



<b>Supplier Quality Manual Mountainhome, PA</b>	
Author: John Liebe	Issue Date: 03/24/2020 Effective Date: 09/16/2020

**1. Scope**

This Supplier Quality Manual (SQM) has been designed to support communication to our suppliers in understanding the purchasing expectations and quality requirements for products and / or services supplied to Collins Mountainhome.

**2. Responsibility**

It is the responsibility of the Quality Manager to maintain and support the elements found within the Supplier Quality Manual.

It shall be the responsibility of the Suppliers to Mountainhome to perform to the operations, general expectations, and procedures defined with this Supplier Quality Manual.

**3. General communications**

This Supplier Quality Manual will communicate the operating principles, general expectations, and procedures of Collins Mountainhome Company.

Adherence to the guidelines described in this manual is required by all Collins Mountainhome Company suppliers.

Acceptance of any and/or all purchase orders constitutes acceptance and commitment on behalf of the recipient to comply with this manual's content.

These guidelines are provided as supplement to, and do not replace or alter, any purchase agreement terms and conditions which are included as requirements of applicable drawings, specifications and other contractual documents. The terms and conditions supersede any requirements stated in this manual.

This manual describes the minimum requirements for which the supplier has responsibility.

***Note: System improvements that exceed the requirements specified within this manual are always encouraged.***



#### **4. Quality Management Requirements**

Suppliers will implement and as a minimum maintain a documented quality management system, that is certified by a third party to whom there is no affiliation. Certification to the AS9100 Quality Management System Requirements is preferred however other accreditations such as ISO 9001 Quality Management System Requirements are acceptable.

Suppliers who do not maintain a quality management system certified to AS9100 and /or ISO 9001 must implement and maintain a quality management system which has been approved by personnel at Mountainhome. Approval shall include but not be limited to the following:

- Contract / Purchase Order Review
- Purchasing
- Preservation of Product
- Control of Quality
- Control of Nonconforming Product
- Control of Manufacturing Processes
- Identification and Traceability
- Measurement and Monitoring of Product
- Training
- Records
- Internal Audit

Collins Mountainhome Company requires all suppliers to provide access to the supplier's information on assessments, nonconformance's, corrective actions, supplier scorecards and results of audits.

- The immediate notification in the event certification has been lost.
- Including notification of any significant changes within the supplier's organization such as ownership, company address, key management positions/personnel, and number of employees.

Collins Mountainhome also requires that a bi-annual survey be completed as part of the supplier approval process. (MTH-PUR-FRM-0101 Supplier Survey, Previously QP-009-F2)

#### **5. Flow down requirements**

##### Product, processes, and services

Mountainhome's Purchase Order (PO) shall provide information on the processes, products, and services to be provided including the identification of relevant technical data (e.g., specifications, drawings, process requirement, work instructions, etc.).



Approvals

Each supplied order shall be accompanied by one legible copy of a certificate of compliance (CofC). Material certifications shall show quantitative analysis of each element and physical testing as required by specifications referenced. Traceability for raw material is required and shall be retained and provided to Mountainhome with product. Final acceptance of product shall be at Mountainhome after receiving inspection.

Competence

The supplier shall ensure that employees and people working on its behalf are competent and trained in accordance with the requirements of AS9100, where applicable.

Interactions

In addition to other requirements recorded within this document, suppliers shall hold all information received from Mountainhome in confidence and no third-part request for information shall be authorized unless approved in writing by Collins Aerospace Mountainhome.

Control and Monitoring

Mountainhome shall review suppliers based on Quality, Delivery, and/or Service. Suppliers shall be issued corrective actions as required. Supplier late shipments and corrective actions shall be reviewed at Management review meetings for increased action at management's discretion. Suppliers that fail to perform in these areas may receive further corrective actions and be considered for probation or removal from the approved supplier list at Mountainhome.

Validation of activities

Mountainhome shall reserve the right to verify/validate any or all activities related to the development of product for Mountainhome.

Design and development control

Mountainhome does not currently use external suppliers for design and development. For any product or service that is an input to Mountainhome design and development under AS9100D, the supplier shall provide all information required by Mountainhome to meet the requirements of AS9100D section 8.3.4



Special requirements, critical items, or key characteristics

Mountainhome shall communicate all special requirements, critical items or key characteristics through the PO process.

The supplier is responsible for the validation and periodic revalidation of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement.

Inspection, test, and validation

All gauges and instruments used to verify product shall be calibrated using standards whose accuracies are NIST traceable. All provided calibration certifications shall specifically state this traceability. The supplier shall maintain a quality / inspection system that shall ensure all goods and services conform to contract requirements whether manufactured or processed by the supplier or procured from sub-tier suppliers

Use of statistical techniques

Use of statistical techniques in determining product performance and sampling acceptance is encouraged by Mountainhome. If required by Mountainhome, statistical techniques and/or statistical conformity will be communicated through the PO process.

Use of customer-approved or approved external providers

Mountainhome shall communicate the requirements for using external suppliers in the PO process.

Notification of non-conformance

Supplier shall notify immediately upon discovery of any non-conformances that have escaped their facility and that have either reached or are about to reach the Mountainhome facility. This notification shall be formally done through a written email to the upper management/quality departments in Mountainhome. It shall also be followed up with a verbal acknowledgement either in person or over the phone. Leaving a voice mail shall not be deemed a verbal acknowledgement.

Non-conformances which is found within the supplier's facility and has not escaped the building but could negatively impact delivery of product shall require immediate notification of the Purchasing and/or Quality departments at Mountainhome.

Supplier shall be accountable for all costs incurred in the correction of product found to be non-conforming from their facility.



Preventing the use of Counterfeit parts

To prevent the purchase of counterfeit or suspect / unapproved products and to ensure product identification and traceability, the supplier shall institute controls that include staff training on the effect and identification of counterfeit / suspect parts, the requirement of material certificates, certification of conformity, and /or other supporting documentation as appropriate. Material and part substitutions are not allowed.

Flow down to external providers

Supplier is responsible to flow down the requirements of the PO and the requirements of this document where applicable.

Test specimens for part approval

As part of the FAI process, the supplier shall identify the piece used in the development of the FAI process. Identification shall not impact the form, fit, or function of the test specimen. It shall not impede the sale of the test specimen to Mountainhome customers.

Record Retention

Unless otherwise specified on the Purchase Order, all certifications, test reports, and inspection reports, as well as receiving inspection, in-process inspection, final inspection, and calibration records shall be retained for a minimum of ten years. These documents shall be made available to Mountainhome, its customers, or regulatory agency upon request.

Right of Access

Mountainhome and its customers reserve the right to perform an on-site inspection of the supplier's facility or visit the facility. Mountainhome shall give reasonable notification to the supplier prior to the on-site inspection. The on-site in section may include surveillance of the supplier's facilities, procedures, production methods, processes, and the supplier quality management system. The supplier shall furnish, at no cost, the necessary data as required by applicable purchase orders, specifications, and inspection instructions to facilitate the on-site inspection.



Contributions to product or service, product safety, ethical behavior

The supplier shall be committed to the highest standards of ethics and business conduct and shall comply with the law, honor commitments, act in good faith, and be accountable. The supplier shall not offer, promise, authorize, or provide, directly or indirectly, anything of value (including business gifts or courtesies) with the intent or effect of inducing anyone to engage in unfair business practices and shall avoid involvement in activities that maybe be perceived as conflict of interest. The supplier shall respect the legitimate proprietary rights and intellectual property rights of customers and suppliers and take proper care to protect sensitive information, including confidential, proprietary and personal information. The supplier shall support product safety by ensuring robust management of special requirements, critical items, and key characteristics. If there are concerns with respect to product safety, the supplier shall communicate them to Mountainhome. If there is a concern at the supplier's premises with respect to safety during the manufacturing of the product, the supplier shall notify its own employees of the concern and whenever possible, mitigate the concern. The supplier shall ensure that employees and people working on its behalf are aware of their contribution to product or service conformity, their contribution to safety, and importance of ethical behavior.

**6.0 First Article Inspection (FAI)**

First Article Inspection (FAI) is essential to initially qualify a part / process for Supplier approval. Furthermore, a new FAI may be requested if there is an extended gap of time since last production. The FAI requires that all features and characteristics on the design specification and control plan be inspected and verified prior to production.

The supplier is responsible for the actual measured values, and will be recorded as opposed to general statements of conformance or other notations simply indicating acceptance.

It is the intention of Mountainhome to follow the requirement of AS9102 and is therefore requesting that its suppliers also follow those requirements when submitting an FAI. It is therefore implied that FAI forms shall also mimic the forms defined within that standard.

The Supplier shall also include those special characteristics designated by Collins Mountainhome Company in the drawing, specification, or contract / Purchase Order.



**7.0 Special Processes**

Special processes are defined as those processes where the output cannot be easily validated in a nondestructive manner. Subsequently, any defects become apparent after the product has been placed into use or delivered to customers.

The supplier is required to validate and control all special processes and shall maintain evidence that supports the ability of the processes to achieve the specified results. Validation includes, but is not limited to, defined process criteria, approved and trained personnel, approved equipment, specific methods or procedures specified by the design authority, retention of records, test reports, and re-validation plans.

A list of buyer defined special processes can be found below. A supplier performing any of these special processes shall provide copies of the processor’s certification of conformance and include it with each shipment of material. At a minimum the processor’s certification of conformance shall include:

- Collins Mountainhome Company part number and revision
- quantity processed
- processor name and address that the specification and revision the parts were processed in accordance with
- processing date
- name of special process utilized
- signature of the quality representative from the processor
- Conspicuous identification of the use of Nadcap accredited processes (e.g. Nadcap watermark, text identifying the job as Nadcap accredited, etc.)

Defined Special Processes:

Plating	Annealing	Vibration or Qualification testing
Anodizing	Heat Treating	Bonding/Lamination
Painting	Material and Chemical	Encapsulating and Potting
Passivation	Radiographic Testing	Impregnation
Chemical Cleaning	Penetrant Inspection	Leak Testing
Brazing	Ultrasonic testing	Dry Film Lubrication
Welding		



## **8.0 Source Inspection**

Supplier's products or services may be subject to source inspection by Collins Mountainhome Company, representatives of Collins Mountainhome Company or applicable government or regulatory agencies. Source inspection requirement can be included on the contract or a Purchase Order and may apply to any and all operations performed by the Supplier or the Supplier's sub-tier sources, including prior to delivery of products to Collins Mountainhome Company. The Supplier shall provide the necessary access, equipment and resources required to effectively accomplish the source inspection.

## **9.0 Raw Material Lot Control**

The Supplier shall develop, document and implement a raw material (sheet, plate, bar, rod, etc.) verification program that will ensure that all material received from the Supplier's sub-tier sources meet all applicable technical and quality requirements.

The Supplier's authentication/verification program will include provisions for monitoring and testing all raw materials (every bar, billet, etc.).

Upon receipt of any raw material, the Supplier must compare the chemical, physical and mechanical properties data stated on the mill certification against the material specification requirements and document such comparison.

The supplier shall implement appropriate storage and controls to preclude mixing of different heat / lots or batches of material. By having such a measurement performed by a laboratory meeting one of the following conditions:

Suppliers shall not purchase product from outside the United States with prior approval from Mountainhome.

## **10.0 Foreign Object Damage/Foreign Object Debris (FOD) Prevention**

The supplier shall establish, document and maintain a system for Foreign Object Damage/Foreign Object Debris (FOD) Prevention. The supplier's Foreign Object Damage / Foreign Object Debris (FOD) Prevention Program is subject to audits, for verification and approval and / or disapproval by Collins Mountainhome or its designated representative(s).





## **11.0 Change Control Process**

The Supplier is responsible for controlling changes and notifying the Collins Mountainhome Buyer of all changes to the approved part design, manufacturing process, or site.

Unless the Supplier is specifically granted material review and disposition authority by the contract or Purchase Order, the Supplier will document all nonconforming conditions and submit them to the Collins Mountainhome Buyer (MRB) for review.

The Supplier shall establish a process to ensure that relevant versions of applicable documents furnished by Collins Mountainhome (as well as those specified of external origin) are available at points of use. The Supplier is responsible for the timely review, distribution and implementation of all Collins Mountainhome engineering standards / specifications and changes without impacting Collins Mountainhome's Schedule.

### **Supplier Change Requests**

Suppliers shall not make changes to their processes, location, facilities, equipment, material, product design (or any change which may affect product design or function) without written approval from the Collins Mountainhome.

## **12.0 Supplier Request for Nonconformance Deviation**

A Supplier should not knowingly ship product that deviates from the design intent, the drawing, or specification limits, without prior written approval from the Collins Mountainhome Buyer.

If such a condition exists, the Supplier may petition the Collins Mountainhome Buyer, in writing, to allow shipment of the product under a written nonconformance deviation. The Supplier shall use Collins Mountainhome Supplier Deviation Request, or equivalent, unless otherwise directed.

If requested by the Collins Mountainhome Buyer, the Supplier will send samples of such nonconforming items to Collins Mountainhome for evaluation. The cost of shipping, inspection, and testing to determine the possible acceptability of such product may be charged backed to the Supplier.

Collins Mountainhome approval of a deviation is specific to the products for which it has been submitted and approved and shall not be interpreted as a permanent engineering change. The Supplier must begin work immediately on a corrective action. In all cases, the Supplier will fully contain and segregate all product suspected of being nonconforming.



In addition, nonconforming product may be returned to the Supplier at Supplier expense, or the Supplier may be required to sort any suspect product already shipped to Collins Mountainhome site or be charged back for the cost of sorting by Collins Mountainhome.

Any parts shipped to Collins Mountainhome that have been approved for deviation will be clearly identified as such on the shipping container, and on shipping documentation. Inside of each shipping container will be a copy of the Collins Mountainhome -approved deviation document.

### **13.0 Labeling, Packaging, and Delivery**

Unless documented in the PO, the supplier is fully responsible for the condition of the product as it arrives at the Mountainhome facility.

Labeling of the product shall include at a minimum the manufacturer, part number, and quantity. These elements shall be easily visualized on the outside of the package/container.



**Revision History**

<b>Date</b>	<b>Revision</b>	<b>Section(s) Affected</b>	<b>Description of Change</b>
03/24/2020	00	None	New Release of QP-001 with format changes
09/16/2020	01	All, document completely re-written	Changes were made to provide suppliers the specific flowdown criteria required by AS9100 Rev D

**Document Sign Off**

<b>Document:</b> MTH-QLT-PRO-0401	<b>Title:</b> Supplier Quality Manual
<b>Revision:</b> 01	<b>Prepared By &amp; Date:</b>
	<b>Safety Review and Date:</b> N/A
	<b>Mfg. Engineering Review and Date:</b>
	<b>Design Engineering Review and Date:</b>
	<b>Production Review and Date:</b>
	<b>Quality Review and Date:</b>