



## QUALITY CLAUSES & REQUIREMENTS

*Note: Applicability of the clauses described in this document will be specified in the Outpost Technologies Purchase Order (PO). If applicability has not been specified in your PO or if you have questions about clauses, contact your Outpost Technologies Procurement Agent.*

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**Quality Clauses and Requirements Owner: QA Manager**

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## Quality Management System and Source Inspection (000)

### Q000. Customer or Project Flow Downs

- A. In addition to the requirements of this document, the material or services supplied on this order shall comply with the requirements of the referenced customer or project specific flow down clauses.
  - 1. The applicable customer or project specific requirements will be identified in the Outpost Technologies Purchase Order (PO).
- B. If the customer or project specific document number or clauses have not been identified in your PO or if you have questions about clauses, contact your Outpost Technologies Procurement Agent.

### Q001. Seller Responsibility and Flow Down

- A. The Seller is responsible for compliance with all provisions of the contract and for furnishing materials and/or processes which meet all requirements of the contract.
- B. The Seller's QMS shall assure all relevant Purchase Order requirements are flowed down to their sub-tier sellers.
  - 1. The Seller's sub-tier sellers are responsible to comply with the same specifications and requirements specified on the Purchase Order.
  - 2. If any materials and/or processes are procured from sub-tier suppliers, all applicable requirements must be flowed down to the supply chain.
  - 3. The seller is fully responsible for the conformance of any materials or processes procured from sub-tier suppliers.
- C. The Seller shall notify Outpost Technologies of any changes in product that may affect form, fit, or function prior to fulfillment of this order.

### Q002. Quality Manual

- A. A copy of the Seller's Quality Manual or equivalent shall be submitted for review before the work on this contract begins.

### Q003. Quality Management System

- A. Seller's quality management system shall be in compliance with the current revision of AS9100, AS9120, ISO 9001 or have an Outpost Technologies approved Quality Management System.
  - 1. Sellers certified to AS9100, AS9120, or ISO 9001 must provide evidence of third-party certification upon request by Outpost Technologies.

2. Sellers that are not certified to AS9100, AS9120, or ISO 9001 may be subject to a Outpost Technologies Quality Management System audit. Sellers may be re-audited by Outpost Technologies as required to remain an approved seller.

### **Quality Management System and Source Inspection (000) Cont.**

#### **Q004. Right of Access and Inspection**

- A. Outpost Technologies and its Customer have the right to inspect any or all work included in this order at the Seller's plant in fulfillment of this contract.
- B. In the event Inspection by Outpost Technologies or its Customer is required; Outpost Technologies will provide notification to Seller and will conduct inspection in accordance with mutually agreed upon inspection criteria.
- C. Outpost Technologies and its Customer shall have right of access to quality management system documentation, product, all applicable records, and all facilities involved in this Purchase Order.

#### **Q005. Government Right of Access and Inspection**

- A. The Government has the right to inspect any or all work included in this order at the Seller's plant in fulfillment of this contract.
- B. In the event Inspection by the Government is required; Outpost Technologies will provide notification to Seller and will conduct inspection in accordance with mutually agreed upon inspection criteria.
- C. The Government shall have right of access to quality management system documentation, product, all applicable records, and all facilities involved in this Purchase Order.

#### **Q006. Source Inspection**

- A. All work performed under this contract requires Outpost Technologies Source Inspection.
- B. Notify the Outpost Technologies Procurement Agent as work planning is defined and seventy-two (72) hours prior to product work initiation and seventy-two (72) hours prior to final inspection being performed for possible in-process and final source inspection requirements.
  1. Evaluation of personnel, equipment, methods, and items may be conducted to determine compliance to contract requirements.
- C. Evidence of Outpost Technologies Source Inspection must be indicated on all shipping documents.

#### **Q007. Government Source Inspection**

- A. Government Source Inspection (GSI) is required prior to shipment from Seller's plant.
- B. Upon receipt of this Purchase Order, the Seller shall promptly furnish a copy to the Government inspector who normally services the Seller's plant.
- C. If delivery of the items will be delayed due to GSI requirements, the Seller shall notify Outpost Technologies immediately.
- D. Evidence of GSI must be indicated on all shipping documents.

#### **Q008. Seller Quality Plan**

- A. The Seller shall prepare and maintain a documented quality plan applicable to the material or process being supplied to Outpost Technologies. The Seller quality plan must be submitted to and approved by Outpost Technologies Quality prior to fulfilling the Purchase Order.

### **Compliance and Workmanship (100)**

#### **Q101. Workmanship**

- A. All items must conform to workmanship requirements as specified on applicable drawings and specifications.
- B. If no workmanship is specified, the items shall be fabricated and finished to normal industry acceptance standards.

**Q102. Human Spaceflight Workmanship**

- A. For use in human space flight, materials, manufacturing, and workmanship of highest quality standards are essential to astronaut safety.
- B. If Seller can supply the desired item with a higher quality than that of the items specified or proposed, Seller is requested to bring this fact to the immediate attention of Outpost Technologies.

**Q103. Manufacturer Certificate of Conformance**

- A. Seller shall include with each shipment a copy of the Manufacturer's Certificate of Conformance.
- B. The Manufacturer's Certificate of Conformance shall include the following information:
  - 1. Name and Address of Manufacturer
  - 2. Statement attesting that goods and services conform to all contract and associated drawing requirements.
  - 3. Part number and dash number (as applicable).
  - 4. Drawing number and revision level (as applicable) to which the goods were manufactured.
  - 5. Batch identification for the item(s) such as date codes, lot codes, serializations, or other traceable identifications (as applicable).
  - 6. Country of Origin
  - 7. If goods are Outpost Technologies furnished, so indicate.
- C. If Seller is not the Manufacturer, the Seller Certificate of Conformance will provide traceability to the Manufacturer.
  - 1. Seller shall reference Outpost Technologies Purchase Order number on Manufacturer's Certificate of Conformance.  
OR
  - 2. Seller shall include with each shipment a copy of Seller's Certificate of Conformance that will include reference to Outpost Technologies Purchase Order number and traceability to the required Manufacturer's Certificate of Conformance.

**Compliance and Workmanship (100) Cont.****Q104. FOD Prevention Program**

- A. The Seller shall establish and maintain an effective Foreign Object Damage (FOD) Prevention Program to reduce FOD.
- B. The Seller's program shall utilize effective FOD prevention practices. The program shall be proportional to the sensitivity of the design of the product(s) to FOD, as well as, to the FOD generating potential of the manufacturing methods.
- C. The material supplied on this Purchase Order shall be manufactured in an environment that is free of foreign objects. Material supplied shall be free of foreign objects. The Seller's program shall utilize effective FOD prevention practices.

1. The Seller's program shall include FOD preventive practices in packaging.
  2. There shall be no foreign objects received in packaging and packaging containers.
    - i. Foreign objects can include staples used for closure of unit packaging, foam peanuts used for cushioning and Styrofoam (can break down and particles cling to parts) used for cushioning.
  3. In general, no packaging material shall be used that will leave any residue from the packaging material on the parts as a result of packaging or unpacking the product.
- D. The written procedures or policies developed by the Seller shall be subject to review upon request by Outpost Technologies, its customer and/or government representative, who may issue a formal request for corrective action if the Seller's procedures or policies do not accomplish their objectives.

**Q105. General Certificate of Conformance**

- A. The Seller shall provide a signed Certificate of Conformance to the effect that all materials, processes, and/or items supplied under this contract are as specified.
- B. The Seller shall specifically sign and certify that all parts, materials, processes, and items supplied under this contract were inspected, tested, and found to comply with the requirements of this order.
- C. Inspection and test data shall be maintained and are subject to Outpost Technologies examination.
- D. The Seller's Certificate of Conformance shall include the following information:
  1. Name and address of Seller
  2. Statement attesting that goods and services conform to all contract requirements.
  3. Item or Part number.
  4. Batch identification for the item(s) such as date codes, lot codes, serializations, or other traceable identifications (as applicable).

**Compliance and Workmanship (100) Cont.****Q106. General Cleaning Requirements**

- A. Seller shall clean all parts/items/materials in a method as to remove all foreign debris.
- B. This includes chips, burrs, oils, grease, dirt, and any other form of debris.

**Q107. Oxygen Cleaning Requirements**

- A. Seller shall clean all parts/items/materials as acceptable for their use in oxygen service.
- B. This includes but is not limited to material and soft good compatibility, cleaning solvent compatibility, and storage methods after cleaning.



## Configuration and Process Controls (200)

### Q201. Resolution of Conflicts or Inconsistencies occurring in the order

- A. It is Seller's responsibility to comply with this Purchase Order and all referenced documents, and to clarify with Buyer any known inconsistencies or conflicts in any parts of the Purchase Order or referenced documents.
- B. Should Seller fail to contact Buyer to resolve conflicts or inconsistencies, Seller will be solely responsible for errors resulting from said conflicts or inconsistencies.
- C. Where documents are referenced, the version in effect at the time of order placement shall apply.

### Q202. No Changes Without Approval

- A. Except for first time purchases, items furnished under this Purchase Order shall be identical in form, fit and function to a product previously approved by the Outpost Technologies Procurement Agent.
- B. The Seller shall not to make any changes or substitutions in items delivered under this contract at any time that would affect physical or functional interchangeability, reliability, or repair and maintenance operations unless the part identification is changed.
- C. The Seller shall notify the responsible Outpost Technologies Procurement Agent of any proposed changes or substitutions including changes in design, materials, parts, fabrication methods or processes, major plant rearrangement, or plant relocation and changes that may impact form, fit and/or function.

### Q203. Obsolescence

- A. Defined as when a part, tool, or material is no longer in production by the original manufacturer.
- B. If an obsolescence issue occurs, is imminent, or a potential, the Seller shall notify Outpost Technologies of this condition upon risk identification. The Seller shall identify the part number, nomenclature, and Seller of the item and shall identify the Outpost Technologies Purchase Order and part number that is affected.
- C. The Seller shall provide sufficient details that a prudent effort was made to identify an alternate part number that would be technically acceptable. This information must be provided to Outpost Technologies prior to shipment against this order.

## Configuration and Process Controls (200) Cont.

### Q204. Engineering Dataset/Drawing Information

- A. Seller shall ensure the engineering documents (e.g., drawing, dataset, parts list, specifications, engineering planning documents, statement of work) of the configuration specified for this contract item is available and applied as the authority for the manufacture and inspection of the ordered goods.
- B. Seller shall ensure goods conform to specified engineering documents and associated revision.
  - 1. Seller will contact Outpost Technologies Procurement Agent for resolution of differences between configuration of Goods and the contract specified engineering documents and associated revision.
  - 2. Seller shall ensure resolution of configuration differences in advance of Seller's request for Outpost Technologies verification (when required) and in any case prior to shipment.
- C. Seller shall record on shipping document, the configuration information of the Goods and, when applicable, serial number. The configuration information shall include the revision for the applicable engineering documents:
  - 1. Drawing and/or dataset and revision
  - 2. Parts list and revision
  - 3. Engineering/manufacturing documents and revision
  - 4. Specification and revision
  - 5. Statement of work and revision

### Q205. Equipment Approval

- A. All equipment used in the performance of this contract shall be appropriate for ensuring product quality.
- B. All equipment used in the completion of this contract is subject to Outpost Technologies review and approval as required.

## Configuration and Process Controls (200)

### Q206. Special Process Qualification and Certification

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- A. Special Processes are defined as manufacturing processes that require specific training and certification of personnel and facilities in accordance with specification requirements.
  - 1. Special Processes include welding, bonding, heat treat, non-destructive testing, and finishing operations (i.e., painting, plating, anodizing, chemical conversion coating, etc.).
- B. Seller is responsible for certification and compliance with applicable Special Process requirements.
  - 1. Outpost Technologies and its customers reserve the right to verify compliance with Special Process requirements.
- C. Seller's personnel performing or inspecting Special Processes shall be trained and certified and evidence of personnel certification shall be available in the area where processes are being performed.
  - 1. The personnel shall be re-certified as a result of unsatisfactory performance, changes in techniques or required skills, and/or extensive interruption of work performance.
- D. Records of training, testing and certification status of personnel shall be maintained and available for review by Outpost Technologies and its customers.

#### **Q207. Special Process Approval**

- A. The Seller shall obtain Outpost Technologies approval of all Special Processes and the supplier of those Special Processes to be used in the performance of this contract.
  - 1. Special Processes include plating, welding, nondestructive examination, finishing, bonding, soldering, chemical processes, etc.
- B. The suppliers shall maintain objective evidence of process qualification and control in accordance with applicable specifications.
- C. An Outpost Technologies survey of operations may be required before approval is given.
  - 1. Using an Outpost Technologies approved supplier in no way guarantees satisfactory performance by the Special Process supplier nor does it relieve (you) the Outpost Technologies subcontractor from your obligation to deliver conforming parts in accordance with contractual requirements of the Outpost Technologies Purchase Order or subcontract.

### **Inspection and Testing (300)**

#### **Q301. Seller Inspection Requirements**

- A. The Seller is responsible for performing or having performed all inspections and tests necessary to substantiate that the items furnished under this contract conform to contract requirements, including any applicable technical requirements for specified manufacturer's parts.
  - 1. This clause does not require Seller to re-perform inspection or tests already conducted by the manufacturer of items, but Seller is responsible for the conformity of items delivered to Outpost Technologies.
- B. The Seller shall provide and maintain an inspection system covering items under this contract and shall tender to Outpost Technologies for acceptance only items that have been inspected in

accordance with the inspection system and have been found by the Seller to be in conformity with contract requirements.

1. As part of this system, the Seller shall maintain records evidencing all inspections made under the system and the outcome.
  2. These records shall be kept complete and made available to Outpost Technologies during performance and for as long afterwards as required by contract.
- C. Outpost Technologies may perform reviews and evaluations as reasonably necessary to ascertain compliance.
1. These reviews and evaluations shall be conducted in a manner that will not unduly delay the work under this contract.

### **Q302. Inspection Plan**

- A. An Inspection Plan for control of articles furnished in accordance with the Purchase Order shall be prepared and specifically written to outline the product flow from receipt of materials through fabrication, assembly, and inspection operations.
- B. The Inspection Plan shall define the inspection points throughout the manufacturing sequence and describe the inspections.
  1. A general description of procedures and records used will be adequate.
- C. One (1) copy of the Inspection Plan shall be forwarded to the Outpost Technologies Procurement Agent before the work described begins unless otherwise specified.

## **Inspection and Testing (300) Cont.**

### **Q303. Acceptance Test Plan (ATP)**

- A. The Seller shall develop an Acceptance Test Plan (ATP) that describes the process of acceptance testing of the deliverable items in accordance with the stated requirements specified in the Technical Data Package (TDP).
- B. The ATP shall include descriptions of the test setup, the test facility, instrumentation, data acquisition system, test data format and sample rate, test data storage and distribution, stake holder responsibilities, and safety considerations during test.
- C. One (1) copy of the ATP shall be forwarded to the Outpost Technologies Procurement Agent before the work described begins unless otherwise specified.

### **Q304. First Article Inspection (FAI)**

- A. The Seller shall perform a First Article Inspection on controlled drawings and specifications unless otherwise specified by the Purchase Order or SOW.
- B. First Article Inspection (FAI) shall conform to the requirements of Aerospace Standard AS9102, Aerospace First Article Inspection Requirement. The revision of this standard at the time of the Purchase Order applies.

- C. The Seller's contact at Outpost Technologies for any issues regarding the FAI, except as specifically noted above, will be the Outpost Technologies Procurement Agent whose name appears on the Purchase Order.
- D. Outpost Technologies shall be notified ten working days (e-mail is acceptable) prior to execution of the FAI and reserves the right to attend and provide input during all FAI activities.
- E. The FAI shall serve as the baseline qualification for the produced items.
  - 1. Any changes to the qualified baseline shall be presented to Outpost Technologies (e-mail acceptable) and the level of verification required will be determined by Outpost Technologies before incorporating any changes.
  - 2. If Seller has delivered an FAI for the revision of the drawings or specifications required in this order within the last two (2) years, please contact the Outpost Technologies Procurement Agent and this requirement may be waived if there were no changes in baseline since last delivery.
- F. Unless otherwise noted, Seller format is acceptable, if all requirements of AS9102 are met.

### **Inspection and Testing (300) Cont.**

#### **Q305. Inspection and Test Reports (Actual)**

- A. The Seller shall submit signed inspection and/or test reports with actual results proving conformance to the applicable drawings and specifications for items shipped under this contract.
- B. Inspection reports shall indicate which characteristics were inspected, quantity accepted, and quantity rejected.
- C. When functional or acceptance tests are specified by this order or by the design documentation, the actual test results shall be submitted.
  - 1. A copy of the test procedure followed shall be submitted with the first report on each type item(s) purchased under this order.

#### **Q306. Inspection – 100%**

- A. Seller shall perform 100% inspection of all items on this Purchase Order/contract to ensure conformance to drawing and/or specification requirements.
- B. Evidence of such inspection must be on file and available for review by Outpost Technologies.

#### **Q307. Inspection – Critical Dimensions**

- A. Seller shall perform 100% inspection of only identified Critical Dimensions for all items on this Purchase Order/contract to ensure conformance to drawing and/or specification requirements.
- B. Evidence of such inspection must be on file and available for review by Outpost Technologies.

#### **Q308. Sampling Inspection**

- A. Sampling, when approved, shall use ANSI/ASQ Z1.4-2008, Table I, General Inspection Level II and Table II-A to choose sample sizes, unless otherwise specified by drawing, specification, or purchase order.

- B. Acceptability:
  - 1. Lot Acceptance. If no defects are identified during sampling inspection the lot shall be accepted.
  - 2. Lot Rejection. If a nonconformance is found, the entire lot shall be rejected pending lot screening.
  - 3. Lot Screening. When one or more nonconformance is found during sampling inspection, all items within the lot shall be inspected for the nonconforming feature(s).
- C. All deviations from this sampling plan shall have prior approval of Outpost Technologies Quality.

### **Inspection and Testing (300) Cont.**

#### **Q309. Calibration**

- A. Test and Measuring equipment that is used for process control or inspection must be appropriately calibrated with traceability to the National Institute of Standards and Technology or Natural Standards.
  - 1. The Supplier may use ANS/ISO/IEC 17025 and/or ANSI/NCSL Z540 for compliance to this requirement.

#### **Q310. Calibration Certificate – Detail**

- A. Seller performing calibration service shall provide a signed Calibration Certificate upon completion of calibration activity.
- B. The Calibration Certificate shall include the following:
  - 1. A title (e.g., “Calibration Certificate”).
  - 2. The name and address of the laboratory and the location where the calibrations were carried out, if different from the address of the laboratory.
  - 3. Unique identification of the calibration certificate (such as the serial number).
  - 4. Inclusion on each page an identification in order to ensure that the page is recognized as a part of the calibration certificate (i.e., page 1 of 3), and a clear identification of the end of the calibration certificate.
  - 5. The name and address of Outpost Technologies.
  - 6. Identification of the method used.
  - 7. A description of the condition of, and unambiguous identification of the item(s) tested or calibrated.
  - 8. The date of receipt of the calibration item (where this is critical to the validity and application of the results) and the date of performance of the calibration.
  - 9. Reference to the sampling plan and procedures used by the laboratory or other bodies where these are relevant to the validity or application of the results.
  - 10. The calibration results with, where appropriate, the units of measurement.
  - 11. The name, function and signature or equivalent identification of those authorizing the calibration certificate.
  - 12. A statement to the effect that the results relate only to the items calibrated.
  - 13. The conditions (e.g., environmental) under which the calibrations were made that have an influence on the measurement results.
  - 14. Evidence that the measurements are traceable.

15. In cases of adjustment or repair of an instrument, the before and after results adjustment, if available, are to be reported.
16. The uncertainty of measurement (and/or statement of compliance with a specification).

**Inspection and Testing (300) Cont.**

**Q311. Calibration Certificate – NIST**

- A. Seller shall provide a signed Calibration Certificate that is traceable to National Institute of Standards and Technology (NIST).
  1. The Supplier may use ANS/ISO/IEC 17025 and/or ANSI/NCSL Z540 for compliance to this requirement.

**Nonconformance control and corrective action (400)**

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**Q401. Nonconformance and Disposition**

- A. Seller Material Review Board (MRB) authority is not allowed on goods for this Purchase Order. Seller shall notify Outpost Technologies of any "Repair" or "Use-As-Is" disposition of nonconforming material or product when identified. Seller must submit all "Repair" or "Use-As-Is" dispositions for Outpost Technologies disposition prior to shipment.
  - 1. Repair: Action taken on nonconforming product to make it acceptable for the intended use, but product still does not meet the requirements.
  - 2. Use-As-Is: No action taken on nonconforming product. Product remains in its original nonconforming state and does not meet requirements.
- B. Seller shall use their rejection system to document the nonconforming material or product in a Nonconformance Report (NCR). Seller shall contact Outpost Technologies Procurement Agent and provide at minimum the following information to obtain Outpost Technologies disposition.
  - 1. Part Number, Nomenclature, Serial/Lot Number(s), and Quantity of nonconforming item(s).
  - 2. Applicable Outpost Technologies Purchase Order Number, Line-Item Number.
  - 3. Reference to the Drawings and Specifications, including revisions.
  - 4. Complete description and location of nonconformance, including:
    - i. Actual condition
    - ii. Design (drawing/spec) requirement and tolerance
    - iii. Location of nonconformance (drawing sheet, zone, view, distance from Datum, etc.)
  - 5. Statement of whether condition exists on previously shipped goods.
  - 6. Recommended disposition (if Use-as-is; technical rationale to support the recommendation is required)
- C. Items that do not conform to the requirements of this contract shall not be shipped to Outpost Technologies without prior written approval.
  - 1. Seller must obtain written authorization through the Outpost Technologies Procurement Agent prior to shipping goods on an open NCR.
  - 2. Seller shall annotate on shipping document, all Outpost Technologies NCR number(s) associated with the goods being shipped.
  - 3. Failure to comply may result in return of the shipment at the Seller's expense.
- D. Any material or product, supplied under this Purchase Order or subcontract, which is returned by Outpost Technologies because of a nonconformance and is subsequently resubmitted by the Seller to Outpost Technologies shall be accompanied by a written description of the rework accomplished to correct the nonconformance and corrective action taken to prevent recurrences.

**Nonconformance control and corrective action (400)****Q402. Notification of Escapement**

- A. When a nonconformance is determined to exist or is suspected to exist on goods and/or services provided to Outpost Technologies under this Purchase Order, Seller shall provide written Post Delivery Notification of Escapement (NOE) to Outpost Technologies Procurement Agent.



- B. Seller shall provide the letter and all required NOE information within three (3) business days of when nonconformance was determined.
  - 1. However, if the nonconformance affects safety or is mission critical, Seller shall immediately provide the letter and all available information.
- C. At minimum, Seller shall include the following NOE information:
  - 1. Date(s) goods and/or services were shipped under this Purchase Order
  - 2. Outpost Technologies Purchase Order number and line-item number
  - 3. Part number(s) and when applicable, the associated serial number(s) and/or lot number(s)
  - 4. Quantity
  - 5. Date of manufacture and any other pertinent information
  - 6. Specific description of nonconformance (i.e., “should be” and “is” condition) with reference to applicable engineering documentation
  - 7. Statement declaring whether the nonconformance was determined to exist or suspected to exist.
  - 8. Potential impact of the nonconformance
  - 9. Preliminary root cause and root cause corrective action
  - 10. Name of Seller’s Quality personnel involved in the collection and reporting of the NOE information.

#### **Q403. Corrective Action**

- A. Seller shall, on request, provide statements of corrective action on nonconformities or failures of seller's goods or services.
- B. Upon receipt of request from Outpost Technologies, Seller shall complete a formal corrective action request form and return it to Outpost Technologies Procurement Agent within the allotted time noted on the request.
  - 1. If the form cannot be returned within the allotted time a request for extension must be submitted within the original allotted time.
  - 2. Corrective action statements, at Outpost Technologies' option, may require approval signature by Outpost Technologies and customer quality representatives.
  - 3. Seller format is acceptable unless otherwise noted.

### **Traceability, Packaging, and Shipment (500)**

#### **Q501. Manufacturer Material Test Reports**

*NOTE: The following quality requirements are only applicable where a particular specification document is called out in design documentation (i.e., drawings, etc.) or otherwise required by this purchase order or an attachment of this purchase order.*

- A. For the materials shipped under this Purchase Order, Seller shall include with each shipment a copy of the results of the lot or item acceptance tests required by the applicable specification.
  - 1. The report shall include the principal specifications that govern the production of the item.
  - 2. Where quantitative limits are established by the specification, the report shall indicate the actual values obtained during testing.

- B. Test reports shall include the control identity (e.g., lot, heat lot, batch, serial number) of the material or item tested.
- C. If Seller is not the manufacturer, Seller shall furnish the manufacturer's test report as described above.
- D. The test report shall contain the following:
  - 1. Name and address of manufacturer
  - 2. Purchase Order Number
  - 3. Identification of material by specifications, revisions, amendment, and date, together with type, grade, size etc.
  - 4. Lot/Batch/Heat Number Identification (as applicable).
  - 5. Test results identified by reference to the applicable requirements.
  - 6. Quantity tested, sample size and specimen type as applicable.
  - 7. Date, signature, and title of authorized representative of the contractor that is attesting to the accuracy of the test report content.

#### **Q502. Serialization**

- A. All goods, including spares, test units, etc., with the same base drawing number (regardless of configuration dash numbers) shall be assigned serial numbers.
- B. Goods for repair, rework, or rework to a new configuration with the same base drawing number shall retain the original serial number.
- C. Seller shall indicate serial numbers on all shipping reports. Listing serial numbers by ranges is acceptable provided that any breaks in the range are so noted (e.g., S/N 001-0010, 0012-0020, 0025-0030 for a total of 25 parts).
- D. If goods are delivered in multiple shipments, only the serial numbers of the goods in each shipment shall be listed in the shipping report for that shipment.

#### **Traceability, Packaging, and Shipment (500) Cont.**

#### **Q503. Traceability and Segregation**

- A. No substitution of items, materials or accessories may be made without written permission from Outpost Technologies Procurement Agent.
- B. Material identification, storage, and related certifications shall be controlled.
  - 1. If items or materials furnished on this order are not from a single homogeneous lot or batch, they shall be segregated by homogeneous lots.
  - 2. A homogeneous lot is defined as all items having the same part number, date, lot, or batch code, and manufacturer.
- C. All items and sub-packages supplied under this Purchase Order shall be identified with complete nomenclature and part number as specified by the applicable drawing, specification, catalog, Purchase Order, etc.
  - 1. Raw Material. Seller shall mark each individual item and applicable documentation (i.e., test report, shipping report, or certification) to show clear traceability to lot, heat lot, or batch number. Unless otherwise directed by this Purchase Order or the specification, when the size of the item does not permit marking of individual items, Seller shall label each package or box furnished.

2. Manufactured or Processed Goods. Seller shall mark each item and applicable documentation (i.e., test reports, shipping reports, or certifications) to show clear traceability to the manufacturing lot, batch, or serial number. Unless otherwise directed by this Purchase Order or the specification, when the size of the item does not permit marking of individual items, Seller shall label each package or container furnished.
  - i. Where serial numbers are present in a delivered lot, applicable documentation (i.e., test reports, shipping reports, or certifications) must include a list of the serial numbers included in the shipment.

**Q504. Shelf-Life Data**

- A. Data shall be provided for items or materials that are susceptible to quality degradation with age.
- B. The Seller shall provide a signed statement with the starting date, shelf life, expiration date and specific storage requirements, if any, to maintain stated shelf life.
- C. All shelf-life limited items shall have 75% or more of their shelf life remaining at the time of delivery to Outpost Technologies.
- D. If the item has unlimited shelf life, the signed statement shall specify (unlimited).

**Traceability, Packaging, and Shipment (500) Cont.****Q505. Packaging and Shipment**

- A. Seller shall be responsible for proper packaging, loading, and tie-down to prevent damage during transportation.
  1. Materials shall be packaged, handled, and transported adequately to maintain the reliability and achieve their damage-free delivery to Outpost Technologies or other designated location.
- B. Packaging or containers shall be identified on the outside with the Outpost Technologies Purchase Order Number.
- C. Outpost Technologies measured weight and/or count will be accepted as final and conclusive on all shipments not accompanied by a packing list.

**Q506. Domestically Manufactured Material and Hardware**

- A. Material and Hardware provided shall be in accordance with the following, as applicable:
  1. DFARS 252.225-7001 Buy American Act and Balance of Payments Program.
  2. DFARS 252.225-7009 Restriction on Acquisition of Certain Articles Containing Specialty Metal.
  3. DFARS 252.225-7012 Preference for Certain Domestic Commodities.
  4. DFARS 252.225-7016 Restriction on Acquisition of Ball and Roller Bearings.
  5. FAR 52.211-5 Material Requirements.
- B. Material provided shall be of domestic origin unless the requirement of this clause is expressly waived on the face of the Purchase Order.

**Q507. Hazards – Material Data**

- A. A Safety Data Sheet (SDS) meeting OSHA regulation shall be provided with material when delivered to Outpost Technologies.
  - 1. If a SDS for this product has been provided to Outpost Technologies in the twelve- (12) months prior to the date of this P.O. and no changes have occurred in the data, this requirement has been met.
- B. The material shall be labeled with:
  - 1. Chemical name, common name, or trade name.
  - 2. Appropriate hazard warnings including exposure health hazards and first aid and emergency procedures.
  - 3. Name, address, and phone number of the manufacturer or other responsible parts.

### **Traceability, Packaging, and Shipment (500) Cont.**

#### **Q508. Hazards – Certificate of Transportability**

- A. Hazardous material shall be certified to be transportable as delivered to Outpost Technologies or shall state what additional actions are required to make it transportable.
- B. The Department of Transportation classification number (UN xxx, NA xxx, etc.) shall be provided on the item's container or in supplied data that accompanies the item.

#### **Q509. Outpost Technologies Furnished Material**

- A. When Outpost Technologies furnishes any material in whole or in part, for the manufacture of part assemblies, etc., the Seller shall:
  - 1. Positively identify the material as Outpost Technologies property.
  - 2. Positively segregate the Outpost Technologies material from other material.
  - 3. Protect the material from damage to the extent necessary to produce an acceptable product.
  - 4. Report any Outpost Technologies furnished material found damaged, malfunctioning, or otherwise unsuitable.
  - 5. Certify that only Outpost Technologies furnished material was used and replacement by Seller has not occurred.

#### **Q510. Disclosure of Authorized Distribution**

- A. Seller shall disclose at the time of each individual quotation whether the source of supply is authorized (franchised) for the part(s) being quoted and whether the Seller is providing full manufacturer's warranty on the quoted part(s).
- B. Seller shall not provide Outpost Technologies with parts that they are not authorized (franchised) for without prior notification to Outpost Technologies and agreement in writing.

#### **Q511. Letter of Volatility & Letter of Sanitation Procedure**

- A. Letter of Volatility shall be supplied with the equipment when delivered.
  - 1. Letter of Volatility. This letter describes volatile, non-volatile, and storage media on the specified product(s). Outpost Technologies can use this document to comply with security requirements and equipment handling procedures.
- B. Letter of Sanitation Procedure shall be supplied with the equipment when delivered.

1. Letter of Sanitation. This letter describes the procedure to be followed to clear all memory of the equipment. This letter should meet all requirements of NISPOM Section 8-302 Media Controls

### **Traceability, Packaging, and Shipment (500) Cont.**

#### **Q512. Raw Material Source Requirement**

- A. Material Certificate of Conformance must state the Country of Origin. Use of any materials or alloys incorporated into the Product that are not sourced from the United States will require prior written approval from the Outpost Technologies Purchasing Agent and/or Outpost Technologies Quality.

#### **Q513. Counterfeit Parts Detection and Avoidance System Requirements**

- A. The Seller shall ensure that only new and authentic materials are used in products delivered to Outpost Technologies.
- B. The Seller may only purchase parts directly from Original Component Manufacturers (OCMs), OCM authorized (franchised) distributors, or OCM authorized aftermarket manufacturers.
  1. Use of product that was not provided by these sources is not authorized unless first approved in writing by Outpost Technologies.
  2. The Seller must present compelling support for its request (e.g., OCM documentation that authenticates supply chain traceability of the parts to the OCM) and include in its request all actions to ensure the parts thus procured are authentic/conforming parts.

#### **Q514. Evidence of OEM Traceability**

- A. Traceability Documentation
  1. The Seller shall complete a Certificate of Conformance (C of C) and deliver full supply chain traceability documentation for parts requested in this order.
    - i. When Seller is not the Manufacturer, the authorized documentation supplied by the Manufacturer (Packing List, CofC, or other form of traceability) shall be copied and passed through to Outpost Technologies.
    - ii. This supply chain traceability method shall clearly identify the name and location of all the supply chain intermediaries from the manufacturer to the direct source of the product for the Seller.
    - iii. The Seller shall retain the product and shipment traceability for a period consistent with the contract requirements.
  2. A Manufacturer's Traceability Documentation should include the following:
    - i. Manufacturer name and address
    - ii. Manufacturer and/or buyer's part number.
    - iii. Distributor to whom the parts were supplied, and purchase order number associated with the distributor purchase.
    - iv. Batch identification for the item(s) such as date codes, lot codes, serializations, or other examples of traceable identifications, as available.

### **Record Retention (600)**

**Q601. Record Retention – 3 years**

- A. All items furnished on this contract shall have documentation on file to permit traceability from the delivered item back through its manufacture and inspection.
  - 1. These records shall be sufficient to prove conformance to all applicable specifications and drawings and shall provide means for identifying all like items.
- B. Unless extended record retention requirements are specified elsewhere in this Purchase Order, attachments, or applicable item specifications, these documents shall be on file and available to Outpost Technologies for three (3) years following the end of the calendar year in which the final delivery was made.
  - 1. At any time during the retention period, at Outpost Technologies request, Seller will deliver said records, or any part thereof, to Outpost Technologies, at no additional cost to Outpost Technologies.

**Q602. Record Retention – 5 years**

- A. All items furnished on this contract shall have documentation on file to permit traceability from the delivered item back through its manufacture and inspection.
  - 1. These records shall be sufficient to prove conformance to all applicable specifications and drawings and shall provide means for identifying all like items.
- B. Unless extended record retention requirements are specified elsewhere in this Purchase Order, attachments, or applicable item specifications, these documents shall be on file and available to Outpost Technologies for five (5) years following the end of the calendar year in which the final delivery was made.
  - 1. At any time during the retention period, at Outpost Technologies request, Seller will deliver said records, or any part thereof, to Outpost Technologies, at no additional cost to Outpost Technologies.

**Record Retention (600) Cont.****Q603. Record Retention – 7 years**

- A. All items furnished on this contract shall have documentation on file to permit traceability from the delivered item back through its manufacture and inspection.
  - 1. These records shall be sufficient to prove conformance to all applicable specifications and drawings and shall provide means for identifying all like items.
- B. Unless extended record retention requirements are specified elsewhere in this Purchase Order, attachments, or applicable item specifications, these documents shall be on file and available to Outpost Technologies for seven (7) years following the end of the calendar year in which the final delivery was made.

1. At any time during the retention period, at Outpost Technologies request, Seller will deliver said records, or any part thereof, to Outpost Technologies, at no additional cost to Outpost Technologies.

**Q604. Record Retention – 10 years**

- A. All items furnished on this contract shall have documentation on file to permit traceability from the delivered item back through its manufacture and inspection.
  1. These records shall be sufficient to prove conformance to all applicable specifications and drawings and shall provide means for identifying all like items.
- B. Unless extended record retention requirements are specified elsewhere in this Purchase Order, attachments, or applicable item specifications, these documents shall be on file and available to Outpost Technologies for seven (7) years following the end of the calendar year in which the final delivery was made.
  1. At any time during the retention period, at Outpost Technologies request, Seller will deliver said records, or any part thereof, to Outpost Technologies, at no additional cost to Outpost Technologies.

**Record Retention (600) Cont.****Q605. Record Retention – 15 years**

- A. All items furnished on this contract shall have documentation on file to permit traceability from the delivered item back through its manufacture and inspection.
  1. These records shall be sufficient to prove conformance to all applicable specifications and drawings and shall provide means for identifying all like items.
- B. Unless extended record retention requirements are specified elsewhere in this Purchase Order, attachments, or applicable item specifications, these documents shall be on file and available to Outpost Technologies for seven (7) years following the end of the calendar year in which the final delivery was made.
  1. At any time during the retention period, at Outpost Technologies request, Seller will deliver said records, or any part thereof, to Outpost Technologies, at no additional cost to Outpost Technologies.

## Component Controls (700)

### Q701. Counterfeit Parts Detection and Avoidance System Requirements

- A. You must meet the requirements of both QCR-513 and QCR-514 above.

### Q702. Electrostatic Discharge (ESD) Control

- A. For electrical and electronic parts, assemblies, and equipment, susceptible to damage from Electrostatic Discharge (ESD), the Seller is responsible to establish and implement an ESD Control Program.
- B. The Seller shall take the necessary precautions to ensure that static susceptible devices are adequately protected from ESD damage during manufacturing, test, inspection, packaging and shipping.
- C. The Seller shall identify items as ESD-sensitive with proper markings, notes, or symbols on packaging and/or containers.

### Q703. Prohibition of Pure Tin

- A. The uses of Pure Tin-Plated finishes are *STRICTLY PROHIBITED*. Any Tin Plating or Tin Solder processes shall contain NO LESS than 3 percent LEAD composition, unless specifically authorized in writing by the Outpost Technologies Procurement Agent. These restrictions apply for all types and levels of procurements, with the supplier responsible for communicating these restrictions to subcontractors or sub-tier suppliers as required.
- B. *EXEMPTION*: If an Outpost Technologies Technical Data Package (Outpost Technologies Drawing or Military Specification) referenced on this order specifies the use of pure tin finishes this prohibition is NOT applicable.
  1. *NOTE*: If the Outpost Technologies Technical Data Package specifies a Seller Part Number that contains pure tin, then the Purchase Order or Outpost Technologies Technical Data Package must specifically authorize the use of pure tin for the specified part number(s).
  2. *NOTE*: Tin -plated finishes may be used if: (a) the seller has a written tin control plan in accordance with GEIA-STD- 0005-2 that has been approved in writing by Outpost Technologies, and (b) the tin usage conforms with requirements of the plan. Lead-free solder processes may be used if:
    - i. (a) the seller has a written Lead-Free control plan in accordance with GEIA-STD-0005-1 that has been approved in writing by Outpost Technologies.
    - ii. (b) the lead-free solder usage conforms to the requirements of the plan.

## Component Controls (700) Cont.



**Q704. SMD Parts Packaging and Reel Requirements**

- A. When delivering surface-mount device (SMD) parts, Seller shall provide any parts in industry standard packaging (such as reels, trays, tubes, etc.) that facilitates automatic placement by surface mount placement systems.

**Q705. SMD Parts Moisture Sensitivity**

- A. When surface-mount device (SMD) parts delivered have moisture sensitivity restrictions, Seller shall label the parts packaging with information that properly identifies the moisture sensitivity level of the enclosed parts.

**Q706. SMD Parts on Continuous Tape**

- A. When surface-mount device (SMD) parts are packaged in reels, Seller shall provide these parts on continuous tape, with no splices, unless otherwise noted.

**Q707. PCB Fabrication Drawing**

- A. Printed Circuit Boards (PCBs) shall be fabricated, inspected, tested, marked, and packaged in accordance with the associated Outpost Technologies PCB Fabrication drawing.
  - 1. The PCB Fabrication Drawing number is of the format "12-<PCB\_part\_number>". Example: 12-10030319.

**Q708. PCB Fabrication Deliverables**

- A. PCB Seller shall deliver, along with the completed PCBs, all other deliverables specified on the associated PCB Fabrication drawing.
  - 1. Examples of other deliverables specified on the PCB Fabrication drawing include cross sections and test reports.

**Component Controls (700) Cont.****Q709. PCBA 100% Inspection**

- A. PCB Seller shall deliver, along with the completed PCBs, at least one solder sample board (more than one solder sample is preferred).
- B. X-out PCBs (i.e., boards which fail electrical testing) are acceptable as solder samples, if all physical and pad features are intact.

**Q710. PCBA 100% Inspection**

- A. Seller shall perform one hundred percent inspection of completed printed circuit board assemblies (PCBAs) in accordance with IPC-610 Class 3 standards, unless otherwise noted.
  - 1. This shall include a visual inspection of all soldered connections.
- B. For all Bottom Termination Components (BTCs), where visual inspection of the soldered connections is not possible, the Seller shall perform 100% x-ray inspection.

**Q711. PCBA Part Count Report**

- A. When building to an Outpost Technologies-provided PCBA kit, Seller shall provide a report that shows the “before” and “after” counts of all parts in the provided PCBA kit.

**Q712. PCBA Reflow Profile Data**

- A. Upon request, Seller shall provide reflow profile data for the PCBA to Outpost Technologies manufacturing personnel. Profile data from a previous, similar PCBA may be acceptable, if approved by Outpost Technologies manufacturing personnel.

**Q713. PCBA Tin-Lead Solder and Paste**

- A. Seller shall use tin-lead solder and tin-lead solder paste and shall note on the Certificate of Conformance the exact type of solder and solder paste utilized.

**Q714. PCBA FOD and Residue**

- A. No foreign objects, debris, or residue shall be left on the PCBAs that could inhibit the adherence of conformal coating or interfere with sensitive circuit performance.

**Component Controls (700) Cont.****Q715. PCBA Labeling**

- A. Seller shall apply PCBA part number and serial number labels (PN and SN) labels as provided by Outpost Technologies.

**Q716. PCBA Stencil Check Plots**

- A. Seller shall deliver stencil check plots or make them available to Outpost Technologies upon request.

**Q717. PCBA Build Certification Matrix**

- A. Seller shall document every component Part Number used on the build (reel, tray, tube, or other packaging) on a PCBA Build Certification Matrix
  - 1. If multiple reels, trays, or tubes are used, an entry must be made for each package.
- B. No Component Lot or Date Code substitutions are allowed without the written approval of an Outpost Technologies Quality Representative.
  - 1. Approved substitutions must be documented in the Notes and Comments section of the form and must include the Lot Number, Quantity and Date Code of the components utilized in the build.
- C. Seller shall deliver completed PCBA Build Certification Matrix with completed PCBA data packages.

**Q718. PCBA Packaging Requirements**

- A. Printed circuit board assemblies (PCBAs) shall be packaged in ESD protective packaging.
  - 1. ESD protective packaging shall be in accordance with the requirements of ANSI/ESD S541 or in accordance with the contract, purchase order, drawing or other documentation necessary to meet order requirements.
  - 2. Pink poly of any kind shall not be used as the primary storage for any ESDS hardware.
- B. Where multiple assemblies, i.e., multiple PCBAs, are shipped or delivered in a single shipment, the PCBAs shall:

1. Be packaged in individual re-sealable (i.e., “Ziploc”) ESD bags. Each PCBA having its own ESD bag.
2. Have packaging labeled to show traceability to applicable serial number, lot number, or other traceable identification number.
3. Have packaging labeled as ESD sensitive in accordance with ESD Handbook TR20.20 or in accordance with the contract, purchase order, drawing or other documentation necessary to meet order requirements.
4. Be free of Foreign Objects and Debris (FOD).
5. Be packaged in larger container as not to cause damage to each other.

### **Component Controls (700) Cont.**

#### **Q719. Soldering Requirements for Assemblies**

- A. Soldered assemblies shall comply with the requirements of IPC J-STD-001, latest revision, Class 3, unless otherwise specified on the drawing, purchase order, or other control documentation.
  1. When the Space Addendum to J-STD-001 is required by drawing, purchase order or equivalent, the Space Addendum document shall be used in conjunction with the base document (J-STD-001). When these documents are used in conjunction, the revisions of each shall correspond.

#### **Q720. Cable Assembly and Inspection**

- A. Seller shall perform one hundred percent inspection of completed cable assemblies in accordance with IPC-620 Class 3 standards, unless otherwise noted.

#### **Q721. EEE Parts Date of Manufacture**

- A. All Electrical, Electronic or Electromechanical (EEE) parts shall have been manufactured within:
  1. Twelve (12) months from the delivery date to Outpost Technologies for Electrolytic Capacitors.
  2. Three (3) years from the delivery date to Outpost Technologies for Plastic Encapsulated Microcircuits (PEMs)
  3. Five (5) years from the delivery date to Outpost Technologies for all others.
  4. Any deviation from this requirement shall be in the form of a written authorization from Outpost Technologies, and the authorization shall be included with each shipment.

## **Internal Quality Requirements (800)**

#### **Q801. Measurement and Test Equipment (M&TE)**

Document Number:  
QCR.1

Revision:  
A

Revision Date:  
6-01-2023

- A. This order contains one or more pieces of equipment that is capable of being calibrated. Please contact an Outpost Technologies Quality Rep to have the item added to the Inspection and Test Equipment Tracking System upon receipt.

**Q802. Shelf-Life Materials**

- A. This order contains one or more items that could have a shelf life.

**Q803. Detail Inspection Upon Receipt**

- A. This order contains items that require physical dimensional inspection or detailed physical inspection upon receipt at Outpost Technologies. Please contact the appropriate Quality inspection lab or the specified deliver-to for performance of this inspection upon receipt prior to acceptance.

**Q804. Receipt and Inventory Processing**

- A. This order requires receipt and inventory processing in the inventory system. Please notify the associated Outpost Technologies stockroom for processing after receipt and acceptance.

**Q805. Required Calibration**

- A. This order contains one or more pieces of equipment that requires calibration prior to delivery to the end user.
  - 1. If the item has not come calibrated from the Seller with a NIST-traceable calibration, it must be calibrated by Outpost Technologies or an approved calibration supplier prior to delivery to the end user.