

<b>Number / Rev:</b> OP08011 / L	<b>PECO PO Requirements -          Manufacturer</b>	<b>Approved by:</b> J. Rivas
<b>Issue Date:</b> 09/24/2024		<b>Prepared by:</b> K. Schelert

## 1.0 PURPOSE

This document defines Astronics PECO (PECO) purchased material flow-down requirements. Additional specifications may also apply and will be documented on the purchase order; all requirements must be complied with fully.

## 2.0 GENERAL NOTES

- 2.1 Supplier is required to flow down applicable standards and customer requirements to vendors for purchased product, materials, and special processes.
- 2.2 Anomalies (non-conformances) or changes in processing which deviate from first article approval must be reported to PECO before shipment of product or as soon as deviations are discovered.
- 2.3 The quality system of each supplier may be subject to periodic remote or on-site audits by PECO, its customers, and/or regulatory agencies, including the Federal Aviation Administration (FAA).
- 2.4 Supplier must implement appropriate action to correct recurring or repetitive non-conformances.
- 2.5 Supplier shall not relocate manufacturing facilities, subcontract work, or make any change to manufacturing equipment, process, or material without written notification and acknowledgement from PECO. Supplier will flow down this requirement to its subtiers.
- 2.6 When noted on the PO, supplier will comply with and flow down to their subtiers any applicable Federal Acquisition Regulation (FAR) or Defense Federal Acquisition Regulation Supplement (DFARS) requirements, including Small Business Diversity reporting, Defense Priority Allocation System (DPAS) prioritization, and restrictions on sourcing (eg Specialty Metals acquisition, Buy American Act compliance).

## 3.0 QUALITY SYSTEM REQUIREMENTS

- 3.1 Inspection System, General – The supplier shall maintain an inspection system that complies with MIL-I-45208, AS9100, and/or ISO 9001, and is acceptable to PECO. The inspection system shall ensure that all product complies to purchase order or referenced specifications.
- 3.2 Inspection System, Boeing-Designed Products – Where applicable, the supplier shall maintain an inspection system that complies with Boeing D6-82479: (1) AS9100; or (2) AS9003. Supplier shall perform 100% Inspection for in-process and final inspection. Acceptance statistical sampling plans

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shall conform to AS9138 - QMS Statistical Product Acceptance Requirements, Table A1 and C=0.

- 3.3 Special processors – Where noted on the PO, suppliers and sub-tier suppliers of special processes performed on products and materials for use in Boeing products must be on the Boeing Document D1-4426 “Approved Process Sources” for heat treat, non-destructive testing, chemical processing, welding, brazing, material testing, shot peening, & composite mfg.
- 3.4 Nadcap Accreditation – Boeing D1-4426 suppliers and sub-tier suppliers must be Nadcap accredited for heat treat, non-destructive testing, chemical processing, welding, brazing, material testing, shot peening, & composite mfg.
- 3.5 Digital Data – Suppliers who use Digital Product Definition or Model Based Definition to manufacture Boeing-designed or PECO-designed products for Boeing production must have an approved system to control digital data. See OP08026 DPD-MBD Checklist Survey.
- 3.6 Calibration System Requirements – The supplier shall maintain a calibration system. This system shall control the accuracy of all devices used to measure, gage, test, inspect or otherwise examine items to verify acceptability of materials or services in performance of this purchase order.
- 3.7 Documentation – Record Retention - Data that provides objective evidence of implementation shall be retained at Supplier's facility for a calendar year plus ten years. Retention periods begin at the end of the purchase order or contract. Storage methods must prevent, or minimize, deterioration and loss to records. Specific customer requirements for longer retention periods may apply and will be flowed down in PO notes.
- 3.8 Change in Quality Management Representative – PECO shall be promptly notified of any changes in the Management Representative with assigned responsibility and authority for the quality system.
- 3.9 Change in Quality System Procedures - PECO shall be immediately notified, in writing, of any changes to the quality system that may affect inspection, conformity, or airworthiness of the product.
- 3.10 Tooling – Boeing tooling document D33200 is applicable for the receipt and/or fabrication of Boeing or Boeing customer-owned accountable tools. Boeing D950-11059-1 is applicable to any user of Boeing BDS special tooling (ST) as defined therein. Any subtier using Boeing ST in the performance of our purchase order must be Boeing approved at the appropriate level and must demonstrate evidence of that approval upon

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request. ST must be used only for the specific purpose for which it was intended. The supplier must maintain the history of the tool, including inspection and maintenance records. The supplier must perform Periodic Tool Inspections as defined in Boeing D950-11059-1. If a tool is found to be out of tolerance, damaged, or incapable of producing conforming parts, the Supplier shall notify PECO immediately.

- 3.11 Acceptance Authority Media (AAM) - Use of AAM must be considered as a personal warranty of compliance and conformity. The supplier shall ensure that the use of AAM is clearly defined within its QMS.

#### 4.0 INSPECTION REQUIREMENTS

- 4.1 Source Surveillance – All items specified by the purchase order are subject to surveillance by our Quality Assurance staff or that of our customers. Suppliers shall provide all the necessary inspection equipment needed to substantiate complete conformance of materials or services and a suitable area for this inspection. This may include a review of the suppliers’ inspection system, procedures, and quality or test records.
- 4.2 First Article Inspection (FAI) – The supplier shall perform and document a 100% FAI on one representative piece or sample of material. FAI, to include tool/fixture modifications, shall be documented per the latest revision of AS9102. When directed to, the supplier shall document the FAI within Net-Inspect software. For FAIs completed outside of Net-Inspect, supplier shall submit a marked-up drawing denoting item numbers corresponding to the FAI Report and sample part(s).
- 4.3 Statistical Process Control – Parts containing special control characteristics (KEY CHARACTERISTICS) as indicated on the drawing or by special requirement on the purchase order shall include process capability data. A process capability plan must be approved in writing by PECO prior to delivery of materials or services when this requirement applies.

#### 5.0 FOREIGN OBJECT DAMAGE/DEBRIS

- 5.1 Supplier shall make provision for the prevention, detection and removal of foreign objects per AS9146. Such provisions shall establish specific requirements and procedures for the control of Foreign Object Debris/Damage and shall have controls which are being implemented to ensure cleanliness of work areas. These requirements and procedures must include the following aspects: a) adequate control of tools and consumables on the shop floor; b) product and process design guidelines to reduce/prevent FOD; c) adequate training of all personnel; d) housekeeping and maintenance procedures designed to reduce/prevent FOD.

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## 6.0 CERTIFICATION AND LABELING REQUIREMENTS

- 6.1 Certification of Conformance (COC) – Each shipment shall be accompanied by one legible copy of a COC which includes a statement that attests to the supplier’s conformance with all the requirements of the purchase order. The COC will contain at a minimum:
  - 6.1.1 Conformance Statement.
  - 6.1.2 PECO Purchase Order Number.
  - 6.1.3 PECO Part Number.
  - 6.1.4 Part Revision.
  - 6.1.5 Supplier’s Shipping Document Number.
  
- 6.2 Serial Numbers, Lot Numbers and Heat or Batch Number, as applicable. Raw Material, Chemical, and Physical Test Reports – Each shipment shall be accompanied by one legible copy of a certified test report listing the actual results of tests (mill or independent lab certifications) for all materials supplied. These reports must agree in every respect with the raw material, chemical and physical requirements of the applicable specification(s).
  
- 6.3 Special Process Certifications – Each shipment shall be accompanied by one legible copy of a certified special process test report. Special processes include, but are not limited to, heat treating, plating, coating, non-destructive testing, etc. The certificate shall include all specifications and revisions, type or class (if applicable), the date, number acceptable and rejectable with inspector’s stamp for inspection results (NDT), part number, quantity, PECO purchase order number and the signature of a duly authorized supplier representative.
  
- 6.4 Unless otherwise indicated, this procurement is under Boeing's Federal Aviation Administration (FAA) issued Production Certificate 700 quality system supplier control program. No articles (or constituent parts thereof) or the accompanying paperwork (e.g., packages, shippers, etc.) shall contain any Federal Aviation Administration- Parts Manufacturer Approval (FAA-PMA) markings. Where required per the Purchase Order or contract, supplier will place the following statement on their shipping documentation of all shipments to PECO "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."

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6.5 Ozone-Depleting Substances - Supplier shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as applicable:

- “Warning - Contains \* \_\_\_\_\_, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere;” OR
- “Warning - Manufactured with \* \_\_\_\_\_, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.”

\* *Supplier shall insert the name of the substance(s) where indicated.*

6.5.1 "Ozone-depleting substance," as used in this note, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as--

- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to hydrochlorofluorocarbons.

6.5.2 This note shall be included in the supplier’s direct supply contracts and flowed to the sub-tier supply chain. For the purposes of this note, ‘supply chain’ shall mean supplier's direct and indirect suppliers performing value-added activity on the products and services provided under this agreement.

## 7.0 QUALITY NOTIFICATIONS

### 7.1 NOTIFICATION OF ESCAPEMENT (NOE) PROCESS

7.1.1 If supplier determines that goods or materials already delivered to PECO contain or are likely to contain a nonconformance, supplier shall notify PECO in writing within 3 days from the day of discovery of known or suspect discrepancy. Written notification shall include:

- 7.1.1.1 The affected process or product number(s), including PECO part number
- 7.1.1.2 Description of the nonconforming condition and the relevant engineering requirement
- 7.1.1.3 Scope of the nonconformance: Purchase Order numbers, quantities, and shipping dates
- 7.1.1.4 Suspect or affected lot numbers, date codes, or other part identifiers

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- 7.1.2 The supplier shall notify PECO procurement and Supplier Quality engineering personnel of the nonconformance.
- 7.1.3 This requirement shall be flowed down to all subtiers used in the performance of PECO purchase orders.

**7.2 GOVERNMENT CORRECTIVE ACTION REQUEST**

- 7.2.1 If supplier receives a Government Corrective Action Request (GCAR), supplier shall notify PECO in writing within 3 working days. Supplier shall at that time specify whether the substance of the GCAR affects products provided to PECO in the past, any current PECO contracts, or anticipated future PECO contracts.
- 7.2.2 Before the GCAR response is submitted to the government, supplier shall provide a draft of the intended response that PECO will forward to the affected customer for review.

**8.0 EXPORT COMPLIANCE AND CLASSIFICATION**

- 8.1 Export Compliance - Supplier will comply with United States export control and sanctions laws, regulations, and orders applicable to the export and re-export of goods, software, technology, or technical data ("Items") or services, including without limitation the Export Administration Regulations ("EAR"), International Traffic in Arms Regulations ("ITAR"), and regulations and orders administered by the Treasury Department's Office of Foreign Assets Control (collectively, "Export Control Laws").
- 8.2 Export Classification - Supplier shall, upon request, provide PECO with the Export Control Classification Numbers ("ECCNs") of any items purchased by PECO.

**9.0 REVISION HISTORY**

Rev #	Name	ECN #	Change Date	Character of Change
A				Initial release of Operating Procedure.
B-F				Not captured
G	Schelert	16489	9OCT18	To supplier quality flowdowns, add section 7.0 Notification Of Escapement process, update NADCAP references to current stylization as Nadcap;
H	Schelert	17615		Add section 6.5 Ozone-depleting substances; add section 8 Export Compliance and

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				Classification. Update FOD specification reference.
J	Schekert	18111	28APR20	Clarify Boeing ST requirements for suppliers per D950-11059-1.
K	Swenson	19187	4/18/2022	Section 3.2 added reference to AS9138. 6. 4 added references to shipping documentation required statement and 7.1 NOE process, added Supplier notification within 3 days from the day of discovery of know or suspect discrepancy.
L	Schekert	20567	7/15/2024	Add supplier flowdown of FAR/DFARS, notification of GCAR, latest revision of AS9102.