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Revision: 1

Title:

SUPPLIER QUALITY REQUIREMENTS

TABLE OF REVISIONS

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1	29.04.2020	Introduction cost of Not conformity in para 7.

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1. PURPOSE

The present document describes the applicable requirements to CASRAM SA (hereafter: CASRAM) suppliers.

These requirements regulate the essential aspects of the working relationship between CASRAM and the supplier.

2. APPLICABILITY

This document is applicable to all CASRAM suppliers, including their sub-tiers, to whom CASRAM issues purchase order for:

- Product (material, articles, parts, equipment),
- Processes
- Services;

which are used to build CASRAM components and equipment.

It is responsibility of the supplier to ensure that all CASRAM purchase order requirements including this document, are flowed down to the sub-tier supplier.

The supplier shall use technical data at the purchase order specified revision or at the current revision, if no specified.

3. REFERENCE DOCUMENTS

- AS/EN9100 Quality Management Systems – Requirements for Aviation, Space and Defense Organizations
- AS/EN9101 Quality Management Systems – Audits Requirements for Aviation, Space and Defense organizations
- AS/EN9102 Aerospace series - Quality Systems – First Article inspection requirements
- AS/EN9110 Quality Management Systems - Requirements for Aviation Maintenance Organizations
- AS/EN9120 Quality Management Systems - Requirements for Aviation, Space and Defense Distributors
- ISO 10007 Quality management systems – Guidelines for configuration management
- ISO 17025 General requirements for the competence of testing and calibration laboratories

4. DEFINITIONS AND ABBREVIATIONS

4.1. Definitions

For general definitions referenced to the ISO 9000, IAQG Dictionary and any other definitions applicable to the standard/regulations listed in para. 3.

4.2. Abbreviations

CoC	Certificate of Conformance
FAI	First Article Inspection
FAIR	First Article Inspection Report

FOD	Foreign Object Debris
IAQG	International Aerospace Quality Group
NADCAP	National Aerospace and Defense Contractors Accreditation Program
NCR	Non-Conformity Report
NDT	Non destructive Testing
QMS	Quality Management System
QN	Quality Notification
SUP	Suspected Unapproved Parts
TDP	Technical Data Package

5. SUPPLIER QUALITY REQUIREMENTS

5.1. General Requirements

5.1.1. Purchase Order

The content of CASRAM Purchase Order could includes:

- Technical data package (TDP) references (drawings, specifications, etc.);
- General terms and conditions;
- Quality requirements;
- Logistical details;
- etc...

The supplier shall ensure that all information contained in the purchase order and attachments are reviewed and understood.

It is important in particular for the supplier to check the drawing modifications as well as any revisions of the referred documents to highlight and implement the changes. If in doubt CASRAM purchasing shall be contacted for clarification.

5.1.2. Supplier Quality Management System

The supplier's Quality Management System (QMS) shall comply with one or more of the following requirements, depending on the supplier's scope of deliverables:

- ISO 9001

The following certification is preferred:

- AS/EN9100

The supplier shall ensure compliance through a QMS, certified by a certification registration body.

In case of the loss of a certification or approval, the supplier shall inform CASRAM immediately.

5.1.3. Right of Access

CASRAM shall have the right of access to any Supplier involved with CASRAM equipment, included any Sub-tier Supplier.

The Supplier shall provide CASRAM Customers (or the Customers authorised representatives) and/or Regulatory Authorities rights of access to premises where CASRAM work is being performed. Such access shall be used to verify that the activities being undertaken meet the requirements of

the CASRAM contracts/orders. The Supplier shall provide suitable accommodation facilities and assistance.

5.1.4. Audit Findings made by CASRAM and/or Aviation Authorities

The Suppliers shall implement and maintain a processes (and act to it) to ensure that following an audit by CASRAM and/or a relevant Authority, corrective actions are demonstrated to be completed within, for:

- level 1 classified findings: a period of no more than 21 working days.
- level 2 classified findings: a period of no more than 6 months.
- level 3 classified findings: a period of no more than 6 months (recommended).

5.1.5. Technical Requirements to Supplier

Suppliers shall comply with all CASRAM technical requirements, as defined in, but not limited to:

- Technical Documents, and/or similar; or
- Statements of Work (SOW) and/or similar; or
- Contract or Purchase Order.

The above documents take precedence where stated requirements contradict the design assurance requirements defined herein for the specific defined purpose.

5.2. Production Requirements

5.2.1. Technical Data Package transfer

The CASRAM purchase order includes TDP (drawings, BOM, material specification, special processes requirements, etc...).

The supplier has to demonstrate that CASRAM TDP is taken into account into the supplier's manufacturing data.

5.2.1.1. Resources

The supplier shall demonstrate that all required resources (capability and capacity) are readily available to meet the purchase order requirements and forecasts. The resources shall include, but are not limited to:

- Facilities
- Tools and equipment
- Manpower (knowledge, competence, authorization/approvals)
- Material

The supplier shall include sub-tier suppliers in the resource management.

5.2.1.2. Maintenance of production and inspection means

The supplier shall implement a maintain a process of a preventive maintenance program (e.g. cleaning, inspection, repair, storage, etc.).

A listing of CASRAM owned tooling shall be available and provided upon request (if applicable). The supplier shall ensure the proper CASRAM part number identification as well as the configuration management of the tooling and manufacturing equipment.

5.2.2. Manufacturing and inspection plan

The supplier shall prepare an appropriate manufacturing and inspection plan, including all the external activities. The manufacturing and inspection plan shall be submitted to CASRAM for acceptance by Quality and Manufacturing Engineering Department.

The manufacturing and inspection process shall be frozen as from the production of the first article.

The manufacturing and inspection plan are composed of the following information:

- Manufacturing and inspection process flow/sequence,
- Special processes
- Work instruction reference for each step,
- External and subcontracted activities,
- Machines, special equipment, tooling and fixtures used for production,
- Test and inspection equipment,
- Other equipment used for releasing the part.

The supplier shall implement a maintain a process for the management of production changes. For parts, the impact of planned changes in the manufacturing and inspection plan shall be submitted to CASRAM for approval before implementation via the form "Supplier Production Change Request" (mod. 493). A delta FAI shall be performed if required.

5.2.3. Special Processes

The special processes including outsourced activities involved in CASRAM products shall be listed and communicated by the supplier to CASRAM for record.

Suppliers and relevant sub-tiers that provide special processes against process specification called out by drawing and technical documents of the contractual object, shall be approved by CASRAM.

NADCAP certification is preferred otherwise process qualification will be defined with the CASRAM Quality Department.

Accreditation by either NADCAP or by signatories to the International Laboratory Accreditation Cooperation (ILAC) is required for material testing laboratories.

5.2.4. First Article Inspection

A complete First Article Inspection (FAI) as per EN9102 is required:

- for each product manufactured for the first time,
- in case of a 24 months break of production.

The FAI requirements may be satisfied by a partial FAI (Delta FAI) that addresses differences between the current configuration and prior approved configuration. When a Delta FAI is performed, only the affected fields shall be completed in the FAI forms.

A delta FAI is required after a change of:

- manufacturing equipment or process,
- location of manufacturer,
- inspection method,
- sub-tiers,
- material.

The respective FAI Report (FAIR) shall be submitted to the CASRAM Quality and approved by CASRAM Production Engineering before the product delivery

Any change shall be communicated in advance (before the production) to CASRAM Production Engineering. The request shall be sent to CASRAM Quality.

CASRAM receives the first sample with the FAI-Report. The shipment must be clearly labelled "FAI sample". The FAI product can be used for the assembly of the equipment.

FAI reports from sub-tier suppliers shall be performed as per EN9102 or equivalent, checked and released by the supplier.

5.2.5. Supplier Production Change Request

If the supplier has a need of a process improvement or technical clarification that involves CASRAM drawing or technical documents, it can address a "Supplier Production Change Request" form (mod. 493) to CASRAM for evaluation and approval.

5.2.6. Traceability And Marking

5.2.6.1. Traceability

The traceability of the products includes at least the following:

- Identification of products according to the applicable documents or drawings (e.g. part number, modification, serial number if required and additional requirements as noted on CASRAM purchase order).
- Identification of products shipped to CASRAM against the purchase order.
- Continuous record keeping, which allows uniform cross-referencing of manufacturing documentation and articles.
- Traceability of all used lots of material, parts, inspection means and tooling.

5.2.6.2. Marking

The product marking process will be in accordance with CASRAM applicable documents or drawings.

5.2.7. Inspection and test

The supplier shall ensure that its inspection and test processes provide accurate and reproducible, results according to design data.

The supplier shall ensure that its inspection, measurement and test equipment are providing accurate and reproducible outcome.

Test and inspection tools shall be calibrated and traceable according to EN9100:2018 para. 7.1.5.

The supplier shall ensure that CASRAM inspection and test equipment are timely maintained and calibrated.

5.2.8. Foreign object debris (FOD)

The supplier shall implement a maintain a process to maintain a system enabling FOD prevention and detection according to aviation industry standard and applicable to the scope of products supplied. Delivered products shall be free of foreign debris (i.e., loose fasteners, wire clippings, metal shavings, loose solder, etc.) or left tooling.

The supplier shall demonstrate to have a tool control procedure in place (FOD prevention) including a recall procedure related to calibrated tools.

5.2.9. Supplier Non-Conformity Management

The supplier shall implement and maintain a process to manage non-conformity arisen during the manufacturing process.

This shall include the decision making whether to scrap or rework to establish the conformity or request for decision to CASRAM Production Engineering for use as is or repair in this case CASRAM "Supplier Quality Notification" form (mod. 494) will be used and send it to CASRAM Production Engineering via CASRAM Quality.

The supplier shall not send the item to CASRAM before having received the formal decision from CASRAM.

5.2.10. Preservation Of The Product

All products shall be delivered with an appropriate packaging to preserve the item from damage during transport and storage.

The packaging shall take into account (but not only) the following criteria, if applicable:

- Preservation of the surface finish from any deterioration or damages (handling, storage or corrosion, FOD, environmental conditions...)
- Moisture and temperature sensitive level:
For moisture sensitive items, handling, storage and packaging shall provide sufficient protection against deterioration, e.g. corrosion, water soaking in composite, foam (cut surface). Data measurement for humidity and temperature must be applied when defined.
- Shelf life:
Materials with a defined shelf life such as but not limited to adhesives, sealants, O-Rings, paints, etc. shall have the shelf life expiration date identified either on the individual container and in the certificates.

5.2.11. Quality requirements for delivery

In order to declare the conformity of each product delivered to CASRAM, a CoC shall be provided at each delivery.

The following documentation shall be attached to the CoC, when applicable or requested by Purchase Order:

- Copies of any Agreement made with CASRAM to deviate from the purchase order requirements;
- Test results, reports;
- CASRAM Deviation/Concession;
- Clear indication if the product is (or contains) a safety hazard for handlers;
- Cure date/Shelf life/expiring date and specification for non-metallic product;
- FAIR;
- Raw material (Manufacturer Certificate);
- Etc...

Note:

Shelf Life: minimum of 80% shelf life remaining is requested when the Good arrive to CASRAM.

6. RECORD KEEPING

In not otherwise agree, quality records like:

- First Article Inspection reports;
- In process and final inspection & test Records;
- Manufacturing records (e.g. shop traveler, planning sheet, etc..)
- Non-conforming reports
- Process control records (used as acceptance criteria)
- Procurement documents (e.g. purchase orders, contracts, etc.)
- Receiving Inspection records (e.g. test reports, material certifications, etc.)
- Training records
- Software verification and validation records
- X ray films, radiographic technique sheets and related acceptance reports shall be archived and made available on request of CASRAM, his Customer and Authorities, for a minimum, if not otherwise specified in the purchase order, ten (10) years from the product shipping date.

7. SUPPLIER NON-CONFORMITY RESPONSIBILITY and COST

CASRAM/Customer/Authority raises a non-conformity attributed to the supplier responsibility will generate a Non-Conformity Report, that will be addressed to the supplier. The supplier has the responsibility to perform a root cause analysis and corrective action implementation.

Feedback is expected to be received within 10 Working Days to the originator.

Supplier report shall use the 8D Report methodology.

If the investigation takes more than 10 working days, the supplier shall demonstrate that he is able to communicate the status of the investigation, including an estimated closing date.

As a consequence of the notified Non-Conformities, Casram will charge Supplier the amounts of **250 CHF**, as coverage of the costs borne for the management of the NC.

8. ADDITIONAL REQUIREMENTS

8.1. Awareness

The supplier shall ensure that persons are aware of:

- their contribution to product or service conformity
- their contribution to product safety
- the importance of ethical behaviour.

8.2. Sub-Tier Supplier

8.2.1. Scope of approval

The supplier shall implement and maintain a process to manage the sub-tier suppliers including CASRAM requirements deployment as defined in this document.

8.2.2. Subcontracted special process

The special processes subcontracted will be frozen by the FAI, any changes will be managed in accordance as described in para. 5.2.5.

8.3. Obsolescence Prevention

Supplier shall implement and maintain a process for obsolescence management, to avoid any product delivery disruption.

Supplier shall use appropriate indicators to evaluate its own as well as its supplier base compliance with such processes.

Notification of any potential obsolescence shall be made to the CASRAM buyer immediately.

8.4. Suspected Unapproved Parts (SUP) and Counterfeit Parts

The supplier shall implement and maintain a process to prevent:

- SUP - only products in compliance with the approved data will be delivered to CASRAM
- Counterfeit or suspect counterfeit parts use and their inclusion in product(s) delivered to CASRAM.

8.5. Hazardous Substances

A Supplier shall provide clear identification, instruction for usage, control, training and disposal in accordance with National and International standards if product is a safety hazard (e.g. Beryllium copper, etc.). Material Safety data sheets shall be provided for chemical products.

Any product or packaging delivered to CASRAM shall be compliant in terms of hazardous material or substances forbidden by supplier Country laws and European Community.

Supplier Change Request (to be filled by Supplier)	
Supplier:	Supplier No:
Plant:	
Originator Name:	Function:
Email:	Date

Identification of the item(s) impacted by change

Drawing description:	
P/N:	Revision:
Part Classification:	

Type of Change
<input type="checkbox"/> Plant Locations
<input type="checkbox"/> Proccess (manufacturing, assembly, tests, inspection, tools,....)
<input type="checkbox"/> Suppliers (including subcontractors)
<input type="checkbox"/> Other (describe)

Description of the change

Reason for change

Date of requested implementation (subject to completion of CASRAM requested dispositions if any, such as FAI, requalification)
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SUPPLIER PRODUCTION CHANGE REQUEST

Mod. 493
Issue 0

XX/XX/201
9

CASRAM change impact analysis, disposition and decision (to be filled by CASRAM)	
Program:	
Impact analysis and disposition description:	
Name:	Position:
Date:	Signature:
Manufacturing Engineering:	
Impact analysis and disposition description:	
Name:	Position:
Date:	Signature:
Procurement:	
Impact analysis and disposition description:	
Name:	Position:
Date:	Signature:
Quality Control/Certifying Staff (where applicable):	
Impact analysis and disposition description:	
Name:	Position:
Date:	Signature:
Final Decision (to be filled in by CASRAM Quality Control/Certifying Staff and communicated to the supplier):	
<input type="checkbox"/> Approved <input type="checkbox"/> Rejected <input type="checkbox"/> Other Comment:	
Name:	Position:
Date:	Signature:



SUPPLIER QUALITY NOTIFICATION

Mod. 494
Issue 0

XX/XX/2019

Supplier Identification (to be filled by Supplier)

Supplier:	Supplier No:
Supplier Address:	Requested by:
Supplier Email:	Date

Item Identification

Drawing description:	Revision:
P/N:	Batch Number:
Part Classification:	Safety Class:
Purchase Order No.:	Compliant Quantity:
	Not Compliant Quantity:

Description

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SUPPLIER QUALITY NOTIFICATION

Mod. 494
Issue 0

XX/XX/2019

To be filled in FIMAC

Disposition by CASRAM Manufacturing Engineering

Acceptable-as-is

Rework

Repair

Scrap

Reject QN

Notes:

Name:

Signature

Date: