
AR1: Quality Management Systems - Requirements for Aviation, Space and Defense Organizations (AS9100) and General Requirements**TABLE OF CONTENTS**

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1. Quality Management System (QMS) Requirements

During the performance of this Contract/Purchase Order (C/PO), the seller shall be certified / registered to the Quality Management Systems - Aerospace - Requirements of AS/EN/JISQ 9100. In certain cases Aerojet Rocketdyne (AR) may approve suppliers to be sellers with a limited status on the Approved Supplier List that are subject to additional requirements and limitations.

Supplier Certificate(s) of Registration must be issued by a Certification Registration Body (CRB). The CRB must be accredited under the control of the International Aerospace Quality Group (IAQG) certification/registration schemes, as recognized by the Aerospace Standard SAE AS 9104-1. Reference the IAQG OASIS website for a listing of accredited CRBs.

Note: Suppliers will need to register on the IAQG website and receive a password in order to view the list of accredited CRBs. WWW.IAQG.ORG/OASIS

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 consideration. Any loss or change of certification (revoked, suspended, expired or cancelled) or 3rd party major findings shall be immediately reported to Aerojet Rocketdyne via email notification to SQA@rocket.com.

Suppliers shall permit Aerojet Rocketdyne access to all data in OASIS and Nadcap special process databases including registration documentation, certification, audit reports, findings, corrective actions, etc.

Aerojet Rocketdyne reserves the right to input significant and/or frequent escape data and major audit findings regarding suppliers into the relevant OASIS data base records for those Suppliers.

The buyer has the right to conduct AS9100 quality system/process assessments (audits) at seller's facility as required.

For rare occasions, that a supplier does not have the QMS standard third party certification listed in the IAQG OASIS database, then said supplier will expected to be in compliance with the AS9100 standard and be subject to audit as deemed appropriate by Aerojet Rocketdyne. Any questions relative to the Quality Requirements in this document, other Quality Clause Provisions, or Aerojet Rocketdyne Supplier Quality Assurance (SQA) activities described in this order can be directed to: SQA@Rocket.com. Include in your email the Aerojet Rocketdyne Purchase Order number, Aerojet Rocketdyne Purchase Order issuing or originating site/location, and the delivery location.

2. General Requirements

a. Purchase Order Requirements and Quality Provision Clauses:

Failure to comply or partial compliance with any clause specified by the purchase order and included Quality Clauses shall be cause for rejection and return of the item(s). Verbal agreements or instructions shall under no circumstances be construed as approval or authorization to proceed. 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 Clauses. The supplier shall flow down to sub-tier suppliers all applicable requirements in the purchasing documents, including classified characteristics if so identified.

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2. General Requirements (Cont'd):

b. Right of Entry and Inspection:

Aerojet Rocketdyne and Aerojet Rocketdyne's customer and/or government representatives reserve the right to assign representatives for any purpose including verifying all tests and/or inspections performed as a part of the terms and conditions of this purchase order(s). These representatives may be on an itinerant or resident basis at the Supplier's facility or those of lower tier suppliers. Suppliers are required to provide Aerojet Rocketdyne representatives and Aerojet Rocketdyne'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).

c. Information Request/Submission/Notifications:

Request for changes, drawing clarification, use of an alternate method and/or submittal of Process Control Plans, First Article Inspection Reports (FAIRs), sampling plans, etc. should be communicated via the Supplier Action Information Request (SAIR) process available from iSupplier Portal.

d. Change Management:

Except for first time purchases, items furnished under this Purchase Order shall be identical in configuration, form, fit, function, and performance to the product previously approved by Aerojet Rocketdyne. Supplier shall assure that only AR authorized changes are incorporated into engineering documents, process planning, and hardware.

The supplier shall notify Aerojet Rocketdyne no less than 30 days in advance of any proposed changes including changes in design, materials, COTS and source controlled items OCM/OEM, fabrication methods or processes, major plant rearrangement, or plant relocation and changes that will or could impact the item's configuration, form, fit, function, or performance. Suppliers of supplier designed items are not exempt from change notification. Any change notification will include a statement assessing the impact of the change on any of these characteristics or features of the items being supplied and proposed action or plan to validate the impact stated. Change notifications pertaining to COTS, source controlled and supplier designed items must include certifications from all distributors involved in the procurement as well as the OCM/OEM. Any such changes must be approved prior to delivery of items affected by or addressed in the notification. Change Notifications will be submitted as described in paragraph 2.c above.

e. Lot Control/Material Traceability:

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. In cases where raw material is modified by the supplier (i.e. cut to length, rough **Lot** machined, etc.), in a way where original markings can't be verified, the Supplier shall mark the material or the package which contains the material in accordance with this requirement.

The Supplier shall make all possible efforts to minimize the number of lot/date codes used in a specific process (i.e. single heat lot) included in each shipment. If multiple lots must be used, each lot shall be segregated for packaging and shipment to Aerojet Rocketdyne.

Where Aerojet Rocketdyne owns the design of an article purchased from a supplier (first-tier) who further subcontracts all or portions of that work to other subcontractors (second-tier), the first-tier supplier's purchase order must state that the articles are "for Aerojet Rocketdyne end use" and assure that all applicable requirements are flowed down.

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2. General Requirements (Cont'd):

f. Aerojet Rocketdyne-assigned serial numbers:

The seller end items shall be identified with Aerojet Rocketdyne provided serial numbers when defined in applicable drawings, specifications, and the purchase order. Serial numbers shall not be duplicated. Serial numbers shall provide full traceability to all material, fabrication, assembly, inspection, and test documentation.

Serial numbers for DSO and SSO are requested /provided from group mailbox gppwrssn@rocket.com.

For all other sites, buyer will provide the serial number. Each site has different convention for serialization.

g. 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 Rocketdyne for inspection or test. All test equipment and gages used must be traceable to NIST standards.

h. 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 is recommended to be used as a guide for FOD programs.

i. Nonconforming Product

NONCONFORMING ITEMS SHALL NOT BE SHIPPED UNLESS AUTHORIZED IN WRITING BY THE AEROJET ROCKETDYNE BUYER.

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

Rework is considered the return to conformance of a nonconforming feature or item using original instructions and processes. Nonconforming items that result 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 Rocketdyne 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 Rocketdyne approval.

A nonconformance that cannot be returned to conformance as stated above **may** be submitted to Aerojet Rocketdyne for consideration (as directed below) but is not a guarantee for acceptance:

Supplier shall utilize the Aerojet Rocketdyne Supplier Portal Gateway to submit nonconformances. Requests for clarification or supplemental information about the cause and corrective action associated with nonconformances submitted by the supplier, or created by Aerojet Rocketdyne for supplier provided hardware, shall be provided to Aerojet Rocketdyne within 7 days of the request date.

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Submission is **NOT** acceptance; suppliers must receive approval in writing or approval via the Supplier Portal before shipment. The acceptance of a nonconforming item shall not be considered a precedent for future actions. Copies of all Aerojet Rocketdyne approved nonconformances shall accompany the shipment of nonconforming items.

j. Material Review Board Authority (MRB):

MRB AUTHORITY IS NOT GRANTED UNLESS SPECIFICALLY AUTHORIZED IN WRITING BY THE AEROJET ROCKETDYNE 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 is delegated on the purchase order unless the material for the order is supplied by Aerojet Rocketdyne.

Authority for a disposition of "Repair" and/or "Use-As-Is" dispositions shall come from the Aerojet Rocketdyne Material Review Board.

k. Requests for Corrective Action:

The supplier shall respond to Aerojet Rocketdyne requests for corrective action. The supplier's response to any such request shall be within the requested response time, usually 30 days 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.

Seller shall notify Aerojet Rocketdyne if seller or seller's sub-tier suppliers receive a U.S. Government Corrective Action Request (GCAR) related to goods, services, or systemic nonconformances provided or associated with this Purchase Order within five (5) working days of receipt. Upon Buyer request, Seller shall provide:

- Copy of the GCAR and any related documentation.
- Reasonable opportunity for Buyer to review Seller's and/or Seller's Sub-Tier Supplier proposed draft response, as relevant, to the GCAR prior to submission of the response to the U.S. Government.
- Copy of the final GCAR response submitted to the U.S. Government.

l. Digital Product Definition (DPD) Process:

Supplier is required to maintain documented digital product definition (DPD) process. Supplier must ensure dataset derivatives traceable back to the current authority dataset. Additionally, inspection media is independently derived from and traceable to the authority dataset. Ensure documented process is in place to document first article inspections (FAI's) for product produced from authority datasets. Supplier is responsible to verify 100% of all the features when using customer drawing and or datasets. The same supplier generated derivative 3-D model cannot be used for programming of the fabrication machines (i.e. CNC Programs) and inspection equipment without documented evidence of an independent validation for compliance to the drawing or model provided by Aerojet Rocketdyne.

m. First Article Inspection/Sampling:

First Article Inspection (FAI) shall be performed by Seller in accordance with the requirements of AS9102. The supplier may use any AS9102 compliant FAI form for Standard FAIs but must use AR FAI/CM Combination Form, [QMA-F-5.04.03.00.0007](#), when quality clauses Q252 or Q253 are specified on the Purchase Order and require it's use.

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2. General Requirements (Cont'd):

m. First Article Inspection/Sampling (cont'd):

The exclusion for unique single run production orders not intended for ongoing production, shall not apply. Seller shall provide a complete First Article Inspection Report (FAIR), conforming to AS9102, for all top level deliverable part numbers listed on the PO and all assemblies, sub-assemblies, and detailed components defined by Aerojet Rocketdyne or AR customer designs used in the fabrication of those deliverable items (including those based on supplier designs). For those parts not defined by AR or AR customer designs, seller shall provide the deliverable part number FAI reports to AR and maintain all other FAI reports and records at their facility and make them available to AR for review upon request.

In performing an FAI the Seller shall include all dimensions, notes and acceptance criteria listed in AR and customer performance and test specifications. When multiple quality requirements are included in an Acceptance Test Plan (ATP) specification, drawing notes or compound dimensional features, then the requirement shall be expanded to multiple entries to cover each of the verifiable quality requirements.

- For ATP specifications, each of the requirements in the Quality Assurance Verification section (typically section 3 or 4) of the specification shall be reported as separate items. ATP requirements shall be reported as either attribute or variable requirements depending on how they are written and captured. Statements performing a task are typically attribute while tabular requirements specifying single measurable requirements are typically variable.

An A/T specification defines a comprehensive list of tests to be performed on a completed assembly to validate final acceptance for use (e.g.: Perform Acceptance Testing per ATC-87654).

- For complex drawing notes, there are 2 simple rules to follow in breaking them out. Consider each sentence and each Certified Special Process as separate reportable requirements on the FAI. For example, a drawing note callout of "Proof pressure test at 1800 +/- 50 psig using GN2. Leak test at 500 +/- 25 psig per ATC-47063." shall be broken out into 2 separate attribute requirements:

"Proof pressure test at 1800 +/- 50 psig using GN2" and

"Leak test at 500 +/- 25 psig per ATC-47063."

- It is not necessary to break the attribute requirements any further in an attempt to capture the variable components of the callouts. The variable components are a requirement of acceptance but are not necessary to report on the FAI.

- For compound dimensional features, the feature shall be broken down into each major requirement and captured/reported as separate variable requirements. For example, a compound dimensional callout for diameter size and position shall be broken out into 2 separate measurable variable features (size and positional tolerance). Any modifications of based on MMC, LMC or such shall be explained in the comments.

- Basic and reference characteristics are not required to be included in FAI forms. If they are listed they shall not be used for accept/reject.

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AR may review FAI at any time that includes in-process and/or final FAI validation points. The FAIR must include a bubbled drawing or approved equivalent to support AS9102. The supplier shall provide material certifications and evidence of traceability for all items used in the Bill of Materials. AR retains the right to witness all First Article Inspections. The seller shall notify the AR buyer prior to starting the First Article Inspection or when implementing any changes to achieve a partial FAI or re-accomplish an FAI.

When completing the forms, the following are designated by Aerojet Rocketdyne as required fields in addition to AS9102:

- Serial Number (Field 3)* (Form 1, 2 and 3)
- FAIR Number (Field 4) (Form 1, 2 and 3)
- Part Revision level (Field 5) (Form 1)
- Drawing Number (Field 6) (Form 1)
- Supplier Code (Field 11) (Form 1)
- P.O. Number (Field 12) (Form 1)
- Material or Process Name (Field 5) (Form 2)
- Supplier Complete Address Required (Form 2)

*Lot/Date code shall be recorded when serial numbers are not assigned.

Seller shall submit full or partial FAIs for approval through the SAIR process defined in section 2c. AR will review and respond with approval or return to supplier for updates. The seller shall also submit the FAI with all of the applicable material certifications with the electronic C of C for the specific FAI item being shipped. AR reserves the right to require seller to perform a partial or full FAI when triggers stated in AS9102 occur or when AR identifies a discrepancy between AR data.

For product releases subsequent to FAI, AR must approve implementation of statistical sampling or the use of an operator certification program or other special manufacturing methodologies (e.g. manufacturing controlling features, die/mold control, method of manufacturing, etc.) Otherwise, 100% inspection is required.

- Only seller parts that are produced with automated equipment and are demonstrating low variation characteristics as well as high performance levels of quality will be considered for sampling. Seller shall identify potential parts and submit a request.

n. Supplier Designed Special Tooling/Gages

Any tools, gages, or other media designed and fabricated by the supplier for the purpose of inspection, functional verification, or acceptance of product or any product design characteristics or functional/performance requirements will be submitted to Aerojet Rocketdyne for review and approval (ref para.2.c). The submittal shall include the media's description, product physical or functional characteristics intended to be verified, and the plan or action to validate the media's ability to accurately and reliability verify or demonstrate the conformance of those characteristics to design, specification, or contract.

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AR1: Quality Management Systems - Requirements for Aviation, Space and Defense Organizations (AS9100) and General Requirements**3. Sources of Supply: OCM/OEM Sources / Qualified Products List (QPL):**

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 Rocketdyne Buyer explaining and allowing the deviation from this requirement prior to delivery of the item(s) to Aerojet Rocketdyne. When the design requirements include QPL items, traceability to the required qualified listed supplier must be included.

4. Special Process Sources:

Special Processes defined on Aerojet Rocketdyne (AR) and AR customer drawings shall be performed by Aerojet Rocketdyne approved processors (listed in the [Aerojet Rocketdyne Supplier Portal Gateway](#)). Special Processes defined on supplier drawings must be controlled by the supplier but are exempt from this requirement. For specifications that require Supplier Material Process Procedure (SMPP) approval, supplier shall perform work and certify to the specification revision referenced on the AR approved SMPP.

Special processes are processes such as, but are not limited to, metallurgical and chemical processes, metal joining, bonding, plating, coating, anodize, surface treatment, cleaning and material removal by non-conventional methods, water jet, etc. which also includes selected nondestructive inspection methods (Radiography, Ultrasonic, Eddy Current, Liquid Penetrant, and Magnetic Particle) used to evaluate item conformance to design and quality requirements. Aerojet Rocketdyne Company design specifications and/or industry specifications controlling these processes are referred to as Special Process specifications also known as 'certified special processes'. *Nadcap approval for industry special processes is preferred but special process source is still required to be listed in the Approved processor list in the Supplier Portal Gateway.*

5. Documentation Requirements:**a. Electronic pre-approval prior to shipment:**

Prior to shipment of product, Seller shall provide all contract required quality related documentation through [Aerojet Rocketdyne Supplier Portal](#) for Buyer's review and acceptance seven days prior (7) to promise date. If Seller is not registered on the Supplier Portal, Seller shall contact Buyer to activate registration process. Aerojet Rocketdyne product acceptance prior to delivery (e.g. Source Inspection, Electronic Certificate of Conformance) does not exonerate the prime supplier their sub tiers or their CSP suppliers from providing conforming products.

b. 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:

1. Purchase Order Number, Item Number (dash number)
2. Aerojet Rocketdyne part number (including revision), and Lot, Manufacturing Order, or Batch Number if applicable.
3. Supplier Name, address and contact information and manufacturer's name (if different from Supplier) if applicable or be traceable to other supplied documents
4. Specification Number (including revisions and amendments)
5. Serial numbers of Serialized Parts must appear on or be linked to the C of C.

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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.

Aerojet Rocketdyne Supplied Material: If Buyer supplied materials/parts were used in performance of Buyer's purchase order, the Seller shall include reference to the Aerojet Rocketdyne Furnished Material Transmittal number or other traceability to Aerojet Rocketdyne's acceptance provided on the C of C.

c. Nonconformance Report (NCR) documents:

Supplier shall use Aerojet Rocketdyne Supplier Portal (<https://accessto.rocket.com/>) to submit any requests for Material Review.

Seller shall assure that all related Buyer Material Review (MR) records (NCR documents) dispositioned by Aerojet Rocketdyne Buyer are included with each shipment of articles.

Seller shall complete and present as part of the deliverable documentation package a Certificate of Conformance (C of C) that states the MR nonconformance numbers and status of the part(s) as follows: (Use the statements below as applicable)

1. "No MRs exists on the submitted article(s) at delivery."
2. "MRs exists and Seller has completed all rework/repairs required by the MR disposition".
3. "MRs exist and disposition is noted as 'Accept as is'.
4. "The part is being shipped/delivered with open or incomplete MR rework/repair(s) and has an MR hold tag attached to the hardware."

Note: If Seller has completed the MR rework or repairs, the documentation demonstrating objective evidence of the completed work shall be included.

Seller shall assure that all related Material Review (MR) records and (NCR documents) are included with the C of C for each shipment. Seller shall not ship items with open NCRs unless approved in writing by AR. If any MR NCRs are open and authorized to ship then the supplier shall add a statement to the C of C stating that "The part is being shipped/delivered with open or incomplete NCR#" and include the NCR number.

Seller shall present each MR and the C of C to Buyer's Quality representative for review when Buyer source inspection is a requirement of this Purchase Contract.

Seller shall also present each MR and C of C to the cognizant Government representative for review when directed by such MR disposition or when Government source inspection is a requirement of this Purchase Contract.

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The content of all documentation, including signatures, stamps and dates, *must* be permanent, legible, and reproducible. Documents requiring corrections shall comply with the following requirements:

1. Each error *must* be lined through once.
2. The correct information *must* be entered near the error.
3. All corrections must be made in ink.
4. Each entry *must* be initialed and/or stamped and dated.
5. Use of correction tape/fluid is prohibited.

e. Additional Data Submittal Requirements (Acceptance Data Package):

When the Purchase Order requires any additional supporting data or information in addition to the C of C, that documentation will be referenced on and/or attached to the Certificate of Conformance. For example:

1. Other Certificate of Conformances
2. Any evidence of Aerojet Rocketdyne approved nonconformances, waivers, or deviations (Reference: Paragraph 2.h above)
3. Raw Material Certifications including chemical and physical tests results and mill certifications.
4. Special Process Certifications). The Supplier shall provide a certification to each of the special processes performed on the delivered hardware.
5. Inspection/ Verification Data
6. Acceptance Test Data
7. As-Built Configuration List
8. Any additional certifications or approval requirement contained in the Purchase Order.

f. 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.

g. Record Retention:

Seller and Seller's Subcontractors shall maintain all records associated with items on this order (material test reports and certifications, inspections and test reports, process certifications and results, non-conformances with dispositions, etc.) supporting the items conformance to the item's design and specification requirements must be retained by the supplier in a safe location. Records shall be maintained in a manner that prevents damage from fire, moisture, pests, power interruption or any other deteriorating effects. Seller shall notify Aerojet Rocketdyne buyer if conformance to this requirement cannot be met. In such instances copies of records shall be provided to Aerojet Rocketdyne. Legible and reproducible electronic copies of records are acceptable. Written approval from the Aerojet Rocketdyne buyer must be obtained prior to destroying any records associated with this contract. Aerojet Rocketdyne shall be notified thirty days prior to destruction of documentation related to Aerojet Rocketdyne orders.

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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 Rocketdyne 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 Rocketdyne Buyer of alternate specification use.

7. 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.

8. Suspect and Counterfeit Parts Prevention / GIDEP

- a. Supplier shall establish and maintain controls which seek to prevent the purchase and delivery of Suspect and Counterfeit Parts to Aerojet Rocketdyne. Supplier shall only purchase products to be delivered to Aerojet Rocketdyne directly from the Original Component Manufacturer (OCM)/Original Equipment Manufacturer (OEM) or through an OCM/OEM authorized distributor chain. Parts shall not be acquired by the supplier and furnished to Aerojet Rocketdyne from independent distributors or brokers **unless approved in advance and in writing by Aerojet Rocketdyne.**
- b. **Supplier** shall immediately notify Aerojet Rocketdyne with the pertinent facts if the Supplier becomes aware that it has furnished Suspect or Counterfeit parts. After such notification, when requested by Aerojet Rocketdyne, 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 Rocketdyne 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 Rocketdyne in GIDEP compliance efforts. Also the Supplier shall not ship any suspected counterfeit parts as notified by Aerojet Rocketdyne of any alerts or other suspect counterfeit conditions.
- f. Supplier shall include paragraphs 8.a through 8.e of this section or equivalent provisions in lower tier subcontracts for the delivery of items that will be included in or furnished as Work to Aerojet Rocketdyne.

9. Packaging, Marking, Handling, and Storage Requirements:

These requirements reflect what Aerojet Rocketdyne considers good practices to protect and control items being delivered and are not intended to supersede or conflict with any packing and packaging requirements contained in an item's design information or otherwise contained in the Aerojet Rocketdyne Purchase Order.

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Applicable Revision: The revision in effect at the time the purchase order is placed.

AR1: Quality Management Systems - Requirements for Aviation, Space and Defense Organizations (AS9100) and General Requirements

9. Packaging, Marking, Handling, and Storage Requirements (Cont'd):

General: Materials shall be packaged in a manner that will prevent damage and preclude moisture, foreign matter or contamination damage. When multiple items are to be shipped in a package, the items will be individually packed or wrapped in a manner to prevent damage due to contact with other items.

Marking, labeling, and identification must be extended to the lowest level of unit packaging and shall be sufficiently clear to identify the contents of the package.

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.

Handling, protection, or packaging shall not be accomplished using tapes which have glass beads in the tape (i.e., nylon reinforced tape) or on the tape as a separator. This requirement shall be placed in purchase order(s) to your sub tier suppliers.

a. Time, Temperature, Static Discharge, or Environmentally Sensitive Items.

Items described in their design, specification, or manufacturers' documentation as sensitive to time, temperature electrostatic discharge, or other environmental conditions and have special packaging, marking, and handling requirements and controls specified, shall be packaged, marked, and handled in accordance with those requirements and controls to preclude damage or deterioration to the product during shipment and upon receipt.

b. Returned Product and Test Articles/Coupons, etc.

Items being delivered as a result of a Return to Supplier disposition on an Aerojet Rocketdyne Nonconformance Report (NC), shall be segregated from other shipments in properly identified intermediate packaging and be clearly marked as such with the item identification (Part and Serial Number) and Aerojet Rocketdyne NC number.

Parts, samples, items, test coupons that are shipped as required for testing or destructive testing or have been expended in testing shall be packaged separately and uniquely identified as samples or test articles and not for flight or production usage.

Information specifications referenced in this document:

ANSI Z540.1 or ISO/IEC 17025	Calibration Laboratories and Measuring and Test Equipment - General Requirements for Calibration of Measuring and Test Equipment
NAS 412	Foreign Object Damage/Foreign Object Debris (FOD) Prevention
SAE AS9100	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations
SAE AS9102	Aerospace First Article Inspection Requirement
SAE AS 9104-2	Requirements for Oversight of Aerospace Quality Management System Registration/Certification Programs

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