

# **Supplier Quality**

## **Assurance Provisions**

Manual



#### INTRODUCTION

Senior Aerospace SSP (herein referred to as Senior Aerospace, SSP, or the Company) is responsible for assuring the quality of the products we deliver to our customers. The Quality Management System at Senior Aerospace is based on the international standard, AS9100 and requires Senior Aerospace to establish procedures for selecting suppliers, performing periodic reviews, and assessing the effectiveness of the control of purchased materials. It is important our suppliers can consistently deliver high quality products, materials, and services.

This manual defines the contractual Supplier Quality Assurance Provisions which appear on Senior Aerospace's Purchases Orders. The "General" Quality Assurance Requirements in Section 1 are applicable to all purchase orders.

Specific Quality Assurance Requirements in Section 2 apply when referenced by code on the applicable purchase order. Questions and comments, regarding these requirements, should be addressed directly to the cognizant purchasing representative at Senior Aerospace SSP.

SQAP-001 and the Purchase Standard Terms and Conditions are located at https://www.seniorssp.com



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## Supplier Quality Assurance Provisions (SQAP) Section 1

#### **General Requirements**

The general quality requirements herein are applicable to all Senior Aerospace SSP (Senior Aerospace) purchase orders.

Purchase Order Specific or Unique Quality Requirements imposed are described in detail in Section 2.

#### **1.0 Quality Assurance System Requirements**

- A. SSP strongly prefers Suppliers to have a third-party certified Quality Management System (QMS) per latest AS 9100, AS 9120, or ISO 9001 standards.
- B. For Suppliers not third-party certified, the Supplier's QMS must be in compliance with ISO 9001 or AS 9100 requirements (latest revisions). Senior Aerospace suppliers may adopt a system in accordance with MIL-Q-9858 or MIL-I-45208 Quality Systems in lieu of a formal QMS.
- C. Supplier shall maintain a calibration system in compliance with ANSI/MIL-STD-45662, ISO10012-1, ANSI 540Z, or ISO 17025 (latest revisions).
- D. All standards are calibrated and traceable to the National Institute of Standards and Technology (NIST).

#### 1.1 Language

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A. Supplier documents and records submitted to SSP shall be in the English language.

#### **1.2 Certificate of Conformance**

A legible and reproducible copy of a Certificate of Conformance must accompany each shipment. The certificate must include the following as a minimum:

- 1. Supplier Name and Address
- 2. Senior Aerospace Purchase Order number and quantity shipped
- 3. Part Number
- 4. Drawing Revision (when applicable)
- 5. Manufacturing Plan Revision (when applicable)
- 6. Operation Number (when applicable)
- 7. Signature and title of authorized representative
- 8. Lot Serialization (when applicable)
- 9. Traceability Data (Heat lot/batch number, when applicable)

The certificate of conformance must contain a statement that all inspection and tests have been performed as required by drawing, specification and/or purchase order. The certificate must list each special process appearing on the drawing such as heat treat, non-destructive examination, and plating or coating, etc. Perishable products

controlled by batch number or cure date and products controlled by heat number will have an applicable controlling number on the individual certificate. Blanket statements of conformance are unacceptable, as are statements of belief rather than fact.

#### 1.3 General Certification Requirements

- A. All certifications shall be traceable to the material submitted and contain the signature and title of the authorized representative of the seller.
- B. Serial numbers shall be listed if the components are serialized.
- C. Computer generated facsimile signatures will be acceptable.
- D. For build-to-print suppliers:
  - 1. Raw material certifications shall be furnished with every delivery, including mill/melt source and distributor(s) (if applicable).
  - 2. Special process and NDT reports shall be furnished with every delivery, as required per engineering drawing, specification, and/or PO. If the PO-holding vendor is approved to perform special processing and/or NDT, the vendor shall list the work performed on their Certificate of Conformance.
  - 3. If sub-tier subcontractors are used, the sub-tier must be listed on the Customer ASL for Non-SSP build-to-print items, as identified on the PO. If approved sources are not identified on the PO, sub-tiers must be NADCAP approved at a minimum.
- E. For design-authority vendors:
  - 1. Provided that FAIR requirements have been satisfied, the supplier should furnish mill/melt and distributor certifications and all applicable special process certifications and NDT reports for subsequent manufactured batches. Otherwise, certifications shall be archived onsite and be available upon request. Certifications **must** be provided within 48 hours at no additional cost.

#### 1.4 Domestic Material

- A. Unless otherwise specified, all raw material incorporated into the delivered item must be manufactured in the United States, its outlying territories, or by specific qualifying countries as noted in the DFARS 252.225-7002.
- B. Senior Aerospace, prior to performance of the contract, must approve exceptions to this requirement.

#### **1.5 Material Obsolescence**

- A. If there is any reduction in the usefulness or desirability of an object because of an outdated design feature (usually this violates the purchase order requirements), Senior Aerospace must be notified immediately upon discovery.
- B. Any "Planned Obsolescence" i.e., compounds, liquids or materials becoming unavailable, obsolete or outdated, or otherwise replaced by, its discovery must be disclosed to Senior Aerospace for evaluation.



- C. **No material substitution may be authorized** except through the Engineering Department of Senior Aerospace SSP.
- D. Notification must be made via the Supplier Non-Conformance Approval Request (SNAR, see Sect. 1.12D) form through the Purchasing Department.

#### 1.6 Records Retention and Retrieval

The Supplier shall:

- A. Maintain adequate quality records of the following:
  - 1. All First Articles, In Process Inspections, Final Inspections, Test and part data history as imposed by Purchase Order requirements.
  - 2. Supporting documentation such as raw material certifications, special processing records and certifications, manufacturing records, i.e. route sheets, and travelers.
- B. When the purchase order is complete, records shall be maintained and available to the buyer on request for a period of not less than ten (10) years unless stated otherwise on the purchase order. For record disposition, please contact senior SSP for further instructions.
- C. Seller shall notify SSP 180 calendar days in advance of the sale, relocation or closure of the Supplier's facility for record disposition.
- D. All records must be provided upon Buyer request within 48 hours, when required.

#### 1.7 Configuration Management

- A. The Suppliers Quality System shall assure the latest applicable drawings, specifications, and quality requirements per current purchase order agreements.
- B. Quality Documents shall be available to use by the Supplier's manufacturing and inspection groups.
- C. Military Standards and Specifications utilized shall be to the latest revision in effect upon the date of the purchase order, unless otherwise specified.

## 1.8 FOD/FOd (Foreign Object Damage/Foreign Object Debris) Control

- A. All suppliers, and their sub-tiers, should have an established FOD/FOd control process in accordance with AS 9146.
- B. Suppliers shall ensure all SSP product is protected from any Foreign Object Damage that can result from mishandling or debris, especially if FOd may be entrapped in inaccessible or obscured areas.
- C. By delivering items to SSP, the seller confirms and certifies items packaged have been inspected and are free from any FOD/FOd.
- D. Any product received by SSP from supplier with FOD/FOd is subject to being rejected and returned to vendor for replacement/rework as needed.

## 1.9 Counterfeit Parts: Avoidance, Detection and Disposition

A. It is the supplier's responsibility to ensure the control of suspect or confirmed counterfeit material.

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- B. The Supplier should have a defined Counterfeit Prevention and Control Plan in accordance with AS 6174 and/or AS 5553 latest revision, as applicable.
- C. For product that shows indications that material may be counterfeit, the following actions must be taken:
  - 1. Identify material as suspect/counterfeit material (i.e. label, tag, mark, etc.)
  - 2. Segregate and quarantine identified suspect/counterfeit material in a barricaded controlled access area.
  - 3. Do not return material to supplier for refund, replacement, etc. unless it is being returned under controlled conditions for supplier to perform internal investigation. All processing must prevent resale of counterfeit material into supply chain.
  - 4. Confirm conclusively authenticity of material via tests, third-party analysis, etc.
  - 5. If product is conclusively confirmed as counterfeit, containment of all suspect material must be performed. All work in progress, inventory, and finished goods must be quarantined and SSP must be notified of any affected orders within 48 hours.
  - 6. Counterfeit material must be scrapped or mutilated to prevent usage of product if sample of the material is not required for legal proceedings. For reporting counterfeit material see information below.

For further reporting of counterfeit material, reference SAE international standard AS 6174A section F.1.4 and Appendix G.

D. Senior Aerospace must be notified in writing of any circumstance when parts are suspected of or have been identified as counterfeit.

#### **1.10 First Article Inspection Requirements**

- A. Unless otherwise stated by Senior SSP's PO, the supplier shall comply with AS 9102 (latest revision) First Article Inspection Report (FAIR) requirements.
- B. Full FAIRs shall be submitted on the first production run.
- C. Delta First Articles shall be submitted when one of the following occur:
  - 1. A change in engineering definition affecting design characteristics. Including additional Engineering Order (EO) release (i.e. ADCNs).
  - 2. A change in manufacturing source(s), process(es), inspection method(s), tooling, materials/alternate materials, or location of manufacture.
  - 3. A change in the numerical control program or translation to another media
  - 4. A natural or man-made event, which can adversely affect the manufacturing process.
  - 5. An implementation of corrective action required to complete a previous FAI, as defined in AS 9102 Section 4.5.



- 6. A lapse in production for two years for any characteristics that may be impacted. This lapse is from the completion of the last production operation to the actual restart of production.
- D. First Article parts and packaging shall be identified as "First Article" by paper tagging or any other suitable means of identification.
- E. Unless otherwise stated on the Purchase Order, this requirement does not include the following:
  - 1. Industry Catalog parts such as MS, NAS, AN, etc.,
  - 2. Standard Catalog Items, Un-modified COTS, Deliverable software
  - 3. Prototype or Development Parts not considered as part of the first production run
- F. The supplier is responsible to submit first articles with no known nonconformances. If a non-conformance is noted on the first article, then the supplier shall process the FAIR per AS 9102 Section 4.5 and submit a SNAR (reference Section 1.12) to the SSP Buyer for written SSP response prior to submittal of the first article.

#### 1.11 Inspection and Sampling

- A. If sampling is used as a means of product acceptance, unless otherwise specified in the Purchase Order or specific Quality Clause (Section 2), the Supplier shall adopt an AQL inspection plan per ANSI Z1.4.
- B. Sampling plans other than from ANSI Z1.4 must be approved in writing by Senior Aerospace Quality Engineering.
- C. Senior Aerospace will not approve any sampling plan which permits acceptance with defectives in the population sample.
- D. If the FAIR requirement has been satisfied subsequent manufactured batch inspection reports should be provided with every shipment, wherever possible. Otherwise, shall be available upon request and must be provided within 48
- E. Unless otherwise specified per purchase order or engineering order, all inspection results shall be in Imperial Units (inch, pound, etc.)

### 1.12 Control of Non-Conforming Product/Material

- A. The Supplier's should ensure the QMS system is capable of reporting and segregating non-conforming material.
- B. The Supplier shall not disposition product if and when a non-conformance arises, unless the Supplier has design or delegated authority. Non-conformances must be processed through the submission of a SNAR (Section 1.13D)
- C. Under no circumstances shall a Supplier or Supplier's sub-tier perform any repair procedures or Operations without specific written authorization from SSP Engineering and Quality and an approved written repair procedure from Senior Aerospace.



#### D. Supplier Non-Conformance Requests (SNAR)

- 1. This is a supplier-initiated document (PCD-001-04) that requests SSP Material Review Board disposition for any departures from drawings, specifications, or other purchase order requirements.
- 2. The supplier shall submit a SNAR, **prior** to delivery of any non-conforming product. Failure to comply will result in rejection and return.
- 3. If the SNAR disposition is to use-as-is the supplier shall:
  - a. Identify and segregate the reported non-conforming parts from any conforming parts (even if the non-conforming parts have been reworked).
  - b. Comply with any/all SSP written disposition instructions noted on the SNAR.
  - c. Include a signed copy of the SNAR with the shipment to SSP.

#### E. Supplier Information Request (SIR)

- 1. This is a supplier-initiated document (PCD-001-04) that is used to obtain answers to questions regarding the build package.
- 2. The SIR is not to be used for Material Review Board disposition.
- 3. Ideally, this document is used before the product is manufactured.
- 4. The SIR is not to be used to request changes to contract terms or schedules.

### F. Corrective Action Request (CAR)

- 1. SSP may issue Corrective Actions Requests (QP-1000-02) to suppliers to ensure effective corrective and preventive is action is taken when non-conformances are identified. This includes repetitive non-conformances dispositioned as "Use-as-is."
- 2. Containment must be performed within 7 days of issuance.
- 3. The supplier must then provide a written corrective action response by the due date as noted on the SSP request for corrective action.
- 4. Failure to respond on time to CARs will result in escalation to Supplier's top management and may also result in ASL removal, onsite audit, or other appropriate actions deemed necessary.

#### F. Reworked / Replaced Material

1. In the event where SSP identifies a non-conformance, and product is returned to the Supplier, reworked or replaced material shall reference the Senior Aerospace Non-Conformance Number (NCM) and a statement indicating whether the items have been replaced or reworked.

#### G. Escapes/Notice of Escape

In the event of an escape, the Supplier shall:

- 1. Perform adequate containment and identify all affected product, that includes WIP (Work in progress), Finished goods (Items in stock), and shipments to SSP immediately after confirming escape.
- 2. Notify the SSP Buyer in writing within 24 hours and the following must be addressed at minimum:
  - a. Date of notice
  - b. Author of notice
  - c. Statement of non-conformance or potential non-conformance

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- d. Is and Should be conditions in accordance to Purchase order requirements
- e. Product(s) Delivered with non-conformance/potential non-conformance
- f. Containment actions
- g. Status of Corrective action.
- 3. For escapes SSP is subject to issue a Corrective Action Request.

#### 1.13 Tooling Control

- A. The Supplier is responsible at all times for maintenance and preservation of SSP and/or Customer owned tooling in their possession or at any of their sub-tier suppliers.
- B. The Supplier shall:
  - 1. Report of any loss, damage or destruction of tooling.
  - 2. Ensure tooling is within the calibration cycle and current throughout the production lot run.
  - 3. Comply with applicable requirements of SSP's TCP-003, Supplier Manual for Tooling. Copy of this document is available upon Buyer request.

#### 1.14 SSP-Owned (Loan/Sample) Part

A. When possible, SSP may provide loan/sample parts to Supplier at Supplier's request. The Vendor must issue and complete a zero-dollar PO to receive the part/material and/or sample.

#### 1.15 Part Marking and Identification

- A. Marking shall be applied as specified by the engineering drawing, specification, or purchase order. In the absence of drawing or purchase order-imposed marking requirements then marking per MIL-STD-130 shall apply.
- B. Where not practical to individually apply identification markings directly on to the product/part/assembly, the identification shall be by individual tag/label and the product shall be bagged ("Bag & Tag"). If tags are used, they shall be tied to the product in a manner that prevents any deleterious effects on the part.

#### 1.16 Packaging and Handling

- A. The Senior Aerospace SSP purchase order part/item number and Purchase Order Number appear on appropriate supplier documentation (i.e., invoices, packing slips, packages and certifications as required).
- B. Material subject to corrosion, contamination, etc. shall be packaged and/or coated with an acceptable preservative to prevent corrosion while in transit and storage. If appropriate packaging cannot be determined, please contact Senior Aerospace Purchasing representative (buyer) for information for appropriate preservatives.



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- C. Material or articles affected by UV or sunlight shall be packaged for protection from such sources
- D. When packaging any material or articles, the use of staples shall be avoided.
- E. When packaging multiple Items/Orders in one specific container, items must be segregated by purchase order number and part number for the sake of traceability.
- F. If multiple boxes are used to ship a large quantity of parts for the same line item and/or release, all boxes shall be sequentially identified. Example: "Box \_\_ of ,"
- G. Large units/items must be packaged in one container using best practices to prevent any damage during handling / shipping.

#### 1.17 Facility Access

- A. During the performance of any Senior Aerospace purchase orders, the suppliers Quality Assurance, Inspection and/or Manufacturing processes are subject to review and analysis by Senior Aerospace, our Customer and/or Government representatives.
- B. This requirement is applicable to the supplier's facilities where Senior Aerospace products and services are processed, as well as the supplier's subtier facilities.

#### 1.18 Sub-Tier Control

The Supplier shall:

- A. Flow down of all the requirements, including customer specifications or requirements, and provisions of the Senior Aerospace purchase order applicable to the supplier's sub-contractors.
- B. Manage the flow of these requirements to sub-tier suppliers.

#### 1.19 Control and Monitoring of Supplier Performance

- A. Suppliers are monitored by Senior SSP for quality and delivery performance. The current expected performance metric is 95% Quality and 95% On-Time Delivery (OTD)
- B. Under-performing suppliers may be issued corrective action requests to address causes contributing to unacceptable ratings.

#### 1.20 Purchase Order Overages

- A. All variances must be communicated and approved by Senior Aerospace Buyer prior to shipment
- B. Raw material with 10% variance is acceptable prior to shipment.



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#### **Supplier Quality Assurance Provisions (SQAP)**

#### **Section 2**

#### **Specific Quality Requirements**

#### 1) Source Surveillance by Senior

When this quality clause is imposed, the Senior Aerospace Quality Representative shall perform an evaluation and acceptance of product at the supplier's facility. This will include surveillance of the products and supplier's systems, procedures, and facilities. The supplier shall furnish at no cost, the necessary facilities and equipment, supply data, and perform tests/inspections as required by applicable drawings, specifications, or Senior Aerospace directed Inspection Instructions under the surveillance of the Senior Aerospace Supplier Quality Representative.

When required, Senior Aerospace Quality Representatives reserve the right to review and evaluate the First Article Inspection Report (FAIR) at the supplier's facility prior to shipment. Review shall include surveillance of the product manufacturing process and supplier's systems, procedures, and facilities.

#### 2) Source Inspection by Government Agency or Senior's Customer

Mandatory Government Inspection – Government inspection is required prior to shipment from the supplier's plant. Promptly notify the Government Representative who normally services this plant so appropriate planning for Government Inspection can be accomplished. On receipt of this order, promptly furnish a copy to the Government Representative who normally services this plant. In the event of the representative or office cannot be located, contact the Senior Aerospace Purchasing Agent immediately.

Mandatory Customer Inspection – Senior Aerospace's Customer Inspection is required prior to shipment from the supplier's plant. Promptly notify the Senior Aerospace Purchasing Agent so appropriate planning for Customer Inspection can be accomplished.

#### 3) Statistical Process Control

When imposed on the purchase order, the supplier will submit one (1) copy of the required Statistical Process Control charts to verify control improvement and analysis of processes (i.e., X Bar R charts, histograms, etc.). Capability analysis may be imposed by Purchase Order to demonstrate supplier's process performance.



#### 4) Cast Test Bars

The supplier shall furnish two test bars representative of each heat treat lot, poured from the same melt as the casting supplied. Test bars shall be permanently identified with the supplier's name or trademark, melt, heat treat lot number, and alloy type. Test bars stored at the supplier's facility shall not be destroyed without written approval from Senior Aerospace Purchasing.

#### 5) Forging Test Bars

The supplier shall furnish with each shipment of forging two test bars produced from the same heat of material as the forging supplied. Test bars must have the same percentage of reduction as parts supplied and shall be permanently identified with the supplier's name or trademark, material heat number, heat treat lot number and alloy identification. Test bars stored at the supplier's facility shall not be destroyed without prior written approval from Seniors Purchasing.

#### 6) Functional Test Certifications

Each shipment must be accompanied by a legible and reproducible copy of the Suppliers Certification identifiable with submitted material for which test reports are on file and available for examination. This certification must contain the signature of the authorized representative and assure conformance to specified requirements.

- a. Actual test results required.
- b. Test Certificate of Conformance required.

#### 7) Shelf Life

Shelf life of components shall meet the industry standard for age requirements.

Material or articles having definite age degradation characteristics shall be marked with manufacturing data and/or cure date, and date of expended useful life.

Each package of component(s) shall be marked with date of manufacture (DOM), Cure Date (when applicable), part number, Purchase Order number, quantity, and manufacturer's identification (if different than part number).

Date of cure/expiration shall be defined on the supplier's certification and must be included on product labels. Remaining shelf life shall not exceed less than 50% of shelf life from date of acceptance at Senior Aerospace to the date of expiration, unless prior written approval has been granted from SSP Purchasing and Quality.

Special Handling requirements, such as cold storage, shall be identified. For all material requiring temperature control, Supplier must include a temperature recorder with shipment. If supplier is not capable of providing temperature recorder, buyer must be



contacted to coordinate with Quality department for approval of shipment without temperature recorder.

#### 8) Nameplates

Supplier shall package nameplates in "heat sealed" and/or "slide-lock" polyethylene bags to prolong shelf life.

#### 9) Senior Aerospace / Customer Furnished Material

The supplier is required to assure all Senior Aerospace Customer or Senior Aerospace furnished raw material, partially processed components, sub-assemblies, etc., are free of shipping damage, etc., prior to beginning processing.

When applicable, the supplier's Certificate of Conformance (C of C) for completed products/parts/assemblies shall reference Senior's Work Order (traveler) lot control number.

Supplier must communicate yield variances to SSP Buyer prior to shipping to ensure required changes to documentation. Unused material must be returned with shipment of parts to SSP.

Discrepant Customer and/or Senior Aerospace furnished materials, parts, sub-assemblies, components, etc., may be rejected at time of receipt. The supplier assumes responsibility of total value of material, components, sub-assemblies, and assemblies when scrapped as a result of supplier poor handling. The supplier assumes responsibility for protecting Senior Aerospace investment in raw material or partially completed items.

#### 10) Fixed/Frozen Process Requirement

When this clause is imposed by purchase order, any process Senior Aerospace identifies as critical, which was utilized in the production of the suppliers First Article approved by Senior Aerospace, must be adhered to. This includes all specified equipment, tooling, process steps and sequencing involved in the production of the completed article including any outside processing. The First Article production piece will be submitted with the critical process description and any associated method sheets. This will be the mandated process for continued production of the products. Any changes to any aspect of the manufacturing processes designated as critical must be submitted to Senior Aerospace and approved prior to any changes in the frozen critical process.

Failure to adhere to this requirement will subject the product to material rejection. Senior Aerospace will work expeditiously to support the supplier's request for change in processes identified as critical and will provide such approval in writing noting the nature of the changes and affectivity date or serial number.



#### 11) Manned Space Flight Requirements

When the supplier can supply the ordered item(s) with a quality higher than the items specified (P.O.) or proposed (RFQ), the supplier is requested to bring this information to the immediate attention of the Senior Aerospace buyer.

When this clause is indicated on the purchase order, all documentation shall be retained for the life of the Space Shuttle Program in a safe, accessible location in the event retrieval of historical data ids necessary.

#### **12) Government Priority**

This order is in support of a United States military contract issued with a Defense Priorities and Allocations System (DPAS) rating (e.g., DO-A1) for national defense use. The supplier is required to give priority to this work in accordance with FARS 52.211-15 and 15 CFR 700. Questions about the Defense Priorities and Allocations System (DPAS) or requests for any DPAS training materials should be directed to the Office of Strategic Industries and Economic Security, Room 3876, U.S. Department of Commerce, Washington, D.C. 20230, Ref. DPAS.

### 13) Anti-drug and Alcohol Misuse Prevention Program

Each employee who performs a safety-sensitive function, directly or by contract, including by sub-contract at any tier, must comply with the amended Anti-drug and Alcohol Misuse Prevention Program requirements described in 14 CFR Part 121, Appendix I, Section III and Appendix J, Section II.

## <u>14) DFARS 252.225-7008, or 7009 or 7010, as they apply - Domestic Specialty Metals</u>

This contract is placed under a Department of Defense Contract where contract clause is incorporated by reference from the Department of Defense Federal Acquisition Supplement (DFARS). Unless otherwise provided, the above DFARS clause is in effect as of the date of this contract.

#### 15) Controlled Unclassified Information

One or more files in this directory contain Controlled Unclassified Information (CUI) per DFARS 252.204-7012 and are subject to all the provisions of that clause.

Unless specifically marked as Uncontrolled, treat all files in this directory as CUI. This text file is Uncontrolled.

## 16) Production Approval (PAH) Handler (14 CFR part 45)

This contract is placed under a Federal Aviation Administrator (FAA) Regulation where contract clause requires a Senior Aerospace LLC product to be repaired in

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accordance with CFR part 45 and the following repair station requirements.

Repair or alteration performed at supplier is limited to Pneumatic and Air Conditioning Ducting and associated components as rated by the FAA.

Supplier will not alter any item for which is not rated.

Any major repairs or alterations will be accomplished by data approved by Senior Aerospace LLC and FAA.

The repair station will only accept work for article where Senior Aerospace LLC is the Original Equipment Manufacturer (OEM).

A Repair Station Manual must be submitted and approved by Senior Aerospace LLC Quality Assurance.

#### 17) Lockheed Martin Aeronautics Appendix QJ and QX Requirements

For reference: SSP Vendor Code LM0084795

#### **Certification Requirements**

The Seller is responsible for maintaining and providing complete supply chain traceability of sub-tier raw material and physical and chemical test reports (as applicable per specification). This includes mills, foundries and/or distributors. The name and location of buyer and receiver should be clearly identified across all supply chain intermediaries' paperwork.

#### Special Process Requirements (QCS-001 and QJ)

QCS-001 sets forth special process sources and specifications. In the event that SSP, or it's sub-tiers, are required to perform any of the processes listed on the QCS-001, the following requirements are applicable:

- (A) The supplier shall file and maintain a copy of all Purchase Orders and make these available for review, upon request.
- (B) The following statement is applicable to SSP's PO and all suppliers must include the statement on their purchase documentation when subcontracting work:
- "Processing directly related to a Lockheed Martin Aeronautics Company Purchase Order (PO) must be accomplished in accordance with process specifications on this PO and Lockheed Martin Aeronautics Company Appendix QJ."
- (C) The special processor shall submit a Certificate of Conformance ("C of C") to SSP with a unique certification number containing the following information:



- a. Title, specification number (including revision letter) and QCS-001 process code of the process
- b. Name and address of the process facility,
- c. Buyer's assigned processor number,
- d. Date the C of C was issued,
- e. Purchase order and purchase order part number,
- f. Quantity of parts (to include quantity accepted/ rejected),
- g. Signature and title of authorized quality agent of Process Source
- h. Fracture durability classification or serialization, when applicable.
- (D) The supplier shall ensure parts are suitably wrapped, boxed or racked to guard against shipping damage and apply rust or corrosion protection.
- (E) The supplier is required to identify specification(s) title, specific revision level(s) and drawing(s) to be performed by a QCS-001 Lockheed approved source.

#### **Engineering Specification Requirement (A83)**

The Lockheed Martin A83 requirement sets forth approved sources for raw material and standard parts. This requirement shall be flowed down to sub-tiers that deliver items to be included or furnished as "Work" for Lockheed programs. Deviations are **not permitted** without prior Lockheed Approval.

The supplier must review the text for A83 located on the Lockheed Martin external webpage located at:

http://www.lockheedmartin.com/us/aeronautics/materialmanagement.html under "Engineering" and "A83."

#### **Counterfeit Parts and Materials Prevention (QX)**

The supplier, and their sub-tiers, are responsible of complying to Lockheed Martin Appendix QX Clause 1.4 Counterfeit Parts/Materials Prevention.

If the Seller, and its sub-tiers, are eligible for Government-Industry Data Exchange Program (GIDEP) Membership, the Seller and sub-tier is required to be a member of GIDEP. A process must also be implemented to review and evaluate problems identified in GIDEP alerts.

#### **Lockheed First Article Requirements (QX)**

For all Lockheed end user product, supplier shall abide by Appendix QX, Clause Q2A, and AS9102 requirements (Reference Clause 8 for AS9102 requirements)

Supplier must provide 5 day written notification prior to FAI planning and creating or starting changes that affect items to be delivered under the PO.



#### 18) Boeing - BDS Terms and Conditions (excerpt from Clause D607)

#### A – Unauthorized Material Substitution Prohibition:

Unauthorized material substitutions are not permitted on Buyer's Goods. Unauthorized material substitution includes any deviation from the engineering definition of a raw material. Engineering definition includes Buyer design drawing and applicable specifications, product specification, form, size, shape, chemistry, melt method, origin, temper/condition, product testing or surface finish. Alternate materials specified in the engineering definition (and often described as approved material substitutions therein) do not constitute unauthorized material substitution. Terms and definitions for metallic materials and processing used herein are clarified in ARP1917.

Contact Buyer's Authorized Procurement Representative for details regarding deviations to authorized materials. Seller agrees and understands that such deviations only apply to this purchase contract, and only as indicated in the Buyer's authorized document.

#### B – Metallic Materials (Specific):

<u>Temper or Condition Conversion</u> – Unless specifically authorized by the engineering definition, conversion of a raw material (i.e. heat treat to change the temper or condition of the material) constitutes material substitution of the condition provided by the manufacturer.

<u>Metallic Raw Materials</u> – Boeing's engineering drawings may refer to obsolete or superseded specifications covering several forms, thicknesses, widths, etc. of the alloy or alloys.

The required characteristics of these materials are defined not only by the objective test standards of the specification, but by the processes/methods by which this final form is achieved. These requirements are often captured in the definitions of the required material forms, and may not be explicitly called out in the detailed requirements. The raw material certification results from both the process used to make it and the tests to verify basic properties.

Seller shall ensure that metallic materials covered by current or obsolete/superseded specifications are produced using the standard industry practices designed strictly for the production of stock to the specified thickness, diameter, width or cross sectional area, achieved by thermo-mechanical processing or casting process.

Chemical, electro-mechanical and mechanical methods used for the removal of surface scale or contamination, or the production of the required surface finish, in accordance with the material specification are acceptable.

Raw material must not be re-certified with respect to thickness, diameter, and width or cross sectional area or product form.

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Machining or cutting of thicker product or other product forms shall not be supplied in lieu of specified product unless specifically authorized by Boeing.

Raw material certifications for material or parts shall reflect the form and size of the raw material as originally manufactured by the raw material producer.

#### C – Specification Superseding

For government specifications and standards canceled after June 1994, Seller and subcontractors at all tiers, shall use the last active revision of the canceled specification and standard until an acceptable replacement is included in the requirements of this Contract.

Contact the Buyer's Authorized Procurement Representative in the event of any inconsistency in applicable specification or standard.

#### D – Reports (Full Pedigree from melt to final product):

Raw material certifications shall show clear traceability to the manufacturer(s) of the raw material including ingot source, all thermo-mechanical processing (i.e. forging, rolling, drawing, etc.), heat treatment, chemical processing and inspections as required by applicable raw material specification requirements.

#### E – Chain of Custody:

Suppliers shall not disguise the pedigree of material or chain of ownership by removal of a previous supplier's name, nomenclature or identification.

#### F – Source of Additional Information:

Addition information and guidance may be found through Buyer's Supplier Portal or Buyer's Authorized Procurement Representative.

G – The substance of this Article shall be flowed in all subcontracts at every tier.

#### 19) Boeing Clause Number Q011S – IDS Terms and Conditions Guide, Section Q

#### SUPPLEMENTAL QUALITY REQUIREMENTS

#### 1. Change in Quality Management Representative

Seller shall promptly notify Buyer's Authorized Procurement Representative and Supplier Quality Representative of intended or actual changes in the management representative with assigned responsibility and authority for its quality management system.



#### 2. Change in Quality Management System

Seller shall promptly notify Buyer's Authorized Procurement Representative and Supplier Quality Representative in writing of intended or actual major change to its quality management system that may affect the conformity of its goods or services. Each change to Seller's quality management system is subject to review by Buyer.

Seller shall include, as part of the written notification of change to its quality management system, a list of changed procedures identified by revision level, a description of the intent of the changes and a signed statement that compliance with Buyer's quality system approval has not been diminished.

#### 3. Change in Manufacturing Line, Facility Location or Process

Seller shall promptly notify Buyer's Authorized Procurement Representative in writing of intended or actual change to the manufacturing processes that may affect the quality of delivered goods and services. This includes changes to Seller's and Seller's subcontractors manufacturing facility location for the contracted goods or services, equipment, or processes for which the product was qualified.

Seller shall promptly notify Buyer's Authorized Procurement Representative in writing of change to its quality control process that may affect the inspection verification of conformity or airworthiness. Notification shall document effect of change to inspection with respect to fit, form, reliability, function, conformity, airworthiness of the Seller's goods or services. Each change to Seller's quality control system is subject to review by Buyer.

#### 4. Natural Disaster Occurrence

Seller shall promptly notify Buyer's Authorized Procurement Representative of any occurrence of natural disaster that diminishes Seller's ability to deliver conforming goods or services.

#### 5. English Language

When specifically requested by Buyer, Seller shall make specified quality data and/or approved design data available in the English language.

Seller shall maintain an English language translation of (1) its quality manual, (2) the operating instructions that implement the quality manual requirements, and (3) an index of Seller's procedures that contain quality requirements. Buyer may require additional documentation to be translated, including but not limited to: shop orders, technical specifications, certificates, reports, and non-conformance documents.

#### 6. Seller's Subcontractors

Seller shall impose all the aforementioned requirements on Seller's Subcontractors.

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#### 7. <u>Seller's Change Notification Process</u>

Seller shall document a process for notifying Buyer of intended or actual changes described in the aforementioned requirements.

#### 20) Boeing D1-4426 Approved Process Source Requirement

It is the Seller's responsibility to verify any sub-tiers performing special processing are approved and listed in D1-4426 for the processes contracted.

D1-4426 can be found at: <a href="https://active.boeing.com/doingbiz/d14426/index.cfm">https://active.boeing.com/doingbiz/d14426/index.cfm</a>

## 21) Airbus Defense and Space CASA-1033-02: Specific Quality Requirements for Equipment Suppliers

(A) The supplier shall file and maintain a copy of all Purchase Orders from Senior Aerospace containing the statement below and make these available for review, upon request:

"THE SUPPLIER SHALL HAVE A QUALITY SYSTEM INTRODUCED (APPLICABLE TO THE MATERIALS SUPPLIED) IN ACCORDANCE WITH THE AIRBUS DEFENCE AND SPACE LEVEL "A1" EQUIVALENT TO ISO 9001, AQAP-2110, EN9100, AS 9100. IN CASE OF EQUIPMENT SUPPLIERS, THE QUALITY SYSTEM WILL COMPLY WITH AIRBUS DEFENCE AND SPACE LEVEL "A1" PLUS THE REQUIREMENT OF THE SPECIFICATION CASA 1033-02."

(B) The supplier shall obtain the copy of the latest revision of CASA 1033-02 Specification through Senior Aerospace Buyer and shall ensure compliance to the requirements of the Specification as applicable.

#### 22) Aerojet Rocketdyne Quality Requirements

Purchase orders with this clause are for Aerojet Rocketdyne end use.

The supplier is responsible for adhering to the applicable requirements outlined in Aerojet Rocketdyne's General Requirement Document, AR1 "Quality Management Systems".

The supplier shall flow down to sub-tier suppliers all applicable requirements in the purchasing document, including classified characteristics if so identified.

Rework is considered the return to conformance of a nonconforming feature or item using original instructions and processes. Nonconforming items that result in rework beyond existing instruction, requires written rework instructions and those rework instructions will capture the results of the rework. Rework documentation shall be made



available for Aerojet Rocketdyne review upon request. This requirement shall be flowed down to all sub-tier suppliers. Under no circumstances shall a repair (the use of different methods, materials, or processes to correct a nonconformance) be permitted without prior Aerojet Rocketdyne approval.

Approved Process Source requirements per Aerojet Rocketdyne's quality note Q019 apply

The Seller or Seller's subcontract process sources shall be an approved processor or shall use approved processors as required by the purchase contract prior to commencing work under the applicable specification.

These documents can be found at www.rocket.com/supp/qa-terms-and-conditions.

#### 23) **GKN SQA01**

The supplier is responsible for adhering to all terms and conditions outlined in GKN's QCF-GEN-02 QA-LMA Clause. This document is available at <a href="www.gkncowes.co.uk">www.gkncowes.co.uk</a> (Quality Documents > Supplier Quality and Purchasing Requirements)

Should further sub-contracting be required, a formal request shall be made by the Supplier to the Company's Quality Department. The Company Quality Departments agreement to the use of the proposed sub-contracting is required prior to use. Any Sub-Contractors used must comply with the requirements of this document and the flow down of specific requirements of the engineering documentation or quality clauses defined on the Purchase Order. The term Sub-Contractor shall be taken to mean any second tier Supplier who acquires materials, products or services including all processes and treatment sources used in any item supplied by the Supplier. The Supplier must assume total responsibility for the second stage sub-contract activity and is totally accountable for compliance to the Company requirements. The Supplier shall only subcontract to Suppliers identified on the BiS License for Military contracts. The Supplier is requested to contact their GKN Buyer for further information / clarification. The Supplier shall provide, on request, a list of the Suppliers and sub-tier suppliers used on the Company programs (including Special Process Suppliers). The list shall include details of the Supplier approvals and any approved processes.





### QMS Document Transmittal and Release Authorization

Document Type Revision Level N/C

Author, Process Owner, Quality Engineer (A/R), Quality Leader From: AH To: Al Rev Obsoleting: **⊠REVISED** Editor, Process Owner, Quality Engineer (A/R), Quality Leader □OBSOLETE Requestor, Process Owner, Quality Engineer (A/R), Quality Leader

Document Number	Title
SQAP-001	Supplier Quality Assurance Provisions Manual

Required Approvals

#### If Obsoleting a Document, Reason: N/A

If Obsolete Document is Superseded, Superseding Document: N/A Is Obsoleted Document referenced on any QMSM Turtle diagram? If so, enter Document number: N/A

Is Obsoleted Document referenced on any other Document? If so, enter Document number(s): N/A If New Document Supersedes an Existing Document, Document being Superseded: N/A

If an Audit Checklist Impacted, Audit Checklist: N/A

#### List Revision(s) Here (add more rows as required):

Page/Section	Description of Change
Page 3 and 4	Added Table of Contents Numbered Bullets added for Section 1 (1.0 to 1.20)
Section 2	Moved several sections from Section 2: Specific Requirements to Section 1: General Requirements. Includes:  Clause 1: Certificate of Conformance Clause 4: Inspection Data Required Clause 5: Process Approvals Clause 6: Quality Assurance System Requirements Clause 8: First Article Inspection Requirement Clause 11: Physical and Chemical Test Reports Clause 11: Physical and Chemical Test Reports Clause 14: Process Certification Clause 16: Non-Destructive Test Report Clause 17: Heat Treat Report Clause 19: Raw Material Certification Clause 19: Raw Material Suppliers – Sheet Stock Clause 20: Mill Heat Control/Mill Certification Clause 21: First Article Inspection – Source Surveillance by Senior Clause 32: Counterfeit Parts: Avoidance, Detection and Disposition Clause 34: Tooling Control
Section 1 and 2	Removed the following clauses:     Clause 7: Metallurgical First Article     Clause 29: Procurement of Metallic Raw Materials from Foreign Sources per DMS 2201 (Only applicable for Boeing – Long Beach, no longer an active program)     Clause 30: Verification of Supplied Raw Material  Removed the following Section 1 Sub-sections:     "Competence, including any required Qualification of Persons"     "Quality Management System Awareness"
Section 1 and 2	Merged the following Section 2 Clauses:  Raw Material Certification: Clause 5, 11, 19, 19-1, 20  Special Process and NDT Certifications: Clause 14, 16, 17  Source Control: Clauses 2 and 21
Page 5	Added Section 1.0 Quality Assurance System Requirements Removed Product Identification Sub-Section Added AS9120 and ISO17025 references
Page 5	Added Section 1.1 Language





## QMS Document Transmittal and Release Authorization

Page 5 to 6	Added Section 1.2 Certificate of Conformance Removed "SSP Item Number" from List Item 3 Removed List Item 8 Removed List Item 9 Removed List Item 10 Rewrote List Item 12 IS: Traceability Data (Heat Lot/Batch Number, when applicable) WAS: Heat/batch number of raw materials consumed, only applicable to items built to drawing specifications Fixed Typo
Page 6	Added Section 1.3 General Certification Requirements  Added line to require NADCAP approval for all special process and NDT sub-tiers.  Added two sub-sections to define certification requirements for build-to print vendors and design-authority vendors.
Page 7	Added Section 1.6 Records Retention and Retrieval Removed paragraph 2. Added line to contact SSP for disposition of paperwork after retention period. Reverted 15-year retention period back to 10 years to align with QP-751. Added line to include 48-hour time allowance to retrieve documents. Added line for suppliers to notify SSP of any change in ownership, relocation, or closure.
Page 7	Added Section 1.7 Configuration Management Previously "Drawings, Specifications, and Quality Requirements"
Page 7	Added Section 1.8 FOD/FOd Control - Added AS 9146 Requirement - Line added to hold supplier liable for FOD/FOd
Page 7 to 8	Added Section 1.9 Counterfeit Parts - Added reference to AS5553 for electronic parts
Page 8 to 9	Added Section 1.10 First Article Inspection Requirements  Removed explicit list of FAIR requirements, now requires all FAIRs to be per AS 9102, unless otherwise specified.
Page 9	Added Section 1.11 Inspection and Sampling  Added general requirement for suppliers to use Imperial System for inspection results
Page 9 to 11	Added Section 1.12 Control of Nonconforming Product/Material  Removed SIR Type I and Type II references – not used or implemented  Consolidated SIR, SNAR, Corrective Action, Repair, Reworked / Replaced Material, and NOE as subsections.  Clarified requirements on how to process non-conforming material and escapes.
Page 11	Added Section 1.13 Tooling Control Shortened verbiage of bullet point A.
Page 11	Added Section 1.14: SSP-Owned (Loan/Sample) Part Remove Loan ticket form SRC 001-02 and replace with zero-dollar PO. (Purchasing Process)
Page 11 to 12	Added Section 1.15 Part Marking and Identification and Section 1.16 Packaging and Handling  Separated subsection "Packaging, Handling, and Marking" into two respective sections  Added requirement for PO Number to be identified on the box  Added line to require sequential numeration of boxes when shipping a large quantity for the same line item or release.
Page 12	Added Section 1.19 Control and Monitoring of Supplier Performance - Changed OTD from 98% to 95% (Approved by Project Management)
Page 12	Added Section 1.20 Purchase Overages  Changed raw material variance from 3-5% to 10%. (Approved by Accounting/Finance)
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## QMS Document Transmittal and Release Authorization

Section 2 Page 14	Renamed Clause IS: Shelf-Life WAS: Age Control of Synthetic Components/Compounds
Page 17 to 19	Lockheed Martin Clause now Clause number 18     Included SSP Vendor Code LM0084795     Added Certification Requirements Section     Rewrite of A83 Section     Included explicit GIDEP requirement on Sellers and sub-tiers
Page 22	Created Clause 21 per RCA 2024-50.
Page 23	Aerojet Rocketdyne now Clause 23     Added line "Purchase Orders with this clause are for Aerojet Rocketdyne end use." per AR finding.
	Removed Transmittal Forms and Logbook
-	Visual and stylistic changes

#### APPROVAL

Sign and date to indicate that you have completely reviewed this document for your area of responsibility and agree that:

- 1) It accurately reflects current practices and processes for your area or program (i.e. how business is done).
- 2) It is in compliance with known customer, regulatory and certifying agency requirements, including AS9100.
- 3) It does not violate any previous corrective action requirements unless approved by the issuer of the corrective action.
- 4) Referenced documents and forms have been reviewed for impact, revised as necessary and submitted for approval.
- 5) Training on the process changes is planned, shall be documented, its effectiveness verified and records maintained.
- 6) In the event that a hard copy is being referenced, ensure obsolete copy is discarded.

(Add more rows as needed - reference document type for required approval)

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External Approval Required Prior to Release (attached approval evidence)						
□Customer:						
□Other:						