Supplier Quality Requirements Issue 3

Change History

Issue	Date	Change
1	25/11/13	Original
2	19/12/13	Addition of clause 1.7
3	13/02/17	Addition of clause 11, Change of Originator Job role & update of Contents page

Originator: Steve Hayter (Commercial Director)

Signature: .....
Date: .....

Approved by: Dennis Fowler (Company Quality Manager)

Signature: .....
Date: .....

Contents

1. Introduction

1.1. This requirements document describes general quality rules that the supplier and Rockford Components LTD (Rockford) have to apply for a successful partnership in order to achieve the goal of zero defects.

1.2. Quality agreements are used for common understanding between customers and suppliers regarding co-operation in the areas of Technology, Quality and Responsiveness.

1.3. Therefore this framework document contains only topics relevant to the areas detailed in 1.2

1.4. A contractual Quality Agreement may be made with individual key suppliers to Rockford that detail specific Quality and Delivery requirements.

1.5. Therefore specific quality agreements and targets (specifications, data sheets) are not part of this requirement document. The order of precedence of related documents needs to be defined in advance.

1.6. Components supplied for automotive, motorsports, Nuclear, Marine, Defence and Aviation products must be suitable for these applications in the worldwide market and meet all relevant criteria. To support the zero defect approach Rockford will inform the supplier about the applications and intended use along with any pertinent market/customer requirements.

1.7. Subcontracting of Rockford Purchase Orders only on agreement by Rockford. Suppliers to flow down to their Supply Chain all applicable requirements including Customer Requirements.

2. Non Conformances, Costs & Liabilities

2.1. No non-conforming products may be shipped to Rockford without prior written agreement. If the supplier wishes to apply for a concession to repair or accept “as is” any non-conforming product this must be requested from the purchasing department and the product may not be dispatched until authorisation is granted, in writing. Where requested, the concession number must be quoted on the delivery note.

2.2. Any potential safety or reliability hazards, discovered, either in the design or production must be immediately reported to Rockford.

2.3. As alluded to in 1.4 a separate contractual Quality Agreement shall be agreed with individual suppliers and this will detail contractual requirements for claiming costs in the event that Rockford experiences losses as a result of a supplier issuing non-conforming materials components or products.

2.4. Therefore Non-Conformance Costs & Liabilities are not part of this document and the negotiation of any cost claim requires a separate contractual treatment outside of the Quality Agreement.

3. Material Data Content

3.1. Where requested the supplier must provide material data sheet in the agreed-upon format and medium. The material content must comply with relevant legal requirements.

4. Audits

Systems Audits:

4.1. The quality system of the supplier has to be a minimum of BS EN ISO 9001:2008. However, depending on the contractual requirements some suppliers will be required to hold AS9100 for aviation products. The relevant version has to be agreed mutually. Usually Rockford will accept quality system audits conducted by an approved certification body, although audits may still be required for key suppliers.

Process Audits:

4.2. General customer audits should be mutually agreed after the following announcement times:

- Minimum 2 weeks in advance
- On short notice for problem Audits
- On short notice for continually exceeding agreed PPM levels (ref: section 8.7)
- On short notice for inadequate/no response to non-conformance issues (ref: section 8)
- Relocation of production sites without approval from the Company
- Improper quality performance as a result of insecure internal or external process.
- Accompanying preventive action if necessary.

4.3. Audit type, participants and their functions will be announced in time before the audit.

4.4. The number of Auditors in sensitive manufacturing areas like a clean room will be carefully chosen; a minimum of 2 Auditors should be accepted. Operation instructions will be respected.

4.5. The information exchanged during an audit is confidential. An Audit report shall not be shared or passed to third parties without mutual agreement from all parties involved.

4.6. Audits at subcontractors need to be enabled by the supplier upon request (Para.4.1. to 4.4 apply). However, Rockford expects suppliers to manage their supply chain and will normally leave problem investigation and audits to the supplier unless in exceptional circumstances.

4.7. After the Audit:

4.8. An Audit report has to be provided at the end of an Audit during the common wrap-up discussion with the involved participants.

4.9. Confidentiality:

4.10. All audit reports and results are treated as strictly confidential. However if the audit is in response to a problem or a new supplier, Rockford may be asked by a customer to share audit results. In these situations this shall be discussed with the supplier in advance of the audit in

order to agree any limits and exclusions to processes and products that are not directly pertinent to a specific problem or process/product range.

5. Process Control and Product Monitoring/Process Capabilities

5.1. To control and monitor production part quality levels, appropriate process control techniques will be expected to be used by the supplier. Statistical Process Control (SPC) is a typical example of such process controls expected to be used during manufacturing at a component manufacturer.

5.2. The supplier must ensure that the process capabilities will satisfy quality requirements to meet the Zero Defect target.

6. Failure Rates

6.1. Defects can be measured in absolute or relative numbers (pieces or PPM).

6.2. It is the goal of Rockford is to reach Zero Defect failure rate, and to achieve this, Rockford expects its suppliers to support the same goal.

6.3. PPM-rates are to be considered as maximum upper limits previously agreed with the supplier as part of the individual Quality Agreement contract. However, PPM-rates are considered intermediate milestones to reach the Zero Defect target. Therefore, PPM rates will be re-valuated and new targets negotiated annually with the supplier if required.

6.4. PPM failure rates will be evaluated from all non-conforming products and components received at Rockford from the supplier and this shall include 'concessed' parts. All unused non-conforming parts may be returned to the supplier.

6.5. Returned defects not caused by the supplier will be taken out of the supplier statistics.

6.6. Suppliers continually exceeding agreed PPM rates may be subject to process audits by the Rockford QA team.

6.7. Continued failure to meet agreed PPM rates will affect supplier rating scores and may lead to loss of current or future contracts.

7. Traceability

7.1. The aim of traceability is to minimize the impact and consequences of quality concerns. The suppliers and Rockford will maintain an appropriate traceability system.

7.2. All components, sub-assemblies, assemblies and finished products for us shall be 100% traceable to raw material at sub-contractors.

7.3. **Forward Trace**: required information to identify already delivered suspect material in order to minimize the quantity, which needs to be caught as early as possible.

Backward Trace: required information to identify suspect source material and origin at sub-contractor.

7.4. If production/shipping requires splitting lots for processing/packing, those new sub-lots will be traced as separate lots and shall not be mixed.

7.5. Traceability information must be clearly visible on the label of the packaging and on the associated paperwork.

7.6. Backward traceability requires, as minimum information, the part number and additional information like trace code, lot number or date code.

7.7. The maximum time period to provide the traceability information should be 2 working days.

8. CPAR (Corrective Preventative Action Request):

8.1. Rockford will notify the supplier immediately after a non-conformance has been identified at its premises or by its own customer. This will be followed up by a Supplier Non-Conforming Material Report being issued complete with a detailed failure mode description.

8.2. Rockford will ensure the supplier is immediately informed of: suspected quantity/percentage of non-conforming parts, replacement requirement dates and full circumstance of failure.

8.3. The non-conforming material (or sample) will be returned as soon as possible to allow the supplier to investigate the problem in its original condition.

8.4. Rockford may wish to investigate the problem cause and analyse the component/material, however, to ensure root cause analysis is identified correctly by the supplier it is imperative that un-modified examples are returned to the supplier for investigation.

8.5. On receipt of a notification of non-conformance, the supplier must immediately ascertain turnaround times for replacement of suspected non-conforming parts. The supplier shall co-operate in ensuring that the shipment of returned non-conforming material is minimised.

8.6. The supplier shall adopt the 8 Discipline approach for containment and long term preventive action for non-conformances reported by Rockford**,** when requested. It is imperative that all reported non-conformances are investigated immediately and appropriate actions are taken to ensure contain the problem. Once containment is successfully achieved it is expected that the appropriate problem solving techniques are used to identify root cause (i.e. Pareto, 5 Whys, Ishikawa/fish bone analysis etc.) Root causes must then be verified and acted upon in good time. While this process is underway, containment action will be expected to continue until evidence is provided to Rockford that the preventative action has been successful. Containment action may include 100% test/inspection.

8.7. Containment action, preventive action and verification processes will be expected to be time-based with action due dates agreed with Rockford**.** In cases where additional analysis needs to be carried out the supplier will inform immediately and provide regular updates and estimated completion date.

8.8. In the absence of any pre-agreement with the supplier, the required failure analysis and response times are as follows:

Event

Problem notification and submission of component to supplier by Company	Starting Point
Formal acknowledgement by supplier that reported problem has been received	1 day*
Receipt of samples at supplier factory	2 days
Initial supplier problem verification complete and communicated	3 days
Interim containment plan communicated to Company	5 days
Supplier failure or problem analysis completed and results communicated	9 days
Supplier corrective action plan communicated	10 days
Supplier corrective and preventive action implemented and verified	Per plan

***"Days" indicate cumulative working days after problem submission by Company.**

9. Notification of Engineering and Process Changes

9.1. The supplier shall provide Rockford with parts produced using the manufacturing processes, equipment and location as released for series production by Rockford .

9.2. If a change to part design, process, component/raw material or site occurs then an Engineering Change Note (ECN) must be issued to and authorised by Rockford before *the change takes place*. The supplier must ensure they are in receipt of an ECN Number and written approval prior to delivery of parts affected by the change. This is a mandatory requirement.

9.3. An ECN request must be submitted well in advance of the intended date of implementation in order to account for the re-qualification effort by Rockford, allow all consequences and alternative solutions to be considered, and subsequent OEM approval.

9.4. Customers having purchased parts affected by the ECN or still carrying any open orders will be informed as defined above.

9.5. Change management during the design and development process has to be defined separately between customer and supplier. This is valid also for devices not qualified and/or not having a series release status at customer side.

9.6. Rockford will ensure an initial response is issued to the supplier within two weeks of the initial ECN request by the supplier. Final confirmation will be no longer than six weeks. Nevertheless, a supplier should not assume the change has been approved if feedback has not been received. Approval MUST be in writing. The supplier is responsible for following up/progressing change approvals with Rockford.

10. Archiving periods for quality relevant document and records

10.1. Document retention for products is 13 years unless otherwise stated on the Purchase order.

11. Notification of Approval Status

11.1. Suppliers must notify Rockford Components of any significant changes in approval status, capability, location, key processes, systems or personnel which may affect the integrity of the product or service being supplied. Also if Rockford Components identifies a process, system or individual as being key during the approval process then Rockford Component's approval is required before any change can be made.

End of Document.