

S1 – Quality System Provisions Applicable to All Suppliers

The Supplier shall maintain a documented Quality System that complies, at a minimum, with Federal Acquisition Regulation Clause 52.246-2. The system shall address:

1. **Calibration:** Measuring and testing equipment (M&TE) that is used to determine the acceptability of product shall be calibrated to a frequency re-call system. All calibrations of M&TE shall be traceable to N.I.S.T or equivalent.
2. **Non-Conforming Material:** A system for controlling nonconforming material shall be maintained. At a minimum, a system for segregation, identification and dispositioning shall be defined. Suppliers shall not knowingly ship nonconforming products without prior, written approval from the HarcoSemco buyer.
3. **Software Control:** If software is used during the production and/or inspection of items on this Purchase Order, such software shall be controlled in accordance with DOD-STD-2168 or as otherwise approved by HarcoSemco Quality Engineering.
4. **Quality Retention Records:** The Supplier shall retain records that provide objective evidence of Quality for a minimum period of ten (10) years after shipment that must be in English.
5. **Control of Sub-Tier Suppliers:** Supplier shall be responsible for conformance to requirements of items purchased from sub-tier suppliers. Supplier shall ensure the requirements of applicable drawings and specifications are imposed on sub-tier suppliers. Verification of purchased raw material shall include certifications for physical and chemical properties that shall be forwarded to HarcoSemco upon shipment of the finished product.
6. **Sampling Procedures:** Unless otherwise specified by HarcoSemco, when performing less than 100% inspection sampling, sampling plans shall be based on "0" percent acceptance and be based on ANSI/ASQ Z1.4 standard's latest revision.
7. **Federal Aviation Administration (FAA) Rights:** The Federal Aviation Administration reserves the right to perform Audits of HarcoSemco's Suppliers.
8. **United States Government Rights:** When the face of the Purchase Order specifies a government contract and Department of Defense rating (DOXX), expediting of this order can be enforced by the United States Government.
9. **Surveys, Surveillance & Audits:** HarcoSemco shall have the right to conduct surveys and perform surveillance of the Supplier's and Sub-Tier Suppliers' facilities / operations to evaluate their capability to comply with contractual requirements. HarcoSemco reserves the right to perform on-site Source Inspection by HarcoSemco employees or any Customer designee including the Government and Federal Aviation Administration.
10. **Document Currency:** Supplier shall utilize revisions of drawings and specifications current at the time of order placement or as otherwise amended in writing by Purchase Order.
11. **FAA Licensed Repair Stations:** Holders of FAA Repair Station Licenses (1) shall ensure that the work being performed is within their ratings and limitations and (2) shall notify HarcoSemco in writing of any changes to the status of their license, ratings, and limitations within 48 hours.
12. **Acceptance Authority Media (AAM):** Supplier shall comply with AS 9100 requirements and 14CFR Part 21.2 regarding falsification of applications, reports, or records. Use of AAM must be considered as a personal warranty of compliance and conformity.
13. **The supplier should make their personnel aware of:**
 - their contribution to product or service conformity
 - their contribution to product safety

S2 – Quality Provisions to All Purchase Orders (if applicable)

- the importance of ethical behavior

1. **Certificate of Compliance Applicable to each Shipment:** One (1) copy of a Certificate of Compliance indicating parts meet all applicable specifications & requirements dated, stamped, or signed by an authorized Supplier representative. At a minimum, the Certificate of Compliance shall include the Supplier's name and address, HarcoSemco part number, revision, purchase order number, and the quantity shipped. All supplied documents must be in the English language.

Exclusion: C of C revision requirement on COTS, Mil-Spec and Distributor parts.

2. **Certificate of Analysis:** Certificates of Analysis shall be provided with each shipment of parts that are produced to a HarcoSemco design. All supplied documents must be in the English language.

One (1) copy of a completed Mill certified Test Report, including Chemical and Physical properties for all raw materials are required with each shipment. Whenever HarcoSemco drawing and/or Purchase Order make direct reference to a specific material specification, all certifications shall include reference to the applicable specification and its revision level. Subject material specifications include, but are not necessarily limited to AMS, MS, SAE, QQS specifications.

Note: When the raw material for this Purchase Order is supplied by HarcoSemco, then the supplied HarcoSemco Form-103 shall be completed and returned with the shipment in lieu of the Certificate of Analysis.

Note: PWA, PWC LCS Approved Suppliers only: The HarcoSemco Purchase Order is Amended to specify "Material must be controlled to PWA, PWC requirements per PWA Manual Section F-17 in compliance with MCL Section F-53". The supplied Certificate of Compliance shall contain a statement to that effect in lieu of the Certificate of Analysis. The Supplier shall notify HarcoSemco of any changes in their LCS status within 48 hours.

3. **First Article:** First Article requirements apply whenever the part is produced to a HarcoSemco design. For such parts:

Supplier shall provide a First Article Inspection Report (FAIR) to include a ballooned drawing of characteristics with the applicable shipment whenever any of the following are true:

- This is the first shipment of this part number to HarcoSemco.
- This is the first shipment in more than two years since the last shipment of this part number.
- A revision to the HarcoSemco drawing has occurred since the last shipment of this part number. In this case, Delta FAIR shall address only the changes from the previous FAIR.

The FAIR must be submitted using the current revision or equivalent of the AS9102 standard (Forms 1, 2, & 3). The applicable forms and instructions are available at <https://saemobilus.sae.org>.

Exclusion: Requirement on COTS, Mil-Spec and Distributor parts.

4. **Perishable Items:** When it is known by the Supplier that the product being supplied on this Purchase Order is perishable with a finite life expectancy, the Certificate of Compliance shall contain the respective manufacturing date and the expiration date of the product. If special storage temperature other than room temperature is required, the Supplier shall so specify. Material being shipped against this Purchase Order shall have a minimum of 75% remaining of the specified shelf life when received at HarcoSemco. Any exceptions shall be noted in the Purchase Order.
5. **Temperature Sensitive Items:** The supplier shall take adequate precautions to ensure that temperature sensitive material does not

exceed maximum/minimum storage temperatures during the entire transit process. Shipping containers shall be clearly marked with the proper storage temperature.

- 6 **Statistical Process Control:** HarcoSemco drawing requirements for "SPC Data Delivery" applies only when specifically noted by Purchase Order.
- 7 **Cleanliness:** Manufactured parts shall be free of oil, grease, or other contamination.
- 8 **Packaging:** Good commercial packaging techniques shall be used with enough protection to ensure safe arrival at HarcoSemco. Staples and similar fasteners, Styrofoam peanuts and other loose dunnage are prohibited from use due to HarcoSemco's required Foreign Object Damage Program.
- 9 **Visual Acceptance Criteria:** Unless otherwise specified by HarcoSemco drawing or Purchase Order, the visual inspection methods, and criteria of HarcoSemco VIS-01 (Visual Inspection Standard) shall apply. The revision of VIS-01 in effect as of the date of the HarcoSemco purchase order shall apply. VIS-01 can be located on <https://harcosemco.com/>.
- 10 **Special Processes and Non-Destructive Testing (NDT):** When the HarcoSemco drawing or Purchase Order requires a Special Process or NDT, the supplier shall contact HarcoSemco Purchasing for the name of an approved Supplier authorized to perform the required process. The Supplier's Purchase Order to the sub-tier supplier shall request a Certificate of Compliance that must be forwarded to HarcoSemco with the shipment. Special Processes include, but are not limited to, all welding and brazing, fluorescent penetrant inspection (FPI), radiographic (X-Ray) inspection and ultrasonic inspection process and heat-treat.
- 11 **Special Process Supplies** specific requirements (only supplies for Branford CT):
 Gases:
 - Argon Gas certified to specification HS 50463, Minimum Purity level 99.995%. Comply with the specifications required on the purchase order notes.
 - Oxygen certified to specification HS 51889 with minimum purity level 99.5%. Comply with the specifications required on the purchase order notes.
 - Acetylene certified to specification HS 51889 with minimum purity level 98%. Comply with the specifications required on the purchase order notes.
 Fluxes:
 - Comply with the specifications required on the purchase order notes.
- 12 **Electrostatic Discharge Control:** Suppliers shall make provisions for protection of electronic and electrical material, which has been designated by HarcoSemco as sensitive to Electrostatic Discharge (ESD), in accordance with MIL-STD-1686.
- 13 **Welding Wire Identification:** Weld wire (cut lengths) shall be color coded in accordance with AMS2819 except that both ends shall be color coded. Alternate marking methods allowed with HarcoSemco Approval prior to shipment.
- 14 **Restricted Processes:** The following processes shall not be used except where specifically permitted by the applicable purchase order, drawing or by the specifications invoked by the purchase order or drawing:
 - a. Welding, brazing, or soldering where any remnant of the welded, brazed, or soldered material, joint or heat affected zone remains on the part.
 - b. Electron Beam Metal Removal
 - c. Electrochemical Metal Removal
 - d. Electro discharge Metal Removal
 - e. Laser Beam Metal Removal
 - f. Ball broaching or burnishing of holes or bores to develop a

- g. required surface roughness, texture, or size.
- g. Roll forming or roll tapping of internal screw threads.

- 15 **Suppliers of Machined Parts:** Supplier shall provide a material sample with the applicable shipment whenever any of the following are true:
 - a. This is the first shipment of this machine part to HarcoSemco.
 - b. Material lot has changed since the last shipment of this part to HarcoSemco.
 - c. This is the first shipment in more than two (2) years since the last previous shipment of this part number to HarcoSemco.
 - d. Test bar required with all castings.
- 16 **Change Notification:** Supplier shall notify HarcoSemco in writing of any changes that affect company ownership, manufacturing locations or manufacturing processes within 48 hours.
- 17 **End Users:** If your HarcoSemco PO annotates that the end user is a UTC company, (PWA, PWC, UTAS, Collins etc.) then the current version of their ASQR-01 (Supplier Quality System Requirements) shall be flowed down to the sub-tier supplier. (The current version of ASQR-01 will be supplied by HarcoSemco upon request).
- 18 **Counterfeit Parts Program requirements:** When this POQP is annotated on the P.O., all parts delivered and/or used in the manufacture of deliverable products shall be from the Original Component Manufacturer (OCM) / Original Equipment Manufacturer (OEM) or their franchised distributor. The supplier/distributor is required to submit the Original Equipment Manufacturers (OEM) Certificate of Conformance with the applicable shipment.
- 19 **Foreign Object Damage Prevention:** All parts shall be manufactured in a facility that follows AS9146 standards.

Quality Provisions Customer & Part Specific

- QP01** **Thermocouple Tubing:** Thermocouple tubing shall be supplied "Thermocouple Clean" in accordance with ASTM 632, paragraph S3. The Supplier's Certificate of Compliance shall include a statement to this effect. Tubing shall be packaged in wooden cases and protected from being bent, gouged, dented, or distorted.
- QP02** **Wire Spools:** Wire shall be spooled one length per spool. A twenty-four (24) inch length of the inside end of the wire shall be exposed and neatly wound with a protective material secured to the surface of the wire. Each spool shall be supplied in a separate carton.
- QP03** **Wire and Cable:** All defects must be cut out. No more than 2 lengths are allowed per spool and each length shall be recorded on the spool. Wire and cable shall be spooled such that a minimum of 6 (six) inches of both ends of each length are accessible.
- QP04** **Compliance to SQOP 03-01 is required.** Supplier shall comply with all P&WC standards and specifications including, but not limited to, CPW40 as such standards and specifications may be updated by PWC from time to time.
- QP05** **Test Report Required:** A completed test report is required with each shipment for each of the Physical/Mechanical/Electrical properties listed on the field of the Engineering Drawing and or as listed separately on the purchase order for each lot, batch, or heat no. All test reports shall include reference to the specific material specification and its most recent revision, the required and actual values for each characteristic, and acceptance by the authorized testing personnel.
- QP06** **Material for Boeing End Use:** Material supplied on this Purchase order is for product deliverable to The Boeing Company.
- QP07** **Boeing Approved Supplier:** Supplier's quality system shall

meet the requirements of Boeing's basic quality system for suppliers. Supplier shall maintain approved status with Boeing during the term of the purchase order and must promptly notify HarcoSemco in writing if this status is lost or suspended or if its status in D1-4426 has been changed.

QP08 Boeing Qualified Product:

- Material provided under this Purchase Order shall be continuously qualified and controlled to the requirements of the applicable drawing, Boeing Material Specification (BMS) or Specification Control Drawing (SCD) called out on the HarcoSemco engineering drawing during the term of the purchase order.
- Supplier shall maintain qualified status with Boeing to produce this material during the term of the purchase order and must notify HarcoSemco in writing, within 48 hours, if this status is lost or suspended or if its status in D1-4426 has been changed.
- If this material is re-qualified during the term of this purchase order the supplier shall notify HarcoSemco and supply a copy of the qualification test report to HarcoSemco upon request.
- The supplier agrees to furnish HarcoSemco on request with copies of the supplier's drawings, specifications, or process sheets necessary for HarcoSemco to meet Boeing's quality assurance requirements.
- The supplier must perform all testing required by the Supplier Quality Control section of the applicable drawing, BMS or SCD.
- Statistical process control data for all Boeing and HarcoSemco designated Key Characteristics shall be supplied with the shipment for each new production lot, batch, or date code.
At a minimum, a complete test report for all the above-required tests shall be supplied with the shipment for each new production lot, batch, or date code of material.

QP09 Cure Date or Date of Manufacture: The Supplier's documentation shall clearly indicate the cure date, or date of manufacture, as applicable.

QP10 Defense Federal Acquisition Regulation DFARS 252.225-7009 Alternate I "Preference for Domestic Specialty Metals" applies to this part/material. This DFARS clause may be viewed at <https://www.acq.osd.mil/dpap/dars/dfars/html/current/252225.htm#252.225-7009>.

QP11 GEAE Requirements: HarcoSemco provides the supplier with a procurement document(s) that reflects the applicable drawing and/or specification number and revision, test requirements to be performed, and a request for a certified report of all tests performed. The supplier's Certificate of Conformance shall address compliance to all imposed document(s).

QP12 Certified Repair Station Requirements: The services requested under this Purchase Order are for maintenance activities for an FAA Licensed Repair Station and shall meet the following conditions:

- Per FAA Regulation (FAR) 120, each person who performs maintenance functions, directly or by contract, including subcontract at any tier must have an FAA approved drug and alcohol program. When performing subcontract work for HarcoSemco Laboratories, you must have an approved FAA/DOT drug and alcohol program. Additionally, all subcontractors, regardless of tier, who perform any part of this maintenance work, must have an approved FAA/DOT drug and alcohol program.
- An FAA Maintenance Release is required. An FAA Form 8130-3 is preferred.

QP13 Non-certificated Supplier Requirements: The services

requested under this Purchase Order are for maintenance activities for an FAA Licensed Repair Station and shall meet the following conditions:

- Per FAA Regulation (FAR) 120, each person who performs maintenance functions, directly or by contract must have an FAA approved drug and alcohol program or must be covered by HarcoSemco's program. If you do not have an approved FAA/DOT drug and alcohol program, this purchase order shall include a list of your company's employees who are covered under HarcoSemco's drug and alcohol program. Only these employees may perform maintenance work for the requested work.
- A Certificate of Conformance is required and must state, at a minimum, the method by which the above-mentioned item was satisfied.

QP14 Lockheed Martin (Sikorsky) requirements: When this POQP is annotated on the PO, the supplier/distributor is required to submit the Original Equipment Manufacturers (OEM) Certificate of Conformance with the applicable shipment.

QP15 Counterfeit Parts Program requirements: When this POQP is annotated on the P.O., all parts delivered and/or used in the manufacture of deliverable products shall be from the Original Component Manufacturer (OCM) / Original Equipment Manufacturer (OEM) or their franchised distributor. The supplier/distributor is required to submit the Original Equipment Manufacturers (OEM) Certificate of Conformance with the applicable shipment.

QP16 Rolls-Royce Approved Supplier: Supplier's quality system shall

meet the requirements of Rolls-Royce's SABRe Supplier Management System Requirements. Supplier shall maintain approved status with Roll Royce during the term of the purchase order and must promptly notify HarcoSemco in writing if this status is lost or suspended.

QP17 Dodd-Frank Act Conflict Minerals (Section 1502): Supplier shall comply with the requirements of the Dodd-Frank Act Conflict Minerals law. Any material containing tin, tantalum, tungsten, or gold shall not be purchased from the Democratic Republic of Congo and neighboring countries. Supplier must report to Buyer immediately if any materials purchased for HarcoSemco product originated in these countries.

QP18 Supplier shall comply to all P&WC / RTX (UTC) standards and specifications including, but not limited to CPW40 as such standards and specifications may be updated by P&WC from time to time. suppliers shall comply to the requirements specified by HarcoSemco HS-PWC-001 sec 15.7 and any other applicable sections.

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