

Title                   **Supplier Quality Assurance Requirements**

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**CHANGE HISTORY**

Issue	date	authorised by	authority	comment
2	15/08/2012			Amendment 509
3	21/10/2013			Amendment 542
4	28/04/2014			Amendment 559
5	22/02/2016			Amendment 592
6	13/06/2018	D Broadbent	QA Manager	Reformat and renumber in SEA style (formally QAP 4709)
7	4/02/2024	D Broadbent	QA Manager	Update to reflect current requirements
8	26/6/2024	D Broadbent	QA Manager	Minor updates

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## 1 **INTRODUCTION**

The purpose of this document is to standardise the method by which Systems Engineering & Assessment Ltd (SEA) define Supplier Quality Assurance Requirements (SQARs) for suppliers of goods and services that are to be used in the design / realisation of products and services that SEA provide to our customers.

This latest revision of this document, N0194, is available from the SEA purchasing department and the SEA website - <https://www.sea.co.uk/terms-of-business>.

**THESE REQUIREMENTS DO NOT APPLY TO ANY SUPPLIER OF INDIRECT GOODS AND SERVICES. IF IN ANY DOUBT AS TO THE APPLICABILITY OF THESE REQUIREMENTS, SEEK CONFIRMATION IN WRITING FROM THE SEA SUPPLY CHAIN TEAM.**

### 1.1 **REQUIREMENTS**

Suppliers to SEA (Suppliers defined as any party in receipt of a RFQ, RFT or PO from SEA) will be responsible for ensuring that the requirements of this document can and will be met.

If during quotation, tender or after Purchase Order placement the supplier is unable to meet the requirements of this document, then they shall advise SEA in writing immediately. Deviation from these requirements is not permitted without written permission from SEA, i.a.w section 2.6 of this document.

This document shall be revised by SEA periodically, and a revised copy published on the SEA website (link above) when any new revision is released. It is the responsibility of the supplier to ensure that they are working to the correct revision at all times.

#### **NOTE.**

If there is any conflicting information identified between any documents received as part of a purchase order or RFQ/RFT the vendor must contact the SEA Purchasing department in the writing to clarify order of precedence. The order of precedence will then be confirmed in writing by SEA.

## **2 STANDARD QUALITY REQUIREMENTS**

### **2.1 Quality Certifications**

The Supplier shall maintain a Quality Management System accredited to and compliant with ISO9001 and the requirements defined herein, as a minimum.

Unless otherwise agreed by the Customer the system shall be certified by a third-party organisation accredited by the United Kingdom Accreditation Service (UKAS) or by another body accredited by the International Accreditation Forum (IAF).

Organisations and External providers shall only supply products or services within the scope of their management system certification and any other limitations defined by their Customer.

Where other or additional Quality Management Systems are required (e.g. AS9100) then SEA shall state this at the point of RFQ/RFT and/or at Purchase Order placement.

### **2.2 Additional quality requirements**

There may be specific requirements applicable to the supply of certain products or services, depending on Engineering, Quality and Customer requirements. The Supplier will be made aware of these as part of any RFQ/RFT correspondence or, in the case of contract award, via the Purchase Order.

### **2.3 Commercial off-the-shelf (COTs) items**

Sourcing of COTS parts offers a significant risk of counterfeit product entering the supply chain.

Suppliers must be the original equipment manufacturer (OEM) or a franchised distributor for any COTs items supplied to SEA.

In the case of Electrical and Electronic COTS components, if the supplier is neither the OEM nor a franchised distributor, then both accreditation to AS9120 and documented traceability to the Original Equipment Manufacturer (Certificate of Conformity) is required and is to be provided with any goods supplied. If traceability back to source is questionable, SEA may be able to accept alternative sources under a formal permit (See section 2.6), if supplemented with appropriate testing IAW AS6081.

If the supplier is not an OEM or franchised distributor for any parts supplied or to be supplied, or cannot meet the requirements above, then other quality measures may be acceptable. However, this must be approved via a Production Permit signed off by SEA quality personnel.

## **2.4 Certificate of Conformity**

A Certificate of Conformity (CofC) shall be provided with every delivery, referencing where applicable:

- a) SEA & supplier's Part or Drawing Number and Issue Status.
- b) Batch Number/Trace number.
- c) Serial Numbers of item supplied.
- d) Cure date & shelf life of rubber items and controlled substances.
- e) Standards & Specifications used (Material & Processes etc)
- f) Deliverable Documentation identified on Part Number, Drawing(s) or Purchase Order.
- g) Identification of any NDT, calibration or functionality tests carried out with their relevant specifications, Traceable to national or international standards where applicable.
- h) A CofC statement certifying that whole of the supplies detailed have been inspected or tested, conform in all respects to the specifications, drawings and order requirements with records kept in line with your Quality management system registration.
- i) Signed by an Authorised Signatory.
- j) Documented traceability to the Original Equipment Manufacturer (Certificate of Conformity) for any COTS goods supplied by anyone other than OEM or Franchised distributors of the COTS goods.
- k) All applicable permits / concessions.

## **2.5 Counterfeit product**

SEA will not accept unapproved (counterfeit) parts relating to any purchase order. The liability to replace unapproved (counterfeit) parts if received lies with the supplier. All costs associated with replacement of unapproved (counterfeit) parts are the responsibility of the supplier. More details can be found within Aerospace Standard AS5553 & AS6174 and Def Stan 05-135.

## **2.6 Deviations (Permits and Concessions)**

Any request to deviate from these quality requirements, the SEA Standard Terms and Conditions of Purchase, any SEA Purchase Order or any other applicable requirement (including those given on drawings or any other configuration document) must be via form F0405 "Supplier Deviation Application", available from SEA upon request.

The supplier shall not commence with any deviation until a copy of the form has been reviewed and signed as approved by a member of the SEA quality team. In the event that a deviation cannot be approved, the supplier shall be responsible for ensuring compliance.

## **2.7 Packaging and Preservation**

All goods supplied must be suitably protected to prevent the risk of damage, contamination and/or deterioration during transportation and storage.

- a) Internal threads will be protected by means of a plastic plug or similar & external threads will be suitably protected against damage in transit and storage.
- b) Seal areas shall be suitably protected against corrosion and impact damage.
- c) Electrical parts or equally delicate components will be suitably protected against impact damage during transit and storage, and to protect against ESD events.
- d) All machined, uncoated surfaces on non-corrosive resistant steels shall be treated with a corrosion inhibitor.

The SEA Purchase Order, including any documents applicable to a Purchase Order, may include special/bespoke packing requirements. It is the supplier's responsibility to ensure that these requirements are captured and complied with.

## **2.8 Item identification**

All items delivered shall be bagged or boxed as appropriate (see section 2.7) and affixed with a label or tag containing the following information:

- a) Purchase Order number.
- b) Part number plus issue/revision.
- c) Description.
- d) Quantity.
- e) Serial Number(s).
- f) Any other assembly or project specific information supplied on Purchase Order.

## **2.9 ESD control**

All electronic components, Printed Circuit Boards and electrical assemblies are to be protected against the possibility of Electro Static Discharge (ESD) throughout manufacture and delivery. The supplier shall comply with BS EN 61340-5-1 as a minimum and will have documented processes in place to manage this.

## **2.10 Elastomer items**

All elastomers are to be supplied in UV light resistant sealed packaging identified with SEA Part/drawing number, the manufacture/cure date, shelf life & trace/batch number. The Purchase Order will state if individual packing is required.

## **2.11 Lifer items**

All goods with a limited shelf or usage life shall be identified with the SEA Part/drawing number, the manufacture/cure date, shelf life & batch number.

The Purchase Order will advise when individual packing is required.

Unless otherwise specified on the Purchase Order, all shelf-life materials shall be delivered to SEA with a minimum of 80% shelf life remaining.

### **2.12 FOD control**

Suppliers shall ensure that all goods delivered to SEA are clean and free of foreign objects. SEA recommends that all suppliers employ a FOD prevention program in line with AS9146 in order to achieve this.

### **2.13 Document retention**

Suppliers shall retain full Supply Chain Traceability & Certification for a minimum of 10 years, or as per contract, and these records shall be made available to SEA upon request, either free of charge or at a reasonable cost, which does not include any mark up. Storage of such records in scanned form is acceptable.

### **2.14 Lifting equipment**

Any Lifting equipment supplied to SEA shall be supplied with a certificate of examination and test.

### **2.15 Supplier Development. Audits**

Where a supplier doesn't meet service level expectations, or where such activities are deemed to be mutually beneficial, SEA may support the supplier in developing their organisation to improve service levels, efficiency, reduce costs, etc. Actions resulting from such activities will be managed via a Continuous Improvement Plan.

SEA also reserve the right to Audit any supplier, giving reasonable notice.

Any support, recommendations or guidance provided by SEA as a result of these activities is advisory only. SEA shall not be held liable for any loss, damage or other liability for any action taken as a result of any recommendations or advice provided.

### **2.16 Contract Review**

The Supplier shall conduct a review (Contract/Order review) on the Purchase Order or Contract from SEA prior to order acceptance. This review shall include, and ensure:

- a) The ability to meet the requirement for product and/or services to SEA.
- b) The ability to meet the required delivery date/s.
- c) The ability to meet any other requirements specified by SEA including any post-delivery activities.
- d) The ability to meet any Statutory and Regulatory requirements applicable to the products and services
- e) The ability to meet any Requirements not stated by SEA, but necessary for the specified or intended use, when known
- f) A review of the Resources and infrastructure required to meet the SEA requirement, whether these are adequate, and planning to address if they are not.

The review shall include all necessary functions within the Supplier's organisation relevant to Purchase Order/Contract, size of the business and considered necessary by the Supplier to ensure that on acceptance of the order, the requirements of SEA will be fulfilled. The Supplier shall retain documented evidence that the review has been successfully completed.

### **2.17 First Article Inspection Reports (FAIR)**

SEA may request FAIR as part of a contract. Unless otherwise stated, FAIRs shall be completed in accordance with AS9120.

### **2.18 Printed Circuit Boards (PCB) and Electrical/Electronic standards**

PCBs and Electrical and Electronic assemblies shall all be inspected and tested IAW any relevant IPC standards, to class 3. Inspection / testing shall only be completed by persons trained and certified to the relevant standard/s.

Electrical and Electronic assemblies shall be manufactured IAW IPC-J-STD-001, to class 3, by persons trained and certified to this standard.

### **2.19 Sub-tier suppliers and subcontractors**

Suppliers shall be responsible for ensuring that all sub-contractors, suppliers and sub-tier suppliers hold appropriate quality accreditation, as per section 2.1.

### **2.20 Traceability**

In addition to the requirements of the supplier's quality accreditation, and/or any other contracted requirement/s, the supplier shall ensure traceability of goods and services provided as follows (as a minimum):

- a) The allocation of batch / trace number/s.
- b) Documented traceability of all materials used in the realisation of the goods/services, back to source (inc. mill certs, test certs, etc.). Note - COTS part traceability requirements are further defined in section 2.3.
- c) Documented traceability of the persons and equipment used in the realisation, testing and inspection of the goods/services.
- d) Records any approved deviations applicable to any batch/trace number.
- e) Records of any rework operations carried out on any a batch/trace number.
- f) A CofC as per section 2.4.

### **2.21 Non-conforming product**

In addition to the requirements of the contract, the supplier shall ensure that appropriate quality controls (inspection, test, etc) are applied to any goods & services provided to SEA.

The supplier shall ensure that goods and services that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery. The supplier shall take appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. This shall also apply to nonconforming products and services detected after delivery of products, during or after the provision of services.

Suppliers are not permitted to unilaterally rework any non-conforming goods if the rework deviates away from the standard processes and materials used in the realisation of said goods. If rework does result in deviation away from standard processes and materials, then this shall only be completed if approved by SEA - Such applications can be made via the deviations process defined in section 2.6.