

		NUMBER <b>QC 06.1</b>
STANDARD POLICIES AND PRACTICES		PAGE <b>1</b> OF <b>19</b>
SUBJECT  <b>QUALITY REQUIREMENTS FOR SUPPLIERS AND SUBCONTRACTORS</b>		EFFECTIVE DATE:  <b>October 6, 2017</b>
		REVISES POLICY DATED:  <b>December 1, 2016</b>
APPROVALS		
Management System Representative	Supply Chain Management	
<i>Signature on File</i>	<i>Signature on File</i>	

## Table of Contents

1.0	PURPOSE.....	2
1.1	Procedure Changes.....	2
2.0	POLICY STATEMENT.....	2
3.0	RESPONSIBILITIES.....	2
4.0	APPROVAL REQUIREMENTS.....	3
5.0	QUALITY MANAGEMENT SYSTEM REQUIREMENTS.....	3
6.0	RIGHT OF ACCESS.....	3
7.0	SUB-TIER SELECTION/CONTROL & CONTRACT REQUIREMENT FLOW-DOWN TO SUB-TIER SUPPLIERS.....	4
8.0	SPECIAL PROCESSING.....	4
9.0	CRITICAL AND KEY CHARACTERISTICS.....	5
10.0	MATERIAL IDENTIFICATION.....	5
11.0	FIRST ARTICLE INSPECTION.....	5
12.0	SAMPLE INSPECTION / SAMPLING PLAN REQUIREMENTS.....	6
13.0	OUTGOING PRODUCT CONTROLS.....	7
14.0	SOURCE INSPECTION AND DELEGATED INSPECTION AUTHORITY.....	7
15.0	CONFIGURATION MANAGEMENT AND DESIGN CONTROL.....	8
16.0	DATA CONTROL.....	8
17.0	INTERNAL & SUB-TIER AUDITS.....	9
18.0	FOD PREVENTION, PACKAGING and HANDLING.....	10
19.0	CONTROL AND DISPOSITION OF NONCONFORMING MATERIAL.....	10
20.0	DOCUMENTATION REQUIREMENTS.....	11
20.1	Lot Inspection Report.....	12
20.2	Certificate of Conformance (C of C).....	12
20.3	Shelf-Life/Age Control Items.....	13
20.4	Material Certifications.....	13
20.5	Special Processing Certifications.....	14
20.6	Casting Certifications.....	14
20.7	Calibration Certifications.....	14
20.8	Functional Test Data Sheets.....	15
20.9	FAA Form 8130-3 (Authorized Release Certificate/ Airworthiness Approval Tag).....	15
21.0	FAR / DFAR REQUIREMENTS.....	15
22.0	CALIBRATION SYSTEMS REQUIREMENTS.....	15
23.0	CONTRACT REVIEW.....	15
24.0	CORRECTIVE AND PREVENTIVE ACTION.....	16
25.0	IDENTIFICATION.....	16
26.0	FOREIGN SOURCE REQUIREMENTS.....	16
27.0	SUB-CONTRACTED MAINTENANCE.....	17
28.0	MATERIAL TRACEABILITY REQUIREMENTS.....	18
29.0	SUPPLIER PERFORMANCE.....	18
30.0	INDUSTRIAL CHANGE MANAGEMENT.....	18
31.0	PRINTED CIRCUIT BOARD ASSEMBLIES (PCBA).....	18
32.0	COUNTERFEIT PARTS.....	19
33.0	COTS ASSEMBLIES.....	19

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>December 1, 2016</b>	<b>2 of 19</b>

**1.0 PURPOSE**

This document defines the general requirements and quality standards that apply to all suppliers providing assemblies, sub-assemblies, component parts, raw material, and/or services affecting Eaton Industrial Corporation (EIC) Aerospace.

1.1 Procedure Changes

Latest revision changes are identified by bold and italic font and a right hand border.

**2.0 POLICY STATEMENT**

EIC shall establish and flow-down minimum requirements to assure that the supply chain providing material affecting Aerospace Customer deliverable products meets or exceeds the requirements and expectations of its Customers as well as provide the basis for continual improvement.

EIC Suppliers shall refer to this document to determine the quality requirements specific to the product being supplied. Each Supplier shall be held responsible for fulfilling the stated requirements prior to delivery of each lot of product or material as well as assure all sub-tier suppliers comply with applicable requirements herein.

**3.0 RESPONSIBILITIES**

3.1 EIC Supplier Quality shall be responsible for definition of the requirements set forth herein based on customer, industry and regulatory agency requirements, as well as the goals established by EIC Management.

3.2 Personnel procuring assemblies, sub-assemblies, component parts, raw material, and/or services affecting EIC Aerospace Customer deliverable products shall be responsible to ensure that the requirements herein are flowed to suppliers through purchasing documents.

3.3 Suppliers providing assemblies, sub-assemblies, component parts, raw material, and/or services affecting EIC Aerospace Customer deliverable products are responsible to implement and maintain the systems necessary to meet the requirements herein. Suppliers are responsible to ensure flow down and control of all applicable purchase order requirements through the sub-tier supply chain.

***Suppliers are responsible to make personnel aware of:***

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

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>December 1, 2016</b>	<b>3 of 19</b>

#### **4.0 APPROVAL REQUIREMENTS**

EIC Management responsible for the procurement of assemblies, sub-assemblies, component parts, raw material, and/or services affecting EIC Aerospace Customer deliverable products and the EIC Management System Representative shall approve release of the requirements established by this document.

#### **5.0 QUALITY MANAGEMENT SYSTEM REQUIREMENTS**

Suppliers are to implement and maintain an effective ISO 9001-based Quality Management System (QMS) – i.e. ISO9001:**2015**, AS9100 **revision D**, and AS9120. The scope of suppliers controlled and approved by EIC includes:

- Distributors – Distributors shall have a quality system that conforms to ISO 9001 or AS9120.
- Special Process Suppliers - shall have a quality system that conforms to ISO 9001 or AS/EN 9100 or accredited to AC7004 (NADCAP) unless previously approved prior to this document in which case a Supplier Quality System Evaluation will be required per SOP 06-005.
- Calibration Suppliers – Calibration Suppliers will have a quality system that is compliant to ANSI/NCSL Z540.3 or other country certifying body. Calibration suppliers are subject to periodic audits.
- All other production hardware suppliers – Production hardware suppliers shall have a quality system that conforms to ISO 9001 or AS/EN9100.

EIC may elect to grant initial supplier approval based upon Quality System Certification by an accredited Certification Registration Body (CRB). In such cases, suppliers will maintain CRB audit reports and certification records to be made available for EIC review upon request. EIC reserves the right to require completion of survey forms and / or conduct audits at suppliers' facilities.

Production hardware suppliers will be evaluated by EIC via the Supplier Quality System Survey / Audit form JCC1062 in order to determine suitability and acceptability of suppliers' QMS. This evaluation must be completed and submitted to EIC and be kept current not to exceed 36 months from the date of approval of the evaluation. Suppliers' ability to meet contract requirements will be evaluated based on the scope of approval requested.

#### **6.0 RIGHT OF ACCESS**

The supplier shall provide EIC, an EIC customer, or a specified third party (customer/regulatory agency), right of access to the facility and all records related to product ordered by EIC or one of its suppliers.

EIC reserves the right for EIC, an EIC customer, or a specified third party (customer/regulatory agency), to perform an audit or inspection at the supplier's facility. Such verification shall not be used as evidence of effective control of quality.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>December 1, 2016</b>	<b>4 of 19</b>

This verification does not absolve the supplier of the responsibility to provide acceptable product, and does not preclude any subsequent rejection by EIC or its customer.

## **7.0 SUB-TIER SELECTION/CONTROL & CONTRACT REQUIREMENT FLOW-DOWN TO SUB-TIER SUPPLIERS**

EIC reserves the right to specify or approve sub-tier suppliers contracted by its suppliers for work performed on EIC material. This includes but is not limited to special process, materials testing services, distributors, and other subcontractors.

## **8.0 SPECIAL PROCESSING**

Special processes include the application of chemical, metallurgical, nondestructive or any other special manufacturing, joining, or inspection process, controlled by Federal, Military, US government, Industry, National, International or other specifications. Unless otherwise stated in the purchase order requirements, all processing will be performed to latest revision of the specification.

Regardless of tier, all suppliers shall only use Eaton approved special process suppliers with exceptions as follows:

- When specified on Purchase Order to use Customer approved sources.
- If product is being manufactured to an Eaton customer blue print or specification, etc., and processing is required to their specification(s) then only customer approved suppliers shall be used.

Suppliers with Design Authority may approve and use their own sub-tier special process sources, provided the supplier can show objective evidence of sub-tier control and capabilities, such as, surveys, test results, or NADCAP accreditation. A list of all special processors must be made available to EIC upon request. EIC reserves the right to disapprove these special processors for use on EIC product. Suppliers shall not substitute their own process specification for the EIC or customer process specification without prior written approval.

A list of approved Special Process Suppliers may be found at;

<http://www.eaton.com/Eaton/ProductsServices/ProductsbyName/Argo-Tech/Argo-TechAirframeApprovedSuppliersListsandQualityProcedures/index.htm> or

<http://www.eaton.com/Eaton/OurCompany/DoingBusiness/SellingtoUs/supplierexcellencemanual/aerospace/index.htm>

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>5 of 19</b>

## **9.0 CRITICAL AND KEY CHARACTERISTICS**

9.1 Features identified as critical characteristics are to be inspected 100%.

9.2 EIC design specifications may include features designated as Key Characteristics. These features are characteristics whose variation has been determined to have the greatest influence on product fit, performance, service life, or manufacturability.

Where process or product key characteristics have been designated, Suppliers shall implement a process conforming to AS9103 or 100% inspection of key characteristics.

When SPC is used Process Control Plans will be subject to EIC Quality approval. Processes will be considered capable once a long term process capability index (Cpk) of 1.33 or higher has been established. Ongoing process capability analyses for each key characteristic shall be maintained by the supplier for review by EIC on request.

## **10.0 MATERIAL IDENTIFICATION**

The supplier is required to establish a documented procedure for the control of all materials, at all manufacturing levels. The inspection and test status of all materials should be easily identifiable by the procedure, and documentation should include a description of any applicable containment areas and/or devices. Parts or products removed from the normal process flow must be positively segregated and clearly identified per AS/EN9100 or ISO requirements.

## **11.0 FIRST ARTICLE INSPECTION**

All First Article Inspection Reports submitted for aerospace products and materials shall meet the format and requirements of AS9102 Revision B. Suppliers are responsible for the completion and submission of a full First Article Inspection Report or a partial/delta First Article Inspection Report (FAIR) for affected characteristics under the following conditions:

- First time production of a part;
- A change in the design affecting fit, form, or function of a part (all drawing revisions);
- A change in manufacturing processes that can potentially affect fit, form, or function;
- Manufacturing location or facility change;
- A lapse in production of a part for greater than two years.

All drawing and Digital Product Definition (DPD) design characteristics shall be listed, including tolerance for dimensional characteristics, general notes, testing, material, and processing callouts.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>6 of 19</b>

When EIC drawings require conformance to aerospace standard fittings, ports, etc., all dimensional characteristics of the standard must be included on the FAIR. Suppliers delivering assemblies and sub-assemblies which contain EIC detail part numbers must submit FAIR's for each detail part.

Any FAIR nonconformities must be addressed per the Supplier Submittal process in Section 19.0. First Article Inspection Reports will be considered incomplete until all non-conformances have been verified / corrected through submittal of a partial/delta FAIR.

The following are additional requirements for FAIRs of Printed Circuit Board Assemblies (PCBA):

- Standard or catalog components contained in the drawing parts list are to be included in the AS9102 Form 1 equivalent of the supplier's FAIR, and should include the full part number, supplier name, and certification number.
- Manufacturers' certifications are to be provided for FAIR approval only (they are not required for subsequent deliveries).
- Printed Circuit Board (i.e. Bare Board) FAIR which corresponds to the PCBA. Certifications of all manufacturing processes specified on the Bare Board drawing are to be provided as applicable.

Performance of First Article Inspections for EIC Ground Fueling products shall be in accordance with requirements stipulated by Customer contract or purchase order, with the exception that any product made from tooling needs a submitted FAIR with incoming product.

## **12.0 SAMPLE INSPECTION / SAMPLING PLAN REQUIREMENTS**

Sampling, if applied, plans will be based on an appropriate acceptance sampling standard, such as ANSI/ASQ Z1.4: Sampling Procedures and Tables for Inspection by Attributes, unless otherwise authorized by EIC. Lot sampling may be done during or subsequent to production. All drawing characteristics shall be included. The plan acceptance level must equal zero (C=0). A lot is acceptable only if there are no nonconformities in the sample.

The supplier may use reduced-frequency (sampling) inspection plans only when historical records indicate that a reduction in inspection can be achieved without jeopardizing the level of quality.

Sampling may not be used to justify the existence of known defectives or discrepancies in a lot.

A typical sampling inspection plan for most production lots will specify an Acceptable Quality Level (AQL) of 1.0%, Inspection Level II, Normal inspection. Plans may vary depending on the criticality of the item being manufactured. Each supplier should have a written sampling plan procedure or may use EIC's plan.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>7 of 19</b>

A sampling lot inspection report shall contain the following information:

Header Information:

- Supplier name & date
- Purchase order number
- Part name, number, and revision letter
- Lot size & lot identification, heat, serial numbers or other material traceability data

Column Information:

- Drawing characteristic (list each feature, including geometric dimensioning & tolerancing, and general notes)
  - AQL or equivalent, for each characteristic
  - Sample size for each characteristic
  - Quantity accepted / rejected
  - Inspector's stamp or initials

Any reported nonconformities are to be addressed per the Supplier Submittal process in Section 19.0 prior to submittal of production parts. The Nonconformance Report number indicating acceptance of reported discrepant feature(s) must be included in the report. Lots must be screened 100% for detected discrepant features.

**13.0 OUTGOING PRODUCT CONTROLS**

The supplier's quality plan must have sufficient controls to ensure that the product to be shipped conforms to Eaton's physical, dimensional and visual requirements. These controls may include final inspection and dock audit (component and packaging) outlined in written procedures.

**14.0 SOURCE INSPECTION AND DELEGATED INSPECTION AUTHORITY**

- Source Inspection

When invoked via contact/PO, the supplier shall support Source Inspection activities by EIC, its customers, or Government representatives. The supplier shall notify the Buyer at least 72 hours prior to the need for source inspection.

All inspections and completion of objective evidence that the material complies with all design and purchase order requirements shall be completed prior to the arrival of the source inspector.

Acceptance through source inspection does not relieve suppliers of responsibility for the acceptability of contracted items.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>8 of 19</b>

- Delegated Inspection Authority

Suppliers may be delegated authority to verify product or process conformance in accordance with SOP 06-012.

## **15.0 CONFIGURATION MANAGEMENT AND DESIGN CONTROL**

The supplier's quality system must ensure that the latest engineering drawings and specifications are available at the manufacturing, test or inspection location. This includes applicable previous revisions if Eaton contact/PO language requires other than the most recent revision(s).

The written procedure(s) should indicate the method utilized for receipt, review or distribution of all changes and the method of recalling and disposing of an obsolete item.

A review process must be established in that system to confirm that applicable drawings and specifications are at the latest revision level with the issuing source.

### **15.1 EIC Designed Product**

The Supplier's Quality Assurance system shall assure that all supplied product and processes meet the requirements of EIC design and purchase order instructions. Material Review (MRB) authority is withheld for all EIC designed products. Deviation is not allowed without written authority from EIC Engineering through EIC Purchasing prior to shipment of product.

### **15.2 Supplier Designed Product**

The seller shall not make any changes in materials, processes, or design detail, which would affect the part or any component part thereof, with regard to performance, reliability, maintainability, interchangeability, safety, or survivability (Class I), without written approval of EIC Engineering. All other changes (Class II) require EIC concurrence. Changes will be submitted through the Buyer for approval and/or concurrence.

## **16.0 DATA CONTROL**

### **16.1 Records Retention**

The supplier must retain adequate quality system records, not limited to all advanced quality planning documents, process guidelines, laboratory test instructions, gauge/test equipment verification and calibration and performance test methods.

The supplier shall maintain quality records in sufficient detail to establish evidence that any sampling was representative, the required tests and verifications were properly performed, and that only material meeting specified requirements have been accepted for production and delivery to Eaton.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>9 of 19</b>

At a minimum, the supplier must retain the applicable records for the periods indicated below. These records shall be made available for review by Eaton or an Eaton authorized representative, as required. Copies of individual records shall be furnished to Eaton upon request. ***At the end of the retention period, records must either be destroyed by the supplier, or sent to Eaton for destruction. If the records are to be destroyed by the supplier, the means of destruction must be adequate to protect the information contained thereon from transfer to a third party.***

16.1.1 Records to be retained for Life of the Program + 12 years:

Manufacturing records- Traveler or router, Tooling Control, Serialization Logs, Calibration

Procurement records- Purchase Orders, Material Certifications and Special Processing Certifications

Quality Control records- Inspection and Test records, Non-destructive Testing, First Article Inspection Reports

16.1.2 Records to be retained for 10 years:

Quality System records- Audits, Training, Corrective and Preventive Actions

In addition, the supplier must retain quality performance records, not limited to control charts, FAI, inspection and test results.

The supplier agrees to transmit to EIC, those records kept in support of EIC work, in the event that the supplier discontinues business operations.

**16.2 EIC Proprietary Data**

All information provided to suppliers is proprietary data of the EIC Corporation with all rights and titles reserved and are not to be used for reproduction of parts unless otherwise stated in the purchase order requirements.

**17.0 INTERNAL & SUB-TIER AUDITS**

A supplier must conduct regular audits to ensure continued compliance with internal procedures and customer requirements; these audit activities must include internal and sub-tier suppliers.

To ensure internal audits are conducted appropriately and consistently, a supplier must have a procedure with established guidelines for conducting an audit. As a minimum, the audit procedure will establish:

- Responsibility
- Frequency
- Scope
- Distribution/review
- Correction action format

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>10 of 19</b>

## **18.0 FOD PREVENTION, PACKAGING and HANDLING**

Product suppliers must have a FOD program for the purpose of prevention, detection, and removal of foreign objects. The program should meet the following requirements as applicable:

- FOD prevention must be implemented in all areas as applicable and FOD training awareness must be given.
- Parts must be protected from handling damage in all areas; material handling awareness training must be provided to all employees and handling standards documented.
- Supplier must document all FOD incidents and perform root cause analysis.
- Metrics must be documented if FOD incidents occur.
- If critical FOD areas are noted/required, Physical Entry Controls shall be established with entry
- Internal auditing of FOD prevention in all critical FOD areas must be conducted and documented.

Unless specific packaging instructions are provided, suppliers are responsible for determining suitable packaging / packing and take necessary steps in order to prevent foreign object damage (FOD) for each shipment. In addition, when kitting or packaging product in plastic bags, zip lock, heat sealed or taped bags shall be used. NOTE; do not use staples. Suppliers are responsible for any damage to product that has been inadequately packaged.

Electronic components shall be packaged in anti-static bags identified as electrostatic discharge sensitive.

Steel parts subject to oxidation shall be coated with rust preventive oil.

Standard hardware and other similar bulk items shall be bagged and tagged in standard 50 or 100 unit packages, when appropriate. Weight of individual bags shall not exceed 10 pounds.

At a minimum, the exterior container(s) shall include the part number identified on the applicable purchase order, purchase order number, container number (\_ of \_) and individual container quantity. Serial numbers are to be included on the label for fabricated sub-assemblies.

## **19.0 CONTROL AND DISPOSITION OF NONCONFORMING MATERIAL**

Suppliers of EIC designed hardware shall not submit any product with known discrepancies to EIC without written authorization. If product is Supplier-designed any deviation from EIC defined requirements or known "major" nonconformity must be submitted to EIC for MRB disposition. A nonconformance is considered major when one of the following characteristics is affected: physical or functional interchangeability, reliability, safety, or part number identification.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>11 of 19</b>

When MRB disposition is desired suppliers will initiate a Supplier Submittal by submitting the following information to the Buyer:

- 1) Part number / revision
- 2) P.O. and Item number
- 3) Quantity affected by the discrepancy
- 4) Drawing specification / Purchase Order requirement
- 5) Actual condition
- 6) Heat/Lot number (if applicable)
- 7) Root cause corrective/preventive action and effectivity, if applicable.

The Buyer, in cooperation with Quality Assurance, will obtain an Engineering disposition through the MRB process and will respond to the supplier with the results. Only nonconforming product with an "ACCEPT" disposition from the EIC Material Review Board may be shipped. Product will be shipped with a copy of the approved Supplier Submittal Nonconformance Report (NR). This ensures that the discrepancy will not be counted against the supplier's quality rating.

A process nonconformance (example: shelf life or approved sources, flow down requirements in QC06.1, etc.) may be approved by Quality Management. A copy of the approved Supplier Submittal shall be sent in with the nonconforming product.

Supplier must notify EIC when product that has been released from the supplier or sub-tier supplier and subsequently found not to conform to the drawing.

## **20.0 DOCUMENTATION REQUIREMENTS**

Documentation applicable to the material or service being provided shall be submitted with each delivery, in accordance with the descriptions included herein. Refer to Appendix A for commodity specific conformance documentation requirements. In some cases, as in the acquisition of materials and services supporting engineering development and prototype efforts, requirements for submittal of conformance documentation may be waived. Material and services delivered to EIC shall only be accepted without the applicable conformance documentation when a specific exclusion is provided in the purchase order.

Suppliers delivering materials and services in accordance with an EIC purchase order shall ensure that the applicable conformance documentation submittal requirements are flowed to sub-tiers. Legible copies of supplier sub-tier conformance documents, traceable to the material and services delivered to EIC, shall be submitted with delivery unless otherwise specified.

Unless otherwise directed by purchase order requirements, EIC suppliers approved to provide materials and services in the following categories are required to submit only a valid certificate of conformance (C of C), applicable First Article Inspection Reports, and applicable Acceptance Test Reports with delivery:

- Supplier designed proprietary products in accordance with the requirements of an EIC Source Control Document (SCD);

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>12 of 19</b>

- Supplied product designed to EIC procurement specification;
- Hardware purchased, manufactured, controlled, and certified to a standard military, government, or industry specification;
- Material and services delivered under the EIC Delegated Inspection Authority program.
- Eaton (Inter-Divisional) Supplier

Suppliers in these categories shall maintain applicable conformance documentation, in accordance with the data control requirements stipulated herein. Documentation shall be made available to EIC, its customers, and appropriate regulatory agencies upon request.

#### 20.1 Lot Inspection Report

As required per Appendix A, lot inspection reports must include every drawing feature including dimensions and tolerances, material, processing requirements and all general notes. If critical or key characteristics are designated refer to Section 9.0 for requirements. Pass/Fail results should be listed for each characteristic.

When furnished assemblies are made up of parts manufactured by the supplier to EIC drawings, then Lot Inspection Reports are required for each of these detail part numbers.

Manufacturers of castings, die-castings, and molded parts are responsible for screening lots of parts submitted. Inspection reports submitted will include dimensions that are affected by common casting / molding process variations, such as, excessive grinding, core shift, mismatch or porosity, and features which are not controlled by tooling. Foundry control or process control plans are required for each part number manufactured and must be available for review upon request by EIC personnel.

#### 20.2 Certificate of Conformance (C of C)

The supplier must provide adequate certification of conformance for all materials and processes specified on the purchase order or contract, for each shipment.

Suppliers are responsible for all PO terms and conformity characteristics per the contract accepted, i.e., for tier 1 (direct) suppliers delivering a product which includes sub-contracted or special processes, all such processes must be indicated on the direct supplier's certificate of conformance.

The C of C must include the following:

- 1) EIC part number and revision letter.
- 2) Purchase order
- 3) Name of the manufacturer
- 4) Date

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>13 of 19</b>

- 5) Lot/batch/heat/serial number as applicable
- 6) Signature and/or Stamp of Authorized Individual (Electronically generated signatures are acceptable)
- 7) Conformance Statement- The CoC must contain a statement to the effect that all manufacturing, inspection, and tests have been performed as required by drawing, specification or purchase order, and that all related records are maintained on file for the required period. Blanket statements of conformance are unacceptable, as are statements of belief rather than fact.

Suppliers delivering EIC assemblies and sub-assemblies must include the certificate of conformance for any standard hardware installed on the assembly.

When applicable, certification shall state that the items supplied are made from material furnished by EIC.

### 20.3 Shelf-Life/Age Control Items

- If the material contains or is fabricated with elastomers (synthetic rubber o-rings and rubber molded parts), and has a limited shelf-life, a minimum of 75% of the shelf-life must remain at the time of delivery. Packaging, storage, and expiration date of age controlled items shall be in accordance with SAE ARP 5316. Certification must also include the following:
  - 1) Rubber classification and cure date by quarter and year;
  - 2) Material expiration date.
- If the material is other than fabricated with elastomers, such as paints, ink, potting compound, adhesives, etc. and has a limited shelf-life, a minimum of 75% of the shelf-life must remain at the time of delivery if purchased from the manufacturer. When the supplier for the product is a distributor, then a minimum of 50% shelf-life must remain at the time of delivery. Certification must also include the following:
  - 1) Expiration Date or a Statement that Product is "Not Shelf-Life/Age Controlled;
  - 2) Special Handling Instructions/Storage temperature;
  - 3) Current issue of Material Safety Data Sheet (MSDS).

### 20.4 Material Certifications

With each delivery, applicable mill chemical analysis and/or physical test reports, identified by melt or heat numbers, and conforming to the material specified in the purchase order and/or drawing shall be submitted. Certifications will include the specification and revision to which the material complies. Any material substitutions must comply with EIC's current revision of CP05. This document, governing equivalency specifications for material requirements, can be found on the EIC website.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>14 of 19</b>

## 20.5 Special Processing Certifications

All processing certifications and test reports must include a complete description of the special process performed, including:

- 1) Process name, applicable specification, revision, type, method, class, grade, etc.
- 2) When applicable, the statement that the process was performed by approved or certified personnel.
- 3) Non-destructive test reports including, but not limited to, x-ray, penetrant or magnetic particle will include; Test performed, applicable specifications, revision, type, method, and acceptance criteria with document number and revision.
- 4) Heat Treat certifications will include specification, revision, hardness test results, heat treat condition, time, and temperature, as required by the specification.

## 20.6 Casting Certifications

Documentation for castings shall include, according to type, chemical analysis, physical test reports, non-destructive test reports, heat treat certifications, and applicable inspection reports.

First article parts, actual x-ray films and test bars should be maintained on file at the supplier's facility.

Test reports shall state "Material Does/Does Not Comply with Required Material Specifications."

## 20.7 Calibration Certifications

Certification of Inspection, Measuring, and Test Equipment calibration will include;

- 1) The description and unique identification of the equipment manufacturer, type, serial number, etc.
- 2) The date on which calibration was completed.
- 3) The details of any maintenance, such as adjustment, repairs or modifications carried out.
- 4) The result of calibration, including results obtained after and, where required, before any adjustment, modification or repair,
- 5) The assigned interval for calibration and calibration recall date;
- 6) The calibration procedure used.
- 7) The relevant environmental conditions and a statement of any corrections necessary.
- 8) The listing of Calibration Standards used and their traceability to the National Institute of Standards and Technology (NIST).

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>15 of 19</b>

9) Identification of the person(s) performing the calibration and/or responsible for the correctness of the recorded information.

#### 20.8 Functional Test Data Sheets

When the drawing calls out an Acceptance Test Procedure (ATP), a copy of the EIC approved functional test data sheets must be submitted with the parts. Test data sheets will identify the ATP number and revision, part number and revision, test results and heat, lot, or serial number. Reports shall include signature or stamp of authorized representative.

#### 20.9 FAA Form 8130-3 (Authorized Release Certificate/ Airworthiness Approval Tag)

FAA Form 8130-3 will be furnished by Suppliers only when instructed/ required by Purchase Order.

### 21.0 FAR / DFAR REQUIREMENTS

Where required by contract terms and conditions (Ts & Cs) or purchase order, Federal Acquisition Regulation (FAR) and Department of Defense Federal Acquisition Regulation Supplement (DFARS) will apply. When FAR / DFAR requirements are imposed, evidence of compliance must be available upon request. When applicable, these requirements must be flowed down to suppliers' sub-tiers.

Supplier Certificates of Conformance will specifically state compliance to DFAR 252.225-7014, Alt I, Preference for Domestic Specialty Metals, where assemblies, sub-assemblies, component parts, or raw material delivered contain specialty metals. Suppliers may be required to provide original raw material mill/melt certifications where required by EIC Customers or Regulatory Authorities. Statement of Compliance will not be required where an active Domestic Non-Availability Determination (DNAD) is in place for the material delivered.

### 22.0 CALIBRATION SYSTEMS REQUIREMENTS

Suppliers shall maintain a calibration system in accordance with ANSI/NCSL Z540-3, *Calibration Laboratories and Measuring and Test Equipment – General Requirements* or ISO 17025, Quality Assurance requirements for Measurement Processes and Measuring Equipment. Suppliers' calibration systems are subject to audit and verification for approval by EIC.

### 23.0 CONTRACT REVIEW

Suppliers will have a process to review all Purchase Order requirements to verify ability and concurrence to comply. The review should include Engineering requirements, Item Notes, PO Notes, General Terms and Conditions, and any specific Quality Assurance requirements. Records of contract review will be made available to EIC personnel upon request. Requirements for Source Inspection shall be acknowledged.

Suppliers' systems shall ensure flow down of all applicable requirements of this document to its sub-tiers.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>16 of 19</b>

## 24.0 CORRECTIVE AND PREVENTIVE ACTION

Suppliers may receive a request for corrective action when supplied items are found to be nonconforming, or as a result of supplier related systems/procedural issues detected at either EIC or the supplier's facility during the course of a survey/audit.

Supplier Corrective Action Reports are of two types:

- **Type 1:** Corrective action is required; however, no formal written response will need to be submitted. These are considered minor nonconformance's that will be elevated to a type 2 should recurrence be realized.
- **Type 2:** EIC must be advised within 30 calendar days of Immediate Corrective Action, Root Cause, Root Cause correction to prevent recurrence, and date of effectivity. When additional time is needed for investigation of the root cause or implementation of the purposed action, an extension may be requested through the originator. Failure to complete all sections of the request will result in rejection of the response.

Lack of response may result in probationary status. EIC Buyers are instructed not to place new orders with suppliers when corrective action responses are overdue.

## 25.0 IDENTIFICATION

- Parts shall be marked per drawing requirements.
- When ink stamping, the color of ink used shall contrast with the color of the part being marked and the composition of ink used shall be such that it will not damage the finish being marked.
- Identification by packaging labels or tagging is permissible if ink stamping is not practical due to the size, finish or composition of the part. A note stating "Identify per ES- 1" shall appear on drawings that meet these criteria.
- Marking methods and materials for Government only shall be per MIL-STD-130.

## 26.0 FOREIGN SOURCE REQUIREMENTS

Suppliers may not sub-contract with foreign sources without written permission from EIC.

Raw material originating in foreign countries must meet any imposed FAR / DFAR requirements.

Foreign suppliers shall have a Quality Management System in compliance with ISO9001:2008 or AS/EN9100. Suppliers' QMS will be assessed based on complexity and risk associated with the supplied product. A third party certified QMS is preferred. Foreign suppliers' sub-tiers must be EIC approved.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>17 of 19</b>

In addition to a first article inspection report (FAIR), foreign suppliers must submit a manufacturing control plan for EIC approval prior to acceptance of the first production lot. This plan is to include data which controls purchase, production, special processes, assembly, test, and inspection of a product to ensure a predictable process output that is compliant to all Engineering, Customer, and Regulatory Agency requirements. This planning is to be frozen and any changes must be authorized by EIC.

All documentation must be available in English.

## **27.0 SUB-CONTRACTED MAINTENANCE**

All subcontractors performing safety-sensitive maintenance for EIC Customer Services commercial aviation programs must maintain an Anti-Drug and Alcohol Misuse Prevention Program in compliance with US 14 CFR 121 Appendices I & J.

### **27.1 Non-Certificated Subcontractors**

Non-FAA/EASA certificated sources are required to have a quality control system that ensures the vendor has the housing, facilities, equipment, trained personnel, and data, necessary to accomplish the specific work requested by EIC Customer Services.

EIC Customer Services will perform an audit to establish capability of the subcontractor to perform each maintenance function. The sub-contractor must have successfully completed an EIC audit, prior to the delivery of product.

### **27.2 Certificated Subcontractors**

Sources that are certified FAA/EASA Repair Stations are not required to be audited by EIC Customer Services, unless they are not rated for the function being performed. When a FAA/EASA Repair Station is performing a function for which they are not rated, the audit requirements for non-certificated subcontractors will apply.

Certificated subcontractors must submit a copy of their Air Agency Certificate (FAA, EASA), Operations Specifications, and Capabilities List to EIC. When any changes occur in the certification, specifications, or ratings, subcontractors must notify EIC Customer Service and submit the latest documentation.

An FAA/EASA 8130-3 (Return to Service Tag) is required for parts that are processed by FAA/EASA certificate holders.

### **27.3 Identification and Traceability of Repair Parts**

Articles that can be rehabilitated to a fully serviceable condition are considered rotables and will be identified with Rotable Tag Form 20-241. It is the responsibility of the supplier to maintain the integrity of this traceability throughout their process.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>18 of 19</b>

## **28.0 MATERIAL TRACEABILITY REQUIREMENTS**

The supplier is required to establish a documented procedure for the traceability of all materials, at all manufacturing levels. The procedure shall provide for the presentation of objective evidence of specific documentation traceable back to the specific material being furnished / presented per the purchase order. In addition to specific P.O. requirements, at a minimum, the following shall be made available to EIC personnel upon request:

- 1) Copy of P.O.
- 2) All related drawings / specifications
- 3) Build records at all assembly levels
- 4) Lot inspection reports for all EIC P/N's
- 5) Evidence of inspection for all other drawing characteristics at all levels
- 6) Material (Physical & Chemical) and processing certifications at all levels
- 7) ATP test reports at all levels (as applicable). A retest may be required to allow EIC witness.
- 8) Units to be presented (applies during conformity inspection)
- 9) Approved non-conformance documentation (If applicable)

Additional documentation may be requested in order to positively verify traceability.

## **29.0 SUPPLIER PERFORMANCE**

Supplier quality and delivery performance is monitored on a regular basis and is based upon EIC's site performance metrics requirements. Monthly ratings may be obtained by requesting it from the Buyer responsible for the requesting supplier.

## **30.0 INDUSTRIAL CHANGE MANAGEMENT**

Supplier shall notify EIC in writing of any industrial change at their site or sub-tier's site prior to the change. These industrial changes include:

- Plant Location or Layout
- Enterprise Resources Planning
- Top Level Organization and personnel at key positions
- Key suppliers
- Key processes
- Changes that impact Capacity or Capability affecting any EIC product.

## **31.0 PRINTED CIRCUIT BOARD ASSEMBLIES (PCBA)**

Components for PCBAs must be procured from the manufacturer or from franchised distributors only.

Number	Effective Date	Revises Policy Dated	Page Number
<b>QC 06.1</b>	<b>October 6, 2017</b>	<b>September 30, 2017</b>	<b>19 of 19</b>

No substitution of components is permitted without prior approval from Eaton. Requests for substitutions may be made through the Supplier Submittal process in accordance with section 19.0 'Control and Disposition of Nonconforming Material' above.

Note: Procurement of component parts with alternative packaging methods is permitted. When a component part number includes a suffix specifying packaging method, such as "tape and reel", other packaging types may be procured provided the base part number remains the same.

PCBAs must be assembled in an environment that affords electrostatic controls that are appropriate to the Electrostatic Discharge (ESD) sensitivity level of the devices involved. An ESD Control Program should be established and maintained in accordance with MIL-STD-1686, JESD625, ANSI/ESD S20.20, or an equivalent specification.

PCBAs must be packaged for delivery in ESD safe packaging. Items should be packaged in a manner that is consistent with the devices' sensitivity. If the item's sensitivity is unknown, it should be packaged in a manner that provides all protective properties to ESD sensitive devices. In all cases, regardless of other guidance, connectors must be covered with ESD safe caps. Refer to ANSI/ESD S541 (or equivalent) for guidance in selecting appropriate packaging.

### **32.0 COUNTERFEIT PARTS**

Supplier shall only produce products or purchase components/hardware direct from the original component manufacturer (OCM)/original equipment manufacturer (OEM), through an authorized distributor. Work shall not be acquired from independent distributors or brokers without approval from the Eaton Irvine Buyer in writing. The supplier will comply with the requirements in AS5553 for electronic components and AS6174 for non-electronic components.

Buyer must be notified immediately if the supplier suspects they may have been supplied counterfeit parts. Work that is delivered that contains or includes counterfeit parts will be replaced, at the supplier's expense, with certified genuine parts.

Supplier will flow down the above requirements to all suppliers/subcontractors to ensure they are buying hardware and electronic components from the OCM/OEM or an authorized distributor.

### **33.0 'COTS' ASSEMBLIES**

***For products identified as "COTS (Commercial Off the Shelf) Assemblies" on the Eaton Purchase Order, the supplier shall provide a "COTS Assemblies Management Plan" per SAE EIA-933. The plan shall be provided to Eaton at the time of, or prior to, delivery of the first part(s).***

Number <b>QC 06.1</b>	Effective Date <b>October 6, 2017</b>	Revises Policy Dated <b>September 30, 2017</b>	Page Number <b>Appendix A</b>
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**APPENDIX A**  
**Commodity Specific Conformity Documentation Requirements**

	<i>Lot Inspection Report</i>	<i>First Article Inspection Report</i>	<i>CoFC</i>	<i>Material Certification</i>	<i>Chemical Test Report</i>	<i>Physical Test Report</i>	<i>Functional Test Report</i>	<i>Special Process/Heat Treat Cert.</i>	<i>NDT</i>	<i>Cure Date</i>	<i>Expiration date</i>	<i>MSDS</i>	<i>FAA Form 8130-3</i>	<i>Manufacturers Certifications</i>	<i>Bare Board Coupon</i>				
Raw Material			x	x	x	x													
Standard Hardware			x																
Standard O-rings & Seals			x							x	x								
Rubber Molded Parts	x	x	x	x						x	x								
Electrical Components/Hardware			x																
Catalogue Plastic Parts			x																
Machined & Molded Plastic Parts	x	x	x																
Paints, Sealants, Resins			x								x	x							
Castings	x	x	x	x	x	x		x	x										
Die Castings	x	x	x	x	x			x	x										
Machined Parts	x	x	x	x	x	x		x											
Functional Assemblies	x	x	x				x												
Electronic Assys/Sub-Assys	x	x	x				x							x	x				
Special Processing			x					x											
Source Controlled Product		x	x				x												
Bought to EIC Procurement Spec.		x	x				x												
Only when required by PO													x						
Delegated Supplier parts	x	x	x				x												