

# SUPPLIER QUALITY REQUIREMENTS

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## Abstract:

This document describes flowdown requirements for Suppliers.



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CAGE: 3MFD5

# **REVISION LOG**

Issue	Date	Comment	Author
-	10-2022	Initial Release	S. McDougald

# DOCUMENT CHANGE RECORD

Issue	Item	Reason for Change	



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# PURPOSE and SCOPE

To establish the *minimum requirements for supplier Quality Systems necessary to ensure that materials, parts, components, and services meet the requirements of the Contract*. Procedures used to implement the provisions of this requirement shall be subject to Buyer approval upon request.

#### **APPLICABILITY**

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These requirements shall apply to all supplies and services when referenced on the Purchase Order and amendments thereto.

When Buyer's Purchase Order includes Seller's Inspection System *Level I*, as a requirement, Seller's contractual commitment for an Inspection System shall be *defined by all paragraphs of this specification*. When Buyer's Purchase Order indicates *Level II* as a requirement then the Seller's contractual commitment for an Inspection System shall be *defined only by those paragraphs of this specification which are checked-off*.

#### **DEFINITIONS and ABBREVIATIONS**

- A. The term 'Buyer' or 'Buyer' means Buyer.
- B. The term 'Seller' means the legal entity that is the contracting party with the Buyer with respect to the Purchase Order.
- C. 'IAW' means in accordance with.
- D. 'MRB' means Material Review Board

# SELLER'S QUALITY SYSTEM, GENERAL

The Seller shall maintain an effective Quality System planned and developed in conjunction with his other functions to comply with contractual requirements. In order that the Quality System will be effective, it shall provide that defects or other unsatisfactory conditions are discovered and corrected at the earliest practical point.

The System shall provide controls capable of maintaining design conformance and product integrity. The Seller shall perform all inspections and tests, and provide all: information, documents, records, reports, facilities, equipment, samples, materials, and assistance to Buyer representatives.

Records shall be kept available for seven (7) years.

### **NEGOTIATIONS**

It is not the intent of this specification to restrict the Seller in his mode of operation; therefore, it is possible that certain items herein may be subject to negotiation. Until such time as the subject of the negotiation is resolved, the Seller is obligated to conform with the requirements as specified herein. Negotiations are to be conducted with Quality Assurance through Buyer's Purchasing Department.

#### PROPRIETARY INFORMATION

The Seller must identify in writing the intended use in performance of the Purchase Order of an item, material, component, or process with respect to which access by Buyer or Buyer Customer representatives for purpose of Quality Assurance by inspection, test or process surveillance is proposed to be restricted. The written identification shall state



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generally the basis for such proposed restricted access and shall include a proposed method of quality control and inspection by Buyer and/or Buyer Customer representatives which Seller considers acceptable.

The absence of such written identification is a representation by Seller that all items, materials, components, and processes are subject to Buyer and/or Buyer Customer inspection and test and quality control surveillance at all places (Seller and Seller's subcontractor's locations) and at all reasonable times during performance of this contract. If such written notification is given, Seller agrees to negotiate promptly and in good faith with Buyer for agreement on acceptable arrangement for such inspection and test and quality control surveillance.

#### PROCESS CONTROL

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The Seller shall provide for complete review of contract requirements at the earliest practical phase of contract performance to make timely provisions for the special controls, processes, test equipment, fixtures, tooling, and skills required for assurance of a quality product.

Work instructions for all work affecting quality shall be documented and issued in a clear and complete manner.

Such instructions shall provide the criteria for performing the work function compatible with acceptance criteria for workmanship (MIL-STD-454 Req. 9)

The Seller shall develop an Inspection/Test Plan specific in nature and related directly to the hardware produced. The Plan shall identify all components and subassemblies by specific part number and revision letter and integrate inspection/test points throughout the manufacturing flow from start to finish. The Plan shall identify characteristics to be performed (including any special processes) at the specified control point, and acceptance/rejection criteria. The Plan shall also identify the specific procedure, work instruction, checklist, or other document related to each manufacturing and inspection point including equipment required.

Buyer contracts and resultant facility planning by Seller shall be reviewed by the Seller's Quality Control Department prior to release for production and/or pre-production to assure that all Buyer quality requirements are reflected in production and inspection procedures.

All Purchase Orders that apply to Buyer contracts generated by Seller shall be reviewed by the Seller's Quality Control Department to verify the inclusion of applicable quality requirements and shall be stamped or initialed and dated indicating acceptance.

When approval or certification of special processes, operating personnel, special equipment, or procedures is required by the contract, drawing, or specification, the Seller shall obtain the necessary approvals or certifications prior to processing the production articles intended for delivery to Buyer; documented evidence shall be provided upon request to Buyer representatives. Special processes include, but are not limited to plating, anodizing, radiography, magnetic particle, liquid penetrant, eddy current inspection, heat treating, welding, weld inspection, soldering, brazing, etc.

Seller MRB is not authorized. Seller shall notify Buyer within 48 hours of detected failure. Buyer and/or Buyer Customer representatives shall participate in the disposition of nonconformances.

Formal Failure Analysis and Corrective Action shall be required.

A Seller Failure Review Board is required, and minutes shall be taken and furnished to Buyer upon request.

The Seller shall not change any process, material, or procedure from that used to qualify Seller's product without prior Buyer approval if such process, material, or procedure was originally subject to approval by Buyer as specified in the Purchase Order. The effect that changes have on reliability, safety, weight, interchangeability, or other special requirements must be recorded and provided to Buyer with any proposal to alter the approved design.



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When the Purchase Order requires Buyer acceptance of a 1st Article, the first part fabricated to the specified Buyer configuration shall be given a complete inspection by the Seller for conformity to the drawing and Purchase Order requirements. The Seller shall prepare and complete a 1st Article Inspection Check Sheet for each part number. This check sheet is an item-by-item listing of all drawing requirements, the actual measurement or results of each, and the media of inspection. The 1st Article test inspection results shall accompany the 1st Article item when delivered to Buyer.

The 1st Article item and the inspection record shall be identified as 1st Article Items. Buyer may elect to disassemble, and conformity inspect Seller items. If defects are found, the Seller shall be required to correct the defects and to adopt remedial measures for complete product conformity

Notify Buyer 10 days prior to start of 1st Article production.

Neither surveillance, inspection and/or tests made by Buyer at either the Seller's, Seller's subcontractors, or Buyer's facility, nor the Seller's compliance with all applicable Seller Quality Control requirements shall relieve the Seller of the responsibility to furnish items which conform to the requirements of the Purchase Order.

Buyer may refuse to accept items delivered under the Purchase Order if the Seller fails to submit the certifications, documentation, test data, or reports required by this specification or the Purchase Order.

Buyer reserves the right to perform material analysis at Seller's expense if certified raw material analysis is not provided at time of receipt of items at Buyer.

## SUBCONTRACTOR CONTROL

The Seller shall be responsible for adequate and effective control over his procurement sources to ensure that materials, supplies, and services purchased for use on Buyer contracts meet all Purchase Order requirements.

Buyer inspection is required at your facility. Notify the Buyer Purchasing Manager at the start of production.

# ☐ DRAWING and CHANGE CONTROL

The Seller shall have a procedure and designate a responsible department for the distribution of all current specifications and drawings to the required Production and Inspection areas.

The procedure shall also provide for the timely removal of obsolete documents from all points of issue and use. No deviation or variation from any drawing, specification, or Purchase Order directive is allowed without prior written approval from Buyer.

#### RECEIVING INSPECTION

The Seller shall inspect incoming material to assure that purchased raw materials, parts, assemblies, components, tests, processes, hardware, etc. conform to drawings, Purchase Order, and specification requirements. When it is not practicable or feasible to assure quality upon receipt, the Seller shall make provision for source inspection.

Acceptance requirements shall include test reports, certifications, and inspection verification of physical and chemical properties of raw materials.



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All radiographic negatives, mechanical, physical, and chemical test results, and other inspections required to assure acceptance shall be made available to Buyer and Buyer Customer representatives upon request or as directed by the Buyer Purchase Order.

#### STOCK CONTROL

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The Seller shall provide for protection and control of supplies and materials stored for use in deliverable Buyer products.

Control shall cover such items as identification of materials, methods of issue, and age and obsolescence control (issue on a 1st-in/1st-out basis).

Procedures for the handling of nonconforming material shall assure positive identification of such material and its prompt and continued segregation from other material being processed or stored.

Buyer furnished material shall be inspected upon receipt by Seller to detect damage in transit, completeness and proper type, size, or grade. The Seller shall report to Buyer property found damaged, malfunctioning, or otherwise unsuitable for use. The Seller shall ensure that such property is handled in such a way as to prevent further damage or additional repair costs.

#### SAMPLING INSPECTION

Acceptance sampling procedures, if other than ANSI Z 1.4, must have Buyer approval prior to use; sampling to permit defects is not allowed.

## **TOOL, GAGE, and TEST EQUIPMENT**

The Seller shall be responsible for providing and ascertaining the accuracy and stability of tools, gages, and test equipment to assure supplies conform to contractual requirements.

A written procedure, compliant to MIL-STD-45662, shall be maintained to provide for periodic inspection and calibration of tools, gages, and test equipment against standards traceable to NIST. Objective evidence of such checks and NIST traceability shall be recorded and available for review by Buyer representatives. The date calibrated, next calibration date, accuracy, calibration operator, tool number, and other identification shall be displayed on each unit of inspection, measuring, and test equipment.

#### MATERIAL CONTROL

Nonconforming material shall be positively identified and segregated from other material being processed or stored and held for appropriate documented review action and disposition.

Seller may not repair by welding, brazing, soldering or adhesives, parts damaged or found to be nonconforming during fabrication.

The Seller shall maintain traceability of raw material used in the manufacture of deliverable products. A correlation shall be made between the data derived from test, inspection, and processing for each item produced and each lot of raw material and delivered to Buyer with each shipment.

The Seller shall maintain controls to assure accomplishment of preservation, packaging, and shipping requirements of the contract. The lack of a specific requirement in the Purchase Order does not relieve the Seller of the responsibility for



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packaging in a manner that will insure receipt of supplies at Buyer in an acceptable condition. Unless otherwise specified, the provisions of ASTM B 3951 preservation, packaging, packing, and marking shall apply.

Direct shipment of your supplies to Buyer's Customer is required. Notify Buyer's Purchasing Manager ten (10) days in advance of your expected shipping date.

When product is returned by Buyer to the Seller because of failure to comply with Purchase Order requirements, the Seller shall adhere to the instructions specified on the Buyer return documents. If Seller does not accept the responsibility for a discrepant condition, the Seller shall immediately initiate a letter of exception advising the Buyer Purchasing Department (Attention: Buyer) of the fact that exception is being taken to the rejection. The letter shall make full reference to applicable documents and shall be specific in defining the area of exception. In all cases, when returning products to Buyer, the Seller will obtain authorization and instruction from Buyer Purchasing prior to returning products and shall indicate on his shipping documents that the material is being returned 'as-is', 'repaired', 'replaced', or 'reworked', and reference the Buyer Purchase Order number and/or rejection documents.

#### TECHNICAL REQUIREMENTS

Unless otherwise specified, Buyer is responsible for compliance to reliability, safety, weight, or other special requirement, unusual test or inspection procedures or equipment, and any special revision or model identification.