

# SUPPLIER QUALITY REQUIREMENTS PO SUPPLEMENT

The provisions listed below shall be made part of the Purchase Order when referenced on the order. The requirements of this document are generic and are intended to be applicable to all organizations doing business with McSwain Manufacturing. Requirements that cannot be applied due to the nature of the organization and or the products/service provided will be considered as excluded, providing such exclusions do not affect the organization's ability or responsibility to provide product/service that meets McSwain Manufacturing and regulatory requirements.

**QUALITY SYSTEM REQUIREMENTS.** Suppliers shall maintain a Quality Management System suitable to the products and services provided to McSwain Manufacturing that is certified by an accredited third-party certification body to the latest version of ISO 9001. In the absence of third-party certification, depending on the product, its application, value, and criticality, the McSwain Buyer and Quality representative may authorize the acceptance of other evidence of compliance. This may include second-party (McSwain) audit or first-party (self) assessment to the applicable criteria above, or to a set of alternative basic quality requirements (such as those described in the McSwain Supplier Assessment Form).

**PACKAGING & FOD.** Supplier shall prepare and package product for McSwain Manufacturing to prevent damage during shipping. Supplier shall control/prevent foreign object damage in all operations and shipping.

**SHIPMENT/DELIVERY.** Shipments or deliveries, as specified in a McSwain Manufacturing Purchase Order, shall be strictly in accordance with: the specified quantities, without shortage or excess; and the specified schedules, neither ahead of nor behind schedule. Supplier must notify McSwain Manufacturing of any anticipated delay and make arrangements for alternative due dates.

**IDENTIFICATION, TRACEABILITY AND CONTROL.** Supplier shall maintain identification and control of material. A process to re-apply identification shall be initiated if an operation removes identification. All materials furnished by McSwain Manufacturing, including prints, tooling, etc. are to be returned with the product upon completion of the order unless other arrangements have been made.

**QUALITY INSPECTION AND TEST EQUIPMENT.** Supplier shall provide and maintain an inspection system which will assure that all delivered products conform to Purchase Order requirements, whether manufactured or processed by the supplier or a sub-tier supplier. Supplier shall maintain controls and perform all inspections and tests required to substantiate product conformance to requirements. Specifications and other requirements must be performed to the revision stated on the Purchase Order. Supplier shall maintain inspection and test equipment to assure calibration traceable to a known national or international standard. Calibration records must be maintained and made accessible to McSwain Manufacturing, if required.

**NONCONFORMING PRODUCT.** For material supplied by McSwain Manufacturing, notify McSwain Manufacturing of nonconforming product for disposition. No known nonconformance shall be shipped to McSwain Manufacturing without written authorization from McSwain Quality.

**RECORDS.** The Supplier shall maintain records of work performed for McSwain Manufacturing. Records shall include the certificate provided to McSwain Manufacturing as well as all records that substantiate the certificate. Records are to be maintained for a minimum of ten (10) years unless otherwise specified on the PO.

**CERTIFICATIONS.** Supplier must ensure that individual parameters within a given specification have been met and the specification(s) identified on the certification. Certifications must reflect that all applicable manufacturing and process specifications called for on the engineering drawing have been met. See section "Material and Special Process Test Reports" for complete requirements.

**INSPECTION DATA.** The supplier shall furnish inspection data as required with shipment of each item. Critical and/or Key Characteristics shall be verified 100%. See section "Material and Special Process Test Reports" for complete requirements.



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**FIRST ARTICLE INSPECTION.** The supplier shall furnish a First Article Report with the first shipment of each item when: a) It is the first time the seller has made/supplied the item to McSwain. b) Drawing revision changes a drawing dimension. c) A supplier makes a change in major sub-tier support, i.e. different machine shop, chemical treatment, plating, from the original FAI. The applicable Purchase Order number shall be referenced on the inspection data.

**CALIBRATION SERVICES ONLY.** Calibration of inspection equipment shall be performed traceable to National Institute of Standards and Technology (NIST) or other national or international standards. Certificates of Calibration must be provided. All personnel performing work shall be qualified for the work they are to perform and only perform work that is required per the PO.

**NOTIFICATION OF CHANGES.** McSwain Manufacturing must be notified of any changes to the following: requirements of Purchase Order details, product, process, suppliers, manufacturing facility location and, where required, obtain approval from McSwain Manufacturing in advance of the change.

**SUBCONTRACTING/APPROVED SUPPLIERS.** Prior to subcontracting, McSwain Manufacturing must be contacted for approval. Suppliers may only use McSwain Manufacturing approved suppliers. All applicable requirements in the McSwain Manufacturing Purchase Order must be flowed down to the sub-tier suppliers. McSwain Manufacturing is provided with the same rights and protection as contained in the Right of Access clause.

**RIGHT OF ACCESS.** Supplier shall allow McSwain Manufacturing representatives, McSwain Manufacturing customers, and regulatory agencies right of entry into the entire supply chain's facilities to determine and verify product, process, records, procedures and systems. Verification activities do not absolve the supplier of responsibility to provide acceptable product and comply with all requirements.

**CONFLICT MINERALS.** Material suppliers that are providing materials to McSwain Manufacturing, all materials shall be in accordance to the (Dodd-Frank Section 1502) conflict mineral regulation. Materials that contain (3TG) minerals, (Tin, Tungsten, Tantalum, and Gold) are applicable, and shall be provided by approved smelters, and or revert. Smelters must be identified on all C of C's submitted to McSwain Manufacturing.

**COUNTERFEIT MATERIAL.** The supplier shall be responsible to implement and maintain a Counterfeit Material Avoidance process and report any suspect or detected counterfeit parts to McSwain Manufacturing.

**PERSONNEL AWARENESS, COMPETENCE & TRAINING.** Supplier shall ensure that persons are aware of their contribution to product or service conformity, their contribution to product safety and the importance of ethical behavior. The supplier shall be committed to the highest standards of ethics and business conduct, and shall comply with the law, honor commitments, act in good faith, and be accountable. When conditions of product safety have been identified, it is the responsibility of the supplier to address these conditions, and train applicable personnel and their potential impact to product safety.

The supplier shall have a system for evaluating the competence of personnel performing work affecting McSwain product. This system shall be based on appropriate education, training, skills and experience necessary to achieve product quality to the requirements of the purchase order. In addition, the following shall be considered:

- Evaluation of work performed
- Awareness of relevance and importance of activities
- Training activities to facilitate effectiveness and contribute to quality of product
- Maintain records of employee accountability and competence



# **Corporation** SUPPLIER QUALITY REQUIREMENTS PO SUPPLEMENT

### MATERIAL AND SPECIAL PROCESS TEST REPORTS - FLOWDOWN REQUIREMENTS

The following requirements are designed to ensure that adequate information is contained in test reports for raw material or special process shipments that are received from sub-tiers for end product that is to be shipped to McSwain Manufacturing.

#### 1. General information

- a. Purchase order number
- b. Job number
- c. Quantity of parts
- d. Specification number/revision, drawing number/revision and any applicable drawing notes.
- e. Heat lot number.
- f. Part number/description.
- g. Serial numbers (applicable to serialized parts)
- h. Billet locations for each forging
- i. Forging lot number (applicable to forged parts)
- j. Heat treat lot number
- k. Specific heat treat cycle used
- I. As shipped condition of material (e.g. solution treated, solution and aged)
- m. Additional requirements for GE-A sub-tier suppliers **Certified Test Reports requiring Source Substantiation Only S-400/S-450 GE-A Suppliers shall be used** 
  - i. Test specimen machining source (GE-A code, name and address for source substantiated material)
  - ii. Test specimen testing source (GE-A code, name and address for source substantiated material)
  - iii. Inspection source (GE-A code, name and address for source substantiated material) Pages shall be identified "Page of "

#### 2. Data/Test Results Information

- a. Clear identification that each test result conforms to specification or drawing requirements.
- b. Clear identification of any test or inspection required by specification or drawing but not performed.
- Numerical results for all chemical tests (including tramp/trace elements) required by specification or drawing.
- d. Numerical results for all mechanical tests required by specification or drawing
- e. Results of other tests required by specification or drawing (e.g., beta transus, grain flow direction)
- f. All results shall be stated in the required units of measure (e.g., English vs. Metric, Rockwell vs. Brinell)
- g. All results shall use the same terminology as in the specification or drawing (e.g. Ni3cb vs. Delta Phase)
- h. Conversions shall be noted (e.g., hardness conversions)
- Test conditions shall be noted (e.g., temperature, stress rupture load, method of determining beta transus)
- j. When numerical tests are not applicable, a certificate of conformance shall be provided.
- k. For drawing and/or specification requirements (test or inspections), which are "capability tests", a statement of capability shall be included.

### 3. Test Reports

- a. Test reports shall be signed by a cognizant laboratory person and shall clearly describe whichever of the following is correct:
  - i. All tests and inspections have been performed and results meet the drawing and/or specification requirements.
  - ii. All tests and inspections have been performed and the results meet all the drawing and/or specification requirements, except \_\_\_\_\_\_, which does not meet requirements, or
  - iii. All tests and inspections have been performed and the results meet all the drawing and/or specification requirements, except test(s) \_\_\_\_\_, which was not performed per the drawing and/or specification requirements.