

# PURCHASING PROCEDURE DOCUMENTATION

**PUR0001P**

**Supplier Quality Requirements (SQR)**


*ESSEX INDUSTRIES, INC.*

*7700 GRAVOIS RD, ST LOUIS, MO 63123*

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CREATED BY: Jennifer Meiser		5/28/13	<b>Procedure Documentation for Supplier Quality Requirements</b>			
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# REVISIONS

Change Description:

Revision No.	Summary of Revision	Revised by	Date of Issuance /Revision	Section Revised /Added /Deleted
0		J Meiser	05/28/13	Original release
1	Added SQR 18	J Meiser	07/17/13	Section 9
2	Revised SQR 3	J Meiser	07/29/13	Section 9
3	Revised SQR 18	J Meiser	10/08/13	Section 9
4	Added Para 2.6.4	J Meiser	01/16/14	Section 2.6
5	Revised SQR 3	J Meiser	05/21/14	Section 9
6	Added Para 2.7	J Meiser	03/10/15	Section 2 & 9
7	Added Para 2.3.4	J Meiser	07/30/15	Section 2
8	Added Para 2.3.5	J Meiser	12/12/16	Section 2
9	Added Para 2.2.3	J Meiser	08/28/17	Section 2
10	Revised Para 2.2.2.3 & 2.2.3	J Meiser	12/11/17	Section 2
11	Added Para 2.1.1	M Coney	8/20/2018	Section 2
12	Revised Para 2.3.3, Added 2.3.3.1	M Coney	12/20/2018	Section 2
13	Revised SQR 10	M Coney	8/15/2019	Section 9
14	Deleted SQR 17, No longer use Essex PB&R Corporation Vendor QA Manual PRVQM-001	M Coney	11/1/2019	Section 9
15	Updated to address DPD requirements (Added SQR 19) Updated sheet template	N Eplin	2/1/2020	Section 9
16	Added Para 8.0 Revised Para 1.2, 1.6 Revised SQR 16	M Coney	5/31/2023	Section 1 & 9
17	Added Para 2.3.6.	M Coney	10/3/2023	Section 2

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18	Added Para 2.3.5. Revised 2.1.2 Revised SQR-3	M Coney	5/2/2024	Section 2 & 9
19	Added Para 2.3.3.2.	M Coney	9/10/2024	Section 2
20	Revised Para 2.3.3.2.	M Coney	6/18/2025	Section 2

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## LIST OF ABBREVIATIONS

All abbreviations used in this document conform to MIL-STD-12 except as noted below:

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## 1.0 SUPPLIER INTRODUCTION

### 1.1. ESSEX INDUSTRIES, INC.

We are pleased to welcome you as an existing or as a potential supplier to provide products and services for our company. Essex Industries, Inc. (d/b/a Essex Cryogenics of Missouri, Essex Fluid Controls, Essex PB&R Corporation and The Respiratory Group) (Essex) is a full-service system and component engineering and manufacturing facility providing all stages of design and build. Essex facilities build a wide range of products in the assembly operations which include electrical, mechanical and welded assemblies. Additionally, many service departments support the building processes and include x-ray, welding, painting, and chemical processing.

### 1.2. OUR COMMITMENT

The Essex purchasing department is responsible for negotiating contractual agreements with our suppliers that result in the lowest overall total costs. In addition to prices, this includes consideration of delivery, quality, and innovative technical support and services. Our commitment allows Essex to provide continuing value to its customers through improved product quality. To ensure that this commitment is made, suppliers are selected and continuously evaluated for effectiveness based on these criteria and their ethical principles.

### 1.3. SUPPLIER RELATIONSHIP

Essex will deal with its supplier with integrity, fairness and impartiality at all times. We will extend to our suppliers the same considerations we expect to receive from our customers. Suppliers of goods and services to Essex will be selected on the basis of value, quality and service. No employee may profit personally from a relationship with a supplier.

### 1.4. SUPPLIER QUALIFICATION

Purchase orders are only awarded to approved suppliers evaluated to be responsible and reliable to perform the required work in full accordance with the requirements of Essex purchase order. New suppliers are added as new needs are developed, or current suppliers cannot meet agreed upon commitments.

### 1.5. CERTIFICATION OF COMPLIANCE

By delivering material(s) to fulfill Essex purchase order requirements, you are certifying that the material delivered conforms to all applicable drawing, specification, and purchase order requirements. A certificate of conformance is required on all components and materials purchased for incorporation into an Essex product. If the item supplied is a commercially available, off-the-shelf item, a Certificate of Compliance may not be required. Certification notification will be provided on the purchase order via the SQR Code and defined in section 8.0 of this document.

### 1.6. GOAL

Essex constantly works to improve our product; a goal extremely important to us. Our success is based on team efforts with our suppliers and their contribution to product safety, in order to meet high quality and delivery standards, to control cost and to reduce lead time so that we can meet our customers' requirements, and you can become our supplier of choice.

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### 1.6.1. QUALITY AND DELIVERY

Quality and Delivery of our suppliers are measured and monitored. Goals are set at each facility and any supplier not meeting those goals will be contacted and corrective action may be required.

### 1.6.2. PRICE

Essex expects to pay a fair and reasonable price for material. We expect our suppliers to actively work with Essex on methods and processes to reduce prices.

### 1.6.3. LEAD TIME

Essex expects their suppliers to deliver products at lead times no longer than their manufacturing or distribution time.

## 2.0 SUPPLIER EXPECTATIONS

### 2.1. SUPPLIED PRODUCT

Suppliers have the responsibility to implement and maintain controls that assure products / materials meet all drawing, specifications, quality and Essex purchase order requirements. Order of precedence shall be: 1) Drawing; 2) Purchase Order (PO) Notes; 3) this Document. Suppliers are responsible for developing the appropriate objective quality evidence necessary to demonstrate compliance with the requirements of the purchase order for each item being procured (including sub-components and special processes) and to support the Certificate of Compliance.

#### 2.1.1. OBSOLESCENCE MANAGEMENT

Supplier shall immediately define shortage by providing the Buyer with the indentured manufacturer component part number, material, sub-assembly, or process. The supplier shall provide satisfactory evidence that a prudent effort was made to identify and implement an alternate part. If an alternate part was not identified and implemented, the supplier shall determine whether there is an opportunity for a last time buy. Responsibility of last time buys (for which supplier does not have an accepted Purchase Order) shall be addressed on a case-by-case basis. Supplier shall manufacture/procure last time buy inventory to support any accepted Purchase Orders and reserve for Essex Industries. If, upon determination by the Supplier, there are insufficient parts to meet current contractual requirements, and redesign is required to meet current requirements, the Supplier shall notify the buyer in writing for redesign efforts. Buyers shall notify the Operations Manager, Manager of Sustaining Engineering, Quality Manager, and Director of New Product Development of obsolescence so an investigation can be completed.

### 2.2. SUPPLIER QUALITY PROGRAM / SYSTEM REQUIREMENTS

#### 2.2.1. CERTIFICATION

The supplier shall develop, document, implement and maintain a quality system. Unless compliance to a specific standard is required on the purchase order, the quality system may be patterned after or in accordance with AS9100, ISO9001, QS9000 or another recognized standard used for quality system implementation.

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Certification to AS9100, ISO9001 or other system by a third party is desirable. Objective evidence shall be on file verifying that such a system exists and is being maintained. Procedures and records shall be available for examination by authorized Essex representatives upon request.

### 2.2.2. QUALITY DOCUMENTATION AND RECORD RETENTION

Suppliers shall have a system for establishing and maintaining control of records documenting product compliance to applicable procurement documents, drawings specifications, and standards.

Records should provide traceability for specific products (i.e. purchase order, date of inspection, drawing and revision level, etc.) and use actual data when required by applicable specifications to indicate the acceptability of the product. Inspection records are to indicate the nature (characteristic), and number of observations made (including sample plans), type of deficiencies found, quantities approved and rejected, and the disposition of deficiencies.

Records shall be maintained for a minimum of ten (10) years after final shipment. Essex reserves the right to request any supporting documentation on product purchased.

### 2.2.3. SAMPLING

This paragraph applies only if the Supplier uses Acceptance Authority Media (AAM) also known as Quality Stamping, Inspection Stamping or Test Acceptance Stamping to indicate the acceptance of product and/or attributes of the product. This requirement will not apply to Chivvis Location.

If so, then the Supplier shall:

- Comply with the AS/EN/JISQ 9100 requirements and 14CFR Part 21.2
- Ensure that the use of AAM is clearly defined within its Quality Management System (QMS)
- Be able to demonstrate evidence of communication to its employees and to its supply chain: The use of AAM must be considered as a personal warrant of compliance and conformity.
- Maintain compliance with the AAM requirements by assessing its process and supply chain as part of its internal audit activities and, to a minimum, will assess the following:
  - AAM application errors (omissions, typos, legibility, etc.)
  - AAM untimely use (documentation is not complete, stamp/sign as you go, etc.)
  - AAM misrepresentation (uncertified personnel, falsification of documentation, work not performed, etc.)
  - AAM Training deficiencies (ethics, culture awareness, proper use, etc.)

## 2.3. PROHIBITED PRACTICES

### 2.3.1. NOTIFICATION OF FACILITY CHANGE

Suppliers cannot relocate any production, manufacturing and/or processing facilities during the performance of the purchase order without notifying Essex within ten (10) days to give an opportunity to examine such facility for compliance with Essex quality requirements as they may apply to the purchase order and/or to obtain necessary end-customer or Government approvals.



### 2.3.2. UNAUTHORIZED REPAIRS:

Supplier may not, without written approval by Essex, repair by welding, brazing, soldering, or adhesive, any parts damaged or found to be faulty during fabrication. Defects in castings or forgings shall not be repaired by any method unless authorized in writing by Essex.

### 2.3.3. CHANGES IN PROCESSES, MATERIAL, OR PROCEDURES:

If design, processes, material, or procedures were originally subject to approval by Essex, no changes can be made to said items without written approval. For any product which has been subjected to Essex's Customer or Government specified qualification procedures to qualify the product, or to permit the seller to become a qualified source for the product, the Supplier cannot change design, processes, material, or procedures used to qualify, without prior notification to Essex and approval by the Essex Customer or the Government, as appropriate.

#### 2.3.3.1. A18

SELLER AGREES NOT TO MAKE ANY CHANGE IN MATERIALS, PROCESSES OR DESIGN DETAILS OF THE PART AFTER BOEING QUALIFICATION OR APPROVAL WITHOUT WRITTEN APPROVAL FROM BOEING. THIS SHALL INCLUDE CHANGES IN MATERIALS, PROCESSES OR DESIGN DETAILS BY SUBCONTRACTORS. IN ADDITION TO THESE CHANGES, CHANGES WHICH WOULD AFFECT THE PART OR ANY COMPONENT PART THEREOF WITH REGARD TO (A) PART NUMBER IDENTIFICATION, (B) PHYSICAL OR FUNCTIONAL INTERCHANGEABILITY, AND (C) REPAIR AND OVERHAUL PROCEDURES AND PROCESSES AND MATERIALS CHANGES WHICH AFFECT THESE PROCEDURES WITHOUT PRIOR WRITTEN APPROVAL OF BOEING IS PROHIBITED. IF SUCH APPROVAL IS GRANTED, ALL PART NUMBERS AND THE ORIGINALS OF ALL DRAWINGS OR DATA SHALL BE REVISED AND PROVIDED TO BOEING ACCORDINGLY. SELLERS WILL ENSURE SUBCONTRACTS INCLUDE THE ABOVE REQUIREMENTS FOR SUPPLIER PART NUMBERED ITEMS. WHETHER SUCH EQUIPMENT IS SUPPLIED TO SELLER AS AN END ITEM OR AS A COMPONENT PART OF AN END ITEM.

#### 2.3.3.2. BOEING D1-4426 QUALITY CLAUSE:

If this purchase contract meets one or more of the following conditions and involves performing work to a specification listed in D1-4426 and if that work is not covered by an exception, then the seller must be listed as an approved processor or shall use approved processors listed in D1-4426, "Approved Process Sources."

- Deliverable product of Boeing design or per Boeing SCD (Specification/Source Control Document/Drawing)
- Support Testing referenced by a specification/code which is found in D1-4426

A list of the applicable specifications and approved processors is available at <https://active.boeing.com/doingbiz/d14426/>.

### 2.3.4. COUNTERFEIT PARTS:

Counterfeit Parts shall not be delivered. Counterfeit parts are defined as any part that is misrepresented as having been designed and/or produced under an approved system or other

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acceptable method. This includes any product that has reached a design life limit, has been damaged beyond repair, but has been altered and misrepresented as acceptable.

#### 2.3.4.1. DISTRIBUTION CHAIN

All parts or components shall be purchased directly from an original component manufacturer or through an authorized OCM/OEM distributor chain.

#### 2.3.4.2. NOTIFICATIONS

Essex shall be notified immediately if supplier suspects that counterfeit work has been furnished

#### 2.3.4.3. REFERENCE

Refer to SAE AS6174 3.1.1 through 3.1.7 and/or SAE AS5553 4.1.1 through 4.1.10 as applicable.

#### 2.3.5. NOTIFICATION OF ESCAPE (NOE)

For product(s) which have been delivered to or on the behalf of the customer and seller knows or suspects that such product(s) are or may be nonconforming, seller shall, notify Essex immediately of the potential escape, the notification from sub-tier supplier, and/or the entry of the issue into the quality process, notify Essex in writing as set forth herein to allow Essex to conduct a preliminary safety risk assessment. The minimum information required at this state of the notice of investigation is:

- a. Affected process(es) or product(s) part number(s) and name(s);
- b. Description of the nonconforming condition and the affected engineering requirement (i.e., what it is, what it should be and what requirement). If the condition is a possible safety or flight issue, submit all available information immediately.

#### 2.3.6. CONFLICT MINERALS

The use of conflict minerals that directly or indirectly finance or benefit armed groups in the Democratic Republic of Congo or adjoining countries is prohibited from use in parts being supplied to Essex Industries, Inc. These minerals are tantalum, tin, gold and tungsten.

#### 2.3.7. EU REGULATION 2023/1214

Any sale or delivery of iron and steel products as listed in Annex XVII of EU Regulation 833/2014 when processed in a non-EU country, you are required to provide evidence of the county of origin of the iron and steel inputs listed in said Annex.

- (1) The provided evidence must, as a minimum, meet standard EN 10204:2004 3.1. or equivalent standards as generally recognized and accepted by the EU member countries' custom authority.
- (2) Essex and/or reserves the right to require additional evidence (including but not limited to EN 10204:2004 3.2. or supplementary separate mill test certificates for the different transformation steps which the product has undergone) as part of our due diligence of when requested by the customs authorities.

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## 2.4. SUBCONTRACTORS

Suppliers are responsible for conformance of all items procured from every tier of their suppliers and shall ensure that the requirements of this document and applicable drawings and specifications are incumbent upon procurement's sources. Suppliers are responsible for the selection and control of lower tier supplier of all products, processes, or services used in the execution of all purchase orders. Documented evidence to control sub-tier suppliers shall be maintained.

## 2.5. MEASURING AND TEST EQUIPMENT AND/OR PRODUCTION TOOLING

### 2.5.1. NIST COMPLIANCE

Suppliers shall establish and maintain a certified, documented calibration system traceable to NIST for all measuring and test equipment (M&TE). The system shall be in accordance with a recognized standard such as ISO 10012-1 / -2 or ANSI/NCSL Z540.3 and shall address the criteria described in the selected standard.

### 2.5.2. SPECIFICATION REQUIRED COMPLIANCE

If material specifications impose specific calibration requirements (e.g. heat treatment-AMS-H-6875) in addition to those identified in the preceding paragraph, the supplier must include the requirements in the calibration system.

## 2.6. PRESERVATION, PACKAGING, PACKING, AND CLEANLINESS

### 2.6.1. PART MARKING

Unless otherwise specified by the purchase order or drawing/product specification, marking of each individual part is not required. The drawing requirements must always be observed for specific marking requirements.

### 2.6.2. PACKAGE MARKING

Unless precluded by size or shape, individual packages shall be positively identified with the name of the Supplier, the part number, and quantity. This can be accomplished with the use of tags, or bulk marking methods, etc.

### 2.6.3. CONTAMINATION DAMAGE PROTECTION

Unless otherwise specified, all uncoated or unprotected ferrous and nonferrous metal surfaces (internal and/or external) shall be protected against rust and corrosion for a minimum of sixty (60) days from the date of shipment. They shall be suitably packed to prevent shipping and handling damage. All openings, (i.e. fuel, hydraulic, electrical connections, etc.) shall be adequately protected by closures to prevent contamination or damage. All components shall be free of unreasonable dirt and debris.

### 2.6.4. FOD PREVENTION

The seller shall establish and maintain an effective Foreign Object Damage (FOD) elimination and prevention program.

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## 2.7. EXPORT CONTROL

The seller acknowledges that information exchanged between Buyer and Seller may include the use of, or access to, Export Controlled Technical Data (as defined below). Unless dealing with 'off-the-shelf' items, Seller must comply with the following export control requirements:

- 1) Seller is incorporated, or registered to do business, in the U.S.
- 2) Seller's representatives dealing directly with Essex Industries, Inc. is a U.S. citizen or permanent U.S. resident.
- 3) Seller employees who will have access to Export Controlled Technical Data or Defense Articles (defined below) have been advised of their obligations regarding compliance with export control laws and regulations.
- 4) Seller agrees to comply with all applicable U.S. Government export control laws and regulations before:
  - a. Disclosing Export Controlled Technical Data or Defense Articles to any person who is not a U.S. citizen or permanent resident;
  - b. Providing any person who is not a U.S. citizen or permanent resident with access to Export Controlled Technical Data or Defense Articles; or
  - c. Assigning any person who is not a U.S. citizen or permanent resident to perform work which requires access to Export Controlled Technical Data or Defense Articles.
- 5) The seller agrees to ensure that the export requirements outlined in this paragraph are also conveyed to all sub-tier suppliers that may have access to Export Controlled Technical Data or Defense Articles.
- 6) Seller will immediately notify Essex Industries, Inc. if Seller is acquired by a foreign entity (government or seller) or if Seller is owned or controlled by a foreign entity.
- 7) Export Control Markings. Essex Industries will mark any Export Technical Data or Defense Articles which need to be protected under ITAR (as defined below) or EAR (as defined below) with one or both of the following export control statements:
  - a. **ITAR Statement:** WARNING - This document contains technical data, export of which is restricted by the International Traffic in Arms Regulations (ITAR). Disclosure to foreign persons without prior U.S. Government approval is prohibited. Violations of these export laws and regulations are subject to severe civil and criminal penalties.
  - b. **EAR Statement:** WARNING - This document contains technical data, export of which is restricted by the Export Administration Regulations (EAR). Disclosure to foreign persons without prior U.S. Government approval is prohibited. Violations of these export laws and regulations are subject to severe civil and criminal penalties.

## 3.0 SCOPE

This document describes the minimum elements of a Quality Assurance system required for Essex suppliers. The system shall provide for the control of quality throughout the manufacturing process. Supporting documentation shall be maintained and made available to Essex and/or our customer at Essex's request.

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#### 4.0 DEFINITIONS

GOODS, ITEMS, PRODUCT, ARTICLES, PARTS, etc. may be used interchangeably in this document to refer to goods being purchased from a Supplier. Any of these terms used throughout this document include, without limitations, processes, technical information computer software, raw materials, components, intermediate assemblies, end products, and where applicable, services to be performed.

#### 5.0 QUALITY ASSURANCE REPRESENTATIVES AND RIGHT OF ACCESS

##### 5.1. AUTHORITY AND RESPONSIBILITY OF ESSEX QUALITY ASSURANCE REPRESENTATIVES

Essex may, with the supplier's cooperation:

- 1) Conduct initial and periodic surveys to ensure that the supplier has a quality assurance system that meets the requirements of the document and the purchase order.
- 2) Conduct planned reviews of all phases of the supplier's quality assurance system to ensure compliance. If deficiencies are found, require the supplier to take corrective action.
- 3) Assist the supplier in obtaining interpretation of Essex quality, purchase order, and/or drawing and specification requirements.

Performance of the above by the Essex Quality Assurance Representative does not relieve the supplier of their contractual responsibilities.

##### 5.2. RIGHT OF ACCESS:

All goods shall be subject to inspection and test at all times and places, including the period of manufacture, by Essex, Essex Prime Contractors, the Government, and/or Regulatory Authorities, as applicable. Inspectors shall have access to all areas on the premises of the Supplier or Supplier's subcontractors in which work on this contract is being performed. If this contract calls for the delivery of goods for installation on aircraft, the right of inspection and test shall extend to representatives of the Federal Aviation Administration, and if non-domestic, equivalent foreign government agencies.

#### 6.0 NONCONFORMING MATERIAL

Suppliers are responsible for establishing controls to ensure that products not conforming to the purchase order are identified, segregated, dispositioned, and controlled to prevent inadvertent use.

In addition to its other rights and remedies, Essex may return items that it finds to be nonconforming for appropriate rework, repair, or replacement.

##### 6.1. DEVIATION FROM STANDARD

Before Supplier can ship nonconforming (deviation from standard) product, they must receive authorization to ship in writing from an authorized Essex representative. Shipments received without written authorization will be rejected and may be returned at Supplier's expense. If the product is shipped under a deviation, a copy of the Essex authorization must be included with the packing slip.

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If the non-conformance is found by the supplier after shipment has been made, the supplier is required to notify Essex.

## 6.2. RESUBMITTED ARTICLES

Articles rejected by Essex and subsequently re-submitted by Supplier must be closely and properly identified as re-submittal articles. The supplier's shipping document shall contain a statement that articles are replacement or reworked articles and must also refer to Essex's rejection document.

## 7.0 CORRECTIVE ACTION

### 7.1. SUPPLIER CORRECTIVE ACTION REQUEST

Suppliers are responsible for implementing quality systems capable of resolving problems adversely affecting quality and correcting those conditions. Suppliers shall determine root cause (primary reason which caused product nonconformance or quality system deficiency), institute measures to prevent recurrence, and implement corrective action. Nonconforming material or quality system deficiencies detected by Essex may require Supplier response to a Supplier Corrective Action Request (SCAR.) When a SCAR is issued, response is due on or before the due date identified on the SCAR and is a factor in the vendor qualification process.

### 7.2. CORRECTIVE ACTION ON GOVERNMENT SOURCE INSPECTED ITEMS

When corrective action is required for Government source inspected items, Supplier shall coordinate such action with the Government Quality Assurance Representative assigned to Supplier's plant or the nearest Defense Contract Management Area Operations (DCMAO) so that appropriate planning for Government Source Inspection can be accomplished. In the event the representative or office cannot be located, the Essex buyer should be notified immediately.

## 8.0 BDS CLAUSE NUMBER E000

If Boeing Defense, Space & Security is the end user of the supplied product, any applicable Boeing or U.S. Government owned tooling is subject to the requirements of the BDS Clause Number E000. Clause Number E000 is accessible at <https://www.boeingsuppliers.com/terms.htm>

## 9.0 SPECIFIC REQUIREMENTS

All Suppliers are required to comply with the requirements listed on purchase orders and all applicable U.S. government laws and regulations as defined below:

### **SQR-1 SOURCE CONTROLLED ITEMS**

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No certificate of compliance will be required for this standard, off-the-shelf, source-controlled item.

However, if applicable to the product supplied, please provide information on the following special conditions:

- Shelf Life
- Special storage conditions such as temperature
- All information pertaining to cure dates for items (e.g. rubber goods)

## **SQR-2 CHEMICAL AND PHYSICAL (MECHANICAL) ANALYSIS AND REPORTS**

Suppliers must also maintain a complete file of results of all Chemical and Physical (Mechanical) Test Reports to substantiate conformance to material requirements of the drawing or specifications.

For each item on the purchase order, Supplier must submit a report as indicated below with each lot of material shipped to Essex. A copy of the mill certification and test report is required with each shipment.

### **2A. Actuals**

The report shall list actual physical and chemical test results obtained from an analysis of samples, which are representative of each lot of material supplied under the purchase order.

### **2B. Typical**

Reports list the range of values for the properties of each material supplied under the purchase order.

### **2C. GE requirements—Analytical testing:**

If required on purchase order or product specification, actual physical and chemical analytical testing shall be performed by a test lab which sustains a S400 approval by General Electric Company as listed in the GE “Yellow Pages” or their current Approved Supplier document. A report shall accompany each shipment made to Essex under the purchase order.

### **2D. GE requirements—Castings and Forgings:**

If required on purchase order or product specification, castings and forgings (all methods and types) shall be procured from a supplier which sustains approval by General Electric Company as listed in the GE “Yellow Pages” or their current Approved Supplier document. A report shall accompany each shipment made to Essex under the purchase order.

### **2E. GE requirements—Machined and/or Fabricated Articles:**

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If required on purchase order or product specification, machined and/or fabricated parts or components shall be manufactured from new materials. A statement of verification must be on the certificate of conformance. In addition, materials must also include Analytical testing as outlined in Section 2C above.

#### **TEST PANELS OR SPECIMENS.**

If test panels or specimens are used in lieu of actual parts, they must be made of the same material, alloy, and hardness and be representative of the manufacturing process.

#### **SQR-3 CERTIFICATES OF COMPLIANCE & RELATED ITEMS**

All products shipped to Essex require a Certificate of Compliance and/or a current Technical Data Sheet (TDS). A copy shall be sent for each shipment. The Certificate of Compliance certifies that a product or service has met all requirements of the purchase order including drawings and specifications at the prescribed revision level. A copy of the current Technical Data Sheet (TDS) shall accompany each shipment providing essential technical information on the product.

The Certificate and any documents provided must be traceable to the Essex Purchase Order. Items listed below are required to be included on the Certificate as applicable:

- Shelf Life
- Special storage conditions such as temperature
- All information pertaining to cure dates for items (i.e. rubber goods)

#### **SQR-4 FIRST ARTICLE**

First Article Inspection (FAI) is an inspection performed on the first part, or first lot of parts, produced to verify conformance to top level drawing dimensional requirements. Previous FAI reports may be utilized to satisfy the FAI requirement provided that:

- There has been continuous production with no breaks greater than 12 months.
- The manufacturing process has not changed (i.e. moved the product line, introduced new manufacturing techniques, etc.), AND
- The manufacturing facilities are the same.

If the Supplier makes changes to the manufacturing process (as noted above), a new FAI is required with the first shipment after the change was made.

Where characteristics have changed, new characteristics added, or characteristics on previous reports have been impacted, only those characteristics will require re-inspection (Delta FAI).

When specified on the purchase order or product specification, documentation showing actual results (where appropriate) from measuring equipment shall be submitted along with the first article sample. Essex prefers the documentation to be on AS9102 or similar



type inspection forms. The Supplier shall identify this sample (using tags, labels, etc.) and ensure traceability to all associated documentation.

While FAI may not be specifically called out within the purchase order or within the specification, it is Supplier's responsibility to demonstrate compliance with all drawing requirements. When FAI is required, Suppliers are not authorized to produce products for Essex prior to acceptance and approval of the FAI.

#### **4A. Inspection Report**

An Inspection Report is to represent the lot and is required to be provided by the seller and submitted to the buyer's quality department to verify dimensional requirements are met. This report must be provided for each new product, revision for design, or when the last order of the product has lapsed by more than 24 months.

#### **SQR-5 FUNCTIONAL TEST REPORTS**

If functional testing is required by the purchase order or product specification, each shipment must include two (2) legible and reproducible copies of actual test results, which include all test parameters. This should include, but is not limited to operations data, mechanical functions, dimensional, electrical performance, hydraulic operation, and inspections. The seller's report must contain the signature of an authorized representative who is responsible for performing the tests and assuring conformance to the buyer's specification requirements.

#### **SQR-6 GOVERNMENT SOURCE INSPECTION**

If the article being purchased is for a government or military contract, Government Source Inspection may be required prior to shipment from Supplier facility. If required on purchase order or product specification, the Supplier must immediately notify the Government Quality Assurance Representative assigned to Supplier's plant or the nearest Defense Contract Management Area Operations (DCMAO) office so that appropriate planning for Government Source Inspection can be accomplished. In the event a representative or office cannot be located, the Essex buyer should be notified immediately.

The Supplier must furnish, at no cost, the necessary facilities, equipment, and personnel required to perform the source inspection.

#### **SQR-7 ESSEX SOURCE INSPECTION**

If required on purchase order or product specification, Essex requires articles be Source Inspected by an Essex representative. This may include, but is not limited to, surveillance of the products, quality system procedures and facilities used in the execution of this purchase order. The Supplier must furnish, at no cost, the necessary facilities, equipment, and personnel required to perform the source inspection.

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#### **SQR-8 ESSEX or GOVERNMENT FURNISHED INSPECTION OR PRODUCTION TOOLING**

Suppliers are responsible for the calibration and safe care, other than normal wear, for any Essex, our customer, or Government supplied inspection or production tooling used in the execution of a purchase order.

#### **SQR-9 HAZARDOUS MATERIALS**

A copy of the Material Safety Data Sheet (MSDS) meeting OSHA standards shall accompany each shipment for all items. (Form #OSHA-20, or similar.)

#### **SQR-10 CALIBRATION SERVICES**

For suppliers providing calibration services, all work shall be performed in accordance with ANSI/NCSL Z540.3 or an acceptable equivalent and shall address the criteria described in the selected standard. Calibration lab must be certified to ISO/IEC 17025.

SQR 10 shall apply, and additional information can be located in the facility document MQ7.6P0001 Control of Monitoring and Measuring Devices Table 1 for calibration requirements (accuracy, number of points, etc.).

#### **SQR-11 SOLDERABILITY REQUIREMENTS**

If required on purchase order or product specification, Supplier shall certify that all articles supplied are capable of passing the solderability requirements of MIL-STD-202 Method 208. The compliance certification shall accompany each shipment made to Essex under the purchase order

#### **SQR-12 STATISTICAL PROCESS CONTROL**

Essex encourages utilization of statistical methods and SPC. Statistical data must be comprehensive enough to adequately document quality conformance.

If SPC is required on the purchase order or product specification, Suppliers are required to provide evidence of statistical controls and must file a current Control Plan with Essex. SPC is required if any Key Characteristics are noted on the product specification. If Supplier does not use SPC, 100% inspection of Key Characteristic(s) must be implemented, and the results sent with the product.

#### **SQR-13 GENERAL ELECTRIC SPECIFICATIONS**

If required on purchase order or product specification, Supplier must process the order in accordance with the latest revision of each General Electric specification and/or Quality System denoted.

#### **SQR-14 DOMESTIC MATERIAL REQUIREMENT**

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If required on purchase order or product specification, material used in manufacture of article must be produced from a domestic mill as defined by the end customer requirements as noted.

- For Boeing/Douglas-Long Beach it must meet DMS 2201 requirements.
- For Boeing MESA, Lockheed Martin, or the US Government, it must be DFARS compliant.

#### **SQR-15 END-CUSTOMER AND REGULATORY SPECIFICATIONS**

If specific customer and/or regulatory requirements are stated on purchase order or product specification, Supplier shall certify that these requirements have been met. If specific revision levels of the requirement are not stated on the PO, articles should follow the latest revision of the requirements at the time of PO receipt.

If required to purchase a component or service from a specific (approved) vendor source, a copy of the certificate of conformance from that vendor is required in addition to the Supplier certificate of conformance.

#### **SQR-16 TOOL CONDITION**

If parts are produced using a tool that is supplied by Essex (owned by Essex or our Customer), a Tool Condition Report is required annually or as requested.

#### **SQR-17 - DELETED**

#### **SQR-18 - PED**

Material certification must be supplied in accordance with EN 10204 Type 3.1 and the material manufacturer's quality system must be approved by a legal entity in the European Union or alternatively hold PED certification for material manufacture. Alternatively, material certification complying with EN 10204 Type 3.2 is acceptable.

#### **SQR-19 – Model Based Definition**

If required on purchase order or procurement specification, Supplier shall meet the requirements of Boeing D6-51991. This shall pertain to obtaining, distributing, and using technical data packages and their derivatives.

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