhead Line																
			- Contact Wire	✓														1	✓

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- Catenary Wire	✓												1	✓	
			- Droppers & Jumpers	✓									✓			1	✓	
			- Insulators	✓									✓			1	✓	
			- Railway Specific OLE Wires	✓												1	✓	
			- Neutral Sections	✓									✓				✓	
			- Insulated Overlaps	✓									✓				✓	
			- Section Insulators	✓									✓				✓	
			- Sealing Ends	✓									✓				✓	
			- Secondary Insulation	✓									✓				✓	
			- Tensioning Equipment	✓									✓			1	✓	
			- Support & Registration Equipment	✓									✓			1	✓	
			- Conductor Beams & Associated Equipment	✓									✓			1	✓	
			- APC Magnets & Equipment	✓									✓			1	✓	
			▪ DC TRACTION POWER:															
			DC Switchgear															
			- Traditional AIS Assemblies	✓									✓				✓	
			- Solid Insulated Switchgear Assemblies	✓									✓				✓	

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review			
			- 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	✓										✓				✓		
			Transformers & Rectifiers																	
			- Power Transformers & Rectifiers	✓										✓				✓		

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				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review			
			- 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	✓										✓				✓		
			Conductor Rail																	
			- Conductor Rail Connectors, Cable Terminations, Fishplates, Base Plates, Anchors	✓														1	✓	
			- Insulators	✓											✓			1	✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- Baseplates	✓												1	✓	
			▪ 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	✓									✓				✓	
			- Circuit Breakers	✓									✓				✓	
			- Disconnectors	✓													✓	
			- Earth Switches	✓													✓	
			- Motorised & Manual Switch	✓													✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			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	✓													✓	
			- Surge Arrestors	✓													✓	
			Auxiliary Equipment															
			- Harmonic Filters & Passive Components (inductors,	✓									✓				✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions								SQA & DFR		Comments			
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review			
			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	✓															✓	
			- Cable Joints & Cable Terminations	✓															✓	
			- Cable Sealing Ends	✓															✓	
			- Cable Route Accessories (cleats, straps, hangers, trough, conduit etc)	✓															✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			- 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)	✓									✓				✓		
			- SCADA Cabinets & Assemblies, Racks, Screens/ Monitors, System Routers, System VOIP elements	✓						✓			✓				✓		
			- Processors & Firmware	✓													✓		
			- Analog & Digital IO Modules	✓													✓		

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- 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	✓													✓	
			- Configuration Software	✓													✓	
			- Configuration Management Tools	✓													✓	
			- Insulation Monitors	✓													✓	
			- Auto-reconfiguration Systems	✓													✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- 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)	✓									✓				✓	
			- Power Pedestals	✓									✓				✓	
			- Cabinets & Enclosures of Insulating Construction or for Outdoor use	✓									✓				✓	
			- General Purpose Cabinets, Enclosures & Cubicles for	✓									✓				✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			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	✓									✓				✓	
			- Cable Joints & Terminations for Enhanced Unarmoured Cables	✓													✓	
			- Conduit & Glands constituting part of the Insulation for Enhanced Unarmoured Cables	✓													✓	
			- Cable & Route Accessories (cleats, Trough etc)	✓													✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- 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	✓													✓	
			Conductor Rail Heating & Points Heating															
			- Cables	✓									✓				✓	
			- Heating Strips	✓									✓				✓	
			- Controllers	✓									✓				✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments		
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review			
			- 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, Spacer, Fixing clip, Nut, Clamping Plate, Retaining Cap		✓															
			- Operational Lighting		✓															

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
2	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.	
a			- 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	✓													✓		
			- UPS (above 10kVA rated)	✓									✓				✓		

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			- Electronic Protection Relays (EPR) for principle Supply Point (PSP) applications	✓													✓		
			- Insulation Monitors	✓													✓		
			- Non-railway specific overhead line conductors & wires	✓									✓				✓		
			- Pilot Cables	✓													✓		
			- Generators	✓													✓		
		PLANT	- Raise/lower Lighting columns			✓													✓
			- CCTV winches			✓													✓
		2 b	Operational applications within scope of the relevant British or European Standards <i>(Excludes: Equipment to be used in a sub-surface station and telecoms operational cables, HV (>1kV) and DC traction feeder)</i>	SIGNALLING	- Mileposts		✓												
ELECTRIFICATION	- OLE Structure plates		✓																
	- Eyebolt for lifting Impedance Bond		✓																
	- Cable Identification sleeves		✓																
	- Low Voltage (LV) Signalling Power Supply cables		✓																
	- Power Distribution systems		✓									✓							
	- Transformer Specific relays		✓																
	- Cable types to BS5467 and BS6724 (Cu or Al) either with additional marking or without		✓																
- 400V & 230V LV cabling		✓									✓								

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
	<i>cables, signalling power supply transformers)</i>		- Earth cabling (below 1kV applications)		✓								✓						
			- Lighting control kiosk and switchgear		✓														
3 a	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	✓													✓		
3 b		VARIOUS	- Screws, nails, cement, bricks, shovel, pliers, studs		✓													Any application not covered by Group 3a	
4 a	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	✓					✓		✓			✓			✓		
			- Test equipment			✓							✓				✓		
			- Diagnostic tools			✓											✓		
			- Design tools			✓											✓		

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
			- 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	✓			✓										✓	
4 b		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)		✓													
			- Laser Scanners (scanning or mapping)		✓													
		VARIOUS	- Thermometers, Multimeters and Insulation testers not intended for use on a Group 1 or 2a product		✓													
5	Non-powered	SIGNALLING	- AWS S&P indicator	✓													✓	Intended to be

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR		Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
a	tools and equipment	TRACK	- Track gauge	✓													✓	used on a Group 1 or 2a product that could be adversely affected if the tool is not fit for purpose	
		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	✓					✓						✓	✓			✓
5 b		- DC Ramper		✓														Any application not covered by Group 5a Generally, these do not require acceptance however section 5a will apply in cases where their use/application will directly affect the performance of the railway.	
		- Ratchet Podger Tools		✓															
		- Hand Tools (Hammers, screwdrivers, spanners, shovels).		✓															
		- Proprietary Laser Distance Measuring device		✓															
		- Measuring Wheels		✓															
		- Proprietary Lifting accessories e.g. Hooks, Chains Slings		✓															
		- Insulated tools		✓															

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments	
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review		
			- Torque wrench			✓													
			- Temporary pulleys		✓														
			- Ladders not being used near live OLE		✓														
			- Depot only Tools (mechanical & electrical)		✓														
		VARIOUS	- Personal Protective equipment (PPE)		✓														
			- Fencing		✓														
6 a	On Track Plant (OTP) - Road Rail Vehicles (RRV) and Rail Mounted Maintenance Machines (RMMM) and associated attachments	PLANT	▪ OTP (On Track Plant)															Automated installation, maintenance, inspection or monitoring of a Group 1 or 2a product	
			- Sleeper Laying Machine	✓									✓	✓	✓		✓		
			- S&C unit lifting equipment	✓									✓	✓	✓		✓		
			- Mobile Flash butt Welder	✓							✓	✓	✓	✓	✓		✓		
			- Sleeper Adjuster	✓							✓		✓	✓	✓		✓		
			- Clipping Machine	✓							✓		✓	✓	✓		✓		
			- Rail Lifter	✓							✓		✓	✓	✓		✓		
			- RRV Attachments (Augers, Profile Blades, Ballast Excavator, Ballast Ploughs, Bowsters, Buckets, Ballast Plough, Cable Drum Carriers, Chains & Slings, Compactor Plates, Flails, Grabs, Hydraulic Breakers, Knuckle Boom	✓									✓	✓	✓		✓		

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions									SQA & DFR		Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
6 b			Cranes, Piling Hammers & Heads, Quick Hitch, Ripper Tooth, Rotators, Scarifiers, Hand Tampers, Thimbles, Tilt Rotators, Trailers, Tree Cutting Head, Vacuum Lifter, Vacuum Excavator, Wood Chipper)															Transporting or moving people or other equipment, or other application not covered by Group 6a
			- MEWP Attachments	✓				✓						✓	✓		✓	
			- Tilting Wagons	✓										✓	✓		✓	
			- Rail Head Scrubbing Machine	✓							✓			✓	✓		✓	
			- Mobile Elevated Work Platforms (MEWP)	✓				✓					✓	✓		✓		
			- Powered trolleys	✓									✓	✓		✓		
			- RRV fitted with a flail (note: the flail is a Group 4b product)	✓							✓		✓	✓		✓		
			- 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
			- Ballast Cleaners	✓							✓			✓	✓		✓	
			- Tampers	✓							✓			✓	✓		✓	
			- Rail Cutting Machine	✓							✓			✓	✓		✓	
			- Excavation Machine	✓							✓			✓	✓		✓	
			- Maintenance Machines (MMT)	✓							✓			✓	✓		✓	

Product Group		Asset Owning Discipline	Examples				Affected Engineering disciplines or other Business Functions										SQA & DFR	Comments
				Controlled	Uncontrolled	Controlled limited criticality	Signalling	Electrification	Plant	Telecoms	Track	S&C	EMC	Ergonomics	Occupational Safety	SQA Rating	DFR Review	
8	Manually propelled powered Equipment		•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
			-Rail grinders	✓							✓		✓	✓	✓		✓	
			-Cutters	✓							✓		✓	✓	✓		✓	
			-Profile grinder	✓							✓		✓	✓	✓		✓	
			-Rail Head Cleaner	✓							✓			✓	✓		✓	
			-Track Jack	✓							✓			✓	✓		✓	
			-Rail Stressing equipment	✓							✓			✓	✓		✓	
			-Rail Clip remover	✓							✓		✓	✓	✓		✓	
			-Sleeper Replacer	✓							✓		✓	✓	✓		✓	
			-Rail Welding Machine	✓							✓		✓	✓	✓		✓	
9	Manually propelled non powered Equipment		•Manually propelled powered Equipment	✓													✓	
			-Hand trolleys	✓										✓	✓		✓	
			-iron man trolley	✓										✓	✓		✓	
			-rail skates etc	✓										✓	✓		✓	
10	Non rail mounted plant or machinery		•Non Rail Mounted Plant or Machinery															Any plant or machinery used on and do not have the potential to infringe on or damage the infrastructure
			-Chippers			✓												
			-Dozers			✓												
			-Cranes			✓												

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

Abbreviations

AWS = Advanced Warning system
 CAT = Cable Avoidance tool
 DC = Direct current
 AC = Alternating current
 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)
 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