TABLE OF CONTENTS

LOG OF REVISIONS

Revision	Page(s)	Description	Approved By	Date
–	Title to 13.0	Initial Revision	Kim Purcell Norm Starr	
B	Section 1.0 Appendix A	Modified *i.* to include all travel costs Sampling Plan added and defined	Kim Purcell Norm Starr	6/10/10 6/10/10
C	Section 3.0 Section 5.0 Section 10.0 Section 12.0	Clarification for lot and serial numbers Add specific section for First Article Inspection Add Section 10.0 (c) Add reference to Supplier Audit Checklist	Kim Purcell Norm Starr	3/6/11 3/6/11
D	Section 2.0 Section 4.0 Section 5.0 Section 8.0	Add Special Processes section Remove requirement for PO on label Add Requirement for SAE AS9102 FAIR Additional packaging requirements	Kim Purcell Norm Starr	8/23/12 8/23/12
E	Section 3.0	Add shelf life discussion	Kim Wittenberg Debbie Mack	4/1/2019 4/1/2019
F	Section 1.0 Section 3.0 Section 5.0 Section 11.0 Section 14.0	Added flow down requirement Traceability to source defined Corrected AS9102 revision level Describe RCO's reporting responsibility Added section for Counterfeit Material Avoidance	Kim Wittenberg Debbie Mack	12/12/2019 12/12/2019

G	Section 5.0 Appendix A	Add reference to sampling plan Updated sampling plan reference to ANSI Z1.9	Kim Wittenberg Debbie Mack	04/16/2021 04/16/2021
H	Section 15.0 Section 16.0	Add new section "Process and Product Records" Add new section "Failures that Occur on the Product After Delivery" Update Logo all pages	Kim Wittenberg Andrew Carollo	06/10/2024 06/10/2024

LIST OF EFFECTIVE PAGES

Page No.	1	2	3	4	5	6	7	8	9	10	11
Revision	-	-	-	B, C, D, F	D, E, F	C	C	D, F, G	–	C, D	F
Page No.	12	13	14	15	16	17	18	19	20	21	22
Revision	H	H	B	G	-	-	-	-	–	-	–
Page No.	23	24	25	26	27	28	29	30	31	32	33
Revision	-	-	-	-	–	-	-	–	-	-	–
Page No.	34	35	36	37	38	39	40	41	42	43	44
Revision	-	-	-	-	-	-	-	-	-	-	-

Supplier Requirements – (INTERNAL AND EXTERNAL SUPPLIERS)

1.0 Cost of Poor Quality

This manual and its contents is in effect and is expected to be flowed down to all supplier sub-tier suppliers and evidence to support this shall be supplied to RCO upon request.

a. The potential costs associated to failure of products and/or failure to provide the supporting documentation to the Customer is very high. The tangible costs that may be passed on to any internal or external suppliers as a result of supplier failure:

   i. Any costs associated with travel of an RCO technician

   ii. Logistics cost to return defective seat

   iii. Logistics cost to send replacement seat

   iv. Logistics cost to send refill seat to strategic global locations

   v. All labor costs associated to fixing or replacing seat in a certified repair facility

   vi. Critical Expedite fees due to flight schedules etc…

   vii. Documentation fees (tear down report, corrective action doc. etc.)

2.0 Manufacturing Process Control

a. Suppliers shall identify and plan for processes that directly affect product quality to ensure these processes are performed under controlled conditions.

b. Control of these processes assures that the product conforms to the approved design.

c. Processes also include any process deemed special in application.

   i. The sequence in which operations are to be carried out.

   ii. The description of the operations.

   iii. Details of any special tools and equipment to be used at each operation.

   iv. Any special working environment requirements.

d. Products will be held until the required inspections and tests have been completed or the necessary reports have been received and verified, except when the product is released under positive recall procedures

e. Special Processes

   i. Special processes shall be performed only by NADCAP or Gulfstream Aerospace Corporation (GAC) approved processors. The list of NADCAP approved suppliers can be found at www.eauditnet.com by creating an account. The list of GAC approved processors is available from the RCO Engineering purchasing agent. Any deviations to this

requirement must be approved in writing by RCO Engineering, Inc., Corporate Quality Assurance.

ii. Special Processes include the following:

1. Chemical Processing (including core/shell removal and grain etching)
2. Cleaning
3. Non-Destructive Testing
4. Heat Treat
5. Painting
6. Passivation
7. Plating
8. Soldering
9. Welding
10. X-Ray

Note – Special Process requirements DO NOT apply to Commercial Off-The- Shelf or (COTS) parts. COTS parts are products which are ready – made and available to the general public; often referred to as catalog items.

3.0 Lot Control / Part Serialization

a. Suppliers shall identify individual products by serial number and date code or batches by lot number

b. Products manufactured shall be traceable from the raw material and through the manufacturing process. Records shall be maintained for review by the Customer Quality Representative, FAA, and any other government representative.

c. All material supplied by Seller to RCO must be delivered with a minimum of 90% remaining shelf life. RCO reserves the right to reject shipments that do not meet the 90% minimum. Supplier may deliver product with less than 90% only under the condition of written approval from the authorized buyer of said material.

d. Suppliers shall maintain a method of commodity and item level traceability that ensures tracking of the supply chain back to the manufacturer of all material being delivered for any order. This traceability method shall clearly identify the name and location of all of the supply chain intermediaries from the manufacturer to the direct source of the material for the supplier and shall include the manufacturer's commodity or item level identification for the item(s) such as date codes, lot codes, heat codes, serializations, unique item identifiers, or batch identifications. This traceability system must comply with the FIFP (First In-First Out) principles for incoming and

outgoing materials.

Supplier's shall have defined procedures which define the following:

i. Material Lot Control, including:
    1. Document Lot/Batch of material used for production of component
    2. Knowledge of Lot/Batch expiration
        a. Disposal or segregation of questionable material
    3. Material Verification
    4. Record Keeping

ii. Component Lot Control, including:
    1. Lot definition
        a. Same lot/batch of material
        b. Same tool/machine
        c. No process change
        d. Setup / tear down
        e. Same Operator – Manual Operations

4.0 Component Labeling

a. The Supplier is responsible for the proper identification of finished material. The following requirements shall be maintained, at a minimum:
    i. All components shall be permanently labeled.
    ii. Placement of labels shall not affect appearance, fit or function of component
    iii. Labels shall include the following:
        1. Part Number
        2. Revision Level
        3. Date of Production
        4. Lot/Batch # or Serial #
            a. If unable to maintain lot control, serialization is required
            b. Serial numbers shall be numerically sequenced
            c. Serial numbers shall be directly referenced to dimensional inspection data/reports, and all part documentation

d. Serial numbers shall not be repeated

5.0 Inspection

a. Certification Articles

i. 100% inspection, which includes; dimensional, material, functional, critical processes and appearance, shall be conducted on **all** certification articles as defined by the controlled drawing.

1. Required data shall consist of, but not limited to, the following:

a. Material Certification

b. All dimensional and angular characteristics

c. Processes (NDT)

d. Hardness

e. Finish Characteristics

f. Structural and functional tests to verify conformity to requirements

g. Assembly

h. Process Certification

ii. Inspection results shall be recorded on an approved inspection result sheet, design record, laboratory test report or coordinate measuring machine print out. These actual measurements shall be cross referenced to the controlled drawing.

iii. The supplier's name shall appear on all inspection result sheets, cross sections and/or auxiliary drawings used in conjunction with the design record.

1. Inspection results shall include, at a minimum:

a. Date

b. Method

c. Name and function of responsible party

d. Laboratory Identification

e. Reference gage calibration information (traceability documents)

f. Unique identification of item (serialized part number)

g. Results of inspection or test

i. Specification

ii. Tolerance

iii. Disposition (pass / fail)

b. First Article Inspection

i. First Article Inspection shall be performed for a new part representative of the first production run. This includes details which constitute the end item ordered. The First Article Inspection record shall not be considered complete until all nonconformities are resolved. Prototype parts, or parts built using methods different from that intended for the normal process, shall not be considered as part of the first production run.

ii. The First Article Inspection requirement shall continue to apply even after initial compliance. Re-accomplishment of the First Article Inspection is required for the following events:

1. A change in the design affecting form, fit or function of the part.
2. A change in manufacturing source(s), processes, inspection method, location, tooling or materials with the potential of affecting fit, form or function.
3. When required as part of corrective action.
4. A lapse in production for two years.

iii. First Article Inspection Report per SAE AS9102, latest revision, required.

c. Continuing Conformance

i. Inspection shall be accordance to the ANSI Z1.9 sampling plan (see Appendix) and should include at a minimum:

1. Critical Characteristics
2. Processes (NDT)
3. Finish Characteristics
4. Assembly

ii. Inspection results shall be recorded on an approved inspection result sheet, design record, laboratory test report or coordinate measuring machine print out. These actual measurements shall be cross referenced to the controlled drawing.

iii. The supplier's name shall appear on all inspection result sheets, cross sections and/or auxiliary drawings used in conjunction with the design record.

1. Inspection results shall include, at a minimum:

a. Date

b. Method

c. Name and function of responsible party
d. Laboratory Identification
e. Reference gage calibration information (traceability documents)
f. Unique identification of item (serialized part number)
g. Results of inspection or test
    i. Specification
    ii. Tolerance
    iii. Disposition (pass / fail)

d. Records of inspection shall be maintained by the Supplier and a copy submitted with component delivery

6.0 Control of Inspection, Measuring and Test Equipment

a. Tool / Gage / Fixture
    i. Suppliers are responsible for inspecting and ensuring any inspection or testing devise is calibrated to a standard traceable to a National or International Standard.
    ii. Schedule of inspection and calibration intervals for production tools, fixtures and gages is required
    iii. Records of calibrations and inspections shall be maintained by the Supplier
        1. Records shall include the following, at a minimum:
            a. Date
            b. Method
            c. Name and function of responsible party
            d. Laboratory Identification
            e. Reference gage calibration information (traceability documents)
            f. Unique identification of item
            g. Results of calibration or verification
                i. Specification
                ii. Tolerance
                iii. Disposition (pass / fail)

7.0 Deviations

a. Deviations from Controlled Drawings

i. Use of "like" materials or components are **prohibited**

ii. Supplier "approved" deviations are **prohibited**

b. Considerations

i. Any deviation shall be approved by the RCO Program Engineering Manager

ii. Approved deviations shall be documented by Quality and reported to the FAA MISO office

iii. Major changes REQUIRE FAA approval prior to release

8.0 Packaging

a. Weight Limit for Hand Carried Box is 35 lbs

b. One Part Number per Box

c. Proper separation of components to prevent damage is required.

d. Inspection Package must be included with each shipment.

i. Inspection report

ii. Drawing cross sections and/or auxiliary drawings referenced in inspection data

iii. Material certification

iv. Special Processing Certification

v. Parts inspected (Continuing Conformance)

vi. Certificate of Conformance

e. All inspection packages shall be placed at the top of the box for easy retrieval.

f. Package Label shall include, at a minimum:

i. Program Name

ii. Part Number

iii. Revision Level

iv. Description

v. Quantity

vi. Date

9.0 Required Documentation

a. Each shipment requires the following documents, at a minimum:
    i. Inspection Package
        1. Inspection report
        2. Drawing cross sections and/or auxiliary drawings referenced in inspection data
        3. Material certification
        4. Parts inspected (Continuing Conformance)
    ii. Shipper
    iii. Certificate of Conformance

10.0Rejected Material

a. Suppliers shall contact RCO Engineering Program Manager if articles do not meet specifications, defined on the controlled drawing, prior to shipment.
    i. Rejected Material shall be segregated
    ii. MRB process shall be followed
    iii. Components or material designated as Scrap, shall not be reworked
    iv. Root Cause Analysis shall be completed, upon request
b. Shipment of nonconforming articles, without prior authorization, will be rejected.
c. Suppliers shall immediately report if a part or component has been released from that supplier and subsequently found not to conform to the applicable design data.
Upon identification of suspect or confirmed fraudulent/counterfeit material RCO will provide timely notification to the reporting service organizations as applicable (GIDEP, FAA, etc.).

11.0Corrective and Preventive Action

a. Suppliers shall establish and maintain documented procedures for implementing corrective and preventive action.
b. Corrective or preventive action taken to eliminate the cause of actual or potential nonconformities shall be reviewed to detect adverse trends and to determine appropriate levels of corrective action required.
c. Customer requested corrective action response:
    i. Initial Response within 24 hrs
    ii. Written Response within 5 business days

12.0Audits

a. Suppliers shall allow RCO Engineering representatives the right to conduct audits, evaluations and inspection of the Supplier's Quality System and products supplied to RCO Engineering. In addition, RCO Engineering reserves the right to conduct audits, evaluations and inspection of the Supplier's Subcontractors Quality System and products supplied to RCO Engineering.

   Reference Supplier Audit Checklist

b. Suppliers shall permit access and provide facilities and assistance, as necessary, to government representatives to enable them, initially and periodically, to evaluate Supplier's facilities and to review procedural controls, records, process and products at all times and places during manufacturing, for conformance with government regulations and applicable specifications.

13.0Changes to the Manufacturing / Inspection System

a. Suppliers shall notify RCO Engineering Quality representative immediately, in writing, of any changes to the manufacturing and inspection system which directly affect product intended for shipment to RCO Engineering.

14.0Counterfeit Material Avoidance

a. RCO will only procure materials from original manufacturers, manufacturer franchised distributors or authorized aftermarket manufacturers. As such, suppliers to RCO shall in turn ensure that only new and authentic materials are used in materials delivered to RCO. Suppliers may only purchase material directly from original manufacturers, manufacturer franchised distributors or authorized aftermarket manufacturers. Use of material that was not provided by the aforementioned sources is not authorized unless first approved in writing by RCO purchasing representative. The supplier must present compelling support for its request (e.g., original manufacturer documentation that authenticates traceability of the material to the original manufacturer) and include in its request all actions to ensure the material thus procured is authentic and conforming.

15.0Process and Product Records

a. All process records and product records defined within this document and those that support product conformity shall be maintained and be available for RCO Aerospace Products upon request. All records shall be retained for a time period of minimum 20 years after production end or for a previous agreed upon period of time.

16.0Failures that Occur on the Product After Delivery (CFR 21.137 (n) & (m), AC 00.58

a. Suppliers are required to notify RCO Aerospace Products of any escape to the supplier's quality system that may have been realized after product was delivered within 48 hours via a defect investigation report.
   The defect investigation report shall contain, at a minimum, the following:

   i. A brief description of apparent violation, including an estimate of the duration of time that it remained undetected, as well as how and when it was discovered.

ii. Verification that noncompliance ceased after it was identified.

iii. A brief description of the immediate action taken after the apparent violation was identified, the immediate action taken to terminate the conduct that resulted in the apparent violation, and the person responsible for taking the immediate action.

iv. Verification that an evaluation is underway to determine if there are any systemic problems, and if the corrective steps necessary to prevent the apparent violation from recurring have been implemented.

v. Identification of the person responsible for preparing the comprehensive fix.

APPENDIX A

SAMPLING PLAN

SAMPLING PLAN

(Reference ANSI/ASQC Z1.9)

	Acceptable Quality Levels for Normal Inspection (% defective)													
Lot Size/ Sample Size	0.01	0.015	0	0	0.065	0.1	0.15	0.25	0.4	0.65	1	1.5	2.5	4
	Lot Acceptance (Ac) Number (maximum number of rejects to accept the lot)													
LS=2 to 8 SS=2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LS=9 to 15 SS=3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LS=16 to 25 SS=5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LS=26 to 50 SS=8	0	0	0	0	0	0	0	0	0	0	0	0	1	1
LS=51 to 90 SS=13	0	0	0	0	0	0	0	0	0	0	0	0	1	1
91 to 150 SS=20	0	0	0	0	0	0	0	0	0	0	0	0	1	2
151 to 280 SS=32	0	0	0	0	0	0	0	0	0	0	0	1	2	3
281 to 500 SS=50	0	0	0	0	0	0	0	0	0	0	1	2	3	4
501 to 1200 SS=80	0	0	0	0	0	0	0	0	0	1	2	3	5	7
1201 to 3.2K SS=125	0	0	0	0	0	0	0	0	1	2	3	5	7	10
3201 to 10K SS=200	0	0	0	0	0	0	1	1	2	3	5	7	10	14
10001-35K SS=315	0	0	0	0	0	0	1	2	3	5	7	10	14	21
35001-150K SS=500	0	0	0	1	1	1	2	3	5	7	10	14	21	-
150001-500K SS=800	0	0	0	1	1	2	3	5	7	10	14	21	21	-

SAMPLING PLAN (CONT'D)

The acceptable quality level or AQL that is expected by RCO is 0.015%. Reduced sampling is not permitted if AQL is not achieved.