PROCEDURE NO: BE-PUR-P7.4.3 Appendix F
TITLE: Supplier Quality Requirements Appendix F
REVISION: H
ISSUE DATE: August 2022

SITE SPECIFIC REQUIREMENTS FOR

B/E AEROSPACE, INC. – LENEXA/TANAUAN Refrigeration Products

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REVISION HISTORY

REV	Description		Page Status	Approved	Date
N/A	No Release	added during this revision	1-9	M.HARLOW	09/2012
A	All clauses	Updated clause Q4 to read …10 years.		M. Harlow	02/19/15
B					
C		Updated Q1. Scope to include Q13, Q20 for all suppliers and updated clause Q13 to include requirements to eliminate FOD. Also added Q20 for Aerospace Operator Self-Verification Programs per AS9162. Added statement of notification by supplier for any work transfer by supplier. Added Q21		M. HARLOW	01/04/17
D		Updated to include AS9100D requirements, enhanced Scope, added section Q22 and Q23	1-9	M. HARLOW	03/22/18
E		Updated Q19 for the use of two documents to fulfill the requirements called out.	8	M. Harlow	06/15/18
F		Revised Q9, Q11, Q14, Q 15, and added Q 24	4, 6, 7, 9	M. Harlow	4/10/2019
G		Updated Q9 and Q17, adding form QA-105-DC-002	5, 8	R. Juarez	11/11/20
H		Updated title replacing Anaheim with Lenexa. Updated Q17, adding electronic submittal option (PDR)		R. Juarez	08/10/22

Q1. SCOPE:

The requirements contained herein apply to all suppliers and their sub-tiers of B/E Aerospace, Inc. It is intended to define the requirements necessary to ensure that all products and services delivered to B/E comply with specified requirements for quality, reliability and integrity.

Product Type, Commodity and Requirement:

Fabricated, Machined, Electrical Assemblies, Assemblies	Q1 thru Q21
Distributers, Shelf Life Products, Chemicals,	Q1 thru Q4, Q9, Q13 Q16, Q19, Q20, Q21-Q23
Outside Process, Special Process	Q1 thru Q6, Q9, Q11, Q13, Q19, Q20, Q21-Q23
Services, such as, Calibration, Testing	Q1 thru Q4, Q6, Q13, Q14, Q19, Q20, Q21-Q23

Q2. REQUIREMENTS

Supplier shall have an established quality system to ensure that product provided meets B/E and applicable regulatory requirements.

Supplier's quality management system shall be subject to evaluation by B/E.

B/E Quality shall be notified in writing when any changes are made to the quality system that may affect quality.

The quality system shall be maintained so as to ensure that all products and services offered for acceptance are subjected to all inspections and tests required to prove conformance to contract or PO requirements.

Q3. Right of Entry

B/E, B/E Customers and regulatory agencies reserve the right to have unlimited access to the Supplier's and relevant sub-tier supplier's facility and records as necessary.

Q4. Control of Records

Supplier shall retain records for a minimum of 10 years after final payment. Supplier shall obtain written B/E Quality approval prior to the destruction of records.

Unless, otherwise specified, all documents used to demonstrate product conformance must be provided in English.

Q5. Planning of Product Realization

Any referenced document revision levels specified on the PO apply to that order. If the revision level of a referenced document is not specified on the PO, the current revision of said document on the date the PO or PO revision was issued applies to the order.

Q6. Control of Work Transfers

Sub-tier manufacturing and processing is acceptable so long as the Supplier flows down the requirements of the Purchase Order, including terms and conditions to all the supplier's subcontractors and performs the

necessary inspection, verification, testing and certification activities prior to shipment to B/E. B/E must be notified prior to any type of work transfer by the supplier.

Q7. Design and Development

Design and development planning, review, verification and validation shall be performed in accordance with planned arrangements to ensure that the resulting product is capable of meeting the requirements of the specified application or intended use. Planning, review, verification and validation shall be completed prior to the delivery or implementation of the product unless specifically authorized per the PO or contract. Records of the results and any necessary actions shall be maintained.

Q8. Control of Design

Substitutions are prohibited unless specified in the B/EI engineering applicable to that product when manufacturing product under B/E design control, Supplier shall not make any changes or substitutions to any product(s) or service required by the PO.

Concerns related to B/E design requirements, must be brought to the immediate attention of B/E Procurement prior to the fabrication of product.

When the PO is for B/E approved product(s) under Supplier's engineering design control; Supplier shall notify B/E of any design changes. B/E Quality and/or B/E Procurement reserve the right of disapproval of any changes.

Q9. Purchasing

Supplier shall flow-down all applicable product, regulatory and quality requirements (including requirements for traceability, documentation and software) to Supplier's sub-tiers. The supplier is responsible for ensuring and validating the compliance of the supplier sub-tiers and maintaining documented evidence of such.

Supplier shall ensure that the product with its associated paperwork complies with B/E PO requirements and that all manufacturing, product inspection, and acceptance requirements have been satisfied prior to shipment. See Table 2 for appropriate documentation.

The following clarifications are provided to define what is expected from these commonly required certification documents:

a. Special Process Certification – Certification documents from supplier or Supplier's sub tier stating that all special processes applied to the product were completed in accordance with the required specifications.
b. Raw Material Test Reports – Certification that raw material has been tested and found to be in compliance with applicable specifications.
c. OEM Certification – Certification from the original manufacturer stating that the product conforms to all applicable drawing and specifications.
d. Shelf-Life Certification – Certification to include the date of manufacture, the suggested life or date of expiration and MSDS (where applicable) in the shipping paperwork.

Supplier is responsible for verifying certification documents furnished by supplier's sub-tier sources for their adequacy and authenticity before providing the supplier's certification documentation to B/E. The certification shall indicate the name of the issuing organization and shall be signed by an official of that organization. Supplier shall retain these documents per Q4 of this document.

Written approval from B/E Quality is required for raw metal materials purchased for non-US mills.
Neither audit, surveillance, inspection and/or tests made by B/E or B/E's representatives at either the Supplier's or B/E's facility, Nor any verbal or email communication by a B/E representative shall relieve Supplier of their primary responsibility to furnish product(s) which conforms to all requirements of the PO and

released Engineering documentations. Any deviation from the requirement must be documented and approved by B/E Aerospace on applicable forms.

Table 2

Certification Document Requirements for Shipping

Class of Part	Required for First Shipment (FAI)	Required for All Shipments**
Fabricated and Machined Parts, Assemblies	FAIR, C of C's from Raw Material Suppliers C of C's from Special Processors	C of C from Supplier(s) / Manufacturer(s) of Product • Any approved SRR (if applicable) • B/E NCR (if applicable) • Partial FAIR per Requirement Q10
Raw Materials (**Non-Metal**)	-	C of C's from Supplier that mfg certifications are on file
Hazardous Material / Age Sensitive Materials	-	C of C's from Supplier of Product including: Expiration date of material, Date of Manufacture (DOM) , MSDS (if applicable), OEM certifications (if applicable)
Metal Raw Material	-	C of C's from Supplier of Product • C of C's from the Mill • Certified Test Reports including lot number
Outside and Special Processes, Calibration		C of C's calling out specification of process performed
Distributors	-	C of C's from Supplier that mfg certifications are on file

Q10. Production Process Verification

The FAIR must meet AS9102 requirements. The FAIR must include an individual FAIR for each detail sub-component or sub-assembly under B/E design control and inspection results of dimensional attributes sufficient to provide evidence that all drawing and specification requirements have been met. Whether dimensioned on the drawing or not, each design characteristic must be accounted for.

After completion of the initial FAIR, the requirement for first article inspection continues to apply. Supplier is responsible to ensure that any changes to the manufacturing process result in a full FAIR or a partial FAIR in which all affected fields have been completed. This requirement applies in the following circumstances:

a. Drawing Changes
b. Facility change including relocation, expansion and substantial renovation (as determined by B/E Quality)
c. Change in manufacturing sources
d. Change processing sources

e. Change in inspection method
f. Change in tooling
g. Change in manufacturing process which may affect product quality
h. Request from B/E Quality for review
i. Change in controlling software
j. As required by contract
k. A lapse in production for more than two years (full FAIR required)
l. A natural or man-made event, which could adversely affect the manufacturing process

Supplier shall include the First Article Inspection Report with shipment of the parts when applicable.

Q11. Validation of Processes for Production and Service Provision:

For products under B/E design control, Supplier's in-house or contracted special processes shall be in compliance with the requirements of Table 1:

Table 1: Special Process Source Requirements

Special Process	Requirement
Nondestructive Testing (radiographic, ultrasonic, fluorescent penetrant, magnetic particle, etc.)	Process source must be NADCAP or Boeing D1-4426 certified
Non-conventional Machining (e.g. Electrochemical Machining (ECM), Electrochemical Grinding (ECG) Electrical Discharge Machining (EDM), Laser Beam Machining (LBM), Chemical Milling)	Process source must be NADCAP or Boeing D1-4426 certified
Chemical Processing (e.g. Plating, Anodizing, Chemical Cleaning, Chemical Milling, Conversion / Phosphate Coatings, Paint / Dry Film Coatings, Plating, Surface Treatment / Passivate, Etching)	Process source must be NADCAP or Boeing D1-4426 certified
Heat-treating, Furnace Brazing	Process source must be NADCAP or Boeing D1-4426 certified
Painting	Process must be performed by trained and/or certified personnel
Materials Testing (metals testing only, hardness, conductivity, metallography, micro-hardness, mechanical testing, chemical analysis)	Process must be performed by trained and/or certified personnel
Welding	Process source must be NADCAP or Boeing D1-4426 certified

NOTES: At the discretion of B/E Quality non-NADCAP approved sources may be approved for a given process. Said approvals must be given in writing through B/E and must be signed by B/E Quality Management.
B/E Quality may waive the NADCAP requirement, if the process is purely for cosmetic reasons such as electro-polish, passivation, plating etc.

Q12. Customer Property

If Supplier receives material from B/EI damaged or without the necessary certifications, Supplier shall not use the material in production and must contact B/E Quality immediately.

Supplier shall not sell or transfer any B/E furnished equipment, material, or excess inventory to a third party without prior written permission from B/E Quality. Supplier is held responsible for strict control of B/E inventory of furnished equipment.

NOTE: This also pertains to all B/E tooling and measuring and inspection equipment.

Q13. Preservation of Product

Supplier is responsible to ensure that all items are delivered without damage or deterioration including damage from electrostatic discharge. It is strongly recommended that ATA 300 standards be used.

FOD PREVENTION: Supplier is responsible to ensure a provision for the prevention, detection and removal of foreign objects to comply with IAQG.

The following products shall be individually wrapped or otherwise individually protected to prevent damage.

a. Top coated or finish coated products
b. Finished trims and extrusions (protective films shall be utilized on decorative surfaces of trim and extrusions)
c. Machined parts
d. Assemblies (loose items shall be individually packaged and labeled)
e. Electrical connectors shall be capped with caps provided by manufacturer

NOTE: The use of newspaper as packaging material is prohibited.

Q14. Control of Monitoring and Measuring Equipment

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 international equivalent. Where no such standard exists, the basis for calibration must be documented. A registry of monitoring and measuring devices shall be maintained including the date for next calibration.

All calibrated tools must carry an affixed sticker showing the status of the tool including, date of calibration, due date of recalibration, and an assigned identification number. Calibration records must be stored in accordance with AS9100D section 7.5.3.

Q15. Monitoring and Measurement of Product

Supplier shall define and implement a system that ensures that all product(s) conforms to applicable drawings and specifications prior to being released from the Supplier's facility. All design characteristics must be verified including those which are not dimensioned on the drawing.

Supplier must maintain a quality level ≥98% and on-time-delivery level ≥95%. If level drops below target, supplier will be notified and be subject to additional assessments, higher sampling or disapproved if not corrected.

Q16. Identification and Traceability

The supplier is responsible to maintain traceability of product and materials through all stages of production including at sub-tier processing sources. Supplier's system shall ensure that products are traceable back to the raw material batch or 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 requirements for traceability apply to all raw materials including composites, rubber and foam.

Q17. Control of Nonconforming Product

Supplier shall not perform any repairs or repair methods on product damaged or found to be discrepant during fabrication or processing, or on defects in castings or forging, unless such repairs are specifically authorized by B/E Quality in writing. Use-As-Is dispositions are prohibited unless authorized through the Submittal of Nonconforming Material process described below.

Supplier should utilize a Supplier Deviation Authorization (form QF-078 or QA-105-DC-002) or electronically submit a Product Deviation Request to obtain dispositions of Use-As-Is or Repair for nonconforming product. Submittal of an deviation does not absolve the Supplier of the responsibility to fulfill PO requirements including schedule.

Upon receipt at B/EI, the supplier deviation is used to create a Nonconformance Record (NCR) and will be assigned an NCR number accordingly. The NCR will then receive a disposition from B/E Material Review Board (MRB).

The NCR will then be forwarded to the supplier to carry out the disposition instructions.

Supplier shall not ship nonconforming parts until B/E has provided a disposition via the SDA / PDR process.

In accordance with the disposition, Supplier must complete the operations indicated and authorized by the NCR. This may include but is not limited to scrap, repair, rework, or use-as-is.

Depending on the program, regulatory requirements may not allow for B/E MRB to issue dispositions of Use-As-is or Repair.

Upon completion of the SDA / PDR disposition instructions, the parts shall be shipped to B/E per PO requirements. SDA / PDR affected parts must be segregated from conforming parts and be identified (i.e. separately bagged and labeled with the NCR number. Copies of the SDA / PDR and NCR must be included in the shipping paperwork and the NCR Number shall be prominently referenced on the Certificate of Conformance.

Parts submitted through the SDA / PDR process are subject to verification through B/E Receiving Inspection.

Undisclosed nonconformities and unsuccessful completion of the dispositions will cause the parts to be rejected and corrective action may be requested by B/E Quality.

Nonconformities should be evaluated by Supplier utilizing the corrective and preventive action systems to preclude repetitive SDA / PDR submissions. If repetitive SDA / PDR submissions are encountered, B/E Quality may initiate a formal request for corrective action.

Q18. Notice of Escapement

B/E will be notified within one business day when nonconformity is discovered in the processes or product that may affect product already delivered. The notification will include a clear description of the nonconformance, parts affected, B/E part number(s), quantity, delivery date(s), and corrective action(s).

Q19. Certificate of Conformance

A certificate of conformance shall include the PO number, Supplier name and physical address (no P.O. Box), date shipped, B/E name, part number, revision of part (if, applicable), part quantity, shelf life DOM and expiration date, name and signature of authorized representative, special processes performed, lot/batch for raw materials, serial numbers and an acceptable certifying statement.Two or more documents can be used to fulfill the Q19 requirement as long as those documents are linked by Purchase Order Number or Invoice Number.

Q20. Operator Self-Verification Programs

Operator self-verification programs (if applicable) are applied to improve efficiency and product quality of processes considered stable and capable of fulfilling all requirements, as determined by the implementing organization. Operator self verification programs are not stand-alone processes but augment an existing quality management system. Its application can be made where inspection activities are currently deployed, if applicable to process. Self-Verification programs must be implemented and maintained per AS9162, if applicable.

Q21. Audits

Audits will be conducted periodically, at a minimum yearly, on documentation such as work orders, sales orders, purchase order, etc. Audits will verify completion of signatures, omissions, typos, legibility, missed operations, etc. Audit results will be retained as objective evidence.

Q22. Counterfeit Parts

Supplier must have a process in place to detect and prevent the use of counterfeit parts or materials**.**

Q23. QMS Awareness

Supplier Personnel must be made aware of their contribution to product or service conformity, to product safety, and their importance of ethical behavior.

Q24. Statistical Sampling

When sampling inspection is used in lieu of 100% inspection, supplier should follow the requirements of AS9138.