

Appendix QX

Supplier Quality Requirements

REVISION RECORD

The latest issue to this document is the version that is available on the Lockheed Martin Aero website: <http://www.lockheedmartin.com/aeronautics/materialmanagement>.

Revision	Date	Changes
Original Issue	03/28/2002	Completely revised / replaced QR to separate and clarify Program, Commodity, and General application of Quality Requirements based on Program application. This serves as a "pilot" version for other procurements. Adds Revision Record, Table of Contents, and Tables to enable supplier to identify the LM Program and understand which quality system and quality requirements apply based on his product (commodity) type.
Revision A	5/31/2002	Added definition of "Item or Items" in Document Overview paragraph; clarified First Article Inspection (FAI) requirements in paragraphs 2.3.1, 3.3, & 3.4; added the words "as applicable" to paragraph 2.3.6.1.8

Revision 5	12/2/2008	<p>Added: (1) Section 1.0 requirement of a 3rd party registered quality system; (2) Section 1.5 Counterfeit Parts Prevention; (3) Section 1.9 GIDEP Membership; (4) Section 2.0 Periodic surveillance of quality system, manufacturing processes or physical Item, possible full-time oversight, Buyer notification of shipment from a location other than the contracted PO address; (5) New Section 2.6 for Material Review Authority and Reporting of Nonconformances on Buyer-Furnished Equipment/Items; (6) Section 2.8 Compliance with DFARS 252.246-7003 on reporting nonconformances on CSI; (7) Section 2.11 Compliance with LMA-D0010 for composite or bonded products. Revised: (1) Table 1 – In heading for “QMS”, added “6” to the applicable notes – Reads “See Note 1 and 6”. Removed specific note reference from section on “Engineering Test Units, Brass Boards, Lab-Use-Units, Non-Production Hardware Buyer-Approved Distributors” – QMS column heading contains all applicable note references. (2) Note 1 for Table 1 – Compliance with a currently published and maintained consensus industry standard quality system; (3) Sections 2.03 and 2.04 Added verbiage to reflect these paragraphs apply when Buyer has not provided Seller with prior written authorization to act on Buyer’s behalf; (4) Revised 2.3.5 Removed verbiage related to completion of a SCAR form (5) Section 2.4.1 & 2.5.2 Added MRA exception for on Critical Safety Items (CSI); (6) Section 2.5.1 Added limitations when Seller continues processing nonconforming product prior to Buyer’s MRB disposition; (7) Revised references of Field Engineers to Supplier Quality Engineers (SQE). Removed: 2.1.2 - Requirement for Seller to provide Buyer’s SQE with high speed internet access</p>
Revision 6	03/01/2010	<p>REVISED: (1) Changed all Material Management references to Supply Chain Management; (2) Changed all Procurement Quality Assurance (PQA) references to Supplier Quality Management (SQM); (3) Section 1.0 Reworded to indicate Seller is to meet the requirements of the latest revision of Appendix QX – removed reference to Table; (4) Section 1.1 – Removed first reference to “adverse”; (5) Section 1.2 – Removed “Unless otherwise authorized by Buyer in writing”; (6) Section 1.4 – Enhanced language on Counterfeit Parts; (7) Section 1.5 – Removed “Buyer-identified” wording; (8) Section 1.6 – Removed “Seller shall provide Items under this PO that meet all applicable requirements of this PO” and reworded to require Seller to ship Items that are in total compliance with all applicable requirements of this PO; (9) Section 1.7 – Added “unless otherwise stated in this PO” to first sentence; Also added paragraph stating that upon Buyer’s request, Seller shall forward specific records to Buyer at no additional cost, price or fee to Buyer; (10) Section 1.8 Added specific date for GIDEP membership requirement; (11) Revised Table 1 – Combined Q30 and AS9103 requirement for F35 under “Variability Reduction”; (12) Revised ISO9001:2000 to reflect ISO9001:2008 in Table 1 and Note 3; (13) NOTES - #3 – Clarified by added “Suppliers with F35 Commodities”; #5 – added “If Seller is a Service Center acting as a Distributor, Seller shall company with AS9120”; #6 – added “A Distributor cannot act as a Service Center unless the Distributor has a license in place”; (14) Para. 2.0.a,b,c. Added “and/or manufacturing site” to list of information required from Seller when Items manufactured, accepted or shipped from a location other than the contracted PO address; (15) Section 2.0.1 and 2.0.2 – Added Seller actions to take when Buyer has delegated end-item acceptance to Seller; (16) Para. 2.1 Added “Regardless of Buyer’s or Buyer’s Customer Point of Acceptance on this PO or whether Buyer’s Customer has issued a delegation for this PO” to requirement of Seller providing facility access; (17) Para 2.3.3 – Added process for submitting a Supplier Disclosure Letter utilizing on-line system; (18) Para 2.3.4 – Reworded requirement for Seller to respond to all Buyer requests for corrective action to read “Seller shall provide effective corrective and preventive action upon request by Buyer”; (19) Combined Sections 2.4, 2.5, 2.6, 2.7 and 2.8 into one Section 2.4 “Material Review Authority, Requests and Reporting” – additional revisions: Seller directed to follow instructions at provided URL if nonconforming Buyer Furnished Equipment has been identified; Buyer and Buyer’s customers have the right to refuse to accept any Seller nonconformances; Seller cannot continue processing Item(s) or incorporating any nonconformances into any Item, process, procedure or data that affects a parameter</p>

ADDED:

(1) Section 1.7 – New sentence “Upon Buyer’s request, Seller shall forward specific records to Buyer at no additional cost, price or fee to Buyer”;

(2) Table 1 – Distributors – Impose QMS Notes 1/6, Q2A “FAI” and Q4R “FOD”; Maintenance & Overhaul Centers – Impose QMS Notes 1/6; Service Centers – Impose Q4R “FOD”; added Note 7 – “A Contract Service Agency is considered to be a Distributor and shall comply with AS9120”; added Note 8 for Maintenance and Overhaul Centers;

(2)

* Revised ** Added *** Removed

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- * **1.1 Quality System Changes & Relocation:** Seller shall notify Buyer, in writing, within 10 days of any (1) change in its quality system status resulting in the loss of 3rd party registrar's certification status; or (2) adverse action taken by Seller's customer, the Government, the Federal Aviation Agency ("FAA"), or the Civil Aviation Agency ("CAA"); or (3) change in Seller's quality organization, process or procedures that affects conformity of any Item.

Seller shall also notify Buyer, in writing, at least 90 days in advance of any sale, relocation, or transfer of Seller's manufacturing operations.

- * **1.2 Language:** Upon request by Buyer, Seller shall provide all Seller records, reports, specifications, drawings, inspection and test results and other documentation in English.
- * **1.3 Reference Documents:** Seller may obtain Buyer-unique documents (e.g., Q2A, Q30, TMS-MC-015, etc.) referenced in this PO from Buyer's Supply Chain Management representative or Buyer's website at: <http://www.lockheedmartin.com/aeronautics/materialmanagement>. Seller may obtain copies of Aerospace Standards (AS/EN documents) from the Society of Automotive Engineers at: www.sae.org.

** **1.4 Counterfeit Parts Prevention:**

- a) For purposes of this clause, Work consists of those parts delivered under this Contract that are the lowest level of separately identifiable items (e.g., articles, components, goods, and assemblies). "Counterfeit Work" means Work that is or contains items misrepresented as having been designed and/or produced under an approved system or other acceptable method. The term also includes approved Work that has reached a design life limit or has been damaged beyond possible repair, but is altered and misrepresented as acceptable.
- (b) SELLER agrees and shall ensure that Counterfeit Work is not delivered to LOCKHEED MARTIN.
- (c) SELLER shall only purchase products to be delivered or incorporated as Work to LOCKHEED MARTIN directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM), or through an OCM/OEM authorized distributor chain. Work shall not be acquired from independent distributors or brokers unless approved in advance in writing by LOCKHEED MARTIN.
- (d) SELLER shall immediately notify LOCKHEED MARTIN with the pertinent facts if SELLER becomes aware or suspects that it has furnished Counterfeit Work. When requested by LOCKHEED MARTIN, SELLER shall provide OCM/OEM documentation that authenticates traceability of the affected items to the applicable OCM/OEM.
- (e) In the event that Work delivered under this Contract constitutes or includes Counterfeit Work, SELLER shall, at its expense, promptly replace such Counterfeit Work with genuine Work conforming to the requirements of this Contract. Notwithstanding any other provision in this Contract, SELLER shall be liable for all costs relating to the removal and replacement of Counterfeit Work, including without limitation LOCKHEED MARTIN's costs of removing Counterfeit Work, of reinserting replacement Work and of any testing necessitated by the reinstallation of Work after Counterfeit Work has been exchanged. The remedies contained in this paragraph are in addition to any remedies LOCKHEED MARTIN may have at law, equity or under other provisions of this Contract.
- (f) This clause applies in addition to any quality provision, specification, statement of work or other provision included in this Contract addressing the authenticity of Work. To the extent such provisions conflict with this clause, this clause prevails.
- (g) SELLER shall include paragraphs (a) through (d) of this clause or equivalent provisions in lower tier subcontracts for the delivery of items that will be included in or furnished as Work to LOCKHEED MARTIN.

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Sellers eligible for utilization of the Government-Industry Data Exchange Program ("GIDEP") shall utilize the GIDEP process to alert the industry of encountered counterfeit parts.

- * **1.5 Outsourcing of Critical Items:** Seller shall notify Buyer, in writing, when any key characteristic, interchangeable-replaceable features, fracture critical features, durability critical features, maintenance critical features, safety critical features, critical safety hardware/features, mission abort critical features, or Seller changes affecting fit, form or function are to be subcontracted.

- * **1.6 Certificate of Conformance:**

- 1.13 Buyer-Furnished, Seller-Manufactured or Seller-Owned Tooling:** Seller shall include in its documented quality system written procedures for the control, maintenance, and calibration of special tooling, jigs, inspection and test equipment, and other devices used in manufacturing processes.
- 1.13.1 Buyer Furnished Tooling for Buyer or Seller-Design Items:** Seller shall comply with the requirements of Buyer's tooling manual (TMS-MC-015) concerning Buyer-furnished controlled tooling, tooling tools, and production tools.
- 1.13.2 Seller-Manufactured or Owned Tooling for Buyer-Designed Items:** Where Seller manufactures and/or owns tooling for Buyer-Designed Items, Seller shall comply with the

NOTES – TABLE 1

- (1) Seller shall maintain an ISO, AS or Military Standard equivalent quality system acceptable to Buyer. Third party registration ISO/AS/EN Quality Management Systems (“QMS”) from an ANSI-ASQ National Accreditation Board (www.anab.org) approved registrar is preferred. In the event (1) this PO is entered

When this PO requires Buyer Acceptance @ Source, Buyer Acceptance can involve periodic surveillance by Buyer of Seller's quality system, manufacturing processes or physical Item, including work at all Seller's sub-tiers. Based on Seller's performance, Buyer Acceptance activities may result in the requirement for full-time oversight of Seller's and/or Seller's sub-tier suppliers.

- * The location of performance of Buyer end-item acceptance, prior to shipment, shall be the Seller's facility address referenced on Buyer's PO. If Seller's Item manufacture, acceptance or shipment will be at or from a location other than the contracted PO address, Seller shall:
 - a. provide Buyer with Seller's written plan that, as a minimum, contains the following:
 - name and location of Seller's sub-tier and/or manufacturing site,
 - how Seller will approve and control its sub-tier and/or manufacturing site,
 - how Seller will be performing acceptance of product from a sub-tier location and/or manufacturing site,
 - example of Seller's purchase order to validate appropriate flow down of Buyer's requirements, and
 - date that manufacturing activity will begin
 - b. obtain Buyer's written acknowledgement and concurrence from Buyer's Supplier Quality Management, prior to any manufacturing activity,
 - c. apply Buyer's Right of Access defined in this PO to Seller's sub-tier and/or manufacturing site
 - d. reflect Seller's contracted Supplier name and location, regardless of the point of final acceptance or delivery, in Seller's shipping document

* **2.0.1** – Prior to shipment of Items designated “BUYER ACCEPT AT SOURCE”, Seller shall obtain final acceptance (signature or stamp), at Seller's facility, of Seller's shipping document by Buyer's SQE or Seller's quality assurance personnel, when Buyer has provided Seller with prior written authorization to act on Buyer's behalf. When Buyer has delegated end item acceptance to Seller, Seller's Quality representative shall sign and/or stamp and date Seller's shipping document on behalf of Buyer to indicate acceptance of Item(s) being shipped. This acceptance shall be referenced in Buyer's block/section of Seller's shipping document, where applicable.

* **2.0.2** – Prior to shipment of Items designated “GOVT & BUYER ACCEPT AT SOURCE”, Seller shall obtain final acceptance (signature or stamp), at Seller's facility, of Seller's shipping document by Buyer's SQE or Seller's quality assurance personnel, when Buyer has provided Seller with prior written authorization to act on Buyer's behalf, as well as the assigned Government representative. When Buyer has delegated end item acceptance to Seller, Seller's Quality representative shall sign and/or stamp and date Seller's shipping document on behalf of Buyer to indicate acceptance of Item(s) being shipped. This acceptance shall be referenced in Buyer's block/section of Seller's shipping document, where applicable.

2.0.3 – When Buyer has not provided Seller with prior written authorization to act on Buyer's behalf, Seller shall notify Buyer's SQE normally servicing Seller's facility, not more than five (5) days after receipt of this PO, when PO calls for “BUYER ACCEPT AT SOURCE” or “GOVT & BUYER ACCEPT AT SOURCE”. Seller's notification shall include PO number, date of scheduled shipment and any special security clearance required to perform Buyer activities and any

* **2.0.4** – When Buyer has not provided Seller with prior written authorization and/or electronic notification to act on Buyer’s behalf, Seller shall notify Buyer’s SQE 48 hours prior to Items being ready for shipment, when this PO calls for “BUYER ACCEPT AT SOURCE” unless Seller has received Buyer’s prior written authorization to accept Items on behalf of Buyer.

2.0.5 – Seller shall not claim entitlement to an increase in the PO price, cost, or fee based upon

root cause findings and corrective and preventive action(s) to preclude recurrence by utilizing tools such as cause mapping, cause and effect analysis, 5 why's etc.

2.3.5 - Seller shall assess all Buyer-identified nonconformances, whether or not Item(s) was/were returned to Seller, and take appropriate actions to ensure causes of nonconformance are corrected.

* **2.4 Material Review Authority, Requests and Reporting:**

2.4.1 – Buyer and Buyer's customers shall each have the right to refuse to accept any and all Seller nonconformances.

** **2.4.2** – Buyer has the right to remove Material Review Authority ("MRA").

** **2.4.3** – MRA for Seller designed or Buyer-designed Items is not applicable to Buyer-Furnished Equipment/Items. If Seller has identified nonconforming Buyer-Furnished Equipment ("BFE") material, Seller shall follow instructions located at:
<http://www.lockheedmartin.com/aeronautics/materialmanagement> > Quality Requirements > Corrective Action > User Guide. Seller's continued processing, prior to obtaining Buyer's MR disposition, of any Buyer-Furnished Equipment/items containing a nonconformance shall be at Seller's risk.

** **2.4.4** – When Buyer's customer has delegated oversight/surveillance of Buyer's work to an on-site Government representative at Seller's facility, Seller shall submit all material review dispositions for Buyer-related work to the on-site Government representative for concurrence.

2.4.5 – For Seller-designed Items, Seller has Material Review Authority, except for one or more nonconformances that affect a parameter controlled by Buyer drawing or specification, where form, fit or function, interchangeability, Critical Safety Characteristic ("CSC") related to Critical Safety Item ("CSI") service life or reliability is affected. Seller shall submit dispositions of

submit corrective and preventive action plans to Buyer or Buyer's representative with final acceptance paperwork.

** **2.4.8** – When requested by Buyer, Seller shall provide Buyer's Supplier Quality Engineer with Seller's MRB disposition information related to Buyer's Item(s).

2.4.9 – Seller shall ensure Seller's quality system has capability to report nonconformance(s) on CSI in full compliance with Defense Federal Acquisition Regulation Supplement ("DFARS") 252.246-7003.

2.5 QCS-001 Requirements for Buyer-Designed Items:

2.5.1 - QCS-001 sets forth both the process sources and the processes that require Buyer approval, prior to use for Items delivered to Buyer. A controlled process is an operation performed on an Item where the operation cannot be readily verified subsequent to its conclusion. Controlled processes have verifiable controls inherent to the process, e.g. heat treat, plating, nondestructive testing, etc.

2.5.2 - Seller and Seller's sub-tiers shall meet all requirements of the latest version of Appendix QJ when Seller or Seller's sub-tiers are performing any