

Supplier Quality Assurance Provisions Manual

INTRODUCTION

Senior Aerospace SSP (herein referred to as Senior Aerospace 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. Detailed information can be found in Section 2.

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>

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.

Sub-Tier Control

Senior Aerospace SSP suppliers are responsible for flow down of all the requirements and provisions of the Senior Aerospace purchase order applicable to the supplier's sub-contractors.

Additionally, any specific Senior Aerospace SSP customer specifications or requirements must be flowed down to sub-contractors. Supplier is responsible for managing the flow of these requirements to sub-tier suppliers.

Facility Access

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.

This requirement is applicable to the supplier's facilities where Senior Aerospace products and services are processed, as well as, the supplier's sub-tier facilities.

Reworked / Replaced Material

When returning previously rejected material to Senior Aerospace the supplier shall reference the Senior Aerospace Defective Material Notice and purchase order numbers on the shipping document and state if the items have been replaced or reworked.

Purchase Order Overages

All variances must be communicated and approved by Senior Aerospace Buyer prior to shipment.

Sample: Raw material with 3-5% variance is acceptable prior to shipment.

Counterfeit Parts: Avoidance, Detection and Disposition

Clause 32 provides specific details concerning Counterfeit Parts. Even if Clause 32 is not a specific Purchase order requirement, it is still the supplier's responsibility to ensure all parts and processes conform to the requirements specified on the Senior Aerospace SSP purchase order.

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

Production First Article Reports

Compliance to requirements shall be demonstrated by submitting a First Article Inspection Report (FAIR) with the first lot shipment of product and with the first lot shipment of each subsequent revision.

Senior Aerospace recommends and may impose First Article Inspection (FAI) in accordance with AS9102 (latest revision). See Quality Clause 8 for specifics of when AS9102 First Articles are required.

For Suppliers who are not AS9100 certified SSP recommends suppliers adopt the AS9102 (latest revision/edition) format as the foundation for their First Article reporting.

First Article Parts shall be identified as "First Article" by paper tagging or any other suitable means of identification. Industry Catalog parts such as MS, NAS, AN, etc., or deliverable software are excluded from the requirement to provide a First Article Inspection Report.

First Article Inspection Report should include a "bubbled" Engineering drawing / specification and contain at a minimum the serial number(s) (when applicable), all dimensions, general notes, tolerance ranges, actual measurements, and where physical testing is required, the results of the tests, a copy of the Senior Aerospace SSP Purchase Order and a certificate of conformance stating all purchase order requirements have been met.

Also include with each shipment a notation on the Certificate of Conformance document indicating the date of the latest acceptable FAI Report. Whenever possible, include a photograph of the part and part identification information.

The supplier is responsible to submit first articles with no known non-conformances. If a non-conformance is noted on the first article then the supplier shall submit a SNAR Form PCD-001-04 to the SSP Buyer for written SSP response prior to submittal of the first article.

SSP-Owned (Loan/Sample) Part

When possible, SSP may provide loan/sample parts to Supplier at Supplier's request. Buyer/Requester would complete Stock Room Loan Ticket Form (SRC-001-02) and provide it to the Stockroom to issue the part.

Supplier Information Request

For consideration by Senior Aerospace for any Supplier request to potentially deviate from the requirements recognized by the Purchase Order. Such requests shall be documented and submitted on a *Supplier Information Request (SIR)*, Form SSP 112614.

SIR submittal controls;

- **Use SIR only after negotiation and award of Purchase Order.**
- **Do Not Use to Request Changes to Contract terms or Schedules**
- **Do Not Use for disposition of non-conforming product.**
See SNAR PCD-001-04 for disposition of non-conforming product.

Senior Aerospace Engineering and Quality shall review the SIR submittal and either approve or disapprove the supplier request.

Use SIR for the following purposes:

- a) TYPE I SIR – For requesting Buyer resolution of Supplier/Subcontractor request for change(s) to, or relief from specified technical or quality requirements.
- b) TYPE II SIR – For requesting Buyer resolution of Supplier/Sub-Contractor requests for change(s) to, or relief from specified technical or quality requirements.
NOTE: Type II SIR request(s) may be made only if the item is not yet nonconforming.
- c) Type III SIR – For requesting Buyer to provide additional information or clarification of technical or quality requirements.

Prepare a separate SIR for each different Part Number item on the P.O. However, one SIR may cover multiple dash numbers, or multiple Lot Date Codes or sub-lots arising from one manufacturing lot.

See conditions on the SIR Form for added information to its use.

Supplier Non-Conformance Requests

For consideration by Senior Aerospace for any departures from drawings, specifications, or other purchase order requirements, such non-conformances shall be documented and submitted on a *Supplier Non-Conformance Approval Request* (SNAR), Form PCD-001-04. The SNAR is what is typically referred to in the industry as a “Waiver/Deviation” request.

Nonconforming material cannot be knowingly shipped from a supplier to Senior Aerospace without being accompanied by an approved SNAR signed by Senior Aerospace Engineering, Quality and Purchasing.

Supplier responsibility for documentation and submittal of a SNAR;

- When submittal is deemed necessary, the supplier shall contact the Senior Aerospace SSP Buyer noted on the applicable Purchase Order to request they be provided a SNAR form PCD-001-04.
- The supplier shall submit the SNAR containing the required legible information noted on page 2 of Form PCD-001-04 under the Supplier Responsibility section.
- The supplier shall submit the SNAR, prior to delivery of any non-conforming product to the Buyer as referenced on the applicable Purchase Order.

Senior Aerospace Engineering and Quality reviews the SNAR submittal and dispositions the submitted non-conformance providing the supplier with disposition instructions.

If the SNAR disposition is to ship to SSP the supplier shall:

- Identify and segregate the reported non-conforming parts from any conforming parts (even if the non-conforming parts have been reworked).
- Comply with any/all SSP written disposition instructions noted on the SNAR.
- Include a signed copy of the SNAR with the shipment to SSP.

Non-Conforming Materials Corrective Action (Rejection Notices)

SSP may issue Corrective Actions Requests (CAR) to suppliers to provide feedback on specific non-conformances. The CAR process can provide a firm basis for continuous improvement. SSP believes CAR’s are an opportunity for learning and improvement.

The Supplier shall provide a written corrective action response by the due date as noted on the SSP request for corrective action.

The Supplier corrective action response should include:

- Problem statement (Is and Should Be statement of condition)
- Root cause (investigation with CAR analysis tools such as 5 Why, Fishbone...)

- Corrective action with implementation dates
- Preventative action with implementation dates
- Verification activities with objective evidence

When deemed necessary by SSP Quality Engineering, per QWI 85-01 Supplier Corrective action, failure by the Supplier to respond on time to C/A requests will be elevated to SSP Management. SSP Management actions could include removal from the Approved Supplier List, a physical audit or other appropriate actions as deemed necessary.

Repair

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.

Preservation

Material subject to corrosion, contamination, etc. shall be packaged and/or coated with an acceptable preservative to prevent corrosion while in transit and storage. Please contact Senior Aerospace Purchasing representative (buyer) for information for appropriate preservatives.

General Certification Traceability

All certifications shall be traceable to the material submitted and contain the signature and title of the authorized representative of the seller. Serial numbers shall be listed if the components are serialized. Computer generated facsimile signatures will be acceptable.

Records Retention

The Supplier shall maintain adequate quality records of all First Articles, In Process, Final Inspections, Test, and part data history as imposed by Purchase Order requirements. Inspection records shall indicate the nature and number of observations, the number and type of deficiencies discovered, the quantities approved and rejected, and the nature of corrective action taken, as appropriate.

Additional clause specific detail may be found within the applicable clause requirements.

Supporting documentation such as raw material certifications, special processing records and certifications, manufacturing records, i.e. route sheets, and travelers, shall be retained by the Supplier in accordance with the terms of the purchase order.

When the purchase order is complete, such records shall be maintained and available to the buyer on request for a period of not less than ten (10) years from the closing of the purchase order unless stated otherwise in accordance with the terms of the purchase order.

Drawings, Specifications, and Quality Requirements

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

Packaging, Handling, and Marking

The Senior Aerospace SSP purchase order and part number shall appear on appropriate Supplier documentation (i.e., invoices, packing slips, packages and certifications as required).

In performance of the contract, the Supplier shall assure all articles are packaged in a manner and with materials necessary to prevent deterioration, corrosion, or damage during handling and transportation.

Requirements for packaging shall consider conditions affecting the article while at the supplier's plant, transportation to destination, and the expected or specified conditions at the destination.

When packaging any material or articles, the use of staples shall be avoided.

When packaging multiple Items/Orders in one specific Box/Container, supplier must separate and mark / label each item with the item number / PO.

Large units/items must be packaged in one container using best practices to prevent any damage during handling / shipping.

The Supplier shall provide sufficient packaging for articles sensitive to handling damage. Material or articles affected by UV or sunlight shall be packaged for protection from such sources.

Marking shall be applied as specified by the engineering drawing or specification. If the engineering drawing or specification does not define marking method, marking shall be applied as instructed by specific purchase order notation. In the absence of drawing or purchase order imposed marking requirements then marking per MIL-STD-130 shall apply.

Supplier may ship multiple parts/materials in one box/pallet, however, each unique item must be segregated by purchase order number and part number for the sake of traceability.

Domestic Material

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.

Senior Aerospace, prior to performance of the contract, must approve exceptions to this requirement.

Inspection Sampling – In Accordance With Senior Aerospace Requirements

Unless otherwise specified in the Purchase Order and SQAP, the Supplier may use sampling procedures when tests are destructive or when quality history, inherent characteristics, statistically controlled processes or operation repeatability due to numerically controlled machines justify less than 100% inspection. Sampling plan must be submitted as part of the First Article Inspection package for the product delivered. Sampling plans other than from ANSI Z1.4 must be approved in writing by Senior Aerospace Quality Engineering. Senior Aerospace will not approve any sampling plan which permits acceptance with defectives in the population sample.

Material Obsolescence

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.

Any “Planned Obsolescence” i.e., compounds, liquids or materials becoming unavailable, obsolete or outdated, replaced by, its discovery must be brought to the immediate attention of Senior Aerospace in order to evaluate the obsolescence and its effect on current or future requests for the obsolescent material.

No material substitution may be authorized except through the Engineering Department of Senior Aerospace SSP.

Notification must be made via the Supplier Non-Conformance Approval Request (SNAR) form through the Purchasing Department.

Control and Monitoring of Supplier Performance

Suppliers are monitored by Senior SSP for quality and delivery performance. The current expected performance has been defined as 99% Quality and 95% On-Time Delivery (OTD).

SSP Quality Engineering will monitor and report supplier quality performance and trending. SSP Purchasing will monitor and report supplier delivery performance and trending.

Under-performing suppliers may be issued corrective action requests to address causes contributing to unacceptable ratings.

Competence, Including any Required Qualification of Persons

Senior Aerospace SSP suppliers are expected to ensure their employees are competent and qualified as necessary to successfully perform their assigned responsibilities.

Quality Management System Awareness

Supplier's personnel must be made aware of:

- **their contribution to product or service conformity;**
- **their contribution to product safety;**
- **the importance of ethical behavior.**

Supplier Quality Assurance Provisions (SQAP)

Section 2

Specific Requirements

(Reference Purchase Order Codes)

1) 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/Item Number (include SSP Item Number/Part Number)
4. Drawing Revision
5. Manufacturing Plan Revision (when applicable)
6. Operation Number (when applicable)
7. Signature and title of authorized representative
8. All processes performed, required by blue print, specification and/or purchase order, to include:
 - Process
 - Specification
 - Process Certification Number and Senior Aerospace approved supplier(s) used for processing (when applicable)
9. Sub-assembly Part Number(s) with latest revision (when applicable)
10. Sub-assembly Process, Specification, Certification Number and Senior Approved Supplier used (when applicable)
11. Lot Serialization (when applicable)
12. Indication products were manufactured from materials on which the seller has records of material conformance.

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.

2) 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.

3) Source Inspection By Government Agency or Senior's Customer

- a. 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.
- b. 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.

4) Inspection Data Required

All Final dimensional inspections shall be documented and submitted with the shipment to Senior Aerospace utilizing the requirements and documentation format as Section 1, Production First Article Reports.

5) Process Approvals

Special process sub-tiers such as x-ray, welding, heat treating, plating, coating, non-destructive testing, etc. must be performed by Senior Aerospace or Senior Aerospace Customer-approved source, as imposed by purchase order requirements and or referenced technical data. Supplier is expected to maintain list of approved sub-tier suppliers qualified to perform the process as imposed by purchase order requirements, referenced technical data, and/or otherwise specified by SSP. Also, if specified by purchase order, referenced technical data, the current approval status of processing sub-tiers must be confirmed with Senior Aerospace prior to performing the process. Contact the Senior Aerospace Purchasing Agent to ascertain current approval status unless otherwise instructed by Senior Aerospace.

6) **Quality Assurance System Requirements**

- a. Supplier shall maintain a Quality Program in compliance with ISO 9001 or AS9100 requirements (latest revisions) based on processes performed by the supplier. Senior Aerospace's Quality Department may detail specific element compliance based on Engineering and Quality requirements imposed for awarded product.
- b. Supplier shall maintain an Inspection system in accordance with ISO 9001 or AS9100 QMS model requirements. Senior Aerospace suppliers may also maintain MIL-Q-9858 or MIL-I-45208 Quality Systems in lieu of a formal QMS model when approved by Senior Aerospace Quality.
- c. Supplier shall maintain a calibration system in compliance with ANSI/MIL-STD-45662, ISO10012-1 or ANSI 540Z (latest revisions).
- d. All standards are calibrated and traceable to the National Institute of Standards and Technology (NIST).
- e. Product Identification - Supplier manufactured products shall identify all products/parts/assemblies as described below:

- a. Product shall have the identification, including the drawing/ADCN (which ever in the latest effected issue) revision, supplier's quality inspection acceptance stamp, and if applicable, nondestructive testing (NDT) stamp, pressure test stamp, and the Senior Aerospace Work Order number.
- b. Where not practical to individually apply the above product identification markings directly on to the product/part/assembly, the identification shall be by individual tag or label and the product shall be bagged or the tag shall be tied to the product, this is generally referred to as "bag & tie" ID.

Note: The above identification requirements are applicable for manufacture complete or manufacture semi-complete in accordance with the P.O. instructions (from the Senior Aerospace Work Order). For 'special process' suppliers (anodize, paint, NDT, etc.) the only stamping/identification the product/part/assembly requires is the supplier's 'special process' acceptance stamp (for NDT, stamp only acceptable product).

7) **Metallurgical First Article**

The supplier shall furnish evidence all material qualification tests and inspections have been performed and results meet applicable material specifications and drawings. Samples of physical properties test such as grain flow, case depth, EDM recast layer, intergranular attack, etc., shall be included in the shipment when applicable.

8) First Article Inspection Requirement

Compliance to requirements shall be verified by performance of a First Article Inspection (FAI). First Article Inspection Report (FAIR) shall include serial number when applicable, all drawing dimensions, drawing general notes, tolerance ranges, along with actual measurement results, and where physical testing is required, the results of the tests. First Article part(s) shall be identified as “First Article” by tagging and separately packaging or by other suitable means. For AS9100 certified Suppliers the First Article Inspection Report shall be in accordance with AS9102 (latest Rev).

Additionally, a First Article Inspection Report (complete or “delta”) shall be performed by the supplier when one of the following has occurred:

- a. A changed or new manufacturing processes or manufacturing method has been incorporated into the product, which could affect compliance to the drawing requirements;
- b. A change in the manufacturing source, special process source, inspection source/method, location of manufacture which could potentially affect fit, form or function.
- c. When new, reworked or transferred tooling is used; or,
- d. When drawings are revised;
- e. The previous delivery date to SSP or a lapse of production exceeds three years for SSP designed products; (for supplier design or supplier catalog products, AS9102 latest revision/edition defines the First Article Inspection requirements.)
- f. A natural or man-made event which may adversely affect the manufacturing process.

Senior Aerospace SSP reserves the right to require FAIR approval prior to shipment. In this case:

- The Supplier shall notify Senior Aerospace SSP when the item is ready for FAIR approval examination.
- FAIR review/approval may be conducted at the Supplier’s facility or at SSP.

Where Digital Product Definition (Model Based Definition) has defined the product characteristics, all applicable design requirements shall be extracted from the model, verified and included in the FAIR.

9) 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. The supplier shall retain the test bars for a period of not less than ten (10) years, and must be made available to Senior Aerospace upon request. Test bars

stored at the supplier's facility shall not be destroyed without written approval from Senior Aerospace Purchasing.

10) Forging Test Bars

- a. 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.
- b. The supplier shall comply with (a) above except the test bars shall be retained by the forging facility for a minimum of ten (10) years and be made available to Senior Aerospace upon request. Test bars stored at the supplier's facility shall not be destroyed without prior written approval from Seniors Purchasing.

11) Physical and Chemical Test Reports

Each shipment must be accompanied by a physical/chemical test report as required by the applicable material specification. The report must be from the manufacturing mill /raw material source or an independent test laboratory, approved by Senior Aerospace, and shall contain the signature and title of the authorized representative of the facility performing the tests to ensure specification conformance. Unless otherwise specified, material shall be procured from a domestic source.

12) 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.

13) 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.

14) Process Certification

Each shipment must be accompanied by a legible and reproducible copy of a

certificate containing the signature of an authorized representative for all processes used, such as heat treating, welding, surface preparation, treatment, etc. The certificate shall include the process used, the specification to which it conforms, results of any testing and the name of the sub-tier who performed them if other than the supplier. When parts are serialized, the serial number shall appear on the certification.

15) **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.

16) **Non-Destructive Test Reports**

A legible and reproducible copy of actual non-destructive testing (NDT) results identifiable with acceptance requirements and material submitted shall accompany each shipment. These reports shall contain the signature and title of the authorized representative of the agency performing the inspection and must assure conformance to specified requirements. All independent test laboratories performing the NDT process shall be Senior Aerospace approved.

Fluorescent Penetrant, Magnetic Particle, Radiographic and other non-destructive evaluation Processes as referenced on drawings and/or specifications shall be accomplished by an approved Senior Aerospace source in accordance with applicable standards.

Parts accepted using Fluorescent Penetrant Inspection or Magnetic Particle Inspection shall be marked per the applicable non-destructive test specification.

Unless otherwise specified, radiographic inspection of castings shall be performed after all heat-treat operations.

Radiographic techniques shall be submitted to Senior Aerospace for prior approval if required by the Purchase Order.

17) **Heat Treat Report**

Each shipment shall be accompanied by a legible and reproducible copy of the detailed heat treatment cycle used. Details to include: Drawing requirement, specification, date, time, temperature, and quench method as applicable. Inspection reports must accompany the heat treat report. The report shall contain the signature and title of the authorized representative of the agency performing the tests and inspections.

18) **Age Control of Synthetic Components/Compounds**

Age Control of Synthetic Components or Compounds 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.

Material or articles affected by UV or sunlight shall be packaged for protection from such sources.

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

Date of cure shipped to Senior Aerospace shall be defined on the supplier's certification and shall not exceed Two (2) Quarters of the shelf life from the date of manufacture to ship date and acceptance at Senior Aerospace.

Special Handling requirements, such as cold storage, shall be identified.

19) **Raw Material Certification**

Each shipment shall be accompanied with legible copies of the material certification (Certified Material Test Report – CMTR) as furnished by the raw material manufacturer or an independent test laboratory (Senior Aerospace approved). CMTR certifications must meet all chemical and physical requirements of the applicable raw material specification. Unless otherwise specified, the CMTR certification shall state, as a minimum, the latest revision of the specification. The certifications shall contain a statement “We certify the listed material was used to fulfill the requirements Senior Purchase Order _____.” and shall be signed by an authorized Quality Representative of the Senior Aerospace supplier (to whom the Senior Aerospace P.O. was issued).

Note:

The material thickness must fall within the tolerance thickness called out on the purchase order. No exceptions or tolerance deviation allowed. Any deviation requires a SNAR submittal to SSP purchasing, for approval, prior to shipment.

Example: .028 +/- .003 required thickness must be within .025 - .031 (no exceptions).

19-1) Raw Material Suppliers – Sheet Stock

Markings, such as, identification of material / lot number etc., must be applied in the material grain flow direction.

Any cutting(s) which would remove original grain flow marking(s) shall be re-applied in the correct direction, or so marked when the cutting does not leave ample area as in the original condition.

In these cases, alternate marking/identification may be applied.

20) Mill Heat Control/Mill Certification

- a. Assigned serial numbers must be consecutive within a mill heat.
- b. All items covered by this Purchase Order shall be from the same mill heat.
- c. Actual mills certification required.

21) First Article Inspection – Source Surveillance by Senior

Senior Aerospace Quality Representative reserves the right to review the First Article Inspection Report (FAIR) by a combination of product evaluation, surveillance at the supplier's facility. At supplier site review shall include surveillance of the product manufacturing process 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. The FAI/FAIR shall be in accordance and compliance with the above Quality Clause No. 8, First Article Inspection Requirement.

22) Nameplates

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

23) 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 ofC) 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.

24) Lockheed Martin Aeronautics Appendix QJ and QX Requirements

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

A statement with the words,

“Processing to be accomplished in performance of this purchase order is directly related to a Lockheed Martin Aeronautics Company purchase order and must be accomplished in accordance with process specification(s) on the purchase order and Lockheed Martin Aeronautics Company Appendices QJ and QX.”

(B) The supplier shall submit a Certificate of Conformance (“C of C”) with a unique certification number containing the following information:

- a. Title and Specification number (with revision letter) of the process;
- b. Name and address of the process or NDT facility;
- c. Lockheed Martin assigned processor number;
- d. Date the “C of C” was issued;
- e. Purchase Order part number;
- f. Quantity of parts (to include quantity accepted/rejected);
- g. Signature and title of authorized quality agent of seller; and,
- h. Fracture durability classification or serialization, when required.

(C) The supplier shall ensure parts are suitably wrapped, boxed or racked to guard against shipping damage and apply rust or corrosion protection.

(D) 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.

Note: Lockheed Martin “Quality Definition A83 applies to all processes performed.

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."

25) 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 is necessary.

26) 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.

27) 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.

28) DFARS 252.225-7008, or 7009 or 7010, as they apply - Domestic Specialty Metals

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.

29) Procurement of Metallic Raw Materials from Foreign Sources Per DMS 2201

Only those foreign sources listed in DMS 2201 QPL are permitted to furnish metallic raw materials for the purpose of fabrication into Boeing – Long Beach Division designed parts or assemblies.

30) Verification of Supplied Raw Material

In addition to the mill or in-house material certification, the supplier shall provide an independent materials testing laboratory certificate attesting the material was tested and conforms to the chemical composition physical properties of the applicable specification.

Note 1: First delivery of material for each Quarter of a year must have an independent certification of material over and above original certification.

Note 2: Material tested shall not be repeat tested until all types have been processed through this requirement.

31) 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 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.

32) Counterfeit Parts: Avoidance, Detection and Disposition

It is the supplier's responsibility to ensure all parts and processes conform to the requirements specified on the Senior Aerospace SSP purchase order. It is further their responsibility to ensure the parts:

- a. contain the proper internal construction consistent with the ordered part;
- b. do not contain refurbished or reclaimed parts and be represented as new product;
- c. do not have a different style or surface plating/finish than the ordered parts;
- d. are not being sold as tested parts, which have not successfully completed testing or screening; and
- e. are not labeled or marked to misrepresent the part's form, fit, function or grade.

Senior Aerospace must be notified in writing of any circumstance when parts are suspected or have been identified as meeting part or all of the above.

33) Boeing - BDS Terms and Conditions (excerpt from Clause H-900)

A – Material Substitution Prohibition:

Unauthorized material substitutions are not permitted on Boeing goods. Unauthorized material substitution includes any deviation from the engineering definition of a raw material. Engineering definition includes Boeing design drawing and applicable specifications, product specifications, 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 substitution therein) DO NOT constitute unauthorized material substitution.

Contact Buyer for details regarding deviations to authorized materials. Seller agrees and understands that such deviations only apply to this purchase order. And only as indicated in Boeing's authorized document.

B – Metallic Materials (Specific):

Temper or Condition Conversion – 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.

Metallic Raw Materials – 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.

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.

34) Tooling Control

The supplier is responsible at all times for the care, maintenance, adaptation, safekeeping, and proper use of SSP- or Customer-owned tooling in their possession and/or at any of their sub-tier suppliers. Supplier responsibilities include the prompt reporting of any loss, damage or destruction of tooling. Subject to the terms of the purchasing document, the supplier may be liable when tooling deficiencies are disclosed.

Please refer to TCP-003, Supplier Manual for Tooling.

The supplier is responsible to ensure tooling is within the calibration cycle and current throughout the production lot run.

Any tooling used for acceptance purposes must be within its calibration cycle, or, sent to Senior Aerospace for its calibration accordingly, to avoid said equipment falling out of the calibration cycle, during the run.

NOTE: For Lockheed required product, Fixtures / Tooling that require those calibrations are on a one year calibration cycle.

35) 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.

36) 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.

7. Seller's Change Notification Process

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

37) Aerojet Rocketdyne Quality Requirements

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.

RECORD OF REVISIONS

Date	Rev	Description of Change	Originator
3/17/16	M	See Archive for previous revisions. Update PO Codes IAW PCD-001 Supplement 1 Approved By: Is: N. Choudhury Was: N. Doshi	T. Wagoner
4/07/16	N	Production FAI Reports Added: "...drawing / specification..." Packaging, Handling, and Marking Added: "When packaging multiple Items/Orders..." Section 2 1) 3. Added" .../Item Number" Added Codes 33 & 34 back into document.	T. Wagoner
4/20/16	P	Code 28 Is: 7008 or 7009 or 7010 as they apply.	T. Wagoner
5/09/16	R	Code 34 Added 2 nd Para in its entirety; "The supplier is responsible at all times for the care..."	T. Wagoner
10/31/16	S	Changed clause 33 header from "Clause H900 applies" to "excerpt from Clause H900". Removed names from cover page.	M. King
11/11/16	T	<ul style="list-style-type: none"> • Supplier Quality Assurance Provisions (SQAP) Section 1 General Requirements; Purchase Order Overages : WAS - ".... must be communicated" IS - "..... must be communicated" • Supplier Quality Assurance Provisions (SQAP) Section 1 General Requirements; Production First Article Reports : WAS - "..... Which could affect compliance to the drawing" IS - "..... which could affect compliance to the drawing" • Supplier Quality Assurance Provisions (SQAP) Section 1 General Requirements; Supplier Information Request : WAS - "..... a) TYPE I SIR – For requesting Buyer Resolution of Supplier/Subcontractor" IS - "..... a) TYPE I SIR – For requesting Buyer resolution of Supplier/Subcontractor" WAS - "..... NOTE: Type II SIR request(s) may be made only if The item is not yet nonconforming....." IS - "..... NOTE: Type II SIR request(s) may be made only if the item is not yet nonconforming....." 	P. Antony

Date	Rev	Description of Change	Originator
11/11/16	T	<ul style="list-style-type: none"> Supplier Quality Assurance Provisions (SQAP) Section 1 General Requirements; Packaging, Handling, and Marking : WAS - "... supplier must separate and ..." IS - "..... supplier must separate and" Supplier Quality Assurance Provisions (SQAP) Section 1 General Requirements; Material Obsolescence : WAS - "...and its effect on current or future..." IS - "..... and its effect on current or future" <p>Added Para 35 : Airbus Defense and Space CASA-1033-02: Specific Quality Requirements for Equipment Suppliers</p>	P. Antony
12/20/16	U	Revised form number - Supplier Non-Conformance Approval Request (SNAR) & title	V. Murguia
02/22/17	V	<p>Clause 33 – Boeing Defense Systems Terms and Conditions Clause Number: H900, Effective 12/13/2016 - Added: 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.</p> <p>Added Clause 36: Boeing Clause Number Q011S – IDS Terms and Conditions Guide, Section Q (Effective: 05/31/2006)</p>	V. Murguia
4/5/17	W	<p>Added SSP-Owned (Loan/Sample) Part section. Certificate of Conformance - #3 – Added: (include SSP Item Number/Part Number) Packaging, Handling, & Marking – Added: Supplier may ship multiple parts/materials in one box/pallet, however, the each unique item must be segregated by purchase order number and part number for the sake of traceability. Process Approval – Added: Supplier is expected to maintain list of approved sub-tier suppliers that are qualified to perform the process as imposed by purchase order requirements, referenced technical data, and/or otherwise specified by SSP. Also, if specified by purchase order, referenced technical data, the current approval status of processing sub-tiers must be confirmed with Senior Aerospace prior to performing the process. Senior Aerospace/Customer Furnished Material – Added: Supplier must communicate yield variances to SSP Buyer prior</p>	N.Choudhury

Date	Rev	Description of Change	Originator
		to shipping to ensure required changes to documentation. Unused material must be returned with shipment of parts to SSP.	
6/27/17	X	Added requirements for QMS Awareness	M. King
11/27/17	Y	Revised Quality Clause 24 to add Lockheed Martin Appendix QJ and QX; and Quality Definition A83	T. Barker
3/20/18	Z	<p>Page 2: Added: On line location information for SQAP-001 and T's&C's documents.</p> <p><u>Section 1, Pages 3-10:</u> Clarified/Edited: Sub-tier Control, Counterfeit Parts, Production First Articles, Supplier Information Request, Supplier Non-Conformance Requests, Non-Conforming Materials Corrective Action, Repair, General Certification Traceability, Records Retention, Packaging/Handling/Marking; Added: Control and Monitoring of supplier performance, Competence, including any required qualification of persons</p> <p><u>Section 2, Pages 14, 18, 21:</u> Clarified/Edited: Clause 8 First Article Inspection Requirement; Clause 21 First Article Inspection-Source Surveillance by Senior; Clause 32 Counterfeit Parts: Avoidance, Detection, Disposition</p>	K. Fischer
6/7/2018	AA	Page 26: Added Quality Clause 37. Aerojet Rocketdyne Quality Requirements	B. Weden

QMS Document Transmittal and Release Authorization

Document Type

- NEW
- REVISED
- OBSOLETE

Revision Level

N/C
From: Z To: AA
Rev Obsoleting: Z

Required Approvals

Author, Process Owner, Quality Engineer (A/R), Quality Leader
Editor, Process Owner, Quality Engineer (A/R), Quality Leader
Requestor, Process Owner, Quality Engineer (A/R), Quality Leader

Document Number	Title
SQAP-001	Supplier Quality Assurance Provisions Manual

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

Paragraph	Description of Change
Page 26	Added Quality Code 37 for Aerojet Rocketdyne flowdown requirements

If Obsoleting a Document, Reason:

If Obsolete Document is Superseded, Superseding Document:

If New Document Supersedes an Existing Document, Document being Superseded:

If an Audit Checklist Impacted, Audit Checklist:

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.

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

TITLE	NAME (enter N/A if not applicable)	SIGNATURE	DATE
Author/Editor/Requestor	Brian Weden		6/7/18
Process Owner	Amol More		6/8/18
Program Quality Engineer (As Required)	David Munoz		6/11/2018
Quality Leader	David Munro		6/19/18
Other:			

External Approval Required Prior to Release (attached approval evidence)

- Customer:
- Other: