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QUALITY REQUIREMENTS APPLICABLE TO FAMAT SUBCONTRACTORS OR SERVICE PROVIDERS

Subject

Defining the quality requirements applicable to FAMAT suppliers.

Main stakeholders

- Purchasers
- Contractors
- Quality Department

Last changes reason

NF L 00-015 remplaced by NF EN 9163
Times of archiving

Written By	Verified By	Approved By
Madiot Marie-Anne	*Meignen Xavier*	*Courleux Alice*
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Highlighting indicates an update of the text with respect to the previous review.

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0. FOREWORD

As center of excellence, jointly owned by GE and Safran, FAMAT aims at becoming a reference industrial site for each of its shareholders, for the production of machine-welded structural carters.

In accordance with the values and Quality and OHS policies of its parent companies, FAMAT considers customer satisfaction, personnel health and safety preservation, and environmental protection as integral parts of its activities and its development.

FAMAT leans on values and ethics shared by the entire staff. We watch that our activities are led according to high standards of honesty, integrity and professional rigor. These values and this ethics are being deployed to meet and strengthen the trust that place in FAMAT, its customers, its staff, its shareholders, its suppliers and all its partners.

The present document outlines FAMAT's requirements applicable for its subcontractors and service providers regarding aircraft industry. It complements AS/EN 9100 norms requirements, Safran GRP-0087 and GE S-1000 specifications. This document shall be linked to any purchase order and formalize our mutual commitment. It's your responsibility to transfer these requirements to your own sub-tier suppliers.

Quality, safety, health and environment are shared concerns, and together we will be able to maintain a high level of performance in these areas.

1. SUBJECT

The purpose of this procedure is to define the requirements applicable to FAMAT subcontractors and external service providers, which are operating on products and supplies, or providing services which impact the product.

2. PURPOSE

The purpose of this document is to obtain and maintain the quality level of the supply complying with FAMAT clients' requirements, designs, engineering data, and quality procedures, as well as applicable standards and regulations.

3. SCOPE

This document is applicable to any subcontracted supply or service purchased by FAMAT, which purchase order or contract refers to the present specifications (i.e. CAQ041).

The maximum allowed application timeline of each revision of the present document is 12 months after its transmission to the subcontractor or service provider.

4. APPLICABILITY

The subcontractor or service provider's acceptance of a purchase order or contract stating the application of the present document implies acceptance of the contents of this document. Any deviation from its application, regarding in particular a request for lightening due to the functional category of an item, its technological simplicity and/or the nature of the processes used for its manufacturing must be agreed and signed by the purchaser's quality department, and the subcontractor or service provider.

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5. TERMINOLOGY

For the present document, the following definitions shall apply:

- ***Purchaser***
  FAMAT, represented by its Purchasing and Quality departments for the interpretation and application requirements of this document.

- ***Approval***
  Recognition by the Purchaser, or its clients' quality control representatives, of the subcontractor or service provider's ability to furnish a supply or service complying with specified requirements.

- ***Discrepancy***
  Deviation affecting items, processes, procedures or services with regard to expected conditions.

- ***FOD (Foreign Object Damage/Debris)***
  Any damage or incident attributed to a foreign object that can degrade the product's required safety and/or performance characteristics.

- ***Item***
  Assembly, sub-assembly, permanent assembly, component of a permanent assembly, primary part, etc.

- ***"Substantiation required" item***
  Item whose manufacturing process sheet includes significant or sensitive operations or parameters which are subjected to a validation sheet at initiation and at each change in the process. The material or components to be incorporated in the manufacturing of such an item are considered also as "substantiation required" items.

- ***Definition (of the product)***
  Set of documents issued by the purchaser, or the purchaser's clients, and constituting the technical reference used by the purchaser to evaluate the supply conformity: purchase order, drawing and related data, technical specifications, parts lists, documents specified in the purchase order and instructions.

- ***Subcontractor or service provider***
  Any holder of a purchase order or contract issued by the purchaser, and supplying a specified item or aeronautical services.

- ***Product***
  Subcontracted parts, items or services and operations provided by a sub-tier subcontractor or service provider on FAMAT's demand.

- ***Lot***
  Group of items having the same technical definition and common manufacturing/control conditions (same production/manufacturing run, etc.).

- ***Non-conformity***
  Difference on an item or application of a process making such item or process not complying with the definition. This covers any supply already delivered and likely not to be in conformity.

- ***Significant operation***
  Manufacturing and/or inspection operation requiring a preliminary substantiation from the purchaser, and then the control of the approved conditions. Any subsequent change implies new substantiation.

- ***Critical characteristic***

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Definition on the drawing, specification or standard which, when is not gained, could endanger the safety of the personnel operating, maintaining or using the related item, or, which could prevent or seriously affect the utilization or the good running of the engine.

- ***Major characteristic***

Definition on the drawing, specification or standard which, when is not maintained, could cause an operating or functional failure of the part, or considerably reduce the possibilities of exploitation, the physical or functional interchangeability, or the lifetime of the part when it complies with the intended use.

- ***Normal characteristic***

Any characteristic not defined as critical or major.

- ***Special process***

Technique used in an operation or operation sequence of the manufacturing process, which may be likely to cause a modification of the physical, chemical or metallurgical properties of an item, not directly detectable later on in the normal sequence of the manufacturing cycle. Non-destructive tests are considered as being part of this category.

- ***Qualification***

Recognition by the subcontractor or service provider and, if necessary, by the purchaser, of the personnel's and facilities' ability to carry out operations complying with the quality requirements.

- ***Rework***

Action on a nonconforming product or service to make it conform to the requirements (ISO 9000:2015 definition).

- ***Repair***

Action on a nonconforming product to make it acceptable for the intended use (ISO 9000 definition).

- ***Government agencies***

Government agencies for SAFRAN AIRCRAFT ENGINES programs are:

- DQA (Délégation Générale pour l'Armement Quality Management) for military hardware,
- DGAC (Direction Générale de l'Aviation Civile) and OSAC (Organisme pour la Sécurité de l'Aviation Civile) for commercial hardware,
- when applicable, the French or foreign service delegated by one of the above-mentioned agencies, the FAA (Federal Aviation Administration) or the EASA (European Aviation Safety Agency).

Government agencies for GE Aviation programs are:

- the American Department of Defense for military hardware,
- the FAA (Federal Aviation Administration) for commercial hardware,
- when applicable, the French or foreign service delegated by one of the above-mentioned agencies.

Government agencies for other FAMAT clients' programs are:

- any service nominated by the French State to perform supervision on the supplies commercialized by this client.

- ***Quality system***

Organization, personnel, facilities and procedures used by the subcontractor or service provider to guarantee the quality of his supply.

- ***Traceability***

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System allowing to rapidly trace back the process, manufacturing, control or use related to an item or a group of identical items. This system obligatorily includes the item identification and the related supply documentation and issued records, as well as the filing of this documentation and records.

- ***Substantiation***

Recognition by the purchaser (or its client) that an item or operation of a new definition, or subjected to new manufacturing conditions (change of source, process, parameters, operation sequence) achieves or maintains the functional properties complying with the intended use.

6. SUBCONTRACTOR & SERVICE PROVIDER GENERAL RESPONSIBILITIES

6.1. *General*

The subcontractor is fully responsible for ensuring and maintaining compliance of his supply with the definition, technical and quality requirements and other provisions of the purchase order or contract, including when he is subcontracting this supply.

To assist the subcontractor and give him the benefit of his special experience, the purchaser may provide him with data related to manufacturing and inspection instructions, or with any other support, unless when this is part of the purchase data. Such assistance does in no way reduce the subcontractor or service provider's responsibility with regard to the final supply quality.

Subcontractors and service providers shall submit a quality system complying with the requirements specified in this document.

Upon receipt of the purchase order or contract, the subcontractor shall establish a complete list of the purchaser's requirements to identify and duly introduce the quality organization and procedures, inspections, special processes, test facilities, fixtures and tooling required to fulfill the purchase order or contract according to the provisions specified therein.

The subcontractor must place a copy of the documents and manufacturing or inspection instructions he generates at purchaser disposal (instruction sheets, inspection sheets, process instructions, etc.) as well as any change related to these documents.

For external subcontracted work, when the subcontractor does not generate manufacturing and inspection instructions, he may use those provided by the purchaser. This does in no way reduce the subcontractor or service provider's responsibility with regard to the compliance with the supply definition provided in the related instructions or documents.

For internal subcontracted work or on-site services, the subcontractor or service provider shall comply with FAMAT provided manufacturing and control instructions and requirements, as part of purchasing data.

The subcontractor commits itself to inform the purchaser in writing, and as soon as possible, about any discrepancy:

- detected during manufacturing or performance of the service, inspection or tests
- detected after the item delivery.

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6.2. *Applicability of FAMAT's customers requirements*

6.2.1. Safran Product

When final client is Safran Aircraft Engines, applicable requirements for FAMAT deliveries are described within document GRP-0087 (Safran requirements for external providers), unless otherwise specified in the purchase order.

GRP-0087 applicable requirements are those related to :

- Activity sector "**S1 : Aerospacel / Defence**",

and

- Actiuvity type **"F : Inter-operations sub-contracting".**

6.2.2. GE Product

When final client is GE Avition, applicable requirements for FAMAT deliveries are described within document S-1000 (GE Aviation quality system requirements for suppliers), unless otherwise specified in the purchase order.

Les exigences de la S-1000 applicable requirements are those related to the following contractors category :

- **"Processor"**.

7. RIGHT OF ACCESS

The subcontractor or service provider must give the FAMAT representatives, including authorized third parties, accompanied by their purchaser and/or government agencies when required, free access to the parts of the workshop and the work/inspection stations where the FAMAT supply is performed, as well as the right the consult all corresponding records.

The subcontractor or service provider commits to make available any assistance useful to perform their task in the best conditions.

This requirement also applies to any sub-tier subcontractor of the subcontractor or service provider and must be communicated to them.

Before issuing the contract, the subcontractor or service provider must report to FAMAT any restriction with regard to information considered as confidential, and propose satisfactory modalities of access.

8. SUBCONTRACTOR OR SERVICE PROVIDER'S QUALITY SYSTEM

The subcontractor or service provider must have a quality system certified by an internationally acknowledged certification body (third party) or at least directly recognized and accepted by GE or Safran Aircraft Engines.

If the part of the subcontractor or service provider's activity in aeronautics reaches 50%, the subcontractor or service provider must be EN/AS/JISQ 9100 certified. In all other cases, an ISO 9001 certification at least is required.

In the case where the subcontractor or service provider has no certified quality management system, FAMAT reserves the right to require him to make his quality system to be assessed by a competent third party.

The subcontractor or service provider must have a consistent quality system, taking into account the requirements of this procedure, and the need to classify the quality assurance actions according to the type

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of supply, the supply characteristic importance (critical, major or normal), and their manufacturing requirements.

This system must be described in the Quality Manual (or any other document considered as equivalent by the purchaser), and must cover all the functions affected by the purchase order or contract (supplying, manufacturing, etc.).

The Quality Manual, as well as its subsequent updates, must be transmitted to the purchaser.

In addition to ISO 9001 and EN 9100 (or AS 9100) standards, the subcontractor or service provider shall comply with this document additional specific requirements.

For more complex products, or upon request from the purchaser, the subcontractor or service provider shall produce and update a quality plan.

The subcontractor or service provider must inform FAMAT of any modification to its quality management system (scope restriction, evolution of certifications…) within 48 hours.

8.1. *Requirements specific to subcontractor or service providers using a special manufacture process on GE Aviation supplies*

Subcontractor or service providers using a special manufacture process on GE Aviation supplies must also meet with the requirements of specification S-1000 from this manufacturer.

In addition, when inspections or laboratory tests used for item acceptance are part of the supply, specifications S-400 (metal materials) and S-450 (non-metal materials) also apply.

8.1.1. Quality system approval

Required approval	Approval method
NF EN9100 or AC7004	NF EN9100: by a CRB service habilitated by the IAQG AC7004: by NADCAP, performed at the same time as a special process qualification audit, or by GE Aviation when the special process is not part of the processes submitted to NADCAP.

8.1.2. Special process qualification

Required qualification	Qualification method
GT193 sheet, XX qualification code	By NADCAP for special processes submitted to NADCAP certification or By GE Aviation for special processes not submitted to NADCAP certification (ask FAMAT for the list of processes submitted to NADCAP certification)

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8.2. *Requirements specific to subcontractor or service providers using a special manufacture process on Safran Aircraft Engines supplies*

The subcontractor or service providers using a special manufacture process on Safran Aircraft Engines supplies must be qualified by Safran Aircraft Engines.

8.2.1. Quality system approval

Required approval	Approval method
NF EN9100	NF EN9100: by a CRB service habilitated by the IAQG

8.2.2. Special process qualification

Required qualification	Qualification method
Process qualification sheet	By NADCAP for special processes submitted to NADCAP certification or By SAFRAN AIRCRAFT ENGINES for special process not submitted to NADCAP certification. (ask FAMAT for the list of processes submitted to NADCAP certification)

8.3. *Qualification of the facilities used in a special manufacture process*

The initial qualification of the facilities regarding the special manufacture processes used must come from the subcontractor or service provider, according to his procedure, but in compliance with the requirements related to the process and defined by the purchaser or his client (see §.8.1 and 8.2). A copy of the corresponding file must be placed at the purchaser's disposal.

He, or his client, reserves the right to issue themselves the initial qualification of some facilities related to operations considered as significant or to functionally important supplies.

In this case, the subcontractor or service provider must first forward to the purchaser a special process qualification file including at least description of:

- the manufacturing and inspection facilities
- the manufacturing and inspection processes used
- the facility inspection and calibration method
- the personnel certification procedure.

The purchaser, or his client, issues the qualification notice after inspection of the above mentioned documents and, if deemed necessary, after:

- visiting the facilities
- inspecting the results on representative test parts or samples, or first articles
- implementing potential requested corrective actions.

Requalification is to be performed periodically and at each change in the initially qualified facilities or after an 18 months stoppage of the manufacturing in question.

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8.4. *Laboratory approval*

Any laboratory used by the subcontractor or service provider to perform characterization tests related to the product must be subjected to approval by the purchaser, or by the competent departments of his client.

8.4.1. Laboratories used for tests on a GE Aviation supply:

In the case of laboratory tests or inspections on a GE Aviation supply, a certification according to specifications S-400 (metal materials) or S-450 (non-metal materials) from this manufacturer is required. Such approval regards the laboratories of the subcontractor or service provider, or his contractors, as well as any other independent laboratory.

Independent laboratories (those with the AI or AS code), which are not related to a contractor, are not obliged to be AS9100 or AC7004 approved, as their AI or AS certification covers the quality system.

Captive laboratories (AC code), related to a contractor, are qualified through company they belong to (AS9100 or AC7004 certification is mandatory).

8.4.2. Laboratories used for tests on a SAFRAN AIRCRAFT ENGINES supply:

In the case of laboratory tests or inspections on a Safran Aircraft Engines supply, the laboratory used to perform these tests must be qualified by Safran Aircraft Engines.

9. **DOCUMENTATION CONTROL**

Beside the documentation from his own quality management system, the subcontractor or service provider must control the documentation related to the supply, in relationship with the purchase order or contract and any document providing the technical definition of the supply :

- design drawings and parts lists;
- technical and design data mentioned in the instruction sheets;
- and any specification or standard referring to these documents.

These documents are issued by the purchaser, his clients and bodies or editors of standard documents.
The purchaser forwards to the subcontractor or service provider the documentation edited by FAMAT or his clients and its subsequent updates required for the performance of the purchase order.

The subcontractor or service provider is to procure for himself all the elements of the design and the standards required or recommended by the purchaser or his clients, but which they have not published.

The subcontractor or service provider, in his own or his contractor's departments and workshops, is responsible for the update of all the documentation, and must protect against the use of unofficial, obsolete documents, as well as documents in poor condition or having being overly annotated without authorization.

The subcontractor or service provider must comply with any protection requirement related to the property of the information which some design documents may contain. If required, such information may only be communicated to services with the necessary approvals/licenses.

10. **LAY OUT MANAGEMENT**

In the case of the first order, and during each design change, the subcontractor or service provider's quality system must provide for an analysis of its own documentation, in order to make sure it is in accordance with the design requirements and in compliance with this design at least, and to implement the required updates.

If these changes have an impact on the subcontractor or service provider's internal specifications or instruction, he must take charge of their modification, with the purchaser's agreement when needed.

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The subcontractor or service provider's quality system must provide for the identification and recording of all the design, manufacturing and inspection requirement changes, as well as the rank and/or application date of these changes.

Any design or process modification must be subjected to a substantiation request and a preliminary approval by FAMAT.

11. **CONTROL OF RECORDS, FILING.**

The subcontractor or service provider, according to the supply he manufactures, must file the data and records according to the durations in Appendix A, and under retention conditions ensuring they will not alter and will remain legible.

Note: Appendix A indicates the filing requirements for GE Aviation and Safran Aircraft Engines supplies. In the case of farmed out work for other FAMAT clients, please refer to the requirements indicated on the purchase order.

Such files must be available to FAMAT auditors, clients and to government agencies.

Upon request from the purchaser, the filed elements shall be produced within 24 hours if flight safety is at stake, or within 2 working days for other investigation cases.

The loss or impossibility to access documentation demonstrating the conformity of the supply or service shall be immediately pointed out to the purchaser's attention.

In the case where the subcontracting contract comes at an end, the subcontractor or service provider must keep the records available to the purchaser and the government agencies during the times set in Appendix A.

If the subcontractor or service provider, or his contractor, were to be closing their activities, they should transfer all the filed elements to the purchaser.

12. **INSPECTION AND TEST TOOLING/FACILITIES**

The subcontractor or service provider shall determine the tooling and facilities required for manufacturing and organize their technical acceptance, periodic inspection/calibration, setting, repair or replacement.

These tooling and facilities shall be calibrated in the environmental conditions compatible with their accuracy and use. The calibration standards used shall be periodically compared with master gages of a higher accuracy traceable to an organization substantiated or approved by the purchaser.

The calibration certificates shall be analyzed and filed by the subcontractor or service provider, and submitted to the purchaser on request.

Each inspection and test tooling, and each measurement standard shall be identified and recorded in order to know the date of their last calibration, and the date of the next one.

If, during inspection or test, tooling is found to be out of tolerance, an analysis must be done about consequences for parts inspected since the last calibration. This analysis must be documented.

Unused tooling shall be properly protected.

When the subcontractor or service provider uses templates, fixtures, tools, standards, models or other manufacturing facilities for inspection, he shall check their accuracy before use, and carry out a periodic survey of their calibration and conditions.

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These tooling, including those loaned by the purchaser, shall permanently be identified to assure their validity.

For manufacturing tooling (especially machining tooling), the subcontractor or service provider must have an efficient preventive maintenance process. This process shall especially ensure the control of the tooling key characteristics, which possibly impact or spoil the final product quality (such as for instance : centering devices, clamping or flanging systems,…).

13. ITEM MANUFACTURING SCHEDULE

13.1. *Design of the item manufacture process*

The subcontractor or service provider must put in place manufacture processes, including inspection and validation activities to ensure compliance with the requirements related to the supply. He must provide for the necessary resources.

To his end, the instruction and inspection sheets must show the supply acceptance criteria, and be so detailed as to enable perfect control of each scheduled elementary operation. Scheduled elementary operations must not generate any non-conformity.

If the infrastructure is modified (moved, renewed, etc.), the subcontractor or service provider must determine and apply the provisions required to maintain the quality of the supply (quality plan, transfer plan, etc.).

The subcontractor or service provider must inform FAMAT of any change in his industrial tooling, before it is commissioned.

13.2. *Items provided by the purchaser*

Generally items to be incorporated to the supply are provided by the purchaser. The subcontractor or service provider shall apply the following measures on acceptance:

a) Review of the delivery documentation in order to verify that the items delivered comply with the supply or service to be performed;
b) Visual inspection on acceptance in order to detect any damage due to transportation;
c) Identification according to the accompanying documentation;
d) Checking documentation completeness and correct filling in[1] (1);
e) Quantitative check;
f) Protection of the supply received against any deterioration or subsequent damage, and against any inappropriate use or application.
g) Ensure traceability of provided supply lots.

13.3. *Control of the item manufacture process*

13.3.1. Personnel

The subcontractor or service provider must ensure the level of skills of his personnel in charge of designing, developing, managing programs, quality, among others, is kept at a sufficient level appropriate to the needs of FAMAT.

Subcontractor or service provider must provide for the training of personnel regard of his activity. When required by specifications or standards related to the use of some processes, personnel must satisfy physical examination (visual acuity for example).

[1] : *The loss of documents certifying the conformity of delivered items must be immediately pointed out to the purchaser's attention.*

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All inspections required for manufacturing and testing the items must be performed by personnel authorized by the subcontractor or service provider's Quality Department.

Any inspection delegation that the subcontractor or service provider's Quality Department may decide, must be formalized, and regularly followed up by the purchaser.

In case of non-destructive tests, the operators must be certified according to standards EN4179 or NAS 410 for SAFRAN AIRCRAFT ENGINES supplies and to standard NAS 410 for GE Aviation supplies, or any other qualification recognized by the purchaser as equivalent or satisfactory.

The purchaser may require and approve a special qualification for the subcontractor or service provider's personnel, considering the specificity of some supplies.

13.3.2. Manufacture and inspection process sheets and instructions

The subcontractor or service provider must issue, keep up to date (and available to the concerned personnel) the detailed instructions sheets, tests sheets when needed, and item process sheets (manufacturing and inspection).

The tracking item sheet must indicate:

- item designation;
- item reference;
- part reference number;
- complete reference to the contract document to apply and revision, as mentioned on the purchase order;
- the FAMAT CA number (manufacturing order), completed with the serialization number of the part when necessary;
- any restriction due to the nature of the material, imposed in the FAMAT instruction sheets (authorized products/materials);
- the chronological order of the operations to perform;
- the reference number of manufacture programs, and revisions;
- the reference number of the contractor’s manufacturing and inspection documents, and revisions;
- the reference number of the manufacturing and inspection tooling used;
- the type of delivery conditioning;r
- records of the closing of operations as they are being performed

The operations considered as significant must be subjected to a specific marking.

The subcontractor or service provider must file each version of process sheets, detailed instructions and tracking sheets according to the durations set in Appendix A.

13.3.3. Inspection plan

The subcontractor or service provider must issue and keep up to date the item inspection plan. This document must record all the characteristics of the item generated by the subcontractor or service provider, including those defined by the applicable specifications or standards. Each of them must specify how it is controlled (generative operation, chosen inspection mode, used inspection tool, acceptance mode, justification when the characteristic identification is performed with a frequency less than 100 %).

The subcontractor or service provider must identify the key characteristics in his inspection plan, and record the inspection results.
Not applicable to on-site service providers.

13.3.4. Cutting fluids and usage of various products

The subcontractor or service provider using a manufacturing process with cutting fluids must use a validated product (contact FAMAT for the list of validated cutting fluids according to the material).

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The subcontractor or service provider performing temporary marking operations must use a validated marking product (contact FAMAT for the list of validated marking product according to the material).

The subcontractor or service provider performing a degreasing operation (even local) must use a validated degreasing product (contact FAMAT for the list of validated degreasing products according to the material).

Regarding titanium or titanium alloyed parts, direct contact with halogenated products (e.g.: Chlorine), or with cadmium- or nickel-cadmium-coated tooling is forbidden. This is not limitative. In any case, contact FAMAT in case of doubt.

13.3.5. Software and programs

Any software used by the subcontractor or service provider during the various stages of the manufacturing must comply with minimum design, validation, management and protection requirements in order to guarantee and maintain its performances.

For software used to produce (e.g. NC program, automatic equipment, etc.) or inspect parts (CMM machine), the subcontractor or service provider must implement a quality Assurance program which covers following requirements:

- insurance that program meets drawing characteristics;
- software review, testing and approbation;
- saving and storage;
- control of changes;
- audits;
- corrective actions.

These requirements and subsequent results must be recorded (see Appendix A).

13.3.6. Supply substantiation

The initial substantiation of manufacturing conditions is required by the purchaser's clients and government agencies for functionally important items and/or items for which some manufacturing and inspection operations are considered as significant.

For this purpose, the subcontractor or service provider shall forward at the purchaser's request:

- the manufacturing and inspection process and instruction sheets,
- any evaluation data he deems necessary, generally defined in a validation program.

According to the applicable requirements, the purchaser or his client shall indicate the significant operations and parameters to be sealed, and transmit the substantiation decided by the purchaser's client.

When the substantiation is obtained, each change in manufacturing conditions, or the data forwarded to the purchaser, must be covered by a file established as previous one, approved by purchaser before change applying. A new file must also be established and approved after a production stop of more than 24 months.
Not applicable to on-site service providers.

13.3.7. "First article" inspection

For the first items or operations produced, an inspection and a record of each generated characteristic must be done.
This requirement must be also satisfied after a production stop of more than 24 months affecting the related items and for characteristics in relation with a change in design.
A copy of the first item report must be transmitted to FAMAT.
Not applicable to on-site service providers.

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13.3.8. Requirement for Foreign Object Damage/Debris FOD (Foreign Object Damage/Debris)

The organization shall develop and establish a FOD prevention program in accordance with 9146.

14. **PURCHASES**

14.1. ***Supplies***

If indicated on the FAMAT purchase order or related documentation, the subcontractor or service provider shall select his contractors and subcontractor or service providers among those approved by the purchaser or his client.

If the subcontractor or service provider selects a retailer, stockist or distributor, they must be approved by the manufacturer of the product purchased.

The subcontractor or service provider is responsible for the quality of any purchased supply, including those purchased to subcontractor or service providers indicated by the purchaser.

The supply and its related documentation shall be acceptance tested to ensure the quality and design requirements are met with. If necessary, the subcontractor or service provider shall plan all the laboratory inspections and tests required to guarantee supply conformity with the relating definition requirements (see paragraph 8.4 concerning the selection of laboratories, which is to be done according to their client qualification).

The relating inspection certificates shall include all required quantitative data of tests and inspections.

The relating records must be filed according to Appendix A of the present document.

The subcontractor or service provider's quality system shall include the necessary conditions to guarantee traceability, and storage of inspected supply. Any non-inspected supply, or supply affected by non-conformity must be isolated from the supply considered serviceable.

14.2. ***Sub-contracting***

The subcontractor or service provider’s Quality system must provide FAMAT for the prior and periodic assessment of all his sub-contractors.

Sub-contracting is engaged under the responsibility of the subcontractor or service provider after he has transferred the requirements of the present document and ensured all the supply design requirements (drawings, specifications and others) are complied with.

Final inspection before delivery made in FAMAT as well as internal already subcontracted operations and services cannot be outsourced.

Sub-contracting of a special process requires the preliminary agreement from the purchaser. The source must be approved by the supply client.

15. **CONTROL OF DISCREPANCIES AND NON-CONFORMITIES**

All non-conformities detected on the supply or during a process must be processed according to a written procedure. This procedure must specify how to identify the supply, and also define the responsibility related to the inspection, as well as the authority in charge of taking the measures and rules allowing the personnel to take decision.

The subcontractor or service provider must not decide of the use in condition or repair without a formal authorization from the purchaser. Beyond non-conformities which he may decide by himself to fix in order to

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make the supply conform to the design, any non-conformity must be reported to the purchaser through a FAMAT discrepancy statement form, or any other document recognized by the purchaser as equivalent.

All items to be rejected shall bear a visible and permanent mark, be isolated from conform items, then be returned to FAMAT. FAMAT is the only one to be able to decide effective rejection of an item.
Non-conforming supply shall be marked individually, and isolated by the subcontractor or service provider in order to avoid mixing with conforming supply. For this purpose, the subcontractor or service provider must provide special storage facilities, or define an appropriate control system.

As soon as a proved or suspected non-conformity is identified on a supply after delivery, the subcontractor or service provider must inform FAMAT by writ within 24 hours, specifying the items/lots, quantities and delivery dates.

The subcontractor or service provider shall set up the appropriate procedures and facilities for application of corrective actions, particularly to eliminate recurrent non-conformities.

The rejections, as well as non-quality for which the subcontractor or service provider is responsible, shall be the object of letter from the purchaser summing up the financial consequences.

FAMAT reserves the right to claim to the subcontractor or service provider.

In case of litigation, a meeting shall be held to collate the points of view of the purchaser and the subcontractor or service provider, and to reach an agreement between both parties.

16. **CORRECTIVE AND PREVENTIVE ACTIONS**

16.1. ***Corrective actions***

The subcontractor or service provider must set up a system capable of:

- determining the causes of any detected discrepancy or non-conformity, implying any concerned subcontractor or service provider in this review;
- determining and taking the appropriate structured corrective actions (6M-5P tools, 8D…);
- checking the efficiency of the corrective actions applied.

16.2. ***Preventive actions***

The subcontractor or service provider must set up a system capable of:

- evaluating the need to implement preventive actions,
- putting in place measures for the statistical management of processes (inspection cards…).

17. **CONSEQUENCES IN CASE OF NON QUALITY**

Rejections, as well as non-quality for which the subcontractor or service provider is responsible, shall be the object of letter from the purchasing summing up the financial consequences.

In case of litigation, a meeting shall be held to collate the points of view of the purchaser and the subcontractor or service provider, and to reach an agreement between both parties.

In the case of a delivery not conforming to the purchase, FAMAT reserves the right to claim to the subcontractor or service provider the total amount of the costs generated by the non-conforming supplies or services. Cases of non-conformities can be as follows, the list below not being exhaustive:

- non conformity upon receipt by FAMAT or his client, or sub-contractor
- derogations,
- non-conformity detected during operation by FAMAT or his client.

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In the case of insufficient quality of the supplied items or services, FAMAT reserves the right to put in place, at the subcontractor or service provider's expense, and if needed in his premises, additional inspections.

In the case of a discrepancy detected on a supply or service after delivery to FAMAT, FAMAT reserves the right to request the subcontractor or service provider to process this discrepancy.

18. **IMPROVEMENT**

The subcontractor or service provider must periodically issue quality performance assessments for his supplies, and place a copy of them at FAMAT disposal.

The subcontractor or service provider must demonstrate the organization of a global continuous process improvement program. This improvement program shall be formalized by qualified targets and relevant indicators which enable verifying that the actions in place focus on achieving the targets. An annual quality performance summary shall be available on FAMAT request.

19. **AUDITS**

The subcontractor or service provider is responsible to the purchaser for the quality of delivered items and services. He must perform supervision in the shape of scheduled audits of his organization and of the processes he used in his own or his subcontractor or service providers' workshops.

The subcontractor or service provider shall perform a product audit (or quality sampling) for supply of serialized items on a finished and acceptance tested item.

The records of such audits, reports and required corrective actions must be made available to the purchaser. FAMAT reserves the right to periodically inspect the subcontractor or service provider's performance, through on-site audits and quality result analyses.

20. **SUPPLY DELIVERY REQUIREMENTS**

20.1. ***Supply acceptance and relating documentation***

The supply shall be delivered, with the following documents:

a) A certificate of conformance according to standard NF EN 9163 or AS9163, identifying in particular:
   - reference to the purchase order;
   - shipping list;
   - item designation;
   - item reference number;
   - item(s) serialization or CA number(s);
   - items quantity;
   - for an item manufactured following a design document, the reference to this document and its index of revision;
   - material lot number, or raw material serialization number when applicable;
   - discrepancy statement form number, when applicable.

b) In the case of a non-conformity, a copy of the FAMAT discrepancy statement form or any other form from the subcontractor or service provider approved by the purchaser.

c) and when needed:
   - reference to any FAMAT non-conformity acceptance document
   - reference to, and motivation for any FAMAT specific agreement
   - when there is a specific agreement, a copy of this agreement

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All these documents shall be signed by a representative of the subcontractor or service provider's Quality Department duly authorized to sign the releasing documents. A list of those representatives and their signature shall be made available for the purchaser.

These documents must also be signed by the representative of the Government Agencies, on their request.

The certificate of conformity must be in English and any other language specified by the customer at the time of ordering. The qualification of personnel authorized to sign and certificates of conformity shall be retained as per customer and regulatory requirements (see Appendix A). When the certificate of conformity is generated electronically, the following statement or equivalent must be added: "Document generated and validated electronically"

20.2. *Protection - packaging- shipping*

In the course of the sub-contracted works and during packaging, the subcontractor or service provider must make sure the product is correctly protected, to prevent any damage (oxidation, contamination, shock, etc.).

The subcontractor or service provider's quality systems must anticipate that the supply be shipped with the required technical and administrative relating documentation, and that all provisions be taken for their preservation during transportation.

20.3. *Traceability*

The subcontractor or service provider shall make all useful arrangements to specify in his manufacturing and inspection documents (process sheets, production routing sheet, inspection reports, etc.) the evaluation of the item quality level.

When the supply consists of items previously provided by the purchaser, the subcontractor or service provider's quality system must guarantee the continuity of the purchaser's traceability.

If the subcontractor or service provider wishes to use his own item reference system, the certificate of conformance must include the initial purchaser's numbers corresponding to the numbers assigned by the subcontractor or service provider.

21. PREVENTION OF COUNTERFEIT REQUIREMENTS

The subcontractor or service provider shall plan, implement, and control processes, appropriate to its organization and the product, for the prevention of counterfeit or suspect counterfeit part use and their inclusion in product(s) delivered to FAMAT.

22. PERSONNEL AWARENESS REQUIREMENTS

The subcontractor or service provider shall ensure that persons working under its authority are aware of:

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

23. DOCUMENTARY REFERENCES

AS 9100:D / EN 9100:2016 : Quality Management Systems - Requirements for Aviation, Space, and Defence Organizations.
GRP-0087 : Safran requirements for external providers.
S-1000 : GE Aviation quality system requirements for suppliers.

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24. **APPENDIX A**

Sheet 1/2

	DOCUMENT - RECORD	RETENTION PERIOD
1	Internal audit records, corrective action requests and related correspondence.	10 years
2	Records of periodic tests required on special process facilities.	50 years
3	NDT equipment maintenance records (example : X-Ray machines)	50 years
4	Special manufacturing processes and NDT operator/inspector certifications.	50 years
5	Special manufacturing processes and NDT equipment qualification/requalification.	5 years after last use of the facility or end of activity subjected. (minimum 50 years)
6	Laboratory results used for the supply or service acceptance.	50 years
7	Non-conformance preliminary review appointment authorization	50 years
8	Inspection records, non-conformance recurrence logs, corrective action docs A – non serialized parts B – serialized parts (except for casings, frames, etc.) C – serialized parts (ex : frames, casings)	50 years
9	Key characteristics inspection records	50 years
10	Specific, standard and universal measuring tools/gages control records	Depending on life span of gage, with minimum 10 years
11	Inspection and process acceptance stamps records	5 years after return of stamps
12	FAMAT orders	10 years
13	CN program certification records	50 years

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	DOCUMENT - RECORD	RETENTION PERIOD
14	FAMAT corrective action requests and related correspondence	50 years
15	Corrective action requests related to non-conforming parts	50 years
16	Records of heat treatment charts	50 years
17	Laboratory, mechanical, chemical and ND test reports enabling part acceptance: A – non serialized parts B – serialized parts (except for casings, frames, etc.) C – serialized parts (ex : frames, casings)	50 years
18	Manufacturing and inspection operation sheets, D.O. cards, records, rework forms, repair procedure, derogations A – non serialized parts B – serialized parts (except for casings, frames, etc.) C – serialized parts (ex : frames, casings)	50 years
19	Laboratory test reports, certification tests, certificates of purchased material and services documents etc.	50 years
20	Radiated radiographic films.	50 years
21	First article approval files and source substantiation or manufacturing conditions approval files	50 years
22	Quality records necessary to permit traceability of serialized parts B – serialized parts (except for casings, frames, etc.) C – serialized parts, static parts (ex : frames, casings)	50 years
23	Manufacturing purchase and contracting orders.	10 years

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25. **PRESENT DOCUMENT MANAGEMENT**

25.1. ***Quality Control Department***

Issues and updates the present document according to assessments and audits results, but also following potential organization changes affecting the means of cooperation between FAMAT and its subcontractors or external service providers.

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25.2. *Outsourcing Quality Manager*

Forwards the present document and each of its further revisions to every concerned subcontractors or external service providers. He's also responsible for checking and auditing the conformance to all the requirements mentioned in the present document, at FAMAT's subcontractors and service providers.

25.3. *Purchase Department*

Must refer to the present document when consulting a subcontractor or service provider for the supply of a finished component, contracting of supply process operations, or aeronautic service, relating to the product.

Must ensure that each subcontractor or service provider has filled in the Q001 form (Questionnaire on Subcontractors' Quality Management System).

Systematically incorporates the title, reference, and revision index of this procedure on each call for tender and supply/service/sub-contracted work purchase order.

For the sub-contracting of supplies others than GE Aviation or Safran Aircraft Engines, the purchase order, or any reference document to this purchase order, shall specify the filing durations imposed by the client.

26. **HISTORY OF MODIFICATIONS**

Rev	Nature of modification/audit	Date
04	Modification of the guideline title	01/01
05	Addition of the notion of service subcontractor or service provider and modifications related to the EN9100.	03/04
06	General revision. Addition of special manufacture process approval rules, and rules for the use of laboratories performing tests. Recommendation for supplies in contact with the parts. Definition of the information to report on the process sheets to ensure correct traceability. Definition of the information to report on the conformity statement. Addition of §19 Management of non-quality, financial aspects.	12/06
07	General revision considering the requirements from the SAFRAN GRP-0087 ed.2 rev.1 specification. §5 – Addition of the DGAC at the level of governmental agencies. §7 - creation of § 'Right of access'. §8 – addition of requirements §8.2 –addition of requirement (EN9100 and NADCAP approvals) §10 - creation (the following sections are therefore renumbered.) §15 – addition of « by writ within 24 hours » §13.1, §13.2, §13.3, §13.3.3 – addition of requirements §15 – addition of requirements §16 – complete reissue §17 - creation §18 - creation §19 – addition of requirements Appendix A, update of the requirements related to records.	03/10
08	Precisions added about On-Site Service Providers Specific Issues. "Product" definition. Update of §15 and links to Q001 Form	02/16
09	Deleted articles before foreword, updated foreword, added § 21, 22, 23, 25, 26 and 6.2, renumbered, replaced NADCAP with Nadcap and Snecma with Safran Aircraft Engines. Minor changes (shape and master).	04/18
10	Minor changes after documentation assessment (§18, §15, master)	06/21
11	AS13100 FOD §5 et 13.3.8	04/22
12	NF L 00-015 remplaced by NF EN 9163 Times of archiving	02/25

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