

Aerojet Quality Note

A05

Rev #

Date

0**05/23/13****GENERAL QUALITY REQUIREMENTS – Applicable to All Items****1. General Quality Requirements**

- a. **PURCHASE ORDER REQUIREMENTS AND QUALITY NOTES:** Failure to comply or partial compliance with any clause specified by the purchase order and included Quality Notes shall be cause for rejection and return of the item(s). Unless otherwise specified, drawings, specifications, standards, and document listings shall be the issue currently in effect on the date of the Purchase Order. Drawings and specifications listed on or part of this procurement shall have precedence over Quality Notes. The supplier shall flow down to sub-tier suppliers all applicable requirements in the purchasing documents, including key characteristics if so identified.
- b. **QUALITY MANAGEMENT SYSTEM:** The Supplier shall maintain a quality system that shall be in compliance with SAE AS9003 (Inspection and Test Quality Systems, Requirements for Aviation, Space, and Defense Organizations) latest revision, **at a minimum**. Other Quality Management System requirements may be specified in Quality Notes on the Purchase Order and will take precedence over this requirement.

When compliance to a required QMS standard is evidenced by a current third party certification the listing in the IAQG OASIS database shall be basis for approval. Any loss of certification shall be immediately reported to Aerojet Buyer. Copies of certifications shall be furnished to Aerojet whenever they are renewed or changed.

- c. **RIGHT OF ENTRY AND INSPECTION:** Aerojet and Aerojet's customer and/or government representatives reserves the right to assign representatives, including, on an itinerant or resident basis at the Supplier's facility or those of lower-tier suppliers for any purpose including verifying all tests and/or inspections performed as a part of the terms and conditions of this purchase order(s). Suppliers are required to provide Aerojet representatives and Aerojet's customer and/or government representatives with reasonable facilities and equipment and access to all areas essential to complete this task throughout all periods of performance under this purchase order(s).

Where the purchase agreement indicates the work being performed is part of a government contract, and therefore subject to surveillance by authorized Government Representative(s), upon receipt of this contract/purchase order, contact the Government Representative who normally services your plant (if applicable). In the event the Government Representative or DCMA office is not located or available, notify the Aerojet Buyer or Subcontract Manager on your contract (in writing) for assistance.

Product acceptance through surveillance, inspection or test made by Aerojet and Aerojet's customer and/or government representatives at Aerojet facilities or at the supplier's and/or their sub-tier supplier's facilities shall not relieve the supplier of the responsibility to furnish an end item that conforms to the requirements of the procurement document.

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- d. **LOT CONTROL:** The Supplier shall maintain a system that assures full traceability to the material/manufacturing lot and/or any applicable requirements imposed by listed drawing or specification standards. The Supplier shall maintain records that provide lot/batch traceability/batch control number for each shipment. Materials used must be traceable to the manufacturer's records of acceptance and identified by applicable lot number, date code, material type, specification, applicable change letter or number, heat number, etc. The Supplier shall make all possible efforts to minimize the number of lot/date codes included in each shipment. If multiple lots must be used, each lot shall be segregated for packaging and shipment to Aerojet.
- e. **CALIBRATION SYSTEM REQUIREMENTS:** The Supplier shall maintain a calibration system that complies with one of the following specifications (or an equivalent): ANSI Z540.1 or ISO/IEC 17025. This provision shall be applicable to all inspection, test and measuring equipment used by the supplier or supplied by Aerojet for inspection or test. All test equipment and gages used must be traceable to NIST standards.
- f. **FOREIGN OBJECT ELIMINATION:** Supplier shall take steps to mitigate contamination by foreign objects/debris throughout the manufacture, assembly, test and shipping processes. The Supplier will document, investigate, determine root cause, and eliminate repetitive nonconformances related to Foreign Object Debris (FOD) incidents. In addition, packaging materials will be taken into consideration when mitigating FOD; packaging materials that generate particles, fibers, or other debris are not acceptable. Specification NAS 412 shall be used as a guide for FOD programs.
- g. **NONCONFORMING PRODUCT:**
- **NONCONFORMING ITEMS SHALL NOT BE SHIPPED UNLESS AUTHORIZED IN WRITING BY THE AEROJET BUYER.**

Aerojet reserves the right to return, at the Supplier's expense, any or all of a lot in which nonconforming parts have been found during at any time.

A nonconformance **may** be considered but is not a guarantee for acceptance. No matter where the failure occurs in the process, the Supplier shall document the nonconformance as request for nonconformance consideration and submitted on the Supplier Nonconformance Request (SNR) form (Form QMA-AF003). This shall be submitted to the Aerojet Buyer and Supplier Quality Representative. Submission is NOT acceptance; suppliers must receive approval of the SNR in writing before shipment. The supplier's form may be used so long as all the information of the SNR is on the form and the format is comparable. The acceptance of a nonconforming item shall not be considered a precedent for future actions. Copies of all Aerojet nonconformance forms shall accompany the shipment of nonconforming items.

Rework is considered the return to conformance a nonconforming feature or item using original instructions and processes. Nonconforming items that results in rework beyond existing instructions, requires written rework instructions and those rework instructions will capture the results of the rework. Rework documentation shall be made available for Aerojet review upon request. This requirement shall be flowed down to all sub-tier suppliers. Under no circumstance shall a repair (the use of different methods, materials or processes to correct a nonconformance) be permitted without prior Aerojet approval.

- h. **MATERIAL REVIEW BOARD AUTHORITY**

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- **MRB AUTHORITY IS NOT GRANTED UNLESS SPECIFICALLY AUTHORIZED IN WRITING BY THE AEROJET BUYER.**

The Material Review Board is a panel of technically qualified individuals appointed for the purpose of reviewing, evaluating and determining (or recommending) disposition of non-conformances to defined engineering requirements. IF allowed the authority for nonconformance dispositions are delegated on the purchase order unless the material for the order is supplied by Aerojet.

Authority for a disposition of "Repair" and/or "Use-As-Is" dispositions shall come from the Aerojet Quality and Mission Assurance organization.

- i. **NOTICE OF PREVIOUS REJECTION:** The supplier's shipping paperwork for material submitted to Aerojet in response to a Return to Supplier (RTS) or Rework disposition on a Suppliers Nonconformance Report (NCR) or Aerojet Supplier Nonconformance Review (SNR) datasheet shall include items 1 and 2 and may include item 3 as required.
 1. A statement identifying whether the material was replaced or reworked.
 2. The Suppliers NCR and/or Aerojet's NC/SNR number.
 3. If reworked, a description of the rework performed.If the item was originally Source Inspected by Aerojet then any returned item is subsequently required to be inspected by Aerojet Source Inspection before shipment.
- j. **REQUESTS FOR CORRECTIVE ACTION:** The supplier shall respond to Aerojet requests for corrective action. The supplier's response to any such request shall be timely and **must** include the root cause of the problem, the statement of the action taken to preclude a recurrence, and the effectivity of the action. When Aerojet Source Surveillance is a Purchase Order requirement (F03), the supplier shall obtain the signature of the Aerojet Quality representative on the supplier's response.
- k. **REQUESTS FOR APPROVAL:** The Supplier Submission Request (SSR) Form QMA-AF002 is to be used for any requests or submissions other than those associated with nonconformances as described in this document. This includes the submission of First Article Inspection Reports (FAIRs), Special Process Approvals or any other approval or request for information that the supplier may have. These requests can only be answered or approved by the Authorized Aerojet Supply Chain representative (Buyer or Subcontract Manager on your contract) in writing.
- l. **CHANGE MANAGEMENT:** Aerojet must be notified by the Supplier no less than 30 days in advance of the following:
 1. Changes to product characteristics / configurations / specifications
 2. Changes to OCM/OEM Sources of Supply of items used (including location)
 3. Changes to Manufacturing Locations (internal or external)
 4. Changes to equipment, including relocation, internal and external

The supplier agrees to maintain strict controls to assure that, after the item(s) successfully pass qualification/acceptance by Aerojet, that neither the design, material, part, process, procedure, tooling or test equipment shall be altered, redesigned or replaced by any other design, material, part, process, procedure, tooling or test equipment, nor shall the item(s) be produced at other than the suppliers original facility which produced the acceptable item(s), without written approval of Aerojet Buyer.

2. Sources of Supply

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- a. **OCM/OEM SOURCES:** All Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM) materials used in this order must have been procured by the Supplier from either the original / approved manufacturer or an authorized distributor of the manufacturer. In the case of raw materials (such as metal sheet, bar or tube, and similar items) distributors do not necessarily need to be "Authorized" but there must be traceability and documentation back to the original manufacturer of the material. Any items that have not been procured by the supplier per this requirement must have a statement by the Aerojet Buyer explaining and allowing the deviation from this requirement prior to delivery of the item(s) to Aerojet.
- b. **SPECIAL PROCESS SOURCES:** Internal or External performance of Special Processes (at any level) as defined on Aerojet drawings or in Aerojet design information, shall be performed by a Nadcap approved source or shall be approved by Aerojet. Requirements and submissions for Special Processes shall be indicated on the Purchase Order separately. Evidence of NADCAP accredited processors shall be included in the data package submitted to Aerojet. Requests for Special Process approvals shall be submitted in writing to the Aerojet Buyer via the SSR form (see 1.k above).
3. **Material Requirements: OBSOLESCENCE MANAGEMENT-**The supplier shall monitor the life cycle status and availability of parts and/or materials through the duration of the contract. Parts/material determined to be unavailable or identified as "unavailable for new designs" shall be reported to the buyer within seven working days of obtaining this designation.
4. **Documentation Requirements**
- a. **CERTIFICATES of CONFORMANCE (C of C):** The Supplier shall provide with each shipment a legible Certificate of Conformance which states that the items were produced, processed, and/or tested in accordance with stated applicable purchase order or subcontract requirements. Certifications shall be signed by a company Quality Assurance Representative or Responsible Company Official. The following information is required on the certification at a minimum:
- Supplier Name, address and contact information and manufacturer's name (if different from Supplier) if applicable or be traceable to other supplied documents
 - Purchase Order Number
 - Aerojet part number (including revision), and Lot, MO, or Batch Number if applicable.
 - Specification Number (including revisions and amendments)
 - Serial numbers of Serialized Parts must appear on or be linked to the C of C.
- The Certificate of Conformance shall provide a link (via the Supplier's internal job number, work order number, or other identifier) to all documentation for this product. The Certificate must include the manufacturer's certification or complete traceability from the original authorized manufacturer for the product(s) shipped.
- b. **DOCUMENT LEGIBILITY:** All submitted documentation, including signatures and stamps, *must* be legible. Documents requiring corrections shall comply with the following requirements:
- Each error *must* be lined through once.
 - The correct information *must* be entered near the error.
 - Each entry *must* be initialed/stamped and dated.
 - Use of correction tape/fluid is prohibited.

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- c. **ELECTRONIC SIGNATURES:** Electronic signatures and dates on Supplier-submitted documentation are acceptable when the Supplier has a procedure / process to control the use of passwords or programs for the application of electronic signatures.
- d. **ELECTRONIC SUBMISSION FOR DOCUMENT APPROVAL:** When required by the purchase order, supplier's certification documentation must be uploaded to Aerojet's iSupplier web portal, or transferred by alternate method arranged with the Aerojet Buyer, prior to shipment of hardware to Aerojet. Suppliers without current iSupplier access, please contact the Aerojet Buyer to coordinate iSupplier account activation. When electronic submission is required by the purchase order, the supplier is not authorized to ship items per the PO to Aerojet without prior written approval that supplier documentation package is approved by Aerojet's quality representative.
- Example file name: PO-Line item (SXXXXX-00X.pdf).
 - At a minimum, the supplier will submit electronically, all certifications, test reports and delivery documentation required by paragraph 4.a above and any additional Quality Notes on the PO.
- e. **RECORD RETENTION:** Supplier shall keep on file records reflecting that all materials and finished items were controlled and tested in accordance with and met the specifications detailed on the purchase order. Such records shall be available for Aerojet examination. Records shall be retained **5 years** after final payment unless otherwise stated in additional Quality Notes. Records shall be maintained for the retention period in a manner that prevents damage from fire, moisture, pests, power interruption, or any other deteriorating effects. Supplier shall notify Aerojet buyer if conformance to this requirement cannot be met. In such an instance, copies of records shall be provided to Aerojet, who shall retain such records for the required record retention period. Aerojet shall be notified thirty days prior to destruction of documentation related to Aerojet orders.

5. Storage, Packaging and Marking Requirements

- a. **ESD:** Where electrostatic discharge control (ESD) is a requirement, supplied items shall be manufactured, handled, received, stored, and shipped in a manner to preclude damage from ESD in accordance with ANSI/ESD-S20.20. Packaging/containers shall be appropriately identified to show electrostatic protection.
- b. **SAMPLE SUBMISSION:** Parts, samples or items that are shipped as required for testing or destructive testing (such as test coupons, representative parts or DPA) shall be packaged separately and uniquely identified as samples or test articles and not for flight or production usage.
- c. **PACKAGING REQUIREMENTS:** Packaging shall first conform to all requirements specified on drawings, specifications and the purchase order and then to the following:
1. Materials shall be packaged in a manner that will prevent damage and preclude moisture, foreign matter or contamination damage, and be properly maintained (e.g. temperature / humidity-controlled) prior to receipt by Aerojet. Identification must be extended to the lowest level of unit packaging and shall be sufficiently clear to identify the contents of the package.
 2. Unit Package shall be so designed and constructed that it will contain the contents with no damage to them and with minimal damage to the unit pack during shipment and storage in the shipping container, and will allow subsequent handling. Unless otherwise specified, the unit package quantity shall be one each part, set, or assembly. Excepted are small lightweight items, for example, industrial hardware, which will be unit packaged in quantities

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that are standard in the trade. Bulk packaging is specifically excluded unless specified in the contract or order.

3. Bare metal material having surface protective treatment such as plating, painting, anodizing, conversion coating, etc., shall be wrapped separately in chemically-neutral paper or equivalent to prevent damage to the coating.
4. Material of different part numbers or revision, or items that are re-submittals in response to Return to Supplier disposition on an Aerojet Nonconformance Report, shall not be mixed in a single container unless they are segregated in properly identified intermediate containers.

6. **Suspect and Counterfeit Parts Prevention**

- a. Supplier shall establish and maintain controls which seek to prevent the purchase and delivery of Suspect and Counterfeit Parts to Aerojet. Supplier shall only purchase products to be delivered or incorporated as Work to Aerojet directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM) or through an OCM/OEM authorized distributor chain. Work shall not be acquired by the supplier and furnished to Aerojet from independent distributors or brokers **unless approved in advance and in writing by Aerojet.**
- b. Supplier shall immediately notify Aerojet with the pertinent facts if the Supplier becomes aware that it has furnished Suspect or Counterfeit parts. After such notification, when requested by Aerojet, Supplier shall provide copies of OCM/OEM documentation in its possession that authenticates traceability (up to and including other testing validation methods) of the affected items to the applicable OCM/OEM.
- c. Suspect counterfeit parts and/or materials shall be immediately quarantined to prevent parts/materials from getting back into component/materials supply chain until authenticity validation can be conducted.
- d. In the event that the Supplier delivers items under this Contract that are determined to be counterfeit, Supplier shall, at its expense, (i) promptly replace such Counterfeit items with items conforming to the requirements of this Contract, and (ii) reimburse Aerojet for all reasonable, direct costs incurred for the removal and replacement of Counterfeit items, including any testing costs necessitated by the removal and replacement, if any.
- e. Suppliers eligible for utilization of the Government-Industry Data Exchange Program (GIDEP) shall utilize the GIDEP process to alert industry of encountered counterfeit parts. Supplier is prohibited from shipping material for which a GIDEP Alert has been issued. The supplier agrees to support Aerojet in GIDEP compliance efforts. Also the Supplier shall not ship any suspected counterfeit parts as notified by Aerojet of any alerts or other suspect counterfeit conditions.
- f. Supplier shall include paragraphs (a) through (e) 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 Aerojet.

7. **Military Specification Cancellation:** DoD Acquisition Reform has resulted in the obsoleting or cancellation of some military specifications, and in some cases no replacements are noted. In some cases the obsolete specification is not for new designs but is still valid for existing applications. Aerojet encourages its suppliers to request approval for use of alternate specifications that replace cancelled specifications. If a cancelled specification lists an alternate, please notify Aerojet Buyer of alternate specification use.

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