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Approved by:	SVP Quality, Jim Thompson	Date:	VP Supply Chain Management, Brian Schlegel		Date:
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Supplier Quality Management System Requirements

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Rationale

This manual establishes The NORDAM Group (hereafter referred to as NORDAM) Quality Management System (QMS) requirements for suppliers and all members of their supply chain who provide aerospace products, materials, processes or services to NORDAM locations world-wide.

Section 1 is structured as a companion to SAE Aerospace Standard AS9100C Quality Management Systems – Requirements for Aviation, Space and Defense Organizations, and is supplemented by unique NORDAM requirements as defined herein.


These specifications apply to all NORDAM suppliers and all members of their supply chain that design, develop, and /or produce aviation, space and defense products; and also provide post-delivery support, including the provision of maintenance, spare parts or materials for their own products. These suppliers and all members of their supply chain are expected to follow the requirements of AS9100C and the supplements noted in this section. The paragraphs in this section are numbered to correspond with the paragraphs of AS9100C.

Section 2 is structured as a companion to SAE Aerospace Standard AS9110B Quality Management Systems – Requirements for Aviation Maintenance Organizations and is supplemented by unique NORDAM requirements as defined herein.

These specifications apply to all NORDAM suppliers and all members of their supply chain whose primary business is providing maintenance, repair and overhaul services for aviation commercial and military products. This includes all sub-tier organizations with and without National Airworthiness Authority (NAA) repair station certification. These suppliers and all members of their supply chain are expected to follow the requirements of AS9110B and the supplements noted in this section. The paragraphs in this section are numbered to correspond with the paragraphs of AS9110B.

Section 3 is structured as a companion to SAE Aerospace Standard AS9120A Quality Management Systems – Requirements for Aviation, Space and Defense Distributors and is supplemented by unique NORDAM requirements as defined herein.

These specifications apply to all NORDAM suppliers and all members of their supply chain that procure parts, materials and assemblies and resells these products to a customer in the aviation, space and defense industries. This includes organizations that procure products and split them into smaller quantities including those that coordinate a customer controlled service on the product. These suppliers and all members of their supply chain are expected to follow the requirements of AS9120A and the supplements noted in this section. The paragraphs in this section are numbered to correspond with the paragraphs of AS9120A.

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Exceptions or the use of any alternative method of compliance from the requirements of this manual shall be documented by the supplier and submitted to the appropriate NORDAM buyer. The NORDAM quality department will review, document, and notify the supplier of any approved deviations from the requirements included herein.

Other unique requirements not contained in this Supplier Quality Manual may be flowed down to the supplier on the PO or other documents such as the Contract or Long Term Agreement (LTA).

FORWARD

A total commitment to customer satisfaction and continuous quality improvement must be shared by NORDAM and all of its suppliers. Each of us form part of a larger supply chain and together we must maintain effective quality management systems to provide superior quality products to our end customers.

It is the intent of NORDAM to purchase products, materials and services from suppliers who share this vision and who can consistently meet NORDAM's high expectations.


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SECTION 1

Quality Management Systems - Requirements for Manufacturers that Design, Develop and/or Produce Aviation, Space and Defense Products

INTRODUCTION

0.1 General.

No additional comments


0.2 Process Approach.

No additional comments

0.3 Policies and Information

- 0.3.1 Suppliers shall ensure that all members of their supply chain who supply parts to satisfy a NORDAM PO are compliant to this manual.
- 0.3.2 The supplier shall provide right of access to their facility and the facilities of all members of their supply chain for review, verification, and analysis of their quality management system, quality control, inspection system, and maintenance process. Right of access shall be granted to Federal Aviation Administration (FAA), National Transportation Safety Board (NTSB), Department of Transportation (DOT), Department of Defense (DOD), NORDAM (and qualified second or third parties) and NORDAM's customers. The FAA, NTSB, DOT, DOD, NORDAM, European Aviation Safety Agency (EASA), National Aviation Authority (NAA), and NORDAM's customers have the right to inspect and test all parts at all places and times to the extent practical and permitted under export control regulations. (ref. 7.4.2.i)
- 0.3.3 NORDAM reserves the right to maintain a NORDAM representative on-site at the supplier's or sub-tiers facilities.
- 0.3.4 NORDAM reserves the right to disapprove a supplier's Quality System as well as the Quality System of any member of their supply chain.
- 0.3.5 Supplier shall maintain a drug-free workplace program to provide a safe workplace and discourage alcohol and drug abuse.
- 0.3.6 Suppliers shall permit NORDAM access to all data in OASIS databases.
- 0.3.7 **STANDARDS OF ETHICAL BUSINESS CONDUCT.** NORDAM is committed to conducting business fairly, impartially, and in an ethical and proper manner. Supplier shall read NORDAM's Standard for Ethical Business Conduct found at www.nordam.com, my NORDAM (eBusiness), Public Documents, NORDAM Ethics Documents and supplier shall comply with the Standard while performing obligations to NORDAM.



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1.0 SCOPE

1.1 General

No additional requirements.

1.2 Application

This section of the manual contractually applies to NORDAM suppliers and all members of their supply chain who provide product, materials or services to prepare, build, support, or install parts onto an aircraft in accordance with NORDAM purchase order or contract requirements. NORDAM suppliers are required to access the NORDAM website to review this and any other document required to satisfy the PO requirements. The supplier shall perform a full documentation review of NORDAM specifications to ensure they are working to and flowing down to sub-tiers the latest revision documents including this manual.

Suppliers are responsible for notifying NORDAM of changes in the supplier's or sub-tier's management, ownership, name, location or address, change in process or product, loss of accreditation or quality system. The notification shall be provided to NORDAM in a written statement within seventy-two (72) hours of any of these changes. This notification shall be sent to the appropriate NORDAM buyer. Upon receipt of this written notification NORDAM will determine necessary actions.

2.0 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document.

- IAQG SCMH, International Aerospace Quality Group – Supply Chain Management Handbook.
- AS9015 - Supplier Self Verification Process Delegation Programs
- AS13000 – Problem Solving Requirements for Suppliers
- AS13003 – Measurement Systems Analysis Requirements for the Aero Engine Supply Chain

3.0 TERMS AND DEFINITIONS

No additional requirements.

4.0 QUALITY MANAGEMENT SYSTEM

4.1 General Requirements:

No additional requirements.

4.2 Documentation Requirements

4.2.1 General


No additional requirements.

4.2.2 Quality Manual

No additional requirements.

4.2.3 Control of Documents

a) No additional requirements.

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- b) Corrections to work instructions or documents shall be recorded, dated and traceable to the person making the change (e.g., signature, stamp, etc.) in ink or other permanent marking method with the original data being legible and retrievable after the change.
- c) No additional requirements.
- d) No additional requirements.
- e) All quality records (non-electronic) shall be documented in ink or other permanent marking.
- f) Documents submitted to NORDAM that contain technical data shall include a statement near the beginning of the document such as “This document contains technical data” or an equivalent statement. This statement shall be repeated throughout the document.
United States (U.S.) organizations shall also identify the Export Control Classification Number (ECCN) or U.S. Munitions List (USML) classification.
Other organizations shall identify applicable export classifications related to the documents submitted to NORDAM.

4.2.4 Control of Records

The supplier shall maintain an adequate records system. All records shall be retained in a safe and secure manner in electronic or paper format for a minimum of ten (10) years from completion of the NORDAM purchase order. NORDAM contract may require record retention to be extended beyond the ten (10) year retention period.

5.0 MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

No additional requirements.

5.2 Customer Focus

No additional requirements.

5.3 Quality Policy

No additional requirements.

5.4 Planning

No additional requirements.

5.5 Responsibility, Authority and Communication

No additional requirements.


5.6 Management Review

No additional requirements.

6.0 RESOURCE MANAGEMENT

6.1 Provision of Resources

No additional requirements.

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6.2 Human resources

No additional requirements.

6.3 Infrastructure

No additional requirements.

6.4 Work Environment

Lighting intensity and cleanliness for work areas and inspection benches shall be evaluated by the management for suitability for the work performed.

7.0 PRODUCT REALIZATION

7.1 Planning of Product Realization

No additional requirements.

7.1.1 Project Management

No additional requirements.

7.1.2 Risk Management

No additional requirements.

7.1.3 Configuration Management

No additional requirements.

7.1.4 Control of Work Transfers

Suppliers shall notify NORDAM of any planned work transfer or any planned change implementation within the supplier organization or its supply chain. This includes manufacturing locations changes within the organization or changes in a supplier or a sub-tier supplier's location. The supplier shall have documented procedures for implementing this requirement, ensuring it is applied in their supply base and that decisions to interrupt flow of material from any existing source shall not take place until approved by NORDAM. NORDAM may choose to participate in the transfer activity to mitigate any risks associated with the transfer.

If the transfer of work involves transfer of NORDAM ITAR or other technical data to a party or location requiring an export license, NORDAM must approve the work transfer. If approved, NORDAM will assist Supplier in obtaining all required government licenses prior to transfer of work.

NORDAM recommends a gated process to control work transfers. A guideline on implementing a process for work transfers can be found in the IAQG SCMH.

(International Aerospace Quality Group – Supply Chain Management Handbook)


7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to the Product

No additional requirements.

7.2.2 Review of Requirements Related to the Product

a-e) No additional requirements.

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f) **FAA Conformity Inspection**

When FAA Conformity Inspection is required on parts produced on the purchase order, conformity inspection is to be completed prior to shipment to NORDAM. The supplier producing the parts is responsible for the completion of, and all costs incurred with the accomplishment of the FAA conformity inspection.

g) **Source Inspection**

NORDAM source inspection may be required prior shipment from the supplier if noted in the purchase order. Upon receipt of purchase order the supplier shall promptly contact the appropriate NORDAM buyer to establish schedule and contact information.

h) **Parts Manufacturer Approval (PMA) or Type Technical Standard Order Authorization (TSOA) Holders.**

Supplier holding Parts Manufacturer Approval (PMA) shall provide Authorized Release Certificate (for example as applicable FAA 8130-3, EASA Form One, JAA Form One, or Transport Canada Form One) for each product.

Supplier approved to manufacture parts or components under a Parts Manufacturer Approval (PMA) or a Type Technical Standard Order Authorization (TSOA) shall retain documents from the FAA stating authorization to manufacture those parts per CFR Part 21.

Supplier not holding PMA may be requested to explain process for control and manufacturing of parts including a review of the quality, inspection and testing systems.

7.2.3 Customer Communication

a) Changes that may affect quality shall be documented and communicated to the applicable NORDAM representative prior to implementation of the change. The changes may require a full or partial FAI at the discretion of NORDAM.

Examples of Changes:


- Ownership
- Company name change
- Management
- Manufacturing location (ref. 7.1.4)
- Process (ref. 7.5.1)
- Product (ref. 7.5.1)
- Inspection Techniques (ref. 7.5.1)

b) All correspondence and communication between NORDAM and the supplier shall be in the English language. The supplier is responsible for providing supplier's specifications, procedures, and reports in the English language. In cases where the supplier maintains copies in their native language as well as in English and there is a conflict, the English language document shall take precedence.

c) No additional requirements.

7.3 Design and Development

No additional requirements.

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7.4 Purchasing

7.4.1 Purchasing Process

- a-f) No additional requirements.
- g) Supplier is responsible for ensuring that procurements from sub-tier suppliers conform to all requirements of the NORDAM purchase order, including the provisions of this manual.
- h) Suppliers shall take appropriate measures to prevent the use, purchase or sale of counterfeit and suspected unapproved materials and parts. A counterfeit or suspected unapproved part is any item misrepresented as having been designed and/or produced under an approved system or other acceptable method. Supplier shall have a process to assure safe, reliable product and mitigate the risk of counterfeit parts entering the system. If the supplier becomes aware of any item that has shipped to NORDAM that has become suspect, the supplier must immediately notify NORDAM's buyer and/or quality department.
- i) Sub-tier suppliers shall meet NORDAM quality requirements; it is the responsibility of the NORDAM approved supplier to ensure their sub-tier suppliers are qualified to NORDAM contract, purchase order, and requirements of this manual.

7.4.2 Purchasing Information

No additional requirements.

7.4.3 Verification of Purchased Product

- a) Suppliers that delegate verification of product to their sub-tier suppliers shall maintain an effective delegation process in accordance with AS9015 – Supplier Self Verification Process Delegation Programs. In addition, NORDAM suppliers shall ensure that their sub-tier suppliers comply with AS9015 for any delegation verification activity.

NORDAM reserves the right to authorize the delegation and to conduct surveillance at the supplier's and sub-tier supplier's facilities to verify that the Supplier quality system conforms to the requirements of AS9015.

- b) NORDAM reserves the right to implement a delegation of verification activities program.


7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

- a-k) No additional requirements.

- l) Key Characteristics:

When NORDAM drawing/model, specification, and/or purchase order, includes key characteristic requirements; supplier shall employ Variability Reduction/Statistical Process Control (VR/SPC) methods to ensure key characteristic integrity. VR/SPC related records shall be retained at supplier's facility and provided to NORDAM representative, upon request, for compliance review. The definition of key characteristics shall be those characteristics called out on engineering drawings/models and or purchase order/manufacturing notes. Supplier shall establish control plans for applicable

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key characteristics and strive to achieve a Cpk of 1.33 or better. If not achievable, contact the appropriate NORDAM quality manager for direction.

m) Non-destructive Testing:

Nondestructive Testing (NDT) processes as defined by ASNT SNT-TC-1A, type, level, extent and/or acceptance criteria shall be specified on the purchase order, drawings/models, or referenced specifications. Records, film, or other suitable documentation stating the acceptance or the rejection of the test performed shall accompany each shipment and shall include the name of the supplier that performed the testing. The NDT report shall contain purchase order number or supplier's traceable number (i.e. work order or job number, lot control number, batch number, serial number).

7.5.1.1 Production Process Verification


a) A First Article Inspection (FAI) shall be accomplished and performed in accordance with SAE AS 9102 and the additional requirements below:

- 1) A full or partial FAI shall be performed when one or more of the following conditions exist.
 - i. Initial part or assembly manufactured on the first NORDAM contract and/or purchase order,
 - ii. An engineering change affects part configuration, FAI is required on the modified characteristics,
 - iii. Latest first article was rejected; a new first article is required on nonconforming characteristics,
 - iv. Initial detail or assembly that is manufactured on new or reworked tooling that controls part configuration or when tooling is transferred to another plant or supplier,
 - v. Upon customer or NORDAM request,
 - vi. A lapse in production of two years,
 - vii. A natural or man-made event which may adversely affect the manufacturing process,
 - viii. A change in numerical control program or translation to another media that can potentially affect engineering drawing/model, specification, purchase order requirements,
 - ix. A change in manufacturing sources, processes, inspection methods, location of manufacture, tooling or materials, that can potentially affect engineering drawing/model, specification, purchase order requirements.

2) First Article Documentation

Supplier shall maintain records to comply with the First Article Inspection Report (FAIR) requirements of AS9102 First Article Inspection standard. The supplier's completed first article inspection documentation using AS9102 form shall accompany the shipment.

The FAIR shall include all dimensions/tests specified on the purchase order, drawings/models, and specifications referenced by the purchase order or drawing/model. At a minimum, inspected parts shall be identified in a manner to maintain traceability to the individual reports.

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All content representing Forms 1, 2 and 3 shall be completed. Indicate N/A where no data reported. The Inspector shall sign or stamp and date the form.

In addition to AS9102 requirements, each report shall also include the following:


- i. NORDAM part number and description.
 - ii. Purchase order number.
 - iii. 100% of engineering specified dimensions, actual values obtained, and acceptance or rejection indication of each characteristic.
 - iv. Compliance to engineering flag notes on drawing/model.
 - v. Special process certifications.
 - vi. Testing data.
 - vii. Material certifications.
 - viii. Specification and or drawing/model numbers and revision used during manufacturing/inspection.
 - ix. Location of manufacturer and date of inspection.
 - x. Signature of an authorized representative and position held
 - xi. Identify the report as First Article.
 - xii. Certificate of Conformance.
 - xiii. Tooling and fixtures, including issue and/or revision, used to manufacture or inspect the part.
 - xiv. All detail and/or sub-assembly part numbers, the required quantity, and traceability.
 - xv. All hardware part numbers including the lot number and the required quantity.
 - xvi. All raw materials, specifications, traceability.
 - xvii. Key characteristics.
 - xviii. Fully ballooned drawing(s).
- 3) Additional requirements for AS9102 Form 1
 - i. Field 11, Supplier Code: Record assigned Supplier Code.
 - ii. Field 12, P.O. Number: Record Purchase Order.
 - 4) Additional requirements for AS9102 Form 3
 - i. Field 14, for each characteristic: Record FAI Inspection Measuring Equipment used as a media of inspection and record FAI inspector identification (e.g. signature, stamp, electronic authorization, etc.) used to signify the person that accomplished the inspection.
 - 5) The purchase order may mandate additional FAI requirements.
 - 6) Supplier Control Drawings (SCD) parts require a full FAI for all detail parts and processes contained within the unit.
 - 7) For guidelines on completing an FAI refer to IAQG SCMH.

7.5.1.2 Control of Production Process Changes

No additional requirements.

7.5.1.3 Control of Production Equipment, Tools and Software Programs

Control of Digital Media

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Supplier shall maintain records and procedures which control configuration and accuracy of software used to manufacture, test, or accept hardware. Software may include, but is not limited to, machine control data, Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) models, and CATIA models, etc. The storage media for software may include, but is not limited to computer drives, compact disks, and numerical controlled (NC) tapes.

Items to be maintained for the purposes of this section shall include as a minimum:

- a. A test data set to ensure accuracy of transmitted data,
- b. A directory for the latest released data sets, and
- c. Appropriate data security (i.e. back-up, secure storage area, etc.).

7.5.1.4 Post-Delivery Support

No additional requirements.

7.5.2 Validation of Processes for Production and Service Provision


a-c) No additional requirements.

d) Supplier test results:

Results of testing, records, film, or other suitable documentation shall be reported as required on purchase orders, drawings, or specifications referenced. NORDAM shall be notified of any test failures prior shipment.

A copy of the test report is required with each shipment and shall include the following information as a minimum:

- i. Purchase order number,
 - ii. Required results and actual results,
 - iii. Date of test,
 - iv. Specification and revision level,
 - v. Signature or name of company representative.
- e) No additional requirements..
- f) Example of NORDAM identification of Special Processes:
- i. Chemical processing
 - ii. Coatings
 - iii. Heat treating
 - iv. Non-Conventional Machining
 - v. Nondestructive testing
 - vi. Materials Testing
 - vii. Welding
 - viii. Brazing
 - ix. Shot Peening
 - x. Other process as defined by the OEM and/ or Nadcap.
- g) NORDAM / OEM Special Process Supplier:
- NORDAM shall identify the NORDAM / OEM Special Process Suppliers by supplying the appropriate drawings and specifications required to manufacture the parts.

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Supplier shall use approved NORDAM / OEM Special Process Suppliers. Approved Special Process Suppliers may also be identified by accessing the OEM's website. If the supplier is unable to access the OEM's website, supplier shall contact NORDAM buyer.

- h) Qualification of Sub-Tier Special Process Supplier:
If NORDAM or OEM approved Special Process Suppliers are not required, supplier shall select, evaluate and validate their own Special Process Suppliers per 7.4.1 and 7.5.2

7.5.3 Identification and Traceability

Product Identification

For products supplied to a NORDAM purchase order, the supplier shall assure that product is correctly identified per applicable drawings/model, specifications, or other documents.

Part number identification shall be accomplished per the applicable drawing/model, specifications or other documents. If no method is specifically called up, then part number identification shall be accomplished by permanent ink marking of the parts.

Part identification shall be traceable to appropriate supplier quality records.

Final acceptance of all items to be delivered to NORDAM, shall be indicated by means of the supplier's inspection signature or stamp on all product.

As a minimum requirement, product manufactured for NORDAM shall be identified with the following:

- a. Part number per the purchase order,
- b. Drawing revision and Advanced Drawing Change Notice (ADCN) or equivalent, at date of manufacture,
- c. Manufacturer part number, if applicable,
- d. Purchase order number or supplier's traceable number (i.e. work order or job number, lot control number, serial number, batch number),
- e. Indication of acceptance by supplier's quality system inspection stamp or signature,
- f. NORDAM's nonconforming material number if the item was processed per Nonconforming Material section of this manual.


If parts cannot be labeled due to size, or when identification of the part itself would result in damage or mutilation, the identification shall be placed with the item. This requirement is in addition to any part marking instructions listed on the applicable drawing or specification.

7.5.4 Customer Property

- a) NORDAM Furnished Material (NFM)

NORDAM material issued to a supplier for fabrication and/or processing is required to be controlled so the furnished material is used only for NORDAM products. The supplier shall notify the NORDAM buyer of any missing or damaged materials.

The use of NFM does not absolve the supplier from the obligation of performing receiving inspection of NFM product.

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b) NORDAM Furnished Tooling (NFT)

Supplier is responsible for the following related to NORDAM furnished tooling:

- i. Ensure the proper care and upkeep.
- ii. Track and maintain all tooling while in supplier's possession
- iii. Notification to NORDAM buyer of any loss or damage upon discovery.
- iv. Make records available to NORDAM or NORDAM authorized representative upon request.
- v. Returning furnished tooling at the conclusion of contract, unless notified otherwise in writing by NORDAM buyer.
- vi. Conduct a physical inventory of tooling, as directed by the NORDAM contract and/or buyer, and submit a list identifying the tool number to the NORDAM buyer, who in turn will submit to NORDAM Tooling Logistics.
- vii. Any additional requirements noted in NORDAM purchase order.

c) Control of US Government Tooling

Supplier shall control U S government tooling in accordance with U.S. FAR 52.245-1 Government Property as instructed per NORDAM purchase order.

d) Tool Maintenance or Modification / Rework


Supplier is required to perform visual review of tool before and after each use to ensure parts produced from the tooling meet the quality expectation of the tooling. If tooling is degraded or substandard, or part quality is impacted by tooling, supplier is to contact NORDAM immediately advising of situation. Supplier is required to obtain authorization from applicable NORDAM buyer prior to performing maintenance on any tools belonging to NORDAM/government/customer.

Vendor owned tooling that is in place with NORDAM exclusive use agreements will not be modified in any way that will impact the end result of the part being fabricated, without the concurrence of NORDAM tooling/engineering. Minor maintenance for general tool upkeep is excluded on vendor owned tooling for notification requirements.

e) Tool Storage

Tools shall be stored according to the following minimum requirements:

- i. The supplier shall apply a suitable grease and protective coating, as applicable.
- ii. No tooling made of a composite material which must endure vacuum integrity for autoclave pressurized or oven negative pressure at elevated temperatures will be allowed to be stored outdoors.
- iii. Tooling destined for outdoor storage will require NORDAM concurrence prior to such storage. As required each tool shall have a picture map of points of preservation requirements, and the materials to be used at each location. A tool preparation check list may be used in lieu of a picture map defining points of requirements based on metallic composition. Hard covers will be used over fiberglass or plastic tooling to minimize damage from sunlight and water. Covers

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are to be maintained, secured and properly attached during all storage events in the out of door elements.

- iv. All tooling that has been prepared for outdoor storage shall have visual review completed by the tooling representative and approval noted that the tool is ready for storage.
- v. All tooling stored out of doors in an unprotected environment will require visual bi-annual review and touch up of protection as required.

7.5.5 Preservation of Product

a-f) No additional requirements.

g) Safety Data Sheets

Supplier may provide Safety Data Sheet (SDS) (formerly MSDS or Material Safety Data Sheet) for products, as applicable. If the term “Hazardous Material” applies to any item(s) ordered by NORDAM, it is required that a SDS accompany product shipment.

h) Direct Ship Authorization


a. Direct Shipment to Other Persons:

Direct Shipment of NORDAM items to other persons **IS NOT PERMITTED** without written approval from NORDAM. Any of these items that are discovered to be shipped from supplier facility without proper written authorization from NORDAM may be considered suspected unapproved parts (SUP) and reported to the OEM or the design authority and the FAA.

b. Supplier Responsibility for NORDAM Approved Direct Shipments:

Supplier is responsible to perform the following for each shipment to other persons:

- i. Request or petition direct shipment approval (DSA) from NORDAM prior to any shipment being made.
 - ii. Direct ship the article.
 - iii. Provide a direct ship declaration with the shipment.
 - iv. Provide a signed/stamped (C of C) statement of conformance certifying that the article conforms to approved data and type design.
 - v. Provide traceability to the end-item user purchase order, or purchase request.
 - vi. Maintain evidence that the supplier has direct ship authorization from the approved manufacturer.
 - vii. Provide a statement (direct ship declaration) that delegation of inspection authority has been granted by the approved manufacturer and that the inspection was performed on behalf of the approved manufacturer.
- i) For material stored below room temperature, the supplier shall include temperature recorder(s) with the shipment. Supplier shall position the temperature recorder(s) to provide accurate indication of the material condition for the lot.

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j) Packaging and Delivery

Supplier shall ensure that all products are packaged and shipped properly using the following requirements:

- a. Each product shall be clearly identified.
- b. Package
 - Package products per industry standard.
 - Package each purchase order line item separately.
 - No contact between parts during shipping. (i.e. metal-to-metal).
- c. Container Materials & Weight
 - Use proper and appropriate containers to prevent damage to packaged product and in accordance with International Plant Protection Convention (IPPC) for Wood Packaging Materials (WPM).
 - Use proper and appropriate dunnage as cushioning to prevent shifting of products and damage in transit.
 - Shipments over seventy-five (75) pounds should be divided into multiple containers or secured and shipped on a pallet in such a manner that shall prevent damage.
- d. Documentation
 - Supplier shall include with each shipment, all documentation required by the applicable purchase order and this manual. All documents shall be accurate, legible, and written in English language.

These guidelines do not relieve the supplier of responsibility for properly controlling the packaging and shipping function in a manner that prevents damage in handling and in transit. Shipments arriving not in accordance with the above, or with obviously inadequate packaging, are subject to rejection and return, at the cost of the supplier.

7.6 Control of Monitoring and Measuring Equipment

NORDAM reserves the right to flow down AS13003 – Measurement Systems Analysis Requirements for the Aero Engine Supply Chain.

8.0 Measurement, Analysis and Improvement

8.1 General

No additional requirements.


8.2 Monitoring and Measurement

8.2.1 Customer Satisfaction

No additional requirements.

8.2.2 Internal Audit

No additional requirements.

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8.2.3 Monitoring and Measurement of Processes

No additional requirements.

8.2.4 Monitoring and Measurement of Product

a-d) No additional requirements.

e) Certificate of Conformance (C of C)


Suppliers of shall provide Certificate of Conformance (C of C) with the following information where applicable:

- i. NORDAM part number and revision level.
- ii. Manufacturer part number.
- iii. Part description.
- iv. Purchase order number or supplier's traceable number (i.e. work order or job number, lot control number, serial number, or batch number).
- v. Statement of compliance to applicable drawings/models, specifications or other specified technical data and their revision level. If unable to comply with NORDAM purchase order requirements due to superseding of reference documents the superseding relationship shall be documented on the C of C.
- vi. Signature or name of an authorized representative of supplier. Statement of certification by company, department, and/or specified individual representing the certifying organization.
- vii. Special Process documentation as follows for each part:
 - A copy of subcontractor's special process C of C containing the specification, and revision level, or
 - A list of all special processors who contributed to the shipped part, the specification, and revision level.
- viii. Serial number.
- ix. Country of Origin as defined in the U.S. Export Regulations.
- x. Lot or batch number.
- xi. Kit shipments of a collection of different part numbers shipped to NORDAM in one box as defined by NORDAM purchasing shall include a pick list containing part number, quantity, and traceability reference for each part to the supplier's internal manufacturing records.
- xii. If item was processed per Nonconforming Material section of this manual, the C of C shall state what work was done to the item.

f) Certificate of Conformance (CofC) For Military Contracts

For military contracts identified by NORDAM purchase order, the supplier shall provide C of C containing information that provides uninterrupted trace from raw material and continue with all processing certifications (for heat treat, passivate, prime, etc. as applicable) through to the final product.

The C of C shall contain the information listed in section 8.2.4.1 of this manual including the following additional requirements:

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- i. Documents accompanying fasteners and hardware of the C of C originating from the original manufacturing source.
- ii. Special process providers C of C shall include reference to NORDAM purchase order number for NORDAM requested manufactured products.

8.3 Control of Nonconforming Product

- **Delivered Products**

In the event a non-conforming condition is detected after delivery or use has started, the supplier shall notify the NORDAM buyer immediately, not to exceed twenty-four (24) hours, upon discovery of the condition. Furthermore, supplier shall provide formal notification in writing addressed to the attention of the NORDAM buyer and to the appropriate Quality department. This notification shall include all pertinent information concerning the condition (i.e. purchase order, part numbers, serial number, quantities, time frame, description of condition, etc.) and the corrective action taken to prevent recurrence. Failure to comply may result in disapproval or other actions.

- **Engineering Designs**

In the event a non-conforming condition is discovered that affects previously delivered engineering designs, the supplier shall notify NORDAM buyer immediately, not to exceed twenty-four (24) hours, upon the discovery of the condition. Furthermore, supplier shall provide formal notification in writing addressed to the attention of the NORDAM buyer and to the appropriate Quality and Engineering Departments. This notification shall include all pertinent information concerning the condition (i.e. purchase order, time frame, description of condition, etc.) and the corrective action taken to prevent recurrence. Failure to comply may result in disapproval or other actions.

a-d) No additional requirements.


e) **Nonconforming Material**

The supplier shall maintain an effective system for controlling nonconforming materials and components including procedures for identification, segregation, documentation, evaluation, and disposition to prevent unintended release or use.

f) **Nonconformance Documentation**

When necessary, supplier shall produce nonconforming material reports that include the following information, at a minimum:

- i) Complete article identification,
- ii) Date of report initiation,
- iii) Complete description of the nonconformance,
- iv) Cause of the nonconformance,
- v) Corrective actions taken or recommended, and
- vi) Signatures of initiator and individual or Material Review Board (MRB) members who signed the cause and corrective action disposition.

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g) Supplier Options for Disposition of Nonconforming Materials

Supplier's disposition of nonconforming materials is limited to one of the following:

- i) Rework to required configuration to meet engineering drawing/model, specification, purchase order requirements.
- ii) Scrap if unfit for use unless material is NORDAM furnished or charges to NORDAM are involved. Supplier shall notify NORDAM buyer before proceeding further if NORDAM furnished material is involved. Product with disposition as scrap shall be clearly identified and physically mutilated to render the part unusable within 30 days of final disposition unless otherwise instructed in writing by the NORDAM representative.

h) NORDAM Material Review Board (MRB) Disposition

NORDAM MRB disposition is required when material is found to depart from engineering drawing/model, specification, purchase order requirements and cannot be reworked back to the original requirements. (i.e. an MRB disposition of use-as-is, repair or scrap.)

The supplier shall await NORDAM MRB disposition on any nonconformance to NORDAM requirements.


Nonconformance of these types shall be submitted to the NORDAM buyer.

To obtain NORDAM MRB disposition the following steps are required:

- i) The supplier shall initiate a Non-Conformance Report.
- ii) The supplier shall then forward the Non-Conformance Report to the appropriate NORDAM buyer. The information will be transferred from supplier's non-conformance report to a NORDAM Quality Notification (QN) for disposition.
- iii) The NORDAM buyer shall submit the QN to NORDAM's MRB/Engineering for a disposition decision.
- iv) Copies of the completed QN shall be sent to the supplier by the NORDAM buyer.

Upon receipt of the completed QN from NORDAM, the supplier shall perform the following:

- i) Complete per instructions as documented on the QN.
- ii) Inspect the product in accordance with documented procedures.
- iii) Complete the QN with the Quality signature or stamp with date.
- iv) Mark the QN number on all affected product.
- v) Ship the completed product and include a copy of the completed QN. The applicable QN number(s) shall be referenced on the Certificate of Conformance (C of C) and shipping documentation.
- vi) Product with disposition as scrap shall be clearly identified and physically mutilated to render the part unusable within 30 days of final

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disposition unless otherwise instructed in writing by the NORDAM representative.

- vii) Product found to be discrepant may be returned to supplier for rework or replacement.

8.4 Analysis of Data

No additional requirements.

8.5 Improvement

8.5.1 Continual Improvement

No additional requirements.


8.5.2 Corrective Action

a-i) No additional requirements.

Note: Supplier may use AS13000 – Problem Solving Requirements for Suppliers as guidance.

8.5.3 Preventive Action

No additional requirements.

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SECTION 2

Quality Management Systems - Requirements for Aviation Maintenance Organizations

1.0 SCOPE

1.1 General

No additional requirements.

1.2 Application

This section of the manual contractually applies to NORDAM suppliers and all members of their supply chain who provide maintenance to product, materials or services to support the repair maintenance/overhaul of parts onto an aircraft in accordance with NORDAM purchase order or contract requirements. NORDAM suppliers are required to access the NORDAM website to review this and any other document required to satisfy the PO requirements. The supplier shall perform a full documentation review of NORDAM specifications to ensure they are working to and flowing down to sub-tiers the latest revision documents including this manual.

Suppliers are responsible for notifying NORDAM of changes in the supplier's or sub-tier's management, ownership, name, location or address, change in process or product, loss of accreditation or quality system. The notification shall be provided to NORDAM in a written statement within seventy-two (72) hours of any of these changes. This notification shall be sent to the appropriate NORDAM buyer. Upon receipt of this written notification NORDAM will determine necessary actions.

2.0 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document.

- IAQG SCM, International Aerospace Quality Group – Supply Chain Management Handbook.
- AS9015 - Supplier Self Verification Process Delegation Programs
- AS13000 – Problem Solving Requirements for Suppliers
- AS13003 – Measurement Systems Analysis Requirements for the Aero Engine Supply Chain

3.0 TERMS AND DEFINITIONS


No additional requirements.

4.0 QUALITY MANAGEMENT SYSTEM

4.1 General Requirements

Certificated contract maintenance supplier shall maintain FAA certified or equivalent repair station in accordance with 14 CFR 145. The supplier shall maintain in a current condition their agency Certificate, Operations Specifications, Capabilities List, Repair Station Manual, and Training Manual. Being a National Aviation Authority (NAA) certificated FAA or equivalent repair station does not relieve the supplier from responsibility of complying with all NORDAM purchase order requirements and requirements of this manual.

a-f) No additional requirements.

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4.2 Documentation Requirements

4.2.1 General

No additional requirements.

4.2.2 Quality Manual

No additional requirements.

4.2.3 Control of Documents

- a) No additional requirements.
- b) Corrections to work instructions or documents shall be recorded, dated and traceable to the person making the change (e.g., signature, stamp, etc.) in ink or other permanent marking method with the original data being legible and retrievable after the change.
- c) No additional requirements.
- d) No additional requirements.
- e) All quality records (non-electronic) shall be documented in ink or other permanent marking.
- f) Documents submitted to NORDAM that contain technical data shall include a statement near the beginning of the document such as "This document contains technical data" or an equivalent statement. This statement shall be repeated throughout the document.
United States (U.S.) organizations shall also identify the Export Control Classification Number (ECCN) or U.S. Munitions List (USML) classification.
Other organizations shall identify applicable export classifications related to the documents submitted to NORDAM.
- g) No additional requirements.
- h) No additional requirements.

4.2.4 Control of Records

The supplier shall maintain an adequate records system. All records shall be retained in a safe and secure manner in electronic or paper format for a minimum of ten (10) years from completion of the NORDAM purchase order. NORDAM contract may require record retention to be extended beyond the ten (10) year retention period.

5.0 MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

No additional requirements.

5.2 Customer Focus


No additional requirements.

5.3 Quality Policy

No additional requirements.

5.4 Planning

No additional requirements.

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5.5 Responsibility, Authority and Communication

No additional requirements.

5.6 Management Review

No additional requirements.

5.7 Safety Policy

No additional requirements.

6.0 RESOURCE MANAGEMENT

6.1 Provision of Resources

No additional requirements.

6.2 Human Resources

6.2.1 General

Drug and Alcohol program

Suppliers based in the United States must maintain a Drug and Alcohol program in accordance with 14 CFR 120. Evidence shall be maintained to verify drug and alcohol testing program requirements are implemented. Supplier shall also provide evidence of flow down to sub-tier suppliers that perform contract maintenance for supplier on NORDAMS's customer's parts. The objective evidence shall include a procedure to obtain and subsequently retain, for a minimum of ten (10) years from date of work, proof that U.S. based sub-contracted maintenance/preventive maintenance providers, at all tiers (certificated and non-certificated), have an FAA approved active anti-drug and alcohol misuse prevention program (AAMPP).

6.2.2 Competence, Training, and Awareness

No additional requirements.

6.3 Infrastructure

No additional requirements.

6.4 Work Environment

No additional requirements.

7.0 PRODUCT REALIZATION

7.1 Planning of Product Realization


No additional requirements.

7.1.1 Project Management

No additional requirements.

7.1.2 Risk Management

No additional requirements.

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7.1.3 Configuration Management

No additional requirements.

7.1.4 Control of Work Transfers

Suppliers shall notify NORDAM of any planned work transfer or any planned change implementation within the supplier organization or its supply chain. This includes manufacturing locations changes within the organization or changes in a supplier or a sub-tier supplier's location. The supplier shall have documented procedures for implementing this requirement, ensuring it is applied in their supply base and that decisions to interrupt flow of material from any existing source shall not take place until approved by NORDAM. NORDAM may choose to participate in the transfer activity to mitigate any risks associated with the transfer.

If the transfer of work involves transfer of NORDAM ITAR or other technical data to a party or location requiring an export license, NORDAM must approve the work transfer. If approved, NORDAM will assist Supplier in obtaining all required government licenses prior to transfer of work.

NORDAM recommends a gated process to control work transfers. A guideline on implementing a process for work transfers can be found in the IAQG SCMH. (International Aerospace Quality Group – Supply Chain Management Handbook)

7.2 Customer-Related Processes

7.2.1 Determination of Requirements Related to the Product

No additional requirements.

7.2.2 Review of Requirements Related to the Product

a-e) No additional requirements.

f) Parts Manufacturer Approval (PMA) or Type Technical Standard Order Authorization (TSOA) Holders.

Supplier holding Parts Manufacturer Approval (PMA) shall provide Authorized Release Certificate (for example as applicable FAA 8130-3, EASA Form One, JAA Form One, or Transport Canada Form One) for each product.

Supplier approved to manufacture parts or components under a Parts Manufacturer Approval (PMA) or a Type Technical Standard Order Authorization (TSOA) shall retain documents from the FAA stating authorization to manufacture those parts per CFR Part 21.


Supplier not holding PMA may be requested to explain process for control and manufacturing of parts including a review of the quality, inspection and testing systems.

7.2.3 Customer Communication

No additional requirements.

7.3 Design and Development

No additional requirements.

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7.4 Purchasing

7.4.1 Purchasing Process

- a-g) No additional requirements.
- h) Supplier is responsible for ensuring that procurements from sub-tier suppliers conform to all requirements of the NORDAM purchase order, including the provisions of this manual.
- i) Suppliers shall take appropriate measures to prevent the use, purchase or sale of counterfeit and suspected unapproved materials and parts. A counterfeit or suspected unapproved part is any item misrepresented as having been designed and/or produced under an approved system or other acceptable method. Supplier shall have a process to assure safe, reliable product and mitigate the risk of counterfeit parts entering the system. If the supplier becomes aware of any item that has shipped to NORDAM that has become suspect, the supplier must immediately notify NORDAM's buyer and/or quality department.
- j) Sub-tier suppliers shall meet NORDAM quality requirements; it is the responsibility of the NORDAM approved supplier to ensure their sub-tier suppliers are qualified to NORDAM contract, purchase order, and requirements of this manual.

7.4.2 Purchasing Information

No additional requirements.

7.4.3 Verification of Purchased Product

No additional requirements.

7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

- a-o) No additional requirements.
- p) Non-destructive Testing:
Nondestructive Testing (NDT) processes as defined by ASNT SNT-TC-1A, type, level, extent and/or acceptance criteria shall be specified on the purchase order, drawings/models, or referenced specifications. Records, film, or other suitable documentation stating the acceptance or the rejection of the test performed shall accompany each shipment and shall include the name of the supplier that performed the testing. The NDT report shall contain purchase order number or supplier's traceable number (i.e. work order or job number, lot control number, batch number, serial number).

7.5.1.1 Maintenance Process Verification

No additional requirements.


7.5.1.2 Control of Maintenance Process Changes

No additional requirements.

7.5.1.3 Control of Maintenance Equipment, Tools and Software Programs

Control of Digital Media

Supplier shall maintain records and procedures which control configuration and accuracy of software used to manufacture, test, or accept hardware. Software may include, but is

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not limited to, machine control data, Computer Aided Design/Computer Aided Manufacturing (CAD/CAM) models, and CATIA models, etc. The storage media for software may include, but is not limited to computer drives, compact disks, and numerical controlled (NC) tapes.

Items to be maintained for the purposes of this section shall include as a minimum:

- a. A test data set to ensure accuracy of transmitted data,
- b. A directory for the latest released data sets, and
- c. Appropriate data security (i.e. back-up, secure storage area, etc.).

7.5.1.4 Post-Delivery Support

No additional requirements.

7.5.2 Validation of Processes for Production and Service Provision

a-e) No additional requirements.

f) Supplier test results:


Results of testing, records, film, or other suitable documentation shall be reported as required on purchase orders, drawings, or specifications referenced. NORDAM shall be notified of any test failures prior shipment.

A copy of the test report is required with each shipment and shall include the following information as a minimum:

- i. Purchase order number,
 - ii. Required results and actual results,
 - iii. Date of test,
 - iv. Specification and revision level,
 - v. Signature or name of company representative.
- g) Example of NORDAM identification of Special Processes:
- i. Chemical processing
 - ii. Coatings
 - iii. Heat treating
 - iv. Non-Conventional Machining
 - v. Nondestructive testing
 - vi. Materials Testing
 - vii. Welding
 - viii. Brazing
 - ix. Shot Peening
 - x. Other process as defined by the OEM and/ or Nadcap.

7.5.3 Identification and Traceability

No additional requirements.

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7.5.4 Customer Property

a) NORDAM Furnished Material (NFM)

NORDAM material issued to supplier for fabrication and/or processing is required to be controlled so the furnished material is used only for NORDAM products. Supplier shall notify buyer of any missing or damaged materials.

The use of NFM does not absolve the supplier from the obligation of performing receiving inspection of NFM product.

b) NORDAM Furnished Tooling (NFT)

Supplier is responsible for the following related to NORDAM furnished tooling:

- i. Ensure the proper care and upkeep.
- ii. Track and maintain all tooling while in supplier's possession
- iii. Notification to NORDAM buyer of any loss or damage upon discovery.
- iv. Make records available to NORDAM or NORDAM authorized representative upon request.
- v. Returning furnished tooling at the conclusion of contract, unless notified otherwise in writing by NORDAM buyer.
- vi. Conduct a physical inventory of tooling, as directed by the NORDAM contract and/or buyer, and submit a list identifying the tool number to the NORDAM buyer, who in turn will submit to NORDAM tooling logistics.
- vii. Any additional requirements noted in NORDAM purchase order.

c) Control of US Government Tooling

Supplier shall control U S government tooling in accordance with U.S. FAR 52.245-1 Government Property as instructed per NORDAM purchase order.

d) Tool Maintenance or Modification / Rework


Supplier is required to perform visual review of tool before and after each use to ensure parts produced from the tooling meet the quality expectation of the tooling. If tooling is degraded or substandard, or part quality is impacted by tooling, supplier is to contact NORDAM immediately advising of situation. Supplier is required to obtain authorization from applicable NORDAM buyer prior to performing maintenance on any tools belonging to NORDAM/government/customer.

Vendor owned tooling that is in place with NORDAM exclusive use agreements will not be modified in any way that will impact the end result of the part being fabricated, without the concurrence of NORDAM tooling/engineering. Minor maintenance for general tool upkeep is excluded on vendor owned tooling for notification requirements.

e) Tool Storage

Tools shall be stored according to the following minimum requirements:

- i. The supplier shall apply a suitable grease and protective coating, as applicable.
- ii. No tooling made of a composite material which must endure vacuum integrity for autoclave pressurized or oven negative pressure at elevated temperatures will be allowed to be stored outdoor.

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- iii. Tooling destined for outdoor storage will require NORDAM concurrence prior to such storage. As required each tool shall have a picture map of points of preservation requirements, and the materials to be used at each location. A tool preparation check list may be used in lieu of a picture map defining points of requirements based on metallic composition. Hard covers will be used over fiberglass or plastic tooling to minimize damage from sunlight and water. Covers are to be maintained, secured and properly attached during all storage events, in the out of door elements.
- iv. All tooling that has been prepared for outdoor storage shall have visual review completed by the tooling representative and approval noted that the tool is ready for storage.
- v. All tooling stored out of doors in an unprotected environment will require visual bi-annual review and touch up of protection as required.

7.5.5 Preservation of Product

No additional requirements.

7.6 Control of Monitoring and Measuring Equipment

NORDAM reserves the right to flow down AS13003 – Measurement Systems Analysis Requirements for the Aero Engine Supply Chain.

8.0 Measurement, Analysis and Improvement

8.1 General

No additional requirements.

8.2 Monitoring and Measurement

No additional requirements.

8.2.1 Customer Satisfaction

No additional requirements.

8.2.2 Internal Audit


No additional requirements.

8.2.3 Monitoring and Measurement of Processes

No additional requirements.

8.3 Control of Nonconforming Product Delivered Products

In the event a non-conforming condition is detected after delivery or use has started, the supplier shall notify the NORDAM buyer immediately, not to exceed twenty-four (24) hours, upon discovery of the condition. Furthermore, supplier shall provide formal notification in writing addressed to the attention of the NORDAM buyer and to the appropriate Quality department. This notification shall include all pertinent information concerning the condition (i.e. purchase order, part numbers, serial number, quantities,

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time frame, description of condition, etc.) and the corrective action taken to prevent recurrence. Failure to comply may result in disapproval or other actions.

a-e) No additional requirements.

f) Nonconforming Material

The supplier shall maintain an effective system for controlling nonconforming materials and components including procedures for identification, segregation, documentation, evaluation, and disposition to prevent unintended release or use.

g) Nonconformance Documentation

When necessary, supplier shall produce nonconforming material reports that include the following information, at a minimum:

- i) Complete article identification,
- ii) Date of report initiation,
- iii) Complete description of the nonconformance,
- iv) Cause of the nonconformance,
- v) Corrective actions taken or recommended, and
- vi) Signatures of initiator and individual or Material Review Board (MRB) members who signed the cause and corrective action disposition.

h) Supplier Options for Disposition of Nonconforming Materials

Supplier's disposition of nonconforming materials is limited to one of the following:

- i) Rework to required configuration to meet engineering drawing/model, specification, purchase order requirements.
- ii) Scrap if unfit for use unless material is NORDAM furnished or charges to NORDAM are involved. Supplier shall notify NORDAM buyer before proceeding further if NORDAM furnished material is involved. Product with disposition as scrap shall be clearly identified and physically mutilated to render the part unusable within 30 days of final disposition unless otherwise instructed in writing by the NORDAM representative.

i) NORDAM Material Review Board (MRB) Disposition


NORDAM MRB disposition is required when material is found to depart from engineering drawing/model, specification, purchase order requirements and cannot be reworked back to the original requirements. (i.e. an MRB disposition of use-as-is, repair or scrap.)

The supplier shall await NORDAM MRB disposition on any nonconformance to NORDAM requirements.

Nonconformance of these types shall be submitted to the NORDAM buyer.

To obtain NORDAM MRB disposition the following steps are required:

- i) The supplier shall initiate a Non-Conformance Report.

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- ii) The supplier shall then forward the Non-Conformance Report to the appropriate NORDAM buyer. The information will be transferred from supplier's non-conformance report to a NORDAM Quality Notification (QN) for disposition.
- iii) The NORDAM buyer shall submit the QN to NORDAM's MRB/Engineering for a disposition decision.
- iv) Copies of the completed QN shall be sent to the supplier by the NORDAM buyer.

Upon receipt of the completed QN from NORDAM, the supplier shall perform the following:

- i) Complete per instructions as documented on the QN.
- ii) Inspect the product in accordance with documented procedures.
- iii) Complete the QN with the Quality signature or stamp with date.
- iv) Mark the QN number on all affected product.
- v) Ship the completed product and include a copy of the completed QN. The applicable QN number(s) shall be referenced on the Certificate of Conformance (C of C) and shipping documentation.
- vi) Product with disposition as scrap shall be clearly identified and physically mutilated to render the part unusable within 30 days of final disposition unless otherwise instructed in writing by the NORDAM representative.
- vii) Product found to be discrepant may be returned to supplier for rework or replacement.

8.4 Analysis of Data

No additional requirements.

8.5 Improvement

8.5.1 Continual Improvement

No additional requirements.


8.5.2 Corrective Action

a-j) No additional requirements.

Info: Supplier may use AS13000 – Problem Solving Requirements for Suppliers as guidance.

8.5.3 Preventive Action

No additional requirements.

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SECTION 3

Quality Management Systems - Requirements for Aviation, Space and Defense Distributors

1.0 SCOPE

1.1 General

No additional requirements.

1.2 Application

This section of the manual contractually applies to NORDAM suppliers and all members of their supply chain who procure parts, product, materials or assemblies and resells these products to a customer in the aviation, space and defense industries in accordance with NORDAM purchase orders or contract requirements. NORDAM suppliers are required to access the NORDAM website to review this and any other document required to satisfy the PO requirements. The supplier shall perform a full documentation review of NORDAM specifications to ensure they are working to and flowing down to sub-tiers the latest revision documents including this manual.

Suppliers are responsible for notifying NORDAM of changes in the supplier's or sub-tier's management, ownership, name, location or address, change in process or product, loss of accreditation or quality system. The notification shall be provided to NORDAM in a written statement within seventy-two (72) hours of any of these changes. This notification shall be sent to the appropriate NORDAM buyer. Upon receipt of this written notification NORDAM will determine necessary actions.

2.0 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document.

- IAQG SCMH, International Aerospace Quality Group – Supply Chain Management Handbook.
- AS9015 - Supplier Self Verification Process Delegation Programs
- AS13000 – Problem Solving Requirements for Suppliers
- AS13003 – Measurement Systems Analysis Requirements for the Aero Engine Supply Chain


3.0 TERMS AND DEFINITIONS

No additional requirements.

4.0 QUALITY MANAGEMENT SYSTEM

4.1 General Requirements

Certificated contract maintenance supplier shall maintain FAA certified or equivalent repair station in accordance with 14 CFR 145. The supplier shall maintain in a current condition their agency Certificate, Operations Specifications, Capabilities List, Repair Station Manual, and Training Manual. Being a National Aviation Authority (NAA) certificated FAA or equivalent repair station does not relieve the supplier from

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responsibility of complying with all NORDAM purchase order requirements and requirements of this manual.
a-f) No additional requirements.

4.2 Documentation Requirements

4.2.1 General

No additional requirements.

4.2.2 Quality Manual

No additional requirements.

4.2.3 Control of Documents

- a) No additional requirements
- b) Corrections to work instructions or documents shall be recorded, dated and traceable to the person making the change (e.g., signature, stamp, etc.) in ink or other permanent marking method with the original data being legible and retrievable after the change.
- c) No additional requirements.
- d) No additional requirements.
- e) All quality records (non-electronic) shall be documented in ink or other permanent marking.
- f) Documents submitted to NORDAM that contain technical data shall include a statement near the beginning of the document such as "This document contains technical data" or an equivalent statement. This statement shall be repeated throughout the document.
United States (U.S.) organizations shall also identify the Export Control Classification Number (ECCN) or U.S. Munitions List (USML) classification.
Other organizations shall identify applicable export classifications related to the documents submitted to NORDAM.
- g) No additional requirements.

4.2.4 Control of Records

The supplier shall maintain an adequate records system. All records shall be retained in a safe and secure manner in electronic or paper format for a minimum of ten (10) years from completion of the NORDAM purchase order. NORDAM contract may require record retention to be extended beyond the ten (10) year retention period.

5.0 MANAGEMENT RESPONSIBILITY

5.1 Management Commitment


No additional requirements.

5.2 Customer Focus

No additional requirements.

5.3 Quality Policy

No additional requirements.

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5.4 Planning

No additional requirements.

5.5 Responsibility, Authority and Communication

No additional requirements.

5.6 Management Review

No additional requirements.

6.0 RESOURCE MANAGEMENT

6.1 Provision of Resources

No additional requirements.

6.2 Human Resources

No additional requirements.

6.3 Infrastructure

No additional requirements.

6.4 Work Environment

No additional requirements.

7.0 PRODUCT REALIZATION

7.1 Planning of Product Realization

a-e) No additional requirements.

f) Mills located outside the USA

Supplier shall request approval from the appropriate NORDAM quality department when procuring metallic material obtained from mills located outside of the United States of America (USA) that do not hold a bi-lateral agreement with the FAA.

7.1.1 Configuration Management

No additional requirements.

7.1.2 Control of Work Transfers

No additional requirements.

7.2 Customer-Related Processes


7.2.1 Determination of Requirements Related to the Product

No additional requirements.

7.2.2 Review of Requirements Related to the Product

No additional requirements.

7.2.3 Customer Communication

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No additional requirements.

7.3 Design and Development

No additional requirements.

7.4 Purchasing

7.4.1 Purchasing Process

a-g) No additional requirements.

h) Supplier is responsible for ensuring that procurements from sub-tier suppliers conform to all requirements of the NORDAM purchase order, including the provisions of this manual.

i) Suppliers shall take appropriate measures to prevent the use, purchase or sale of counterfeit and suspected unapproved materials and parts. A counterfeit or suspected unapproved part is any item misrepresented as having been designed and/or produced under an approved system or other acceptable method. Supplier shall have a process to assure safe, reliable product and mitigate the risk of counterfeit parts entering the system. If the supplier becomes aware of any item that has shipped to NORDAM that has become suspect, the supplier must immediately notify NORDAM's buyer and/or quality department.

j) Sub-tier suppliers shall meet NORDAM quality requirements; it is the responsibility of the NORDAM approved supplier to ensure their sub-tier suppliers are qualified to NORDAM contract, purchase order, and requirements of this manual.

7.4.2 Purchasing Information

No additional requirements.

7.4.3 Verification of Purchased Product

No additional requirements.

7.5 Production and Service Provision

7.5.1 Control of Production and Service Provision

No additional requirements.

7.5.2 Validation of Processes for Production and Service Provision

No additional requirements.

7.5.3 Identification and Traceability


a) The containers of limited shelf life material shall be identified with NORDAM purchase order number, batch or lot number, and the expiration date unless otherwise noted in specifications.

7.5.4 Customer Property

No additional requirements.

7.5.5 Preservation of Product

a-f) No additional requirements.

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- g) Supplier may provide Safety Data Sheet (SDS) (formerly MSDS or Material Safety Data Sheet) for products, as applicable. If the terms “Hazardous Material” applies to any items ordered by NORDAM, it is required that a SDS accompany product shipment.
- h) Limited shelf life materials shall have as least seventy-five (75) % of remaining shelf life available at the time of shipment unless NORDAM buyer authorizes an exception. NORDAM buyer shall note the purchase order text to alert receiving inspection of exception.
- i) For material stored below room temperature, the supplier shall include temperature recorder(s) with the shipment. Supplier shall position the temperature recorder(s) to provide accurate indication of the material condition for the lot.

7.6 Control of Monitoring and Measuring Equipment
No additional requirements.

8.0 Measurement, Analysis and Improvement

8.1 General
No additional requirements.

8.2 Monitoring and Measurement
No additional requirements.

8.2.1 Customer Satisfaction
No additional requirements.


8.2.2 Internal Audit
No additional requirements.

8.2.3 Monitoring and Measurement of Processes
No additional requirements.


8.2.4 Monitoring and Measurement of Product
No additional requirements.

8.2.5 Evidence of Conformity

- a) Fasteners, Hardware and Off-The-Self-Items
Certificate of Conformance (C of C) is required from supplier for the quantity of parts supplied. The C of C shall contain the following information if applicable:
 - i. NORDAM part number.
 - ii. Manufacturer part number.
 - iii. Part description.
 - iv. Purchase order number or supplier’s traceable number (i.e. work order or job number, lot or batch control number, serial number).
 - v. Statement of compliance to applicable drawings/models, specifications or other specified technical data and their revision level.

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- vi. Statement of certificate signed or stamped by company, department, and or specified individual representing the certifying organization.
 - vii. Country of Origin as defined in the U.S, Export Regulations.
 - viii. Lot or batch number , if applicable
 - ix. Documents accompanying fasteners and hardware shall contain C of C originating from the original manufacturing source.
- b) **Metallic and Non-Metallic Materials**
Suppliers shall provide Material Test Reports / Certificates of Analysis. Results of chemical and/or physical analysis, manufacture date, and expiration date, as applicable, are required for each lot or batch number and shall accompany each shipment.
Suppliers shall provide the raw material certification from the original mill. If raw material was purchased from a distributor, the certificate of conformance is also required.
- c) **Paint Products, Bonding Products, and Other Materials**
Material Test Reports/Certificates of Analysis are not required from suppliers unless specifically listed on the purchase order. Suppliers shall provide results of chemical and/or physical analysis, manufacture date, and expiration date, as applicable, for each lot or batch number and shall be maintained of file at supplier's facility.
- d) **New Surplus (Unused) Part Condition**
Supplier shall provide certificate of conformance (C of C) and traceability back to a regulated source stating that the material is new condition. Appropriate documentation may include on or a combination of the following:
- i. FAA Form 8130-3
 - ii. EASA Form One
 - iii. JAA Form One
 - iv. SEG VOO 003
 - v. TC Form One
 - vi. Certificate of Conformance
 - vii. Material certification form that meet the requirements of ATA Spec 106.
- e) **Overhauled, Repaired, Inspected or Modified Part Condition**
Supplier shall provide:
- i. Certificate and traceability back to the last operator and/or regulated source, including a non-incident/non-military statement.
 - ii. Original material certification form that meets the requirements of ATA Spec 106 stating that part is in the same condition as listed on the Authorized Release Certificate.
 - iii. The original FAA form 8130-3, JAA Form One, EASA Form One, CAAC AAC-038, SEG VOO 003 or TC Form One (dual FAA/EASA or JAA Release) issued by a repair facility that is approved to perform the repair by the relevant airworthiness regulatory authority.
 - iv. Details of work performed or teardown report, including Service Bulletins (SB) number, Modification number or Airworthiness Directives (AD), with revision number and date.
 - v. Name of service manual and/or part number of ATA chapter reference used to perform repair and revision level and revision date of the manual.

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- vi. Any repairs incorporated into the part must be repaired listed in the OEM's service, repair or overhaul manual. FAA DER 8110-3, Internal Engineering Notices (IENs), Engineering Orders (EOs), Technical Orders (TOs), Customers Departure Records (CDRs), or Departure Records (DR's type repairs will not be accepted by NORDAM without prior written approval. The repair scheme numbers must be listed in BOX 13 of the Authorized Release Certificate along with the revision number and date. Copies of the repair scheme explanation must be included in the shipment.
- f) Repairable / As Is / As Removed Parts Condition
Certificate of traceability back to the last operator and or the regulated source including a non-incident/non-military use statement and original materials certification form that meets the requirements of ATA Spec 106 stating the part is repairable, as-is, where is, or as-removed.
- g) Materials for Military Contracts
Supplier shall request approval from the appropriate NORDAM quality department when procuring metallic materials obtained from mills located outside of the United States of American (USA).
Supplier shall provide Certificate of Conformance (C of C). The C of C shall contain the following information and shall provide uninterrupted trace from a raw material and continue with all processing certifications (for heat treat, passivate, prime, etc., as applicable), through to the final product to:
 - i. NORDAM part number.
 - ii. Manufacturer part number.
 - iii. Part description.
 - iv. Purchase Order number or supplier's traceable number (i.e. work order or job number, lot or batch control number, serial number).
 - v. Statement of compliance to applicable drawing/models, specification or other specified technical data and their revision level. If unable to comply with NORDAM purchase order requirements due to superseding of reference documents the superseding relationship shall be documented on the C of C.
 - vi. Statement of certification by company, department, and/or specified individual representing the certifying organization.
 - vii. Special Process documentation shall be provided to NORDAM in the following format:
 - A copy of subcontractor's special process C of C containing the specification, and revision level, or
 - A list of all special processors who contributed to the shipped part, the specification, and the revision level.
 - viii. Serial number, if required by engineering.
 - ix. Country of Origin as defined in the U.S Export Regulations.
 - x. Documents accompanying fasteners and hardware shall contain C of C originating from the original manufacturing source.
 - xi. Lot or batch number, if applicable.

8.3 Control of Nonconforming Product

No additional requirements.

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8.4 Analysis of Data

No additional requirements.

8.5 Improvement

8.5.1 Continual Improvement

No additional requirements.

8.5.2 Corrective Action

No additional requirements.

8.5.3 Preventive Action

No additional requirements.