

LT Industries SQFR-101

Supplier Quality Flow down Requirements

1.0 **GENERAL REQUIREMENTS:**

The supplier must flow down these requirements from LTI to their sub-tier suppliers whenever those sub-tier suppliers perform any work and provide any materials or products that will end up in LTI products and/or shipments to LTI.

1.1 **Quality Management System Requirements:**

- Manufacturers: AS9100
- Distributors: AS9120
- Metrology Labs: ANSI/NCSL Z540-3 or IEC/ISO 17025
- Special Processors: Nadcap
- Repair Stations: FAR-145

It is the supplier's responsibility to:

- Maintain quality system compliance to the standard they were approved to by LTI.
- Submit updated quality system certificates (AS9100, AS9120, ISO-9001, ISO17025, ANSI Z540-3, Nadcap, etc.).
- Notify LTI in writing within 30 days if their quality system certificate is suspended or revoked.
- Notify LTI in writing within 30 days of any changes in product, processes, sub-tier-sources, or facility location.
- Notify LTI in writing within 30 days of any major changes in management or in the quality system.

1.2 **Supplier Performance Evaluation:**

LTI evaluates suppliers' performance using a 12-month rolling average to determine the performance level of each supplier. Suppliers are expected to meet a "Preferred Quality Level" as follows:

Quality

- 98 – 100% Preferred Quality Level
- 95 – 97.9% Marginal Quality Level
- 85 – 94.9% Needs Improvement
- 84.9% or less Unacceptable

On Time Delivery

- 95 – 100% Preferred Quality Level
- 90 – 94.9% Marginal Quality Level
- 85 – 90.9% Needs Improvement
- 84.9% or less Unacceptable

Suppliers with ratings below a 98% Quality Level, below a 95% OTD, and/or who are responsible for isolated rejections are subject to circumstantial control methods employed by LTI, which may include issuance of corrective action requests, consultation by the procurement -quality team, an on-site assessment or process-

audit, suspension, and/or removal from the LTI Approved Supplier Listing. Suppliers are expected to support LTI by complying with such control methods in a timely manner as defined by LTI.

1.3 Corrective Action:

When the supplier receives a corrective “Action Request” from LTI, the supplier must investigate the root cause, and establish a corrective and preventive action plan that will permanently eliminate the problem from reoccurrence. In such cases, a “Quality Clinic” approach shall be taken using a LTI-supplier “Fishbone Analysis” chart. The supplier shall use the Fishbone analysis and submit it to LTI along with your corrective action response. Once completed with the corrective action, the supplier must evaluate it and define the mistake-proofing level they implemented.

1.4 Sub-tier Outsourcing Authorization:

The supplier shall not outsource any process-work from any LTI purchase order without written authorization from a LTI Procurement-Quality representative. When such sources are authorized by LTI, the source shall be an approved LTI supplier, or the supplier must have documentation of supplier evaluation on file that meets AS9100. In addition, the supplier shall flow down to the requirements of the purchase order and this document as requirements of the purchase agreement.

1.5 Compliance with Purchase Order Requirements:

Neither audit, surveillance, inspection and/or tests made by LTI, representatives of LTI, or representatives of LTI’s customers, at the supplier’s facilities or at the facilities of the supplier’s subtier sources, or upon receipt at LTI, relieves the supplier of their responsibility to provide products or services that conform to all LTI purchase order requirements, nor does it preclude subsequent rejection by LTI or LTI’s customers.

1.6 Right of Access:

The supplier shall allow LTI representatives, its customer representatives, and/or the US government or regulatory agencies to access their facilities for the purpose of evaluating the supplier’s conformance to contractual requirements. This right of access clause shall be flowed-down by the supplier to its subtier sources.

1.7 Source Control Specification-Drawing:

Suppliers who provide products in accordance with a LTI furnished Source or Specification Control Drawing (SCD) shall not make any changes in design, materials, or processes that are specifically controlled by the SCD without written approval from LTI’s Procurement Quality Team. Any changes suggested by the supplier must be evaluated by LTI’s Design, Manufacturing, and/or Quality Assurance representative(s). Such changes may require a First Article Inspection Report to be submitted with the shipment to LTI.

1.8 Nonconforming Material:

Suppliers who have identified product and/or material that affects LTI’s purchase order shall contact the applicable LTI buyer for proper instructions and/or disposition.

1.9 Quality Record Retention:

The supplier shall establish and maintain a record retention system that will ensure quality records are retained for a minimum of 15 years after end of contract unless otherwise specified on the Purchase Order. Prior to

discarding any quality records, the supplier shall contact LTI's procurement quality representative for written approval.

1.10 Control of LTI Furnished Materials, Parts, or Tools:

The supplier shall establish and documented procedure to identify, store, control, and maintain LTI furnished materials and/or products that are provided for the supplier to incorporate into LTI procured products. Any LTI furnished materials and/or products that are lost, damaged or is otherwise unsuitable for use shall be documented and submitted to the applicable LTI buyer.

1.11 Preservation and Packaging:

Unless otherwise specified on the purchase order, the supplier shall incorporate good commercial standard practices for the preservation, packaging, and shipment of the items procured to preclude damage during shipment to LTI or deterioration while in storage at LTI. Identification on packages shall include the Part Number and PO number to which they apply.

1.12 Delivery Documentation:

The delivery documentation, including certifications and/or test data shall be in the English language stating the acceptance for each item delivered in accordance with the purchase order. The Delivery documentation shall be legible and reproducible.

1.13 Traceability:

The supplier must have a quality record system that is able to trace a shipment back to all the records of manufacture, process, inspection and test.

1.14 Certificate of Conformance (C of C):

Each shipment by the supplier (Manufacturer, Processor, Testing, Calibration, and/or Distributor) must be accompanied by a legible, signed C of C that attests to the conformance of the product and/or services to the purchase order requirements. The C of C must include the title of the person signing the certificate and that person must be a qualified company official to sign and attest to the certification. The C of C must include the following minimum information:

- Company Name or Logo
- Address (of the Supplier's facility for which the parts were processed/shipped from)
- Part Number and Revision
- Purchase Order Number
- Traceable Number (used by the supplier to track down all the related quality records)
- Line Item Number
- Description of Work (for manufacturing or processing LTI furnished parts only)
- Quantity (of Parts being conformed)
- Serial Numbers (if applicable)
- Printed Name and Title (of the supplier company official)
- Date (certification is signed)

1.15 Special Process Certification:

The following are defined as Special Processes for LTI and require Nadcap certification:

- Welding - Fusion, E.B., Laser, torch, and induction

- Brazing, Furnace Brazing
- Chemical Processing – Etching, Anodizing, Chem-film, passivation, and plating
- Heat Treating – Normalizing, Nitriding, Solution H.T., Annealing, Stress-Relieve, Hardening, Tempering, and Carburizing.
- Non-Destructive Testing – Penetrant, X-ray, Ultrasonic, or Mag-Particle
- Testing – Metallurgical and Chemical
- Surface Enhancement – Shot Peen

The supplier shall furnish Special Process Certifications with each shipment when any of the above special processes are performed. The same certification requirements apply as in section 1.14, except the processor must include the process specification(s) and revisions used to meet the Purchase Order requirements.

1.16 Raw Metal Certification:

Each shipment must be accompanied by legible and reproducible copies of the raw material certifications used in all the components of the product defined in the LTI purchase order. The certifications shall be from a Mill Source or shall list the Mill Source's name. The certifications must provide the material description, specification and revision, physical and chemical test results, and heat lot number.

1.17 Specialty Metals:

Any Specialty Metals, as defined in DFARS 252.225-7014 ALT 1, sold to or used for products sold to LTI shall be melted in the United States or its outlying areas. This clause does not apply to Specialty Metals melted in a qualifying country (as defined in DFARS 225.872-1) or incorporated in any article manufactured in a qualifying country. The supplier shall insert the substance of this clause in all their purchase orders to their sub-tier suppliers where Specialty Metals applies.

1.18 Age or Shelf Life Sensitive Products:

For all age sensitive materials (i.e. glues, cement, paint, epoxy, silicone o-rings) where shelf life is a requirement, the supplier shall furnish certifications that identify the cure date or date of manufacture and/or shelf life. The supplier shall ensure the material has 75% of the remaining shelf life upon receipt at LTI.

1.19 Electrostatic Discharge (ESD):

Supplier providing ESD sensitive devices shall implement an ESD control program in compliance with Mil-Std-1686. All ESD sensitive devices delivered to LTI shall have ESD warning labels affixed to the packaging.

1.20 First Article Report:

When required by a statement on the purchase order, the supplier shall provide a First Article Inspection report in accordance with AS9102.

1.21 Functional Test Report:

For assemblies (such as, solenoids, valves, filters, etc.) that require testing as part of the drawing and/or specification requirements, the supplier shall supply with each shipment a functional test report for the actual units shipped to LTI.

1.22 Order Acknowledgement:

ACCEPTANCE OF OFFER. THIS ORDER SHALL BE DEEMED AGREED TO AND ACCEPTED BY THE SELLER AND BECOME A BINDING CONTRACT ON THE TERMS AND CONDITIONS CONTAINED HEREIN WHEN (A) SIGNED AND RETURNED TO SELLER, OR (B) SELLER ISSUES ITS ORAL OR WRITTEN ACKNOWLEDGMENT, OR (C) SELLER COMMENCES PERFORMANCE, OR (D) SELLER OTHERWISE ACCEPTS THIS ORDER. By accepting this Order, Seller waives all terms and conditions contained in its Quotation, Acknowledgement, Invoice, or other documents which are different from or additional to those contained herein. And all such different or additional terms and conditions shall be null and void. All special terms and conditions or supplements which are attached to or referenced in this Order are made a part of the contract between the Buyer and the Seller as though fully set forth herein; provided that, to the extent of any inconsistency, the terms and conditions of this Order shall govern.

1.23 Counterfeit Parts

The supplier shall plan, implement, and control processes, appropriate to the organization and the product, for the prevention of counterfeit or suspect counterfeit part use and their inclusion in product(s) delivered to the LT Industries.

NOTE: Counterfeit part prevention processes should consider:

- training of appropriate persons in the awareness and prevention of counterfeit parts;
- application of a parts obsolescence monitoring program;
- controls for acquiring externally provided product from original or authorized manufacturers, authorized distributors, or other approved sources;
- requirements for assuring traceability of parts and components to their original or authorized manufacturers;
- verification and test methodologies to detect counterfeit parts;
- monitoring of counterfeit parts reporting from external sources;
- quarantine and reporting of suspect or detected counterfeit parts.

In addition, the supplier is to submit OEM certification in compliance with section 1.14 of this document.

1.24 Employee Awareness

The supplier is to ensure that persons are aware of:

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

Table of Amendments -

Document Number	Page Number	Issue	Date	Description of Change	Authorization
QF 7.4-2.1	All	A	02-06-2017	Initial release.	CER
QF 7.4-2.1	2	B	06-07-2017	Revised paragraph 1.9 from 10 year retention to 15 years.	CER
QF 7.4-2.1	5	C	05-25-2018	Added clauses 1.23, 1.24 in line with AS9100D	CER