 <b>Collins Aerospace</b> <small>A United Technologies Company</small>	<b>PROCEDURE</b>		BE-PUR-P7.4.3
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Interiors	ISO 9001	AS9100	Rev. N
		8.4	Effective: 01 Mar 2025
<b>SUPPLIER QUALITY REQUIREMENTS</b>			

**APPROVALS**

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## 1. PURPOSE / SCOPE

Refer to COL-ASQR-PRO-0003. Additional notes applicable to this document are stated below.

This document defines the 'Collins Aerospace; Interiors SBU' Supplier Quality requirements additional to COL-ASQR-PRO-0003. References within this document to 'Collins' or 'Collins Aerospace' applies to the Interiors SBU only.

When this document is referenced on Collins Aerospace purchase orders or other supplier agreements, suppliers and their sub tier suppliers are responsible for compliance to this document and COL-ASQR-PRO-0003 (COL-ASQR-PRO-0003 does not have to be specifically called out and is invoked by this document).

### 1.1.MANSPEC/MPS Database

Various Manufacturing Process Specifications (MPS) are made available to suppliers via a controlled website portal. When required, supplier access to the MANSPEC/MPS database is restricted to holders of a Username & Password which is only granted to approved suppliers.

Supplier access to the MPS database is restricted. If you are an approved supplier that has been granted a Username & Password, you may access the MPS database at <https://mps.beaerospace.com>.

If you are new to MPS, click "Request User Account" and follow the instructions to request MPS access from one of the Collins sites with whom you are approved.

The MPS database contains only certain proprietary specifications that are referenced on a Collins PO or part drawing. The MPS database will not contain technical specs (such as ASTM) that are protected by copyright laws and are commercially available. It is the supplier's responsibility to assure that they have the most current revision of any Collins specification prior to PO acceptance and manufacture.

Supplier should contact their Collins Site Purchasing representative if any of the non-commercial specifications, forms or documents required for fulfillment of a PO is not available in the MPS database.

## 2. ROLES & RESPONSIBILITIES

Refer to COL-ASQR-PRO-0003. Additional notes applicable to this document are stated below.

Suppliers shall establish compliance within 90 days of the document effective date unless otherwise specified in a Collins Aerospace publication notification. INT-ASQR-FRM-0005 may be used to perform a compliance review for gaps. For any compliance gaps to this document, suppliers must obtain a waiver/exception from Collins. Waivers/exceptions should be requested through Supplier Quality.

The supplier is responsible for the requirements contained herein in addition to any other contractual requirements levied by Collins.

The Supplier is responsible for immediate communication to Collins to clarify any conflicts between existing contracts and the requirements herein.

The Supplier is responsible for the control of Collins proprietary documents and for ensuring that they are controlled to preclude their use for other than Collins contracted work.

The Supplier is responsible for acquiring copies of industry or government documents and/or standards available from commercial sources. Any problem experienced in obtaining required documents should be brought to the immediate attention of Collins Procurement prior to acceptance of work.

### 3. REFERENCES

Refer to COL-ASQR-PRO-0003. Additional references applicable to this document are listed below.


- ARP-6448 – Gaining Approval for Seats with Integrated Electronics in Accordance with AC-21-49 Section 7.b.
- AS/EN/JISQ 9115 – Requirements for Aviation, Space and Defense Organizations – Deliverable Software
- ATA-300 – Specification for Packaging of Airline Supplies
- CAA Form 1 – CAA Authorized Release Certificate
- DFARS 225.872-1 – Contracting with qualifying country sources
- DFARS 252.225-7008 – Restriction on Acquisition of Specialty Metals
- D6-85622 – Foreign Object Debris/ Damage (FOD) Prevention Requirements for Boeing Suppliers

- D6-51991 – Quality Assurance Standard for Digital Product Definition at Boeing Suppliers
- EB00000047 – Fire Properties Requirements for Non-metallic Components
- EB00000055 – Recommended Frequency Rate Testing for Supplier Certification
- INT-ASQR-FRM-0001 – Supplier FAI Declaration Form
- INT-ASQR-FRM-0005 – Supplier Compliance Matrix
- INT-QA-FRM-0037 – Pre-Delivery Deviation Request Form
- ISO/IEC 17025 – Testing and Calibration Laboratories
- MIL-STD-1686 – Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment
- M2831 – Acceptance Parameters of Aesthetical Variations for all SFE, BFE and SSBFE Equipment Installed in all Airbus Cabins
- SPG-QA-P8 – Product Identification & Traceability
- 70-0003 – Cosmetic Inspection Standard

#### 4. DEFINITIONS/ACRONYMS

Refer to COL-ASQR-PRO-0003. Additional terminology and definitions applicable to this document are listed below.

##### 4.1. Terminology Clarification

- The words 'shall' or 'must' indicate a requirement.
- The words 'should' or 'may' indicate a recommendation.
- The symbol:  indicates a requirement which is relevant only to specific site(s) and/or part type(s). Table 1 defines the site(s) and part types(s) for which requirement is applicable. The applicable site is defined as the Collins site that issued the PO to the supplier.

##### 4.2. Abbreviations, Acronyms & Definitions

- ADCN – Advanced Drawing Change Notification.
- AECA – Arms Export Control Act.
- ASL/AVL – Approved Supplier/Vendor List.
- BSP – Buyer-Supplier Portal.

- BU – Business Unit.
- CAA – Civil Aviation Authority.
- CMMI – Capability Maturity Model Integration.
- Collins Procurement/Supply-chain/Purchasing – Procurement Department of the Collins Aerospace site/division with which the supplier is doing business.
- Collins Quality – Quality Department of the Collins Aerospace site/division with which the supplier is doing business.
- DDN – Drawing Deviation Notification.
- Delegated Supplier – A supplier which has demonstrated maintained acceptable performance.
- EAR – European Arms Regulations.
- ECG – Engineered Components Group.
- EMCD – Electronic Manufacturer Component Data.
- EMNOC – Electronic Manufacturer Notice of Change.
- FAIR – First Article Inspection Report.
- FTR – Functional Test Report.
- IFE – In Flight Entertainment.
- ITAR – International Traffic in Arms Regulations.
- MANSPEC/MPS Database – Manufacturing Process Specification Database.
- MPS – Manufacturing Process Specification.
- NADCAP/Nadcap – National Aerospace & Defense Contractors Accreditation.
- NOE – Notice of Escape.
- NOPQE – Notice of Potential Quality Escape.
- PMA – Part Manufacturer Approval.
- PPM – Parts Per Million.
- REACH – Registration, Evaluation and Authorization of Chemicals.
- RoHS – Restriction of Hazardous Substances.

- SCAR – Supplier Corrective Action Request.
- SBU – Strategic Business Unit.
- SPG – Seating Products Group (Kilkeel site & Winston-Salem seating site [previously known as Westpoint & Fairchild sites]).
- Sub Tier/Tier 2 Supplier – Supplier who provides product or services which will be incorporated into tier 1 product.
- Supplier Planned Work Transfer / Supplier Managed Work Transfer – Transfer of work when a Collins Aerospace supplier is changing the source from one plant site to another, or a change in their sub-tier supply chain.
- Tier 1 Supplier – Organization that provides and furnishes product or services to Collins Aerospace.

## 5. QUALITY MANAGEMENT SYSTEM (QMS) REQUIREMENTS

### 5.1.QMS Certification Requirements

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

Suppliers shall inform Collins in writing if they lose or fail to renew their QMS certification(s). This communication shall be through the buyer or Supplier Quality contact.

Suppliers may be required to comply with various FAA/EASA/CAA requirements as well as AS/ISO and NADCAP standards.

### 5.2.Order of Precedence

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

The order of precedence for supplier flow down documents is:

1. BE-PUR-P7.4.3
2. COL-ASQR-PRO-0003.

### 5.3.Communication with Collins Aerospace/Supplier Communication

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

Agreements and instructions through non-controlled methods such as verbal conversations, e-mails, red-lined drawings, golden samples, shall not be construed as Collins approval or authorization. If suppliers require further

information/clarification from Collins, COL-ASQR-FRM-0003 should be used for the request.

Unless otherwise stated, ASQR-01, COL-ASQR, INT-ASQR or other required forms shall be submitted to Collins through the Collins buyer.

#### **5.4. Quality Alerts**

Refer to COL-ASQR-PRO-0003.

#### **5.5. Government Industry Data Exchange Program (GIDEP)**

Refer to COL-ASQR-PRO-0003.

#### **5.6. Right of Access**

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

The Supplier is subject to initial and periodic reviews including but not limited to onsite audits, offsite reviews of quality documents, quality system surveys and source inspections to verify and validate the effectiveness of the quality management system. The Supplier shall provide all necessary information, facilities, equipment, documentation, and personnel required to perform said activities at no additional cost to Collins. These reviews are used to determine the approval status of all Collins suppliers and failure to accommodate the above-mentioned reviews may result in the disqualification of the Supplier for future Collins PO's.

#### **5.7. Supplier Initiated Changes**

Refer to COL-ASQR-PRO-0003.

##### **5.7.1. Type I & II Changes**

When the PO is for Collins approved product(s) under Supplier's engineering design control; Supplier shall notify Collins of design changes according to the conditions outlined below: Collins Quality and/or Procurement reserve the right of disapproval of any changes.

- Type I Changes (Major)

A Type I change appreciably affects weight, balance, structural strength, reliability, operational characteristics, flammability, or other characteristics affecting the parts airworthiness (Fit, Form, Function and Reliability). Type I changes affect certified end items, by part number change and require FAA engineering approval. These changes may require a Service Bulletin. Any Type I change shall be submitted to Collins Quality for a written approval

prior to enacting such change. A copy of all approved Waivers/Deviations shall be included with the shipment.

- Type II Changes (Minor)

A Type IIA change has no appreciable effect on weight, balance, structural strength, reliability, operational characteristics, or other characteristics affecting the parts airworthiness. Type IIA changes may be identified, either by part number change or revision and may require a Service Bulletin. Type IIB Clerical Changes do not require part change and affect documents only. Type IIB changes may correct errors, omissions, or other clerical changes to documents only, except for part number and quantity on engineering design document part lists. Supplier may incorporate Type II changes without prior approval. Supplier shall furnish a copy of the product description or waiver prior to delivery of the revised product. A copy of all approved Waivers/Deviations shall be included with the shipment

### **5.8. Supplier Managed Work Transfer**

Refer to COL-ASQR-PRO-0003.

Training on supplier planned work transfers can be found at: <https://portal.rockwellcollins.com/web/suppliers/supplier-quality-training-welcome>. This training also includes contact details for any questions about the process.

### **5.9. Documented Information**

Refer to COL-ASQR-PRO-0003.

### **5.10. Accepted Authority Media (AAM) and Authorized Signatures**

Refer to COL-ASQR-PRO-0003. Additional recommendations applicable to this section are stated below.

The Supplier's system shall provide for the control of acceptable signatures or stamps as applicable regarding authority.

For computer generated signatures, the Supplier's system shall provide for the control of documents which do not bear the original signatures or where the name(s) of authorized official(s) are computer generated.

Signatures must be rendered in ink if they are not computer generated.

### **5.11. Record Retention**

Refer to COL-ASQR-PRO-0003. Additional recommendations applicable to this section are stated below.



For 'critical' items, production documentation and records shall be retained for a minimum of 20 years. Critical item status will be communicated to the supplier when applicable.

#### **5.12. Supplier Performance**

Refer to COL-ASQR-PRO-0003.

#### **5.13. Foreign Object Debris/Damage (FOD)**

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

D6-85622 may be used as an alternative to AS/EN/JISQ-9146.

### **6. PRODUCT PLANNING AND CONTROL**

#### **6.1. Advanced Product Quality Planning (APQP and Production Part Approval Process (PPAP))**

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

When APQP or PPAP is not invoked by the PO, Collins reserves the right to require a control plan, including inspection steps identified. The control plan is subject to approval by Collins.

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

Refer to COL-ASQR-PRO-0003 & COL-ASQR-WRK-0001. Additional requirements applicable to this section are stated below.

When Collins adds an FAI requirement to a PO, the Supplier shall either submit a FAIR for approval, or, if the supplier has an approved FAI for a specific part and current revision, a declaration of such can be made and submitted with the shipment using INT-ASQR-FRM-001, confirming they are within compliance of AS/EN/JISQ 9102.

Collins acceptance of a FAIR does not relieve the Supplier of the responsibility for meeting all specifications and requirements on current or future shipments of the same product.

For an assembly level FAI, all lower level and detail FAI's shall be included in the FAI report and documented on Form 1 (see AS9102), Fields 15-18 as applicable.

A photograph of the part marking on the actual FAI part shall be included with the FAI Report.

Production parts are not authorized to ship until a FAIR package has been approved. Note: An FAI part may be shipped with the FAI on the FAI PO for evaluation.

#### 6.2.1. FAI Non-conformance Handling

Any characteristic not per PO and/or design definition is considered non-conforming. A design characteristic non-conformance is to be handled per AS9102. A FAI that contains a documented Nonconformance will not be “approved”.

Parts may ship if approval has been granted for the ship non-conformances granted by Collins as per section 7.3

#### 6.2.2. Additional Requirements to AS9102 Forms

AS9102 Appendix B additional requirements for Form 1 include:

- Field 12 – (CR)
- Field 18 – (R)

AS9102 Appendix B additional requirements for Form 3 include:

- Field 10 – (R)

### 6.3. Statistical First Article Inspection (sFAI)

Refer to COL-ASQR-PRO-0003.

### 6.4. Raw Material Verification

Refer to COL-ASQR-PRO-0003.

### 6.5. Customer Supplied or Owned Property

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

#### 6.5.1. FAR Control of Government and/or Customer Property

Supplier shall control Collins property, Government property and/or Collins Customer property in accordance with FAR 52.245-2 and FAR 52-245-5.

### 6.6. Obsolescence Management

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

If the instance of obsolescence means the supplier cannot meet the requirements, they cannot ship parts unless authorized by Collins through INT-QA-FRM-0037.

## 6.7. Counterfeit Risk Management

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

### 6.7.1. FAA-PMA Markings

Part shall not contain any FAA-PMA (Federal Aviation Authority – Part Manufacturer Approval) markings. Accompanying documentation (e.g. Packaging, shippers, etc.) shall not contain any FAA-PMA notifications or labeling.

### 6.7.2. Cast Parts

Supplier must notify Collins when cast part(s) are used in the article delivered to Collins. FAA requires Collins verify that any part that is cast or has a cast component is properly identified as critical or noncritical per 25.621 and that a corresponding cast factor and inspection requirements are defined in the design.

### 6.7.3. FSI Specific Part Marking

Part marking requirements shall be carried out as directed by the drawing and/or per Process Specification for Part Marking (FSI-PS-4010).

## 6.8. Monitoring and Measurement of Equipment

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

All equipment used to verify or validate the conformance of product must be calibrated. All calibrated equipment shall be traceable to the National Institute of Standards Technology (NIST) or a National or International equivalent standard.

Collins shall be notified of any potential nonconformities resulting from the use of out of calibration equipment.

### 6.8.1. ISO/IEC 17025

Third party testing and calibration labs must comply with ISO/IEC 17025 or a National or International equivalent standard.

## 6.9. Monitoring and Measurement of Product

Refer to COL-ASQR-PRO-0003.

It is recommended that suppliers carry out plating integrity testing and raw material composition testing. It is recommended that an independent resource periodically test for these properties. The MPS for plating, etc., specifies extensive test requirements for chemical analysis, adhesion, salt spray, etc.

## 6.10. Inspection Sampling

Refer to COL-ASQR-PRO-0003. Additional recommendations applicable to this section are stated below.

### 6.10.1. Statistical (Reduced) Sampling Plans

Statistical (reduced) Sampling Plans must be approved by Collins prior to implementation.

## 6.11. Operator Certification

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

## 6.12. Delegated Quality Representative (DQR) / Delegated Product Release Verification (DPRV) Program

Refer to COL-ASQR-PRO-0003.

## 6.13. Special Processes

COL-ASQR-PRO-0003 section 6.13 is not applicable to POs referencing BE-PUR-P7.4.3. Replacement requirements applicable to this section are stated below.

A Collins process source recommendation or requirement does not absolve the Supplier of the responsibility to ensure that the requirements above are met.

NOTE: A listing of Nadcap approved sources is available from Performance Review Institute ([www.p-r-i.org/nadcap](http://www.p-r-i.org/nadcap)), however not all special process are covered by Nadcap.

For products under Collins design control, special processes (including in-house, contracted or performed by a sub-tier supplier) shall be performed by trained and/or certified personnel. These processes include:

- Chemical Processing (e.g. plating, anodizing, chemical cleaning, chemical milling, conversion/phosphate coatings, paint/dry film coatings, stripping, surface treatment/passivation, etching).<sup>\*†</sup>
- Coatings.
- Composites (e.g. prepreg/adhesive bonding, metal bonding and core processing).
- Electronic (e.g. printed board, printed board assembly, cable & harness).
- Furnace Brazing.<sup>\*†</sup>
- Heat Treating.<sup>\*†</sup>

- Hot Forming.\*
- Materials Testing Laboratories (e.g., hardness, conductivity, metallography, microhardness, mechanical testing, chemical analysis).†
- Nonconventional Machining, which shall only be used on products under Collins design control when defined on the engineering drawing, specification or PO. E.g., electrochemical machining, electrochemical grinding, electrical discharge machining, laser beam machining, chemical milling.\*†
- Nondestructive Testing (e.g., radiographic, ultrasonic, fluorescent penetrant, magnetic particle).\*†
- Nonmetallic materials manufacture
- Nonmetallic materials testing
- Oxygen Cleaning.
- Painting.†
- Pressure Testing.
- Sealants (e.g. two-part polysulfide sealants, silicones and fluorosilicones, polyurethanes, adhesion promoters, coatings and coating processes, peel panels, shear specimens and tensile bars).
- Shot Peening.\*
- Surface Enhancement.
- Welding.†

\* Preference will be given to suppliers who are certified to Nadcap and/or Boeing D1-4426.

Suppliers are responsible for the additional surveillance and verification of product classified as Special Process by Collins Aerospace and identified via Design Data or other means. This shall include where product is processed by Sub Tier Special Processors.

When requested, suppliers shall identify to Collins Aerospace all Special Processes (including those not covered by the scope of Nadcap accreditation) conducted by themselves and/or by Sub Tier suppliers. This will include the details of the Special Processer used.

#### 6.13.1. Special Processes with Requirement to be Certified

† These processes require the process source to be Nadcap or Boeing D1-4426 certified.

### 6.14. Preservation of Product

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

Age sensitive materials must arrive at Collins with a minimum 70% shelf life remaining or 1 year remaining, unless an alternative is specifically stated on the PO or an alternative is authorized by Collins through INT-QA-FRM-0037.

#### 6.14.1. Shelf Life Exceptions

LCMS-301, TYPE 1 & TYPE 2 materials must arrive at Collins with a minimum 50% shelf life remaining.

#### 6.14.2. Wood Packing Material

The supplier shall ensure that all wood packing material used (e.g. Pallets, crates & boxes) complies with ISPN nr.15 ([www.ippc.int](http://www.ippc.int)).

#### 6.14.3. Dangerous Goods

Dangerous goods (per IATA definition) must be packed according to IATA regulations ([www.iata.org](http://www.iata.org)).

#### 6.14.4. ATA-300

Supplier shall design and/or use packaging to protect from damage during to transportation and storage in compliance with ATA-300.

#### 6.14.5. ESD Materials

Electrostatic discharge sensitive materials shall be protected/controlled per the latest revision of MIL-STD-1686. Suppliers of sensitive electronics are required to have an ESD Control Program Plan – recommended guidelines per MIL-HDBK-263 E3. Electrostatic discharge sensitive materials must be packaged in the proper protective packing, identified with the proper ESD labels, and receiving paperwork must not be placed inside the ESD bags with the components.

#### 6.14.6. Identification

Part identification or part marking requirements vary between Collins SBUs/sites. The Supplier must comply with the requirements as defined by the engineering drawing, applicable part marking specification & PO.

Containers with weight exceeding 35 pounds shall be marked as 'Heavy' using appropriate signage (e.g., 'Heavy Load'/'Caution, Heavy' labels).

Each box/container/package shipped to Collins must have the part number(s) and quantity clearly displayed and legible on the outside of the packaging. Where one box/container/package is used for multiple part numbers, each part number must be separately sub-packaged within, this sub-packaging must have the part number and quantity clearly displayed and legible on the outside of the packaging.

When shipping raw material each unit must be uniquely identified by lot or batch.

#### 6.14.7. Product Identification & Traceability SPG-QA-P8

The Supplier shall comply with SPG-QA-P8 for all components, sub-assemblies and assemblies supplied to Collins.

### 6.15. Direct Shipment/Drop Shipment

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

When approved by Collins to ship product direct to Boeing, Supplier shall place the following statement on the shipping documentation:

***"Seller hereby acknowledges that the parts and/or materials being shipped under this order are intended for use under Boeing's Federal Aviation Administration (FAA) issued Production Certificate 700 and no articles (or constituent parts thereof) or the accompanying paperwork (e.g., packages, shippers, etc.) contain any Federal Aviation Administration-Parts Manufacturer Approval (FAA-PMA) markings."***

The required location of the statement is on the shipping document, following the C of C. The statement may be printed, stamped or attached as a label or sticker to the shipping documentation. It is permissible to replace the word "Seller" with the company name. The Supplier must provide a statement on the packing sheet certifying its quality assurance department has inspected the parts and they adhere to all requirements, applicable drawings/specifications.

Unless directed by Collins via Collins Purchase Order, the Supplier and sub-contractors shall not act as a broker for the manufacture and/or sale of product under Collins design control, to 3<sup>rd</sup> parties, without prior written authorization from Collins Quality and Procurement using COL-ASQR-FRM-0002.

### 6.16. Zero Defect Plan (ZDP™)

Refer to COL-ASQR-PRO-0003.

### **6.17. Quality Control Actions**

Refer to COL-ASQR-PRO-0003.

### **6.18. Planning of Product Realization**

Prior to acceptance of work, the Supplier shall determine their ability to meet all PO requirements including the manufacture and inspection of all specified design characteristics. If the supplier cannot meet all requirements, they must request a concession with INT-QA-FRM-0037 from Collins Procurement prior to acceptance of the work/PO.

#### **6.18.1. Configuration Management**

The Supplier's quality system shall provide for procedures which will ensure that the latest applicable drawings, specifications, and instructions required by the contract or PO, as well as authorized changes thereto, are used for fabrication, inspection, and testing.

#### **6.18.2. Sub-tier Management**

Sub-tier manufacturing and processing is acceptable when the Supplier performs the necessary inspection, verification, and certification activities prior to shipment to Collins.

The Supplier shall establish a process for the control of any work contracted to sub-tiers, including Collins directed sub-tiers. This process shall include the verification of conformity of work contracted prior to shipment to Collins. The Supplier must ensure that the Collins requirements are met by all sub-tiers and shall maintain records accordingly.

It is the Supplier's responsibility to ensure that Collins property and proprietary data are controlled per contractual agreements at all levels of the supply chain.

The Supplier shall notify Collins of any revision changes to sub-tier proprietary designs, drawings, specifications, materials, or manufacturing processes used in components or articles for Collins Aerospace using COL-ASQR-FRM-0002. Collins Aerospace approval of COL-ASQR-FRM-0002 does not relieve the supplier of responsibility to meet design characteristics requirements.

The Supplier is responsible for ensuring that product from sub-tier suppliers (including Collins specified or directed suppliers) complies with all applicable provisions of drawing, specifications, and other requirements of the Collins PO.

The Supplier shall maintain an Approved Supplier List. Criteria shall be established for sub-tier suppliers to achieve and maintain an approved status. The criteria shall not be limited to third party certifications. The Supplier shall



establish periodic reviews of approved suppliers to determine their continued suitability.

When Collins establishes the requirement to use specific sub-tier suppliers, this requirement will be noted on the PO or drawing. The Supplier's system shall ensure that only the specified sub-tier suppliers are used to procure products or services for PO fulfillment. The supplier is responsible for quality compliance even if using a directed source.

The use of distributors not authorized by the OEM, to trade components or parts is prohibited.

The Supplier shall flow down all applicable product, regulatory, and quality requirements to sub-tiers.

#### 6.18.3. Adherence to ARP-6448

Supplier shall adhere to initial data submittal and subsequent change reporting process as defined in ARP-6448. EMCD & EMNOC will be submitted/processed via the Pro-View system.

#### 6.18.4. Sub-Contract & Raw Material Procurement Outside USA

The supplier shall inform Collins of any sub-contract work or procurement of raw material from outside the USA.

#### 6.18.5. Metallic Raw Material Procurement

Metallic raw materials shall be procured from qualifying countries per DFARS 225.872-1. Specialty Metals shall be procured per DFARS 252.225-7008. Written approval from Quality is required for Raw Materials purchased from non-qualifying countries.

## 7. CONFORMANCE

### 7.1. Product Inspection Certification

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

For age sensitive materials/products, shelf-life information / expiration dates shall be included with the C of C along with the cure date (if applicable) and a statement that the minimum shelf life (as detailed within this document) is remaining upon receipt. Receipt will be at point of delivery to the address specified on the PO supplier arranged shipping and point of pick up for Collins arranged shipping.

If non-destructive testing is required by the drawing or specification, a copy of the test report shall be included with the C of C.

If applicable, Federal Aviation Regulation 25.853(a) or Federal Aviation Regulation 25.853(c) compliance shall be included with the C of C.

If the material is toxic and/or hazardous as defined by applicable law, a Material Safety Data Sheet shall be included with the C of C.

#### 7.1.1. OEM Traceability for Distributors

For distributors, certification or documents traceable to OEM must be included with the C of C.

#### 7.1.2. A350 XWB Certification Requirements

For products produced for the Airbus A350 XWB Program, EB00000047 'Fire Properties Requirements for Non-metallic Components' and EB00000055 'Recommended Frequency Rate Testing for Supplier Certification' shall be complied with.

Actual material lot test results shall be submitted with each FAI Report. For ongoing production, supplier shall keep lot test results on file and available upon request.

### 7.2. Corrective Action

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

When a product field failure or malfunction is reported by Collins, Collins may issue a SCAR.

### 7.3. Nonconformity

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

The Supplier shall establish a system for identification, segregation and documentation of any nonconforming product(s) found during the Supplier's manufacturing or inspection operations.

Neither the Supplier nor the Supplier's sub-tier(s) is granted Material Review Board (MRB) Authority for product under Collins design control.

Supplier shall have a system for reporting occurrences to ensure that parts with deviation from applicable design data that could lead to an unsafe condition are reported.

The Supplier shall not ship any nonconforming material to Collins without first receiving authorization through the MRB at the applicable Collins Site. These concessions shall be made with INT-QA-FRM-0037 and must be referenced on the C of C with a copy included with the C of C. NOTE: Acknowledgement of the deviation request being received must not be misconstrued as acceptance and authority to ship.

#### 7.3.1. MRB Dispositions

The decisions and disposition instructions of the Collins MRB shall be binding to the Supplier's organization. Failure to comply with the given decisions and disposition instructions may result in formal corrective action or the disqualification of the Supplier as a supplier to Collins. If the Supplier does not agree with the disposition or can improve upon the disposition given by Collins MRB, the Supplier shall contact Collins and gain written approval via COL-ASQR-FRM-0003, prior to implementation.

Material to be scrapped shall have part number removed and be conspicuously and permanently marked or positively controlled, until physically rendered unusable.

If the Supplier does not agree with the liability/charges associated with a given rejection, the Supplier shall contact Collins Supplier Quality with supporting evidence.

### 7.4. Notice of Potential Quality Escape (NOPQE) or Disclosure

Refer to COL-ASQR-PRO-0003. Additional requirements applicable to this section are stated below.

#### 7.4.1. Notification of Escape

Within 2 business days of discovery of suspect non-conforming product having been shipped to Collins, the supplier shall notify their supply chain, supplier quality or site quality contact at the affected Collins sites using COL-ASQR-FRM-0006.

#### 7.4.2. Nonconforming Product Discovered at Collins

Any product found nonconforming at Collins may be returned to the Supplier with instructions from the applicable Collins-MRB.

### 7.5. Control of Production Process Changes

Any production process related to products under Collins design control must not be altered without prior approval by Collins. Communication shall be made using COL-ASQR-FRM-0002. Collins Aerospace approval of COL-ASQR-FRM-0002 not relieve the supplier of responsibility to meet design characteristics

requirements. These changes include changes to materials, tooling, competency etc. as well as the process itself.

The Supplier shall define and implement a system that ensures equipment used for production is inspected, maintained, and validated prior to use. A schedule of this planned activity shall be documented.

#### **7.6. Post Delivery Support**

As required, all documentation supporting the build and verification of the product shall be made available within 48 hours of the submitted request.

#### **7.7. ⚠️ Embrittlement Relief**

Where embrittlement relief is required, a copy of the oven chart must be maintained. The chart shall show the time necessary to reach the appropriate temperature and the duration of bake-off required along with the actual times for both requirements.

#### **7.8. ⚠️ Magnetic Particle Inspection**

Track studs or other seat-to-aircraft load bearing parts (as defined by design) are subject to 100% magnetic particle inspection by the supplier. No crack or detectable defect is allowed.

#### **7.9. ⚠️ Regrind**

No regrind is allowable on plastic parts.

#### **7.10. ⚠️ Electronic Assemblies**

The Supplier shall have an established and documented process that implements/controls:

- Electrostatic Discharge (ESD) practices as applicable.
- Training programs that ensure all technicians are qualified to applicable industry standards regarding soldering, assembly, testing, etc. of components and harnesses.
- The use of lead free or tin-based solder which may be prohibited per spec or drawing. Certification of compliance is required.

#### **7.11. ⚠️ Deliverable Software Development**

Any contract that includes deliverable software development requires compliance to AS/EN/JISQ 9115 or appraisal to CMMI level 4 or 5 and any additional PO requirements. AS/EN/JISQ 9115 requires second party audits which Collins or a Collins customer reserves the right to conduct with minimum 14day notice.

When supplying software, the Supplier shall establish and maintain a Software Quality Assurance program in accordance with the applicable purchase order or contractual requirements and containing a risk management process and an SBoM.

#### **7.12. Functional Test Report (FTR)**

When an FTR is required, each shipment must include the FTR including these minimum requirements:

- Part number & revision,
- Quantity,
- Serial Number and/or date code (as per specification)
- Specification requirement and actual reading,
- List of test equipment used, control number and calibration due date.

#### **7.13. Non-Deliverable Software Control**

When supplying software, the Supplier shall establish and maintain a Software Quality Assurance program in accordance with the applicable purchase order or contractual requirements.

For non-deliverable software used in manufacturing, inspection, test acceptance or calibration, that has a direct effect on the deliverable product, the supplier's process shall define (if applicable):

- Types of software to be controlled.
- How requirements are initiated, documented, approved.
- CMM correlation study.
- Naming Conventions and version controls.
- Storage of master copies.
- Risk Management Program.

##### **7.13.1. Software Control Plans**

All software plans required in the Specified standard(s) shall be submitted to Collins for approval prior to the start of the software development program.

An outsourcing/offshoring risk assessment (04-4-08-8-63367) shall be performed for outsourced/offshored teams performing tasks that contribute to software, airborne electric hardware, or systems compliance.

**7.14. ⚠ Cosmetic Specification Standard 70-0003**

The Supplier shall comply with 70-0003 for all components, sub-assemblies and assemblies.

**7.15. ⚠ Seat Assembly Acceptance Standard SPG-QA-P7.5**

SPG-QA-P7.5 may be requested from Collins through Supplier Quality for parts that do not have cosmetic zoning defined on the drawing. If further information/clarification is required, this can be requested using COL-ASQR-FRM-0003. When applicable, the Supplier shall comply with SPG-QA-P7.5 for all components, sub-assemblies and assemblies supplied to Collins. The supplier shall have an established and documented process that controls defects in zones A, B, and C.

**7.16. ⚠ Airbus Requirement M2831**

The Supplier shall comply with M2831 for all components, sub-assemblies and assemblies.

**7.17. ⚠ A-Burn: Federal Aviation Regulation 25.853(a)**

All Non-metallic materials must pass vertical burn test specified in Federal Aviation Regulation 25.853(a) /Code of Federal Regulations (CFR) 25.853(a). Notation that this regulation has been met shall be noted on the Certification of Conformance. The seller must be able to provide burn test results from an FAA approved test facility (which they keep on file) upon request of Collins or the FAA. Audits of certification statements of compliance may be performed by Collins.

Compliance to 14 CFR 25.853(a) must be established for each lot of raw material or change in manufacturing process used in the manufacture of nonmetallic parts for Collins. Each delivery of product to Collins must include a supplier C of C referencing the lot(s) of material used, original manufacturer's raw material certification(s), and a burn test report from a Collins approved test facility for each lot of material referenced.

**7.18. ⚠ C-Burn: Federal Aviation Regulation 25.853(c)**

Cushion assemblies must meet the requirements specified in Federal Aviation Regulation 25.853(c) /Code of Federal Regulations (CFR). 25.853(c). Notation that this regulation has been met shall be noted on the C of C. The supplier must be able to provide burn test results from an FAA approved test facility (which they keep on file) upon request of Collins or the FAA. Audits of certification statements of compliance may be performed by Collins to verify this ability.

This section applies only to supplier designed and approved cushion assemblies. If Collins completed the subject cushion design and flammability approval, for certification purposes, only Federal Aviation Regulation 25.853(a) applies.

### **7.19. Traceability**

The Supplier is responsible to maintain traceability of product and materials through all stages of production including at sub-tier processing sources. The supplier's system shall ensure that products are traceable back to the raw material batch/lot from which they were made, including traceability to the source mill. Supplier's system shall also provide means to trace where raw materials have been used. The requirement for traceability applies to all raw materials and manufactured goods.

### **7.20. Digital Data**

Where applicable, the Supplier shall have a documented process for the control of digital data used for the purpose of design, manufacture, or inspection of materials, components, or articles. The document shall state adequate controls for:

- Verifying the integrity of digital data transfers (translation),
- Storage and maintenance of the digital data,
- Security (limited access) of the digital data,
- Traceability of all derivative data back to the original digital data,
- Effective control and management of changes (including digital data provided to sub tiers).


#### **7.20.1. Collins Data Files**

If the Supplier is provided with any Collins data files (e.g., UG .PRT/ IGES/ STEP/ X\_T), the Supplier is responsible for establishing and implementing a procedure for the control and use of datasets compliant to Boeing standard D6-51991. This requirement shall be flowed down to sub-tier suppliers

### **7.21. Wire, Cable & Connectors**

All wire/cable lengths must be continuous or longest lengths available. No splicing.

All unmated connectors shall be protected during assembly, storage, and testing. Individually assembled connectors shall have their contacts or sockets protected with protective caps or other suitable packaging prior to shipment.

**7.22.  Charge Back**

Collins reserve the right charge back the cost associated (including investigation and testing) with a verified nonconformance caused by the Supplier, that is not documented on a Collins approved concession (INT-QA-FRM-0037). Collins will provide the Supplier with a detailed cost breakdown associated with the nonconformance.

**7.23.  Key Characteristics**

All Key Characteristics identified in the materials, components, and articles technical requirements documents (i.e., Engineering Drawing, Parts Lists, Specifications, Purchasing Documents, etc.) shall be 100% inspected or require a Statistical Process Control Plan. The Supplier's Statistical Process Control Plan is subject to review by Collins at any time.

**7.24.  Safety, Critical or Safety-Critical Characteristics**

All Safety, Critical or Safety-Critical defined characteristics identified in the materials, components, articles and/or technical requirement documents (i.e., drawings, BoMs, specifications, purchasing documents, etc.) shall be 100% inspected. Statistical process methods for product acceptance of safety, critical or safety-critical characteristics or parts shall be submitted to Collins for approval. No sampling is allowed for safety, critical or safety-critical characteristics or parts.

**7.25.  Advanced Drawing Change Notification (ADCN) & Drawing Deviation Notification (DDN)**

In addition to released drawings, product may be conformed to ADCNs or DDNs for the 1<sup>st</sup> shipset only.

**7.26.  Restriction of Hazardous Substances (RoHS)**

Supplier shall provide a statement regarding the product's compliance to RoHS directives 2002/95/EC, 2011/65/EU, and all applicable amendments. This statement must be directly traceable to the shipped product (i.e. via shipment list, lot numbers, etc.) Identification of RoHS compliance is in addition to, not in place of, applicable material traceability requirements.

**7.27. Registration, Evaluation and Authorization of Chemicals (REACH)**

When requested, suppliers are required to assist Collins in the registration and accounting of certain substances used in the production.

**7.28. AECA, ITAR and EAR Provision**

Suppliers who design, procure, produce, process, import or export designated defense articles or services may be subject, under US law, to the requirements of AECA, ITAR or EAR. It is the supplier's responsibility to ensure they are compliant to applicable laws.



**7.29.  Military/Defense Flow Down**

When the purchase order is related to military contracts, the supplier shall comply with the DFAR and related Prime Contract flow down.

DPAS Rated Orders (DX) are certified for national defense use.

All parties are required to follow all provisions of the Defense priorities and allocations systems regulations (15 CFR 700). In essence, this means that no commercial work shall take precedence over this military order.

Elimination of use of Class I ozone depleting substances in Air Force procurement.

**8. SUPERSEDED DOCUMENT(S)**

All appendices to BE-PUR-P7.4.3 are superseded by this revision and are now obsolete. List of appendices included below for reference.

**Appendix SBU/Site**

A	Aftermarket Services: Winston-Salem / Leighton Buzzard / Tanauan
B	Seating Products Group (SPG)
C	Kilkeel (obsolete, see Appendix B)
D	Leighton Buzzard
E	Miami (Medley)
F	Lenexa / Tanauan (Refrigeration Products)
G	Lenexa / Tanauan (OXY/BMP)
H	Nieuwegein / Tanauan
I	Everett (FSI)
J	Holbrook / Bohemia
K	Westminster
N	Lübeck
O	Everett LSS
P	ALCI – Everett / Tanauan and Water Solutions
Q	Teklam
R	Engineered Components Group (ECG)
S	Philippines (A350 Galley)

**9. APPENDICES**

**9.1. Site Specific Applicability Table**

This table defines the site(s) and part type(s) for which non-standard requirements (signaled by the **⚠** symbol) are applicable. An 'X' signifies all types.

		Applicable Site(s) Including Plant Number and Previous Appendix											
		A	B	D	E	F	G	H	I	J	P	R	S
		Winston-Salem SAO (00274 & 28000003) Leighton Buzzard SAO (00250 & 28000004) Philippines SAO (00280)	Kilkeel (4501) Winston-Salem Seating (4001/4002) Philippines Seating (4601)	Leighton Buzzard (00365)	Miami/Medley (4005)	Lenexa (2982) Tanauan-Philippines (2985)	Lenexa (00340) Tanauan-Philippines (00341)	Nieuwegein (00350) Lenexa (2982) Tanauan-Philippines (2985)	FSI Everett (00360)	Bohemia (00612)	ALCI Everett, ALCI Tanauan & Water Solutions (2980 & 2981)	Engineered Components Group (00263)	Philippines A350 Galleys (2987)
5.7.1									X		X		
6.5.1			X									X	
6.7.1			1, 2, 3, 4, 5, 6 & 8										
6.7.2			2, 3, 4, 5 & 8										
6.7.3								X					
6.8.1						X							
6.10.1											X		
6.13.1					X						X		
6.14.1											X		
6.14.2								X					
6.14.3								X					
6.14.4										X			
6.14.5										X			
6.14.7			X										
6.18.3			5 & 8										
6.18.4						X							
6.18.5								X					
7.1.1													X
7.1.2													X
7.7	X		2 & 4										

7.8	X	2 & 4										
7.9	X	1										
7.10		3, 4, 5 & 8	X			X						
7.11		5, 8 & 11				X						
7.12		X										
7.13.1						X						
7.14					X	X	X					
7.15		X		X								
7.16												X
7.17	X											
7.18	X											
7.20		1, 2, 3, 4, 5, 6, 8, 9 & 12	X			X						X
7.20.1								X				X
7.21			X					X				X
7.22		X										
7.23		1, 2, 3, 4, 5, 6, 8, 9 & 12	X			X		X				X
7.24						X						
7.25								X				
7.26		1, 2, 3, 4, 5, 6 & 12										
7.29									X			

Table 1 – Site Specific Requirement Applicability

## 9.2. Type Definitions

This table defines “types” which, if applicable, will be stated on the PO. Also listed are the sites which use these definitions.

Type	Description	Site(s) using this type
1	Build to print: plastics & composites.	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
2	Build to print: machinings, stamped parts, castings & weldments.	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
3	Build to print: electrical assemblies & electronic components	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
4	Design & manufacture: mechanical assemblies	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
5	Design & manufacture: electrical & electromechanical assemblies	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
6	Soft goods: cushions, diaphragms, dress covers, etc.	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
7	Hardware, catalogue parts, COTS parts	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
8	IFE	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
9	3 <sup>rd</sup> Party Procured Tooling	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
10	Services, testing & calibration	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
11	Software	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)
12	Outside manufacturing processes	Kilkeel (4501), Winston-Salem Seating (4001/4002) & Philippines Seating (4601)

Table 2 – Site Specific Part Types

NOTE: These types not to be confused with Supplier Types Referenced in COL-ASQR-PRO-0003.

<b>REVISION HISTORY</b>			
<b>Rev</b>	<b>Release Date</b>	<b>Modification Description</b>	<b>Author</b>
A	Jul 2010	New Release	-
B	Sep 2012	Revised Appendix G & added Appendix P. Restructured the required approval signatures.	-
C	Dec 2012	Revised para 6.2 to include explicit reference to legibility and retrieval. Change of document retention period. Update table of content numbering.	-
D	Nov 2013	Removed QSI link and reference. Added revising authority. Added Appendix revision status and bookmarks. Added definitions, activated PRI-Network link, amended 10.5.1 details on Traceability.	-
E	Apr 2016	Removed verbiage from section 9.0, Resource Management and relocated it to section 6.0, General Quality System Requirements.	-
F	Apr 2018	Edited Section 6.0 (Quality System) and 7.2 (Control of Records) – added disposition.	-
G	May 2018	Added Appendix S - Philippines	-
H	Jan 2019	Updated the following sections: 9.0, 10.4, 10.8, 11.3	-
J	Apr 2020	Updated the following sections: Appendix Table	-
K	Aug 2022	Added Section 6.2 General Communication Requirements Added guidance on marking of containers exceeding 35lbs - Section 10.5.2 Updated NOE requirements to align with ASQR-01 – Section 10.3.2	Patricia Cunningham

L	Nov 2022	<p>Document reformatted using Interiors Procedure Template INT-QA-TMP-0001.</p> <p>Section 6. Added requirement for new suppliers to be AS9100/9120 certified. Added requirement for suppliers to inform Collins if they lose or fail to renew QMS certification.</p> <p>Section 10.1.3. Work transfer section updated to require use of ASQR-01 Form 4 to comply with INT-QA-PRO-0008.</p> <p>All instances of 'B/E' replaced with 'Collins'.</p> <p>Section 4. Abbreviations and definitions added.</p> <p>Approvals list updated.</p> <p>Appendix F &amp; G titles corrected.</p>	Simon McCartan
M	Aug 2024	Approval list updated.	Michael Miller
N	Dec 2024	Full rewrite to align with COL-ASQR-PRO-0003 and incorporate all appendices into this document.	Simon McCartan