

SUPPLIER QUALITY ASSURANCE REQUIREMENTS (Network Rail QA Policy Statement 2011)

Introduction

Network Rail is committed to providing its customers with an infrastructure which demonstrates safety, reliability, quality and innovation. The company strives to continually improve its assets and processes from design through to delivery and cost effective operation. It is recognised that these objectives can only be achieved through an interactive relationship between Network Rail and its Suppliers.

This Policy Statement describes Network Rail's quality assurance procedures and practices which its Suppliers must comply with, as a minimum, so that consistent quality and reliability are achieved and whole life cost is minimised. This Statement enhances previous arrangements by refining the QA Classification of products and providing a framework for improved communication and working between Network Rail and its Suppliers.

Any queries or requests for information concerning the contents of this Statement should be addressed to the Director, Contracts and Procurement, Network Rail, Finance, Floor 6, Kings Place, York way, London N1 9AG (telephone: 0203 356 9290).

Quality Assurance Policy

Products critical to Network Rail's business will normally be procured from Suppliers who have been certified by an accredited third party as meeting the quality management system requirements of BS EN ISO 9000 Series for the specified services and products.

In exceptional circumstances, where a Supplier does not hold BS EN ISO 9000 certification, Network Rail may carry out an assessment against these requirements as appropriate. Assessments will be carried out by qualified Network Rail Staff and no charge will be made for assessment.

QA Classification of Products

All products purchased by Network Rail fall into one of five QA Classifications. These reflect the relative importance of the product to the Company's business (safety, performance and cost), the nature of the supply chain; and dictate the associated level of quality assurance and material certification required.

Classifications QA1 to QA4 relate to products directly affecting the day-to-day operation of the railway where failure or non-conformity to specification could result in disruption or risk to the railway service. Classification QA5 relates to other products, purchased under standard commercial arrangements.

For new products, classifications will be assigned as part of the Product Acceptance process and successful completion of associated quality assurance activities will be required prior to the product being added to the Network Rail Approved Products Catalogue. Network Rail reserves the right to change any QA Classification assignment.

For existing Approved Products, Network Rail may assign a QA Classification to a product where its criticality and/or observed quality issues indicate a need for enhanced quality assurance activities to ensure increased quality of future supplies.

Table 1 – Product Specific QA Requirements.

Key: ● Mandatory activity ○ Level of surveillance determined by the Network Rail QAR

Product Phase	QA Activity	QA1	QA2	QA3	QA4	QA5
Advanced Product Quality Planning	Identify significant and special features requiring emphasis during manufacture (e.g. application of Design & Process FMECA)	●	●			
	QA review and approval of design data and procurement specifications (e.g. tolerances, material specs, process specs, component selection)	●	●	●	●	○
Product Production Quality Plan	Material and component traceability requirements Batch sizing & control	●	●	●	●	
	Development of Product Production Quality Plan to include processes charts, inspection and test plan, control of critical features and processes, documentation.	○	○			
Release, Receipt & Storage	Issue of Certificate Of Conformity Batch & version control Goods receipt inspection (C of C check, Condition check) Control of storage conditions	●	●	●	●	○
	Preparation of Certificate of Conformity Audit of Inspection Records and Test Certificates First article inspection report Customer audit	●	●	○		
Physical Configuration Audit	Issue of Certificate Of Conformity Test Certificates Customer audit	●	●	●	●	○
	Periodic QA Review of Production Quality Plan Feedback of Problems Review / Investigate Non Conformance Reports Last of line (transfer lessons and Best Practice)	●	●	○		
Ongoing Acceptance	Supplier activity Network Rail Surveillance	●	●	○	○	
Continue supply (Continual Improvement)	Supplier activity Network Rail Surveillance	●	●	●	●	
	Supplier activity Network Rail Surveillance	●	●	○	○	
Non Conforming Product (In Use)	Supplier activity Network Rail Surveillance	●	●	●	●	●
	Supplier activity Network Rail Surveillance	●	●	●	○	○

Product Specific QA Requirements

Table 1 identifies the minimum level of QA activity required against each QA Classification reflecting the criticality of the product and the assessed level of quality risk.

Reflecting best practices, this Policy places increased emphasis, for critical products, on the use of advanced quality planning, physical configuration audit and close Customer/Supplier liaison. Guidance on some of the key QA activities is provided below.

Advanced Product Quality Planning

Where required by the QA Classification, the Supplier shall establish and implement an Advanced Product Quality Planning (APQP) process. Appropriate techniques identified in the APQP guide are recommended, although other techniques that achieve the same intent are acceptable (APQP is a framework of procedures and techniques developed by the automotive and aerospace industries detailed in standards such as QS9000 – Quality System Requirements). Activities should include:

- Development and review of FMECA or similar analysis
- Review of Special Characteristics notified by Network Rail
- Identification of Significant Features such as critical dimensions, material, appearance, performance
- Establishment of action plans to eliminate failure modes
- Development of Significant Features Control Plans

The analysis and resulting Significant Features Control List will be reviewed by Network Rail as part of the Product Acceptance process.

Product Production Quality Plan

The Supplier shall develop and maintain a Product Production Quality Plan that specifies which procedures and associated resources are to be applied, by whom and when to a specific project, product, process or contract requirement.

The Supplier shall undertake a review of all contract requirements to determine the necessary management, technical and other activities that need to be planned and implemented.

The Product Production Quality Plan should include as appropriate:

- Operations, processes and techniques that must be planned and scheduled
- Significant Features Control Plans
- Means for testing and proving the conformance
- Special inspection and test requirements
- Test equipment calibration requirements
- Control of special or new processes

Processes monitoring, analysis and continuous improvement plans.

Notification of any sub-contractors

The Product Production Quality Plan shall identify any second tier Suppliers used in the manufacture of delivered products together with the quality assurance management arrangements.

Any changes to second tier Suppliers used shall be notified to the Network Rail QA representative. During the performance of the contract, Network Rail reserves the right of access to all areas of the sub-tiers facilities to verify the products/services being provided.

Physical Configuration Audit (PCA)

Where required by the QA Classification, Network Rail will undertake a **Physical Configuration Audit (PCA)**. The Audit will be a formal examination of the "as-built" configuration based on a top-down review of build documentation to ensure the Supplier's inspection and test records clearly demonstrate the product's conformance to technical specifications.

The PCA will usually only be carried out for the first articles being delivered against the contract although follow-up PCAs may be required in certain circumstances. The PCA will be based on the Certificate of Conformity (C of C) and the Product Production Quality Plan prepared by the Supplier and will be carried out at the Supplier's premises by Network Rail QA and technical representatives.

The Supplier will give Network Rail two weeks notice of when the PCA can be carried out, i.e. when the C of C will be raised and the products are ready for delivery. Products will not be delivered until the PCA has been successfully completed. New products will be added to the Network Rail catalogue following successful completion of the PCA on first deliveries of the product to Network Rail .

Non Conforming Product

The Supplier is responsible for establishing controls to ensure that products not conforming to the contract are identified, segregated and controlled to prevent inadvertent use. In the event that the Supplier identifies a non-conformance affecting delivered products, they shall notify the Network Rail QA representative and withhold further deliveries until authorised by the Network Rail QA representative.

Where non conforming products are identified after delivery, Network Rail will raise a Non Conformance Report and a Corrective Action Request where needed. Faulty items will be returned to the Supplier as appropriate. The Supplier is responsible for resolving problems adversely affecting quality and for taking corrective action. Corrective actions shall be documented and shall include:

- Identification of root cause
- Analysis of similar items affected
- List of required improvements and actions to be implemented to prevent problem reoccurrence

Certificates of Conformity

For products covered by Classification QA1 to QA4 Network Rail requires that a Certificate of Conformity shall accompany each consignment, signed by a qualified party affirming that, at the time of assessment, the product or service met the stated requirements. Products so classified that are not accompanied by Certificates of Conformity are deemed not to have been delivered.

The Certificate of Conformity should contain the following info as appropriate to the material being supplied:

- The Supplier's name, address
- The Serial Number and date of the Certificate of Conformity
- The Network Rail delivery address
- The Network Rail Purchase Order Number and/or the Contract reference
- A description of the material and quantity supplied
- The Network Rail Catalogue Number and any other identification and/or Serial Number
- The identification of the specification/drawing to which the material is supplied
- Reference number of the manufacturer's Test Certificate and any other supporting documentation
- The raw material cast number or batch number
- The condition of the material on despatch
- Any necessary further treatment
- Any agreed variation from contract
- Where appropriate, the expiry dates of limited shelf life material
- A statement signed by the Supplier's nominated representative responsible for Quality, to the effect that the products supplied conform to the information recorded thereon