Supplier Quality Requirements

REVISION					
Rev	Date	Written by	Description of the change	§ impacted	
26	10/2024	B Dhesi	Added Calibration requirements	Section Q8.	
25	12/2023	H Hernandez	Update to include D6-87282 to align with Contracts Update to include D-87282 and AAM 14CFR21.2 requirements	Section Q1.	
				Section Q25.	
24	11/2022	B Dhillon	Rev 24 Release	All	

1.0 SCOPE

This document is applicable only to suppliers of Production Items as defined below and their sub-tier suppliers. Non-Production Item suppliers are not subject to this document.

2.0 PURPOSE

This document specifies the quality requirements applicable to items purchased from the supplier as called in the Purchase Order (PO) issued by Avcorp. Any deviations from this document, as part of a contractual agreement with the supplier, shall be reviewed and approved in writing by the Quality Leader or delegate prior to contract execution. This document is supplemental to any and all contractual agreements with the suppliers. In the event of a conflict or inconsistency between any of the terms contained herein and other documents, the negotiated contract or PO will take precedence.

3.0 Definitions and Terms:

3.1 Controlled Special Processes

Processes which are defined by the customer as requiring prior approval to perform the process. Processes like anodizing, painting, non-destructive testing, casting, forging, heat treating, welding, plating, surface finishing, coating, and testing (NDT, chemical, physical, etc.) swaging, shot peening, etc.

3.2 Item(s)

The contracted material, product, service, part, goods, kit, or report that is provided to Avcorp by the supplier. Items may be non-physical such as a contracted service.

3.3 Outside Production Specification Document (OPSD)

Avcorp revision-controlled document indicating the item's engineering data definition, special instructions, and condition of supply if it deviates from the engineering definition. If the PO calls out an OPSD, then the requirements of the OPSD

TASK REQUIREMENTS

Supplier Quality Requirements

are supplemental to the Engineering requirements and in the event of conflicting requirements the OPSD takes precedence.

3.4 Repair

Action taken to restore a non-conforming item to a serviceable condition that does not comply with drawing/specification requirements. Repair conditions typically require MRB approval.

3.5 Rework

Action taken to bring a non-conforming item into compliance with the drawing/specification requirements. In many cases rework may be authorized by specifications without requiring prior approval, however if not clear, authorization shall be requested prior to performing rework.

3.6 Suppliers

There are two major categories of suppliers, for Production Items and for Non-Production Items.

A) Production Item Suppliers provide an item that is a raw material, defined special process, semi-finished or finished component that is an element of the deliverable item to the customer, or provide a critical service as defined below. Services – Suppliers who perform contracted services such as sub-contracted machining, assembly, calibration services, mechanical tests or chemical analysis.

B) Non-Production Item Suppliers are typically suppliers of consumable shop and office supplies, shop, computer, and office equipment, etc.

4.0 REQUIREMENTS

Q.1 Quality Management System Requirements: Supplier shall maintain a QMS in accordance with recognized industry standards as AS9100 (Usually Manufacturer), AS9110 (Maintenance) or AS9120 (Distributor), AS9146 (FOD) as applicable which Avcorp may audit for compliance.

Supplier & Special process sub-tiers shall meet the applicable following customer requirements:

- 1. Boeing: D6-82479, <u>X31764,</u> D6-87282, D1-4426,
- 2. Bombardier QD 4.6-40,
- 3. BAE BAE/AG/QC/SC1, Quality Management Requirements for Suppliers and

4. BAES-JSF-QMS-141-03-DV, Supplementary Quality Requirements for Suppliers to the F-35 Lightning II Program, as well as applicable program quality plans as applicable.

Suppliers shall notify Avcorp within three working days of receiving notification of upcoming loss or actual loss of registration/certification of quality system approvals or customer process approvals, including NADCAP. This requirement to notify Avcorp is also applicable to sub-tier loss of registration/certification. Suppliers shall confirm they have access to Avcorp FTP at https://ftp.avcorp.com/ site for any customer specification changes, or Avcorp's SmarTeam and shall review at least every quarter, as this site is constantly updated accordingly with customer's new revisions for specifications updates.

TASK REQUIREMENTS

Supplier Quality Requirements

Supplier & Special process sub-tiers shall use the approved suppliers listing <u>https://bombardierquality.service-now.com/sp?id=vendors</u> Applicable suppliers should consult and strive to meet as well, the Engineering Materials Manual for Bombardier Materials – BAEMM. And if the supplier sub-tier specific requirements shall check customer website or ask its corresponding procurement agent or Supplier Quality Engineer.

Suppliers performing work for Boeing parts shall comply with PO notes. Some of them are flow down requirements from Boeing: as applicable Q20, Q21, Q22, Q23, Q29; Q41, Q42, 44, Q45, Q46 &Q47; Q33 - AS9120 Certification Requirements for Aviation, Space and Defense Distributors; AS9103 Variation Management of Key Characteristics; AS9115 Deliverable Software (if applicable).

Suppliers shall have access to these notes from Boeing's suppliers' website and are responsible for its compliance. If the supplier cannot locate those or have questions in these references, can also locate them at SmarTeam, Avcorp FTP at https://ftp.avcorp.com/ site; if you have any question, please contact corresponding Avcorp Procurement Agent or Supplier Quality Engineer.

- **Q.2 Responsibility for Conformance:** Supplier is responsible for furnishing Item(s) that conforms to the requirements of the PO, engineering & quality requirements and ensuring their personnel is aware of their contribution to Item(s) conformity and safety, and the importance of ethical behavior. Surveillance, inspections, and tests performed by Avcorp, Avcorp's customer, or the government does not relieve the supplier of this responsibility.
- **Q.3 Control of Records:** Suppliers shall prepare & retain verifiable and lot-traceable quality records evidencing inspection & conformance of all Items including, but not limited to, raw material used, relevant chemical, physical and mechanical test reports, special processes performed, as well as dispositions of non-conforming articles & scrap. These records shall not be discarded without prior Avcorp written approval. Records may be retained in electronic or hard copy format at the suppliers' discretion unless otherwise specified.
- **Q.4** Access to Facilities: Avcorp and our customers reserve the right to enter your facility for observation, inspections, evaluation, audits and tests. The FAA or applicable equivalent foreign civil aviation authorities or any other regulatory body may review your facility, processes, data, equipment, personnel, or Item(s) as necessary.
- Q.5 Suppliers & Sub-tiers: Suppliers shall contact Avcorp for agreement on using any sub-tier sources and applicable manufacturing processes. Suppliers shall notify Avcorp in advance of changes in the manufacturing facility location of the Items at sub-tier suppliers, including processes (conventional and special processes) performed. Suppliers shall not relocate or subcontract any work without prior Avcorp written approval.

All suppliers and sub-tiers performing special processes shall comply to customer source lists in accordance with element Q.1 above and require Avcorp approval prior to manufacturing process execution.

In addition, raw material and hardware sub-tier suppliers and distributors shall be verified against end-customer approved source lists. Only approved sources of those materials shall be used when such a list exists. The supplier is responsible for contacting Avcorp's procurement agent if they don't have access to this information.

Q.6 Certificate of Conformance:

Not applicable to suppliers of calibration or test services.

TASK REQUIREMENTS

 DOCUMENT NO:
 P-03-01-02

 ISSUE:
 26

Supplier Quality Requirements

An original certification of conformance (COC) must accompany each shipment and must contain the PO number & line number, a certification statement, a listing of specifications; with revision level as called out on the PO, supplier name & address, signed & dated.

Wherever "Material Certificates" are required the COC shall have a traceable link to the Material Certificate. In addition for "Raw Materials" & "Special Processes" identify the following (not required for standard catalogue fasteners):

For Raw Materials

- Raw material description,
- Raw material specification number and revision (as noted in Material Certificate), and
- Name of special processors used to process and test raw material.

For any Special Processes

- Special process name, description or type and
- Special process specification-number.

Assembly or Kitted Parts:

When certification calls out an assembly or kit, the COC shall include all detail part numbers listing the same information as noted above. Standard catalogue parts such as bushing, fasteners or similar items are not required to be listed on the COC.

Avcorp recommends that suppliers use the Avcorp COC template attached at the end of this document.

Q.7 Material Test Reports:

Applicable only to product and raw material suppliers.

Not applicable to standard catalogue hardware items.

With delivery of Item(s), Suppliers shall provide Avcorp a copy and retain on file relevant material test reports for raw material used to manufacture the Item(s) showing quantitative physical, chemical, mechanical and metallurgical properties traceable by lot number to the applicable Avcorp Item(s).

Supplier shall implement a process to evaluate the data in the test reports to confirm that the Item(s) meets requirements.

Q.8 Special Processes:

<u>Applicable only to product or raw material with controlled special processes performed.</u> <u>Not applicable to standard catalogue hardware items.</u>

In addition to the summary of special processes performed as noted on the COC, the supplier shall retain certifications for all controlled special processes used to manufacture the items traceable by lot number to the applicable Avcorp Items.'

As required all parts and perishable materials to be stored in controlled temperature. The temperature checks and associated tools needs to be calibrated at all times.

Q.9 Part Marking: Unless otherwise specified by customer specification and related documents, it's a best practice to have identification & traceability on the part as: Part #, serial number (If applicable), country of origin (Only if manufactured outside of USA) & traceability to the COC.

TASK REQUIREMENTS

Supplier Quality Requirements

Q.10 Rework & Nonconformance: Rework of items to drawing configuration, or scrap of non-conforming items may be made without prior Avcorp approval where permissible in the drawing/specification. Non-conforming items shall not be repaired or used by the supplier or its sub-tiers without first receiving explicit repair or use instructions from Avcorp's Material Review Board (MRB the supplier has received delegated MRB authority from Avcorp.

Non-conforming Items shall be identified with the applicable Avcorp non-conformance number and/or customer non-conformance number as directed. Signed copy of the non-conformance report (NCR) dispositioned by Avcorp as rework or use-as-is indicating completion shall be included with the COC for verification on delivery to Avcorp.

If after the Items have been shipped to Avcorp supplier or its sub-tiers identifies any nonconformance, then supplier is required to disclose such nonconformance to Avcorp in writing within 24 hours of identification (Notice of Escape).

Q.11 Identification & Traceability: The supplier is responsible for ensuring full traceability of all activities and goods under Avcorp Contract / PO that ensures tracking of the supply chain back to the manufacturer or service provider. All technical/quality requirements applicable to the Items under the Contract / PO should be traceable to the time and place of production. Records should provide the degree of traceability required to enable verification, at any point from raw material to final Items, of all aspects of material, manufacturing, and documentation.

Where Items for BAE F-35 program require a History Card the supplier shall include the original History Card with the release documents for traceability. History Card shall record the key manufacturing and inspection activities. Per BAES-JSF-QMS-3607-07-FM.

- **Q.12 Time and temperature-sensitive materials:** Time and temperature-sensitive materials shall be marked with date of manufacture. Not more than 25% of shelf life shall have lapsed at time of delivery to Avcorp unless otherwise authorized by Avcorp Procurement Agent in an "Authorization to Ship" form waiver. Suppliers shall provide Avcorp with all pertinent information pertaining to shelf life and storage requirements, as applicable.
- **Q.13 Source Inspection:** Avcorp and its customers reserve the right to have a source inspection performed at the supplier's facility or sub-tier suppler facilities prior to shipment of any Items. The requirement for source inspection shall be identified on the PO or in writing from Avcorp Procurement.

Approval of Items by Avcorp source inspection does not release the supplier of any of its obligations of Item(s) conformity, testing, inspection, quality control and associated documentation.

If source inspection is required, suppliers shall not ship Items or perform the specified service without approval by an Avcorp-approved source inspector or prior written permission from Avcorp Procurement Agent according to P-03-18-01 Source Inspection procedure. Avcorp Procurement Agent may waive the requirement for source inspection on a case-by-case basis through an Avcorp "Authorization to Ship" form. Results from Source Inspection activities are recorded using Source Delegation Checklist P-04-09-01.

TASK REQUIREMENTS

Supplier Quality Requirements

Q.14 Raw Material Testing:

<u>Applicable to product and raw material suppliers when material is not provided by Avcorp.</u> Suppliers shall undertake to have raw material certification testing performed by a customer-certified testing lab independent of the producing mill on at least one sample of each alloy of raw material used to manufacture items supplied to Avcorp(Testing of each temper is not required but is encouraged). Such testing shall include verification of the materials physical, chemical and mechanical properties and shall be performed, as a minimum, on an annual basis. The supplier shall maintain records of item validation on file.

- Q.15 NADCAP Requirements: All suppliers and sub-suppliers performing special processes and lab testing on items shall be NADCAP certified unless otherwise approved by Avcorp. The applicable special processes that require NADCAP certification can be found on PRI website: <u>https://p-r-i.org/</u>
- **Q.16 Language of Documents:** The primary language of communication with Avcorp shall be English. Unless otherwise specified, all data shall be available in the English language. The supplier is responsible for the accuracy and provision of all translations to other working languages, unless otherwise agreed with Avcorp.
- Q.17 Key Characteristics: Management of Key Characteristics that have been identified by Avcorp or Avcorp's customers shall be monitored and controlled per AS9103 and applicable customer requirements. Acceptance plans may require Avcorp and/or customer approval, shall be statistically valid and shall preclude acceptance of item lots whose samples have known non-conformities. Key Characteristics may be product or process related. Evidence of Items or process conformity to the acceptance criteria shall be maintained.
- **Q.18 Customer-Owned Tooling Suppliers:** Suppliers shall maintain a formal internal tool control system that allows for the proper segregation, care, upkeep and maintenance, and accountability of Avcorp and customer-owned tooling.

The supplier is responsible for compliance with the applicable Avcorp or end-customer tooling requirements per Boeing's D33200 & D950-11059 documents & Bombardier QD 4.6-40. Prior written approval from Avcorp is required before modification or disposal of Avcorp or customer-owned tools.

It's a best practice to control or check tools for the final configuration of deliverable Items that are required to be inspected to engineering requirements a minimum of once per year. Avcorp reserves the right to audit Tooling Suppliers as required.

- **Q.19 Charges for non-conformities:** Upon completion of the investigation and agreement of liability between all involved parties including Avcorp's customer, the Supplier may be subject to charges associated with handling nonconformities as follows:
 - Disposition of a rejection tag prior to product shipment to Avcorp USD 250 per tag
 - Goods certification documentation incomplete USD 50 per document
 - Lot or batch of Goods rejected at Avcorp's plant and dispositioned as scrap USD 250 per disposition

Supplier Quality Requirements

- Goods reworked or repaired at Avcorp (Time required to rework X Shop rate at the time). The associated Rework / repair / replacement costs, such as materials, Item(s) or tools and reliability claim needed for reworks or repairs are supplemental.
- Nonconforming Goods Disclosure The amount shall depend on the impact to the Items. Avcorp can charge
 all the costs associated with investigation done at Avcorp and the cost of disclosure to Avcorp customers.
 Late Request for Corrective Action Supplier will be notified in writing by Avcorp Quality prior to the
 Request for Corrective Action (RCA) due date. If Supplier does not respond within 30 calendar days after the
 RCA due date USD 500 per RCA.
- Q.20 DPD / MBD: Suppliers shall employ a Digital Data Control system (DPD, MBD, etc.) so electronic data is controlled at a level to assure that integrity of Item and/or tooling engineering and configuration and manufacturing data is maintained throughout the supplier's Digital Data Control system from receipt of the electronic data through creation of derivatives, to Item acceptance and process improvement. Any specific customer digital requirement will be listed in the relevant customer document (E.g.: D6-51991 for Boeing).
- **Q.21** Suppliers of calibration or test services: The supplier shall submit for each item calibrated or tested a record of actual results. The following minimum information shall be provided:
 - Part Identifier (part number and serial number or lot number as applicable)
 - Applicable tolerance ranges
 - Work performed and applicable specifications.

Q.22 First Article Inspection:

Applies only to product suppliers (including forgings/castings) and special process suppliers.

First Article Inspection (FAI) shall be done in accordance with AS/EN/SJAC 9102. First Article Inspection Reports are to be completed on new items using tooling and processes representative of the first production run, or as requested by Avcorp.

Partial First Article Inspections (often called "Delta FAI") shall be performed when any of the events noted in AS/EN/SJAC 9102 occur, including (but not limited to) changes in production tooling, NC programs, and item configuration.

If forms other than those contained in the standard are used, they must contain all "Required" and "Conditionally Required" information and have the same field reference numbers and information. FAI or Delta FAI Reports are required to be submitted to Avcorp and also retained by the supplier. These can be electronic or hard copy.

Q.23 Manufacturing Plan: The supplier shall provide Manufacturing Plans, which include product verification operations and sub-tier suppliers at specified locations executing the Manufacturing Plans to PO requirements. The Manufacturing Plans require Avcorp approval prior to manufacturing.

In addition, the selected Items or processes may require qualification by Avcorp and/or the customer prior to production or during FAI. If certain Items and processes require pre-approvals and qualifications by the customer, Avcorp shall be informed in a timely manner for concurrence to ensure pre-approvals and qualifications will be completed to PO before full scale production.

Supplier Quality Requirements

After the initial approvals are granted, subsequent changes will continue to require Avcorp approvals. The supplier shall notify Avcorp in advance of any proposed change to the production process and shall receive approval prior to implementing the change.

This requirement applies to all affected suppliers and their sub-tiers.

If "D6-1276 Control of Materials and Processes for Designated Parts and Components of Boeing Products" is called out by Engineering Drawing, Boeing approval of Manufacturing planning is required through the Avcorp Procurement Agent prior to shipment.

- **Q.24 Counterfeit Parts:** The suppliers shall implement counterfeit prevention programs to one or more of the following standards, pending their scope of work:
 - a) AS6174 Supplier procuring materials / parts other than electrical, electronic, and electromechanical (EEE).
 - b) AS5553 Supplier procuring and/or integrating electronic parts and/or assemblies containing electrical, electronic, and electromechanical (EEE) items.
 - c) AS6081 Distributor of electronic parts.

AS6462 – Verification criteria for AS5553 suppliers. This standard provides a set of criteria to be utilized by the accreditation certification bodies to establish compliance and grant certification to AS5553. At this time Avcorp does not require its suppliers to be AS5553 certified, however, this will be considered in the future.

Q.25 Customer / Regulatory Audit & Inspection Activities: Avcorp, its customers and regulatory authorities shall have the right to perform activities such as inspection & audits to ensure conformance to this document. Supplier shall accommodate these activities without additional charge to any such parties. Refer to customer documents Boeing D6-51991, Bombardier BM4041.04.00.05 & BAE BAE/AG/QC/SC1, Quality Management Requirements for Suppliers for compliance.

Acceptance Authority Media (AAM) 14 CFR 21.2 and Boeing_D6-87282, delegation of responsibility and authority for performance for verification, audit and testing activities shall be implemented. The process of AAM needs to be assessed internally by the supplier and is required to flow down to its supply chain sub-tiers and to be verified through internal audits and supplier audits.

Avcorp reserves the right to audit the supplier and its sub-tiers to assess compliance with AAM.

Q.26 Configuration Management: The supplier and its sub-tiers shall ensure that all applicable requirements including drawings, specifications, key characteristics, etc. under the contract with Avcorp are flowed down to all suppliers and sub-tiers performing work on Avcorp's Items. The supplier and its sub-tiers shall not make any configuration changes to any items, which could affect form, fit, function, performance, or price without Avcorp's prior written consent. Notification and approval of configuration changes include those items which are superseded by another item. Any supplier configuration change requests shall be submitted to Avcorp Procurement Agent in writing for approval prior to configuration change processing.

LATECOERE

TASK REQUIREMENTS

Supplier Quality Requirements

Supplier Quality Requirements

Document QS-1334 Rev: 01 State: RELEASED see Smarteam for approval authorities							
Certif	QS-1334	REVISION	01				
	-						
1. Supplier Name and Address:							
2. Avcorp PO / Line Number:		4. Shipped Qty					
3. Assembly Part Number		5. OPSD Number	r / Rev:				
S. resenary rate number		6. Packing Slip N	umber:				

Raw Material* (Not required for standard catalogue fasteners)

			COC Number** /	
			Material Cert Number	
Part Number	Alloy	Specification Number	(If Applicable)	Raw Material Supplier Name

Special Process* (Not required for standard catalogue fasteners)

Special Process (not required to standard catalogue lasteners)					
	Process Name /		COC Number / Special		
	Type / Class (As		Process Cert Number		
Part Number	applicable)	Specification Number	(If Applicable)	Supplier Name	

*Note: Add rows if required for "Raw Material" & "Special Process"

We hereby certify that the material and special processes covered by this certification have been manufactured and inspected, tested with all applicable customer / engineering drawings and / or specifications required.

Signature

Date

P-05-03-05 ISSUE 01

© 2011 AVCORP INDUSTRIES INC. Verify issue before use. All printed copies are UNCONTROLLED

Avcorp Industries Inc – a Latecoere Group subsidiary - Company number: 14145721 Verify issue before use. All printed copies are UNCONTROLLED