

# **Supplier Quality Manual**

# **SQM1002**

**Revision: A** 

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# **REVISION CONTROL**

Revision	Description of Change	Date
IR	Initial Release. SQM1002 supersedes LAI Supplier Quality Manual (SQM) Rev C.	4/1/20
A	Revised Quality Rating (%) to Quality Score in Section 6	2/15/22

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#### Foreword

#### Lee Aerospace Vision

Lee Aerospace is committed to being a leading world-class product and service provider. We will be relentless in the pursuit continuous improvement, growth, and diversity of our Company's capabilities, products, and talents; to secure our future, ensure the perfect customer experience, and serve as the employer of choice.

# Lee Aerospace Mission

To strive for excellence in customer satisfaction, personal achievement, and profitability fueled by leadership, employee empowerment, accountability, and respect.

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#### 1. Scope

This Supplier Quality Manual (SQM) is applicable to all suppliers. All suppliers must review and remain knowledgeable of the requirements of this document and are accountable for ensuring implementation, where required, within their corporate organization. Suppliers are also responsible for the flow down of applicable requirements to their sub-tier suppliers.

#### 2. Contents

The Supplier Quality Manual (SQM) outlines the requirements of suppliers and the importance of their contribution in providing conforming aircraft products and services (product safety) in an ethical manner to Lee Aerospace, Incorporated (LAI).

Throughout this manual, the use of the terms "shall" and "must" are Lee Aerospace requirements of the supplier. The use of the terms "should", "may" and "can" are suggestions and/or recommendations for the supplier.

Acceptance of the Terms and Conditions by Purchase Order (PO) acknowledgement shall be unconditional. No provisions contained herein may be added to, modified, or superseded unless otherwise specifically authorized by the PO. In the event of conflict between the SQM and the Purchase Order, the Purchase Order takes precedence.

#### 3. Definition of Terms

LAI Lee Aerospace Inc.

ASL Approved Supplier List

BOM Bill of Materials

Certificate of A statement from a supplier used to attest that the Conformance (CofC) delivered article has been manufactured in accordar

delivered article has been manufactured in accordance with and meets the requirements of the Purchase

Order or contract.

Counterfeit Part An unauthorized copy, imitation, substitute, or

modified part (e.g. material, part, or component) which is knowingly misrepresented as a specified

genuine part of an original or authorized

manufacturer.

NOTE: Examples of a counterfeit part can include, but are not limited to, the false identification of marking

or labeling, grade, serial number, date code, documentation, or performance characteristics.

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Distributor (supplier) A supplier that resells, as is, new materials or

products.

NOTE: this class includes metallic, paint, and

adhesive suppliers

Ethical Behavior Actions and practices that are based on principals to

conduct business with the mindset of honesty,

integrity, accountability, and respect.

First Article Inspection

(FAI)

A complete, independent, and documented physical and functional inspection process to verify that prescribed first run of production methods have produced an acceptable item as specified by engineering drawings, planning, purchase order, engineering specifications, and/or other applicable

design documents.

FAIR First Article Inspection Report

Laboratory (supplier) A supplier that provides calibration and lab testing

services

NOTE: This class does not include non-destructive

product testing

Manufacturer (supplier) A supplier that designs, fabricates, assembles, or tests

their own proprietary products as called out on the

LAI drawings or specifications

Manufacturing Planning

(Job Order or Traveler)

The documentation and instructions used to produce/process an article or test in a consistent manner to the requirements of the design data.

Material Review Board

(MRB)

Authorized personnel that have defined responsibility

and authority for the review and disposition of

nonconforming product

NCR Nonconformance Report

Nonconforming Product Any product that fails to meet customer requirements.

NOTE: Nonconforming product is to be inclusive of

counterfeit parts.

OEM Original Equipment Manufacturer

Product Safety The state in which a product is able to perform to its

designed or intended purpose without causing unacceptable risk or harm to persons or damage to

property

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Purchase Order (PO) A commercial document issued by LAI to a supplier

indicating the type, quantities, delivery dates and

agreed prices for products or services the supplier will

provide.

NOTE: Sending a PO to a supplier constitutes a legal binding offer to procure products or services at a

contracted price

QAM Quality Assurance Manual

QMS Quality Management System

SCM Supplier Control Manual

Subcontractor (supplier) A supplier that fabricates, processes, or tests LAI

proprietary products

Tooling (supplier) A supplier that provides tooling products or services

that do not directly affect LAI aircraft or aircraft

components

#### 4. References

PCD 97000-XX LAI Part Identification Document

QF1537-07 Supplier-Vendor Survey

LAI Terms and Conditions

SQM1002-1 LAI Supplier Quality Notes

#### 5. Qualification and Approval

In order to set a harmonized Quality Management Standard across its supply base, LAI recommends suppliers comply with ISO 9001:2015/AS9100 Standard or equivalent.

All new suppliers shall be evaluated to ensure the supplier's ability to comply with the requirements of this document. This evaluation can include, but is not limited to:

- QF1537-07 Supplier-Vendor Survey
- Audits (desk or on-site) of the Supplier's QMS and Manufacturing Processes
- Inspection of the Supplier's product furnished to LAI
- Onsite audit of Supplier

All suppliers of aircraft products or services must be approved and listed on LAI's ASL to receive orders and provide LAI products or services. Additional requirements may apply, and exceptions may be considered at the discretion of LAI Quality.

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#### 6. Performance and Ranking

Quality Ranking	Quality Score	Audit Frequency
4	17 - 20	Every (24) months
3	12 - 16	Every (18) months
2	8 - 11	Every (12) months
1	7 - Below	Every (6) months

Quality Rating will be evaluated based on the following criteria:

- On Time Delivery (OTD): The percentage of on-time orders.
- Receiving Inspection Acceptance: The percentage of parts/materials that are received with no nonconforming conditions.
- Late Response to Corrective Actions: An evaluation of CAs not received by the due date.
- Audit Results: An evaluation of supplier audits performed by LAI, Customer, or third-party organization.

#### Surveillance Audit

- The surveillance process is initiated prior the acceptance of the supplier into LAI's ASL. Audit dates will be scheduled at a frequency of 6, 12, 18 or 24 months based on the suppliers ranking.
- Findings are classified as either major or minor.
  - Major Finding: Any nonconformance that has been identified to create product impact or a systemic breakdown within the quality system.
  - o **Minor Finding:** Any nonconformance that has been identified violating an engineering/drawing requirement, a procedure relating to an applicable standard, a PO requirement, or a quality requirement that does not satisfy the criteria of a major nonconformity.

#### Supplier Ranking Status Change Criteria

- Reasons to decrease supplier ranking:
  - o Nadcap Supplier Advisory / Audit failure
  - Notice of Escapement
  - o Surveillance Audit with (2) major findings in a 12 month period
  - Surveillance Audit with (1) major finding and (2) minor findings in a 12 month period.
  - o Surveillance Audit with (4) minor findings in a 12 month period
  - o Management recommendation for audit frequency adjustment can increase audit frequency.

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- Reason for increase supplier ranking
  - Two consecutive Surveillance Audits without a major or more than (2) minor findings
  - o Management recommendation for audit frequency adjustment
  - o A reduction in the processor's scope of work

The following shall also be taken into consideration for evaluating supplier performance:

- Surveillance: For any supplier placed under surveillance, the supplier must implement LAI approved RCCA activities and provide periodic status updates reporting compliance with the plan. Frequency and scope of supplier audits may be increased at LAI's sole discretion.
- **Probation:** For any supplier placed on probation, source inspection shall be required for the duration of the probation period, along with those specified in the surveillance section. Any extra costs incurred for source inspection will be the responsibility of the supplier.

LAI Quality, LAI customer, and/or the FAA may elect to audit a supplier's Quality System or manufacturing processes at any time after approval in order to ensure compliance with contractual and quality requirements, investigate any quality issues, verify corrective action activity, or evaluate the effect of any change in facility, process, equipment, or management.

#### 7. Continued Approval

Following supplier approval, LAI at any time and at its sole discretion may reevaluate and reassess the status of a supplier. Continued approval will be based on the supplier's performance and ranking which includes, but is not limited to, quality/delivery ratings, NCRs, and CAs.

LAI may, at any time and at its sole discretion, revoke the approval granted to a supplier or place a supplier under surveillance or probation for poor performance. Any change to a supplier's status can be based on, but is not limited to, the following:

- Supplier audits,
- Performance (Quality/OTD ratings),
- Use of unapproved manufacturing processes,
- Extended period of business inactivity,
- Changes in supplier's manufacturing or processing capability,
- Providing counterfeit parts.
- Failure of Nadcap, customer, or AS9100 audits

Suppliers on probation who have not responded, implemented effective corrective action, or addressed all issues to LAI's satisfaction may be deactivated. For a supplier that has been deactivated, the following shall apply:

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- Supplier shall be removed from LAI's ASL,
- In-process work at the supplier's facility may be immediately halted,
- All product in transit to LAI shall be quarantined upon receipt and returned to the supplier, and
- New business may not be awarded to the supplier.

#### 8. Notification of Changes

LAI shall be notified of planned changes in either the supplier's ownership or the location of manufacturing facility within 30 days. Unplanned changes from the supplier shall be communicated within 72 hours. In addition, suppliers are responsible for all impacts resulting from changes and shall notify LAI those that may alter the overall effectiveness of the supplier's Quality System. It is the responsibility of the supplier to provide a written statement to LAI of changes. This written statement shall include where applicable:

- Current and proposed facility locations/Quality System change,
- Name/ownership change,
- Tax ID change,
- Proposed part/assembly numbers, specifications, special processes, and tooling,
- A proposed transition timeline with a risk mitigation plan that prevents disruption in the supply and/or support of parts/assemblies, or
- Any additional information required by LAI to understand business and/or legal impacts.

#### 9. Additional Quality Requirements

### 9.1. Right of Entry

The supplier shall grant the right of access to their facilities and quality related data to LAI, LAI customers, and/or any governmental regulatory agencies.

#### 9.2. Control of Nonconforming Product

The supplier shall have a documented process for positive control, identification, and segregation of discrepant articles at all times from discovery through disposition verification. Discrepant articles awaiting disposition shall be isolated or segregated with limited access to personnel.

#### 9.3. Scrap

The supplier shall have a system in place to ensure scrapped articles are rendered unusable i.e., cut into multiple pieces, having holes punched into them, etc., and are disposed of in a timely manner. The activity to scrap shall be overseen by the supplier's Quality department.

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#### 9.4. Counterfeit Parts Prevention

The supplier shall have a system in place to ensure the delivery of counterfeit parts, material, or product to LAI is prevented. LAI will not accept an unauthorized copy, imitation, substitute, or modified part (e.g., material, part, or component) from suppliers, which is knowingly is misrepresented as a specified genuine part of an original or authorized manufacturer. This can include, but is not limited to, the false identification of marking or labeling, grade, serial number, date code, documentation, or performance characteristics.

#### 9.5. Conflict Minerals

The Securities and Exchange Commission adopted a rule mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act to require companies to publicly disclose their use of conflict minerals that originated in the Democratic Republic of the Congo (DRC) or an adjoining country.

The regulatory reform law directed the Commission to issue rules requiring certain companies to disclose their use of conflict minerals that include tantalum, tin, gold, or tungsten if those minerals are "necessary to the functionality or production of a product" manufactured by those companies. Companies are required to provide this disclosure on a new form to be filed with the SEC called Form SD.

All supplier contracts include conflict mineral due diligence and reporting requirements. Any direct sourcing by LAI of tin, tungsten, tantalum and gold will only be from conflict-free sources, as defined in the SEC's conflict minerals rule. In instances where minerals in our supply chain potentially finance armed groups as defined in the SEC's conflict minerals rule, LAI will work with suppliers to find alternate conflict-free sources.

#### 9.6. Notice of Escape

In the event a condition is discovered that affects previously delivered articles, LAI shall be notified of the condition in a timely manner. This notification shall include:

- part number / name,
- quantity of nonconforming articles,
- units affected,
- PO number and ship dates for parts in question,
- description of discrepancy, including drawings/images,
- investigation of cause / root cause,
- corrective actions immediate and long term,
- Supplier engineering evaluation, where applicable.

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If nonconforming supplier articles are detected at LAI's facility, a rejection will be generated noting the discrepancy and disposition. If it is determined that the nonconformance is the supplier's responsibility, the articles may be returned at the supplier's expense and corrective action required.

# 9.7. Measuring Equipment Control

All gages and measuring equipment used for acceptance of aircraft articles shall be calibrated on a predefined interval under a system compliant with IEC/ISO 17025, ANSI Z540.1, or equivalent National Institute of Standards and Technology (NIST). All calibrations shall be traceable to a NIST standard.

The supplier shall have a recall system for suspect articles inspected with gages found to be out of calibration.

#### 9.8. Product Acceptance

The supplier shall identify authorized signatories for verification, certification, and release of products. The supplier shall maintain a procedure for effective control and administration of inspection stamps, electronic or physical signatures, or approvals.

Inspection stamps shall be designed to be identifiable to the supplier and the supplier's inspector who affixes the stamp. Non-issued stamps shall be kept secure to prevent unauthorized use.

#### 9.9. LAI Part Identification Requirements

LAI's part identification requirements are stated or flowed down by either 97000-XX PCD, PO, drawing, or other LAI engineering. When the identification method is not specifically regulated by drawings, specifications, or other documents, part marking shall be accomplished by permanent ink stamping of the parts. Products having an insufficient or unsuitable surface to be individually identified will either be bundled, if possible, or placed in an identified container. An identification tag, with all required information, shall be attached to the bundle or the container.

#### 9.10. Training

The supplier shall establish a method for training, assessing, and documenting the proficiency of personnel performing activities that may affect the quality of the product. Recurrent training shall be conducted as needed for technical skills and special process personnel qualification. Training requirements shall be reviewed to ensure skills are upgraded to follow changes in methods and technology advancements.

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#### 9.11. Control of Records

Conformity records and QMS records shall be controlled. A procedure must define secure storage, retrieval, retention, and disposition of records. It is the responsibility of the supplier to ensure that sub-tier suppliers control records in accordance with this document.

General records related to the product (including, but not limited to, receiving inspection documents, material certification, processing certification, work orders, inspection reports, process related data, cure charts, nonconformance reports, etc.) shall be retained for a minimum period of ten (10) years from date of shipment per active contract.

Qualification records, FAIRs, manufacturing planning records, and inspection plans shall be maintained for a minimum period of ten (10) years from the last shipment.

Training records related to the manufacturing process shall be retained for a minimum period of no less than two (2) years from date of training.

# 10. Shipping Documentation Requirements

The following documentation must be included with each shipment to LAI in accordance with the PO/contract, otherwise the received product is subject to being placed on hold until the required documentation is received. Payment will not be made until the required documentation is received. See Table I for commodity documentation and Section 3 for definitions of supplier classifications.

Table I: Documentation by Commodity

	CofC	Certifications	FAIR	NCR <sup>4</sup>
	(10.1)	(10.2)	(10.3)	(10.4)
Build to Print (Parts &	X	X	$\mathbf{X}^1$	X
Assemblies)	Λ	Λ	Λ	Λ
Electrical Parts & Assemblies	X	X	$X^1$	X
Raw Materials	X	X		X
Outside Processing/Services <sup>3</sup>	X	X		X
Shelf Life Items (Paint, Sealants,	X	X		
etc.)	Λ	Λ		
Distributor Parts/ Materials	X		$X^1$	X
Customer Supplied	$X^2$	$X^2$	$X^2$	$X^2$

- 1 Submitted in accordance with AS9102
- 2 When requested by LAI
- 3 Includes special processes (10.5)
- 4 Original Stamped Copies

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# 10.1. Certificate of Conformance (CofC)

Each shipment shall contain a signed Certificate of Conformance with the delivery documentation. The CofC shall be specific to a line item of a Purchase Order. Each CofC shall contain, at a minimum, the following information:

- Supplier name and address
- Purchase Order number / line item
- Deliverable part number, as assigned by the Purchase Order
- Quantity delivered
- Part serial numbers, when applicable
- Manufacturer's batch (traceability) number, cross-referenced to the quantity
- Design revision level for deliverable article (LAI MFG revision)
- All special processes performed, including designation per specification (Type, Class, etc.), if applicable
- Special Process specification revision level
- A statement denoting acceptance/certification of the product to the defined LAI engineering requirements
- Indication of acknowledgement (i.e. stamp, signature, note for signature on file, approval) from authorized certifier, and date of certification

## 10.2. Material and Processing Certification

Material, processing, test, or any additional certification mandated by engineering is only required to be submitted with a part shipment if specified by purchasing (PO) requirements (example: burn, pull, or light transmittance testing). However, suppliers are required to maintain records per Section 9.11 Control of Records which are traceable to the product shipped to LAI.

#### 10.3. First Article Inspection Report (FAIR)

The supplier will prepare a formal FAIR on each first production detail part, subassembly, assembly, kit or may be required by contract (PO). For subassemblies or major assemblies, this includes an FAI for each detail component. The FAI shall be conducted and reported per the requirements of the latest revision of AS9102 unless otherwise specified by LAI. No blanks are permitted in the required fields on the AS9102 forms. If a field is not applicable for a given inspection article, N/A or a similar notation must be used.

A formal FAIR is not required for raw materials, hardware, non-production parts such as ground support equipment, commercial goods, buyer furnished equipment, or when the supplier only performs a special process. See Table II for FAIR Minimum Requirements.

Table II: Minimum FAI Requirements

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Product Type	Requirement	AS9102 Form	
Detail/Assembly/Kit	The actual configuration: drawing(s) and planning document(s) including revision level	1	
Assembly / Kit	List of all detail parts, hardware, and raw materials used	1	
Assembly	Acceptance of function test procedure results	2	
Detail / Assembly	The specific tool and/or fixture numbers used to manufacture	2	
Detail / Assembly	Special processes used (specification, type, and class)	2	
Detail / Assembly	Required dimensions, tolerances, and actual results (including any general drawing note requirements)	3	
Detail / Assembly	All sub-tier supplier CofCs and test reports	Attached	
Detail	Raw material alloy, specification, and temper	2	
Detail	Raw material traceability documents	Attached	
Detail	Raw material hardness and conductivity values (metallic component only)	Attached	
Detail	Shelf-life statement	Attached	

The FAI shall be repeated as a result of any of the following conditions:

- Any changes to the manufacturing process, tooling, inspection, or drawing. However, when the drawing change received from LAI does not modify the product under contract, the FAI amendment shall state: "Drawing change received does not modify the part",
- After a manufacturing interruption of (24) consecutive months, or
- Any transfer of manufacturing operations to a new site or new location within the existing facility.

If the first production unit does not meet the applicable requirements, then the FAI shall be repeated as necessary until satisfactory results are achieved at supplier expense. Final approval is at the discretion of LAI.

LAI has employed a method of submitting FAIRs. The process utilizes an internet-based first article system facilitated by Net Inspect (<a href="https://v5.net-inspect.com/">https://v5.net-inspect.com/</a>). Requests for Net Inspect access must be submitted to LAI Quality.

#### 10.4. Nonconformance Report (NCR)

The supplier shall have a system in place to notify LAI of any nonconformance written against any delivered product. Copies of all NCRs shall be included with the shipment of deviated product and must be closed prior to shipping to LAI.

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Any incomplete work resulting from nonconforming product shall not be shipped to LAI without written authorization from LAI.

#### 10.5. Special Processor Documentation

Some special processes require that the supplier obtain additional facility qualifications from LAI or LAI's customers.

Any product or service that is considered a special process shall be shipped with documentation that includes the date performed, name, and location of all special process suppliers, as well as all special sub-processes that were performed. A special sub-process is defined as a special process that is not called out directly in a purchase order, engineering drawing, or other engineering documents but is referenced within a higher level special process that is called out in a purchase order, engineering drawing, or other engineering documents.