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DISTRIBUTION

copy	recipient	format
1	Business Management System	PDF
2	SEA website	PDF
3	SEA Library	MS Word

CHANGE HISTORY

issue	date	remarks
2	15/8/2012	Amendment 509
3	21/10/2013	Amendment 542
4	28/4/2014	Amendment 559
5	22/2/2016	Amendment 592
6	13/6/2018	Reformat and renumber in SEA style (formally QAP 4709)

1 INTRODUCTION

The purpose of this document is to standardise the method by which Systems Engineering & Assessment Ltd (SEA) define Quality Assurance Requirements (QARs). This document lists the QARs as Quality Code Numbers, which may be assigned to any particular component part, sub assembly or assembly, required to be purchased by SEA.

This document N0194 (formally QAP4709) is available from the SEA website.

1.1 PROCEDURES

As per requirements of each Quality Code Number (QCN)

1.2 REQUIREMENTS

All Purchase orders will list the QCN's that have been assigned against a particular item. This should be in a simple numeric format (1, 5, 21 etc) and will be assigned to each line on the purchase order. This document details the requirements for all QCN's requested, which a supplier/ vendor needs to supply as part of the deliverables for each part on that particular purchase order.

Each supplier/vendor that SEA deals with will be responsible for ensuring all terms and conditions of this document (see SEA website for latest edition) can be met and must state it on their quotation that this document has been considered and will be adhered to should they be awarded the work.

This document shall be revised periodically and a revised copy published on the SEA website: however it should be the responsibility of the supplier/vendor to ensure that they are working to the correct issue, as per T & C's stated on RFQ.

NOTE.

When there is any conflicting information identified between any documents received as part of the purchase order the vendor must contact the SEA Purchasing department in the first instance who will select personnel who will best answer the query.

2 QUALITY CODE NUMBERS (QCN'S)

QCN	Description
0	No Quality Assurance Requirements Applicable
1	<p>Certificate of Conformity (CofC) required, referencing where applicable:</p> <ul style="list-style-type: none"> a) SEA & Supplier's Part or Drawing Number and Issue Status. b) Batch Number/Trace number. c) Cure date & shelf life of rubber items and controlled substances. d) 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. e) Signed by an Authorised Signatory
2	<p>Certificate of Conformity (CofC) required, referencing where applicable:</p> <ul style="list-style-type: none"> a) SEA & supplier's Part or Drawing Number and Issue Status. b) Batch Number/Trace number c) Serial Numbers of item supplied d) Quality Assurance Codes Complied with 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. <p>All documentation requirements are to be supplied with delivered items.</p>
3	<p>Material Certification traceability must be in accordance with EN10204 Type 3.1 with the following information:</p> <ul style="list-style-type: none"> a) Material Type, grade & Specification b) Proof/Yield strength of the material c) Chemical Composition d) Heat Treatment e) As delivered Hardness (Rockwell C/ Brinell/Vickers Hardness) f) Izod /Charpy impact test (specify which used) (in accordance with relevant material specification) <p>Validated by Mills in house test department</p>
4	<p>Material Certification traceability must be in accordance with EN10204 Type 3.1 with the following information:</p> <ul style="list-style-type: none"> a) Material Type, grade & Specification b) Proof/Yield strength of the material c) Chemical Composition <p>Validated by Mills in house test department</p>

5	<p>Material Certification traceability must be in accordance with EN10204 Type 3.2 with the following information:</p> <ul style="list-style-type: none"> a) Material Type, grade & Specification b) Proof/Yield strength of the material c) Chemical Composition d) Heat Treatment e) As delivered Hardness (Rockwell C/ Brinell/Vickers Hardness) f) Izod /Charpy impact test (specify which used)(in accordance with relevant material specification) <p>Validated by Mills in house test department and witnessed by an independent accredited body</p>
6	<p>A report documenting the results of any Non Destructive Testing shall be provided with the document pack to the specification stated on the drawing or purchase order</p>
7	<p>A report stating the results of a hardness test on finished-machined items, (post heat treatment where applicable) shall be provided. Tests can be carried out using Brinell, Rockwell or Vickers hardness to the required specification.</p>
8	<p>A completed Weld and material data sheets shall be submitted with the document pack to the specification stated on the drawing or purchase order</p>
9	<p>100% dimensional inspection on all finished components is required. Actual dimensions must be recorded and reported against drawing dimensions. This can be carried out with a report identifying dimensions / marking actual dimensions onto copied drawings.</p> <p>[State preference on Order acknowledgement]</p>
10	<p>100% dimensional inspection on all finished components is required on dimensions that are not controlled by the general tolerance block. Actual dimensions must be recorded and reported against drawing dimensions. This can be carried out with a report identifying dimensions / marking actual dimensions onto copied drawings.</p> <p>[State preference on Order acknowledgement]</p>
11	<p>First Article Inspection (FAI) is to be conducted on first production item in accordance with EN9102.(latest edition) Documents to be included in the submission of FAIR must include (but are not limited to):</p> <p>EN9102: forms 1 to 3 inclusive. Ballooned drawing identifying location for dimensions recorded in form 3 including Full supply chain certificates of conformity.</p> <p>Once FAI has been completed any changes required within the supply chain are to be highlighted to the customer, these changes may be subject to full or partial FAI.</p> <p>Note: All supplier FAIR's will be vetted and then signed off for approval (if meeting all specific product requirements) by; SEA quality department prior to parts being accepted into stock.</p>
12	<p>All machined, uncoated surfaces on non-corrosive resistant steels shall be treated with a corrosion inhibitor.</p>
13	<p>Part Protection;</p> <ul style="list-style-type: none"> a) Internal threads will be protected by means of a plastic plug of 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

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	All materials must be suitably protected, by wrapping / taping to prevent contamination during transportation.
14	All elastomers 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 advise when individual packing is required
15	All goods with a limited shelf or usage life to be identified with SEA Part/drawing number, the manufacture/cure date, shelf life & batch number. The purchase order will advise when individual packing is required
16	All electronic components, Printed Circuit boards and electrical assemblies are to be protected against the possibility of Electrical discharge (ESD). These items are to be individually protected. The following packaging/protection methods are to be used. <ul style="list-style-type: none"> a) Static safe bags b) Conductive foam c) Device storage Tubes <p>In all cases, static safe bags clearly marked with "Caution Electrostatic devices" should be used and the following clearly identified on the packaging:</p> <ul style="list-style-type: none"> d) Purchase Order e) Part Number f) Revision/Issue g) Serial Number (Supplied with Purchase Order) h) Software Revision (if software is installed)
17	Bag or box as appropriate and affix a label or tag with the following information: <ul style="list-style-type: none"> 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
18	All materials & Machined components must be clearly identified by: <ul style="list-style-type: none"> a) Drawing Number & Issue/revision b) Unique serial number (if required will be supplied with purchase order) c) Any other assembly or project specific information supplied on Purchase order <p>Method: Low stress stamps 6mm where practical, 4mm may be used where part size dictates.</p>
19	All materials & Machined components must be clearly identified by: <ul style="list-style-type: none"> a) Drawing Number & Issue/revision b) Unique serial number (if required will be supplied with purchase order) c) Any other assembly or project specific information supplied on Purchase order. <p>Method: Etch, Vibratory Pencil or Engrave.</p>
20	All materials & Machined components must be clearly identified by: <ul style="list-style-type: none"> a) Drawing Number & Issue/revision b) Unique serial number (if required will be supplied with purchase order)

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	<p>c) Any other assembly or project specific information supplied on Purchase order Method: On an Affixed Tag.</p>
21	<p>All materials & Machined components must be clearly identified by: a) Drawing Number & Issue/revision b) Unique serial number (if required will be supplied with purchase order) c) Any other assembly or project specific information supplied on Purchase order Method: Paint or printed text (PCB's etc).</p>
22	<p>FAIR (First Article Inspection Report) is required. This can be carried out with a report identifying dimensions / marking actual dimensions onto copied drawings. [State preference on Purchase Order].</p>
23	<p>All parts /Materials must be traceable to raw material certification, test reports and sub-contracted process certificates.</p>
24	<p>Suppliers must ensure that all parts/materials are clean and free of foreign objects.</p>
25	<p>Suppliers shall retain full supply chain Certification for a minimum of 10 years and be available on request. Storage in scanned form is acceptable.</p>
26	<p>This contract may require MOD QAR to visit your premises. SEA will advise accordingly.</p>
27	<p>Concession requests are to be in accordance with Def Stan 05-61 P1 Issue 5. This specification will be supplied on request.</p>
28	<p>This order requires the manufacture of Submarine First Level Items. There is a Statement of Quality Assurance (SOQR) or Quality Assurance Statement of Requirements (QASOR) attached which identifies the documentary evidence. Each sheet is to be positively identified against SOQR or QASOR line items and are to be supplied with the completed items and C of C. A copy of SSP 25 & Def Stan 02-884 will be supplied if required. If the manufacture of any of these items is to be sub-contracted, SEA must be informed and all requirements flowed down to his sub-contractor. All concessions will be Major.</p>
29	<p>A project plan is required identifying processes/operations and time scales.</p>
30	<p>Lifting equipment certificate of examination and test to be supplied.</p>
31	<p>Traceability number to be annotated to CofC with delivered items. This will be advised on the purchase order.</p>
32	<p>SEA will not accept unapproved (counterfeit) parts relating to this 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.</p>
33	<p>This contract is controlled AQAP 2110 which may require MOD QAR to visit your premises. SEA will advise accordingly.</p>

Table 2.1 – Quality Code Numbers