

This Quality Assurance Specification establishes the specific requirements that apply when one or more of the following Quality Requirements (QR's) are specified by code on PAC Purchase Orders. These requirements are in addition to those set forth in any other contractual document. The provisions indicated herein are an integral part of the Purchase Order.

Compliance with these requirements does not reduce Seller responsibility for furnishing materials and services, which fully comply with all applicable Drawing(s) and Specification(s), nor does it guarantee acceptance of materials or services by PAC. In the event that materials or services are found to be defective and cannot be demonstrated by the Seller to be in conformance with the Purchase Order, PAC has the right to reject them.

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**1. INSPECTION SYSTEM REQUIREMENTS:**

The Seller shall provide and maintain an inspection system in conformance with:

- NADCAP
- ISO 9001, latest revision
- AS9100, latest revision
- or other Quality System approved by PAC

**2. CONTROL OF CHANGES:**

Seller agrees not to make any change in materials or design details or other product which would affect the part or any component part thereof without prior written Buyer approval. The Seller will identify, on the Certificate of Conformance and/or packing sheet, the as built revision level of the end item product being delivered.

**3. SUPPLIER CORRECTIVE ACTION:**

Seller shall, on request, on forms designated by Buyer, provide statements of corrective action on failures of seller's hardware or quality system. Corrective action statements, at Buyer's option may require approval signature by Buyer and Government Quality representative. All rejected articles resubmitted by seller to Buyer shall bear adequate identification including reference to Buyer's rejection document.

**4. RIGHT OF ENTRY:**

(1) The Buyer, their customer and regulatory authorities shall be granted the right of access to all seller's facilities involved in the order and all applicable quality records.

(2) The right to verify at the seller's premises that subcontracted product conforms to specified requirements. Such verification shall not be used by the seller as evidence of effective control of quality by the supplier.

**5. SHELF LIFE AND TEMPERATURE SENSITIVE MATERIALS:**

The Seller shall identify all materials and articles which have definite characteristics of quality degradation with age or environment. The Seller shall affix this information directly on the material container or article. This identification shall indicate the date useful life was initiated and the date or cycle at which the useful life will be expended. When environment is a factor in determining useful life, the identification shall include the storage condition (i.e., temperature, humidity, etc.) required to achieve the stated life. A minimum of 75% of the applicable material/article shelf life shall remain upon receipt of the material by Buyer or the material is subject to rejection and returned to the seller.

**6. PACKAGING:**

Unless otherwise specified by the item drawing, specification or purchase order, the seller is responsible for assuring that all items are delivered without damage or deterioration and are efficiently and economically packed for the method of transportation and type of handling involved. Unit and intermediate packaging will be employed as necessary to prevent damage or deterioration.

**7. SAFETY DATA SHEETS:**

Materials(s) noted on this purchase order must be supplied in accordance with OSHA's hazard communication standard 29CFR1910-1200, OSHA instruction CPL2-2.38 dated May 10, 1998 and Washington State codes 296-62-05413. All first time orders MUST be supplied with "Safety Data Sheets". Materials not received in compliance with aforementioned OSHA requirements and Washington State codes will be subject to immediate rejection and return at supplier's expense.

In addition, if Seller is aware of any additional precautions and/or handling techniques instituted with regard to other customers, seller is required to request to submit those safeguards with SDS.

Seller is required to forward a Toxic Substances Control Act (TSCA) certification letter to the Buyer for the product(s) purchased on this purchase order with the statement that every chemical component of the product(s) is listed by the Toxic Substances Control Act Inventory (P.L. 94-94-969).

**8. IDENTIFICATION:**

Parts, assemblies and components shall be identified as specified on the engineering drawing. When identification is not specified on the engineering drawing, the product shall be identified with the part number specified on the

purchase order. When items are too small to easily identify, they may be bagged and tagged with the proper identification indicated on the bag or tag. Raw material procured to Federal, Military, Aerospace or other specification shall be marked and identified per the requirements of the identification specification which is referenced in the controlling (i.e. Federal, Military, Aerospace, etc.) specification.

**9. CALIBRATION SYSTEM REQUIREMENTS:**

Seller shall have a calibration system that assures compliance with NIST / ANSI / NCSL Z540-1-1994 "American National Standard for calibration". Any deviation or waiver to this requirement must be approved by buyer's Material and Quality Assurance Representatives.

**10. CERTIFICATE OF CONFORMANCE:**

Each shipment will be accompanied by a legible and reproducible copy of a Certificate of Conformance with the signature of responsible representative stating material, process, or article being shipped meets requirements of applicable drawings or specification cited in Purchase Order. Supplier will include date of manufacture on Certificate of Conformance. If an Outsource Procurement Specification is called out on the Purchase Order, include the revision level.

**11. MATERIAL TEST REPORTS:**

A legible and reproducible copy of material test reports will accompany each shipment. Test reports will be identified with specification number and heat and/or cure lot number. Chemical and physical test reports will include actual numerical values for each property tested in accordance with the applicable specification. When more than one specimen is required, test results of each is required on the report. Specification and revision will be shown on each test report furnished.

**12. CERTIFIED TEST DATA:**

A legible and reproducible copy of certified test data will accompany each shipment of material, parts, or assemblies. Test will be identified with specification number and heat and/or cure lot number. Chemical and physical test data will include actual numerical values for each property tested in accordance with the applicable specification. Specification and revision will be shown on each report furnished. Test data will include the following statement (or equivalent): "Test reports are on file and available upon request."

**13. APPROVED PROCESS REQUIREMENTS:**

A legible and reproducible copy of special process certifications (i.e. testing, heat treat, nondestructive testing, etc.) will accompany each shipment of material, parts, or assemblies. Special processes will be performed by accredited process facilities and, if required by contract, customer (process specification owner) approved sources.

**14. FIRST ARTICLE INSPECTION:**

A legible and reproducible copy of the Sellers First Article Inspection (FAI) performed on the initial part or lot (as applicable) at the detail, subassembly and/or assembly level will accompany applicable shipments. The results of the FAI shall indicate 100% conformance to engineering drawing characteristics, special processes, functional test and laboratory requirements. Subsequent (Delta) FAI's shall be performed and sent with applicable orders if tooling rework or modification and/or change(s) in supplier's manufacturing method occur. Engineering drawing revisions will require a new FAI incorporating the differences and/or tool proofing inspection.

The First Article Inspection will include a complete, independent, and documented physical and functional inspection process to verify that prescribed production methods have produced an acceptance item as specified by engineering drawings, planning, purchase order, engineering specifications, and/or other applicable design documents

**14.1 FIRST ARTICLE INSPECTION TO AS9102**

A legible and reproducible copy of the Sellers First Article Inspection (FAI), compliant with AS9102 latest revision, performed on the initial part or lot (as applicable) at the detail, subassembly and/or assembly level will accompany applicable shipments. The results of the FAI shall indicate 100% conformance to engineering drawing characteristics, special processes, functional test and laboratory requirements. Subsequent (Delta) FAI's shall be performed and sent with applicable orders if tooling rework or modification and/or change(s) in supplier's manufacturing method occur. Engineering drawing revisions will require a new FAI incorporating the differences and/or tool proofing inspection.

The First Article Inspection will include a complete, independent, and documented physical and functional inspection process to verify that prescribed production methods have produced an acceptance item as specified by engineering drawings, planning, purchase order, engineering specifications, and/or other applicable design documents. If the product has not been produced for the Seller within 2-years a complete new FAI is required.

**15. REPORT OF DISCREPANCY:**

Any departure from drawing specifications or other purchase order requirements must be documented by the Seller and submitted to the Buyer for consideration and disposition. A copy of this disposition document must accompany each affected shipment.

**15.1 REPORT OF ESCAPE:**

The Seller upon discovery of a shipment / delivery of nonconforming product must provide a notice of disclosure to the Buyer within 48 hours of discovery.

**15.2 NOTIFICATION OF NON-COMPLIANCE**

When an out-of-tolerance condition is discovered on a measuring device being calibrated by an approved Calibration Lab used by PAC, that facility will contact PAC immediately.

**16. TRACEABILITY/LOST AND BATCH CONTROL:**

Seller must maintain lot and batch control of raw materials to purchased items. Seller must provide positive traceability of manufactured parts and assemblies to raw materials through the use of lot/batch, serial numbers or date of manufacture, as applicable, for all items in the shipment.

**17. SUPPLIER RECORDS:**

The Seller shall maintain records of product delivered to buyer for a period of ten (10) years.

**18. KEY CHARACTERISTICS:**

The Seller shall maintain applicable statistical control charts for key characteristics identified by the customer drawings.

A copy of the for key characteristics statistical control charts must accompany all items in the shipment to Buyer.

**19. SUPPLIER FLOW DOWN TO SUB-SUPPLIER**

The Seller shall flow down to sub-tier suppliers the applicable requirements in the purchasing documents. In addition, Sub-tier suppliers are expected to conduct their business in an ethical manner, and with due regard to personal and product safety, and with a commitment to provide only genuine parts and

materials. (Ref. definition of *Counterfeit part* in AS9100D.)

**20. ITAR REGISTRATION REQUIREMENTS:**

Seller shall comply with International Traffic in Arms Regulations Section 122.1, Registration Requirements.

**21. USA LAWS & REGULATION COMPLIANCE:**

Seller agrees to comply fully with all applicable U.S. Laws and Regulations as they may apply to the export of any hardware, software, defense service or technical data (collectively "Data") provided by, through or with the cooperation of Seller in the performance of this subcontract in the U.S. or abroad or under any export license or exemption issued to Buyer. Seller agrees that it will not permit the re-export of data, including to foreign persons, employed by or associated with, or under contract to Seller or Seller's lower-tier suppliers, without the prior written consent of Buyer and under authority of an Export License or applicable License Exemption.

**22. WARNING CONCERNING TECHNICAL DATA SUBJECT TO U.S. EXPORT LAWS & REGULATIONS:**

Information furnished to Seller under this solicitation/Purchase Contract may contain data subject to U.S. Export Laws and Regulations. Seller is advised that such data may not be exported or re-exported to foreign persons, employed by or associated with, or under contract to Seller or Seller's lower-tier suppliers, without the prior written consent of Buyer and under authority of an Export License or applicable License Exemption. If such data is marked as Export Controlled, Seller indemnify and hold Buyer harmless from and against any and all claims, liabilities and expenses resulting from Seller's failure to comply with the Export Laws and Regulations of the United States.

**23. ACCEPTANCE AUTHORITY MEDIA:**

Supplier's quality system shall include adequate controls of Acceptance Authority Media (AAM). This shall include but not be limited to:

- Application Errors (i.e. Omission, Typos, Legibility, etc.)
- Untimely Use (i.e. Documentation is not completed as planned, "Stamp/Sign as you go", etc.)
- Misrepresentation (i.e. Uncertified personnel, Falsification of documentation, Work not performed as planned, etc.)
- Training Deficiencies (i.e. Ethics, Culture awareness, Proper use of authority media, etc.)

**24. RETURN OF TECHNICAL DATA**

Drawings, specifications and/or any technical data issued to suppliers are either returned or destroyed.