



**AKAER QUALITY
REQUIREMENTS FOR SUPPLIERS**

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SUPPLIERS**



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REVISION SHEET

REVISION: 03	DATE: October, 22nd 2018
<p>DESCRIPTION: Updated chapter 4: changed requirements for Qualification and Assessment Process applied to the Suppliers.</p> <p>– Added sub-section 4.1- Supplier Risk Analysis and moved sub-section 4.1 – Selection and Control of Suppliers to sub-section 4.2.</p>	
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REVISION: 02	DATE: September, 11th 2017
<p>DESCRIPTION: Added the chapter 3 – Code of Ethics and Conduct.</p> <p>Updated the requirements in order to comply with the standard AS 9100:D.</p>	
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REVISION: 01	DATE: October, 30th 2015
DESCRIPTION: Update Table1- Supplier Classification - Minimum Requirements	
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DESCRIPTION: Basic Release	
PREPARED BY:<Priscila Campos> <Akaer Quality Analyst> CHECKED BY:<Fernanda Novaes> <Akaer Quality Manager>	APPROVED BY: <Fernando Ferraz> <Akaer Head of Engineering>

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1 - OBJECTIVE.

This Supplier Quality Requirements Manual constitutes an extension to the contract between the (Supplier) and AKAER or one of its subsidiaries, covering the items (Goods) as described in the Purchase Order.

AKAER Quality Requirements for Suppliers (AQRS) is the set of Quality Management System basic requirements and operational requirements expected to be accomplished by suppliers.


Supplier's acceptance of the Purchase Order shall constitute Supplier's agreement to the requirements stated therein and herein, without modification, addition or alteration. In the event of any inconsistencies between the Purchase Order and the requirements set forth below, the terms and conditions of the Purchase Order shall take precedence.

AKAER's Terms and Conditions should be seen by the Supplier at the web site www.akaer.com.br under the "SUPPLIER" link (<https://www.akaer.com.br/suppliers/aqrs/aqrs.pdf>) or requested from AKAER representative. It is responsibility of Supplier to access AQRS at the URL address to verify its revision status and implement it.

According to the complexity of products and services supplied some requirements can be considered as not necessary for Supplier Qualification Process. The complexity of supply is defined on chapter 4.

2 - REFERENCE DOCUMENTS.

- AS 9100 - Quality Management Systems - Requirements for Aviation, Space and Defense Organizations.
- MSIGA – AKAER Integrated Management System Manual.

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3 - SUPPLIER CODE OF CONDUCT.

AKAER believes that a strong commitment and strategic approach to corporate responsibility are essential for managing the challenges and opportunities of a global environment.

3.1 Ethics.

Suppliers are expected to conduct their business in an ethical manner and to act with integrity. Ethical requirements include the following aspects:

Business Integrity: Suppliers are expected not to practice or tolerate any form of corruption, extortion or embezzlement. Suppliers will not offer or accept bribes or other unlawful incentives to/from their business partners. Suppliers are expected not to offer to AKAER employees' gifts or any other kind of personal benefit resulting from the relationships with the suppliers.


Fair Competition: Suppliers will conduct their business in line with fair competition and in accordance with all applicable anti-trust laws.

Privacy & Intellectual Property: Suppliers will safeguard and make only appropriate use of confidential information and ensure that all employees' and business partners' privacy and valid intellectual property rights are protected.

3.2 Export Control.

It is AKAER's policy that all its business relationships has to be conducted in absolute accomplishment to the export control rules regulated by part of the country of origin of materials, data or information.

Countries establish export control for transfer of physical goods, data, information and technologies that can be used for terrorist purposed, development of

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chemical and nuclear weapons or to national security control and protection of natural scarce resources, regional stability or external policy interests.

To ensure the accomplishment of these rules, AKAER establish procedures and monitors its buying and selling processes, to obtain accurate and enough information about export control and re-export, tracking since the origin until the use and/or end-user, with appropriate protection, under the best levels of security and reliability.

Suppliers must be comply the AKAER Non-Disclosure Agreements precede any intention of business relationship with AKAER.

Inside every document demandable to supplier search and selection process, secure provisions of commitment by the interested parties, to export control rules.


Furthermore, are eligible in this process, accurate and enough information about eventual restrictions associated to the business, besides the declarations of origin and regulated classifications of materials.

3.3 Labor.

AKAER expects the suppliers to comply, as a minimum, with all applicable local laws and regulations related to labor and employment including, but not limited to, minimum wage, maximum hours of work, days of rest, compensation, freedom of association, right to organize and collective bargaining. Suppliers are expected to protect the human rights of their employees and treat them with dignity and respect. This includes the following aspects:

Child Labor Avoidance: AKAER does not tolerate child labor in our supply chain. Suppliers must avoid any sort of child labor in their business operations consistent with International Labor Organization.

Freely Chosen Employment: Forced, bonded or indentured labor or involuntary prison labor will not be utilized by the suppliers.

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Diversity and Inclusion: The supplier is expected to offer equal employment opportunities and compensation without any discrimination, unless such discrimination is based on the inherent requirements of the job or in the course of a program to promote diversity.


Freedom of Association: The supplier is expected to recognize the principle of freedom of association and the right to collective bargaining.

3.4 Health and Safety.

Suppliers are expected to provide a safe and healthy working environment. As a minimum, the supplier must comply with all applicable health and safety laws, regulations and standards besides the AKAER procedures established. The supplier shall take appropriate action, such as policies, standards, procedures, contingency measures and management systems, in order to prevent occupational illnesses and work-related accidents and to provide a safe and healthy workplace to its employees.

3.5 Environment.

Suppliers shall be sensitive to its impact on the environment (including but not limited to air emissions, water discharge, toxic substances and hazardous waste disposal) and local communities. Supplier shall comply with the environmental laws and standards within its facilities. Suppliers must use care in handling hazardous materials or operating processes or equipment that use hazardous materials to prevent unplanned releases into the workplace or the environment.

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4 - APPLICATION.

The Supplier shall have a quality system, which meets or exceeds the requirements as shown in *Table 4-1 – Applicable Requirements* and *Table 4-2 – Criticality Levels*.

AKAER may choose to use a Supplier that does not meet these requirements based on business needs as long as it does not conflict with the customer requirements. In these cases the risks must be identified through a risk assessment and a mitigation plan defined and executed.

Supplier shall notify AKAER in writing within 48 hours of any change of status to its Quality Management System, relocation, changes, or top management including the Quality Management Representative.

The supplier is responsible to provide notification of any changes in the certification / registration / accreditation or major audit findings within (2) business days of receiving notification of the change or finding. Examples of changes in registration include new certification, suspension, or expiration.

Suppliers not certified / registered / accredited are subject to removal from the Qualified Supplier List. If AKAER elects to continue a business relationship with the supplier, shall be increased the controls including QMS and/or Special Process audits by AKAER, if appropriate.

Suppliers may be required to reimburse AKAER for the cost of conducting these audits until certification / registration / accreditation is achieved.

Supplier shall grant to AKAER (or customers of AKAER or any governmental regulatory agencies) the access to Supplier's premises or manufacturing facilities, including the freedom to witness and audit all phases of fabrication, testing, storage of goods sold to AKAER. The pertinent documents and records related to the contract, subject to any limitations or controls required to ensure compliance to Export Control regulations.

If this Purchase Order is a subcontract under a government prime contractor civil airworthiness authority approved designed data, Supplier agrees that its books,

records, and its facilities, engaged in the performance of this Purchase Order, shall at all reasonable times be subject to inspection and audit by any authorized representative.

Table 4-1 – Applicable Requirements

Supplier Class			
General (G)			
Products or Services of various purposes for Akaer Group that may be part of the Productive Process, but do not add value or are integrated to the Final Product.			
Ex: Office Product / Building Maintenance Product / Cleaning Services / Training / Logistic and Transport Services			
Requirements for Qualification Process	Requirements for Assessment Process	Responsible	Evaluation Period
Basic information - Commercial issues (SIGA_Form_024) Risk Analysis based only on Basic Information - Commercial issues	Re-Assessment of Basic information - Commercial issues Results of the Performance Indicator – Adherence to the Planning / Business/ Quality requirements established for the supplies occurred in the period evaluated. Risk Analysis based on Basic Information – Commercial Issues and Performance Indicators	Purchase Department Quality Department Technical Department, if applicable	Every two years



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Supplier Class			
Specific Products/Services (E)			
<p>Products or Services integrated to the Final Product, adding value to it. They have a particular Part Number and a specific Qualification is needed.</p> <p>Ex: - Quality Assurance Service / Dedicated Products manufactured under Akaer Group requirements</p>			
Requirements for Qualification Process	Requirements for Assessment Process	Responsible	Evaluation Period
<p>Basic information - Commercial issues (SIGA_Form_024)</p> <p>Business Analysis - (eg. Asset/ Property guarantee, Foreign Currency, Export Control, Supplier's Customers and others)</p> <p>Quality Analysis - Supplier Quality Management System shall be certified by ISO 9001¹ and/or AS 9100² standards and/or be compliance with Akaer Group Requirements (QAF-QMS*)</p> <p>In case of Supplier does not have a Quality System Certified or partially meets the expectation, Akaer Group shall plan actions in order to identify and manage the risks (eg. the action can be an audit on Supplier site, analysis of specific documents, Specific Control Plan for Product Inspection Process and others)</p> <p>Supplier Risk Analysis based on Commercial, Business and Quality issues</p> <p>*QAF-QMS: Qualification/Approval Questionnaire – Quality Management System QMS</p>	<p>Re-Assessment of Basic information, Business Analysis and Quality Analysis – Valid Certification or be compliance with Akaer Group Requirements</p> <p>Results of the Performance Indicator - Analysis of the Business and Quality requirements and planning of the supplies occurred in the period evaluated.</p> <p>Supplier Risk Analysis based on Commercial, Business and Quality issues</p>	<p>Purchase Department</p> <p>Quality Department</p> <p>Technical Department</p>	<p>Annual or according to the Action Plan</p>

¹ 9001 series includes all sanctioned standards.

² 9100 series includes all IAQG sanctioned standards, including but not limited to AS9100, EN 9100 and JISQ 9100, and NBR 15100.



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Supplier Class			
Aircraft/Product (A)			
<p>Products or Services integrated to the Final Product, adding value to it. A particular Part Number is not required, but a specific Qualification is needed.</p> <p>Ex: Raw Material / Manufacturing Services / Finished Products / Special Process Services</p>			
Requirements for Qualification Process	Requirements for Assessment Process	Responsible	Evaluation Period
<p>Basic information - Commercial issues (SIGA_Form_024)</p> <p>Business Analysis - (eg. Asset/ Property guarantee, Foreign Currency, Export Control, Supplier's Customers and others)</p> <p>Quality Analysis - Supplier Quality Management System shall be certified by ISO 9001 and/or AS 9100 standards and/or be compliance with Akaer Group Requirements (QAF-QMS*)</p> <p>Supplier Risk Analysis based on Commercial, Business and Quality issues</p> <p>In case of Supplier does not have a Quality System Certified or partially meets the expectation, Akaer Group shall plan actions in order to identify and manage the risks (eg. the action can be an audit on Supplier site, analysis of specific documents, a Specific Control Plan for Product Inspection Process and others)</p> <p>*QAF-QMS Qualification/Approval Questionnaire – Quality Management System QMS</p>	<p>Re-Assessment of Basic information, Business Analysis and Quality Analysis – Valid Certification.</p> <p>Results of the Performance Indicator – Analysis of the Business and Quality requirements and planning of the supplies occurred in the period evaluated.</p> <p>Supplier Risk Analysis based on Commercial, Business and Quality issues</p>	<p>Purchase Department</p> <p>Quality Department</p> <p>Technical Department</p>	<p>Annual or according to the Action Plan</p>



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Supplier Class			
Consumption (C)			
<p>Products or Services that add value to the Final Product, but are not necessarily integrated to it. A particular Part Number and a specific Qualification are not required.</p> <p>Ex: Equipment / Tooling / Standard Products</p>			
Requirements for Qualification Process	Requirements for Assessment Process	Responsible	Evaluation Period
<p>Basic information - Commercial issues (SIGA_Form_024)</p> <p>Business Analysis, if applicable - (eg. Asset/ Property guarantee, Foreign Currency, Export Control, Supplier's Customers and others)</p> <p>Quality Analysis, if applicable - Supplier Quality Management System shall be compliance with Akaer Group Requirements (QAF-QMS*)</p> <p>Supplier Risk Analysis based on Commercial, Business and Quality issues</p> <p>In case of Supplier does not have a Quality System Certified or partially meets the expectation, and when applicable, Akaer Group shall plan actions in order to identify and manage the risks (eg. the action can be an audit on Supplier site, analysis of specific documents, a Specific Control Plan for Product Inspection Process and others).</p>	<p>Re-Assessment, if applicable, of Basic information, Business Analysis and Quality Analysis.</p> <p>Results of the Performance Indicator – Adherence to the Planning / Business/ Quality requirements established for the supplies occurred in the period evaluated.</p> <p>Supplier Risk Analysis based on Commercial, Business and Quality issues</p>	<p>Purchase Department</p> <p>Quality Department</p> <p>Technical Department, if applicable</p>	<p>Annual</p>

Table 4-2 – Criticality Levels

Identifier	Criticality Level	Description
X	Low Level	Materials of low criticality whose lack does not affect the production nor risks to personal, environmental and patrimonial security. In addition, there is facility of obtaining it in the market.
Y	Medium Level	Materials that have an intermediate degree of criticality and can be replaced by others with relative ease.
Z	High Level	Materials of high criticality which cannot be replaced by other equivalents in a timely manner without causing significant impact. The lack of such materials causes interrupt production or it affects the safety of human resources, the environment or the company's assets.

When industry certification is noted above, AKAER can require third party certifications. In these cases, the Suppliers shall make available, a copy of their certificates to AKAER. Any changes to the certification such as a change of the register, update, withdrawal or disapproval must also be forwarded to AKAER immediately. If a Supplier does not have third party certification, contact AKAER for mitigation / resolution plan, when requires.

4.1 Supplier Risk Analysis

AKAER shall analyze the Supplier Risk that occurs during the Qualification and Assessment processes. The Qualification process shall be evaluated considering two types of Analysis: Business and Quality Analysis.

The Business Analysis shall evaluate, when applicable, the items shown on Table 4-3 - *Business Analysis Metrics*. Each item is evaluated and a score is attributed to it, with four possible results:

Table 4-3 – Business Analysis Metrics

Business Metrics to be Evaluated				
Supplier defined by AKAER’s Customer				
Time of performance in the market (> = 5 years)				
Financial Health				
Accordance with Export Control requirements				
Risks considering Current Location				
Risks considering Foreign Currency Exposure				
Supplier applies Sustainable Manufacturing				
Possible Results:	Not Assessed	Does not meet the expectations	Partially meets the expectations	Meets the expectations

The Quality Analysis shall evaluate, when applicable, the items shown on Table 4-4 - *Quality Analysis Metrics* and each item has also an attributed score and four possible results:

Table 4-4 – Quality Analysis Metrics

Quality Metrics to be Evaluated				
Quality Management System Certified by ISO9001, AS9100 or others				
Akaer’s Quality Analysis expectations				
Result of QMS questionnaire				
Supplier relevance to Akaer Group’s Quality System				
Possible Results:	Not Assessed	Does not meet the expectations	Partially meets the expectations	Meets the expectations

In the Assessment Process shall be evaluated, besides the requirements of Qualification Process, the requirements of the Supplier Performance according to the metrics established for the supplies that occurred during the period evaluated. The assessment of Supplier Performance shall consider, as minimum, the issues indicated on Table 4-5 – *Supplier Performance* below:

Table 4-5 – Supplier Performance

Requirements for Supplier's Performance					
Product and Service Quality Requirements					
On-Time Delivery					
Readiness to handle non-conformity items					
Readiness of Technical Team					
Delivery of all necessary documents					
Ease in trade negotiations					
Possible Results:	Not Assessed	Does not meet the expectations	Partially meets the expectations	Meets the expectations	

Supplier Risk Analysis is built from the result of Qualification Process and Assessment Process. The Supplier Risk index is obtained according to the score attributed in each requirements evaluated. The possible results are shown in the Table 4-6 – *Supplier Risk Index* below:

Table 4-6 – Supplier Risk Index

Supplier Assessment Process				
Result of Qualification and Approval Process				
Result of Assessment Process				
Risk Analysis Result:	Not Assessed	High Risk	Moderate Risk	Low Risk

4.2 Selection and Control of Suppliers.


Selection of Suppliers must occur according to AKAER internal procedures. Supplier shall maintain satisfactory performance to remain on AKAER’s approved supplier list (LFA).

5 - QUALITY MANAGEMENT SYSTEM.

AKAER defines the requirements for Quality Management System of its Suppliers, based on the International Standard ISO 9001 and AS 9100. When the International Standard ISO 9001 or AS 9100 certification is required, the Supplier shall full comply the requirements of International Standard applicable for its Quality Management System and the additional requirement defined in this manual.

In case that a specific certification is not required, AKAER expects that Supplier meets the requirements determined in this manual as appropriate. There are requirements that can be not applicable for some Supplier.

Supplier should consult the International Standard ISO 9001 and/or AS 9100 for additional information about the requirements of chapter 5 to chapter 10.

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5.1 Quality Management System Requirements.

Supplier shall establish, implement, maintain and continually improve a Quality Management System, including the processes needed and their interaction.

The Supplier Quality Management System shall address AKAER and applicable statutory and regulatory quality management system requirements. Quality Management System as minimum shall:


- Determine the input required and the outputs expected from these processes.
- Determine the sequence and interaction of these processes.
- Determine and apply the criteria and methods needed to ensure the effective operation and control of these processes.
- Determine the resources needed for these processes and ensure their availability.
- Assign the responsibilities and authorities for these processes.
- Evaluate these processes and implement any changes needed to ensure that these processes achieve their intended results.
- Improve the processes and the quality management system.

Relevant documented information to support the operation of its processes and ensure the conformity of products and services shall be planned, maintained and retained as appropriate.

5.2 Leadership.

AKAER expects the supplier top management shall demonstrate leadership and commitment with respect to the quality management system by:

- Taking accountability of the effectiveness of a QMS.
- Promoting awareness of the process approach.
- Ensuring the resources needed for a QMS are available.

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- Ensuring a QMS achieves its intended results.
- Engaging, directing and supporting persons to contribute to the effectiveness of a QMS.
- Promoting continual improvement.
- Ensuring the focus on enhancing customer satisfaction in maintained.

6 - PLANNING.

6.1 Risks and Opportunity.


AKAER expects as minimum, that Supplier Quality Management System shall determine the risks and opportunities that need to be address into its system to:

- Give assurance that the quality management system can achieve its intended result(s);
- Enhance desirable effects;
- Prevent, or reduce, undesired effect;
- Achieve improvement.

Supplier Quality Management System shall plan action to address risks and opportunities to integrate and implement the action into its quality management system processes and evaluating the effectiveness of these actions.

6.2 Quality Objectives.

Supplier shall establish and plan the quality objectives at relevant functions, levels and processes needed for its quality management system. The planning how to achieve these objectives shall determine as minimum, the resources needed, the way to evaluate the results and the deadline.

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7 - SUPPORT.

7.1 Resources.

Supplier shall determine and provide the resources needed for the establishment, implementation, maintenance, and continual improvement of its Quality Management System. The resources needed shall consider, but not limited the issues below:


- People necessary for the effective implementation of its quality management system and for the operation and control of its processes;
- Infrastructure necessary for the operation of its processes and to achieve conformity of its products and services;
- Environment necessary for the operation of its processes and to achieve conformity of its products and services;
- Resources needed to ensure valid and reliable results when monitoring or measuring is used to verify the conformity of its products and services requirements;
- Organizational Knowledge necessary for the operation of its processes and to achieve conformity of its products and services.

Supplier shall retain appropriate documented information as evidence of fitness for issues present above.

7.2 Competence.

Supplier shall determine the necessary competence of person doing work under its control affects the performance and effectiveness of its quality management system. It is necessary to ensure that persons are competence on the basis of appropriate education, training or experience.

The evidence of competence shall be retained as appropriate.

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7.2.1 Security Clearances.


Supplier can be demanded to obtain Government Security Clearances for installations, systems or people handling classified information.

7.2.2 Visual Acuity.

Unless otherwise specified, procedures shall be implemented to ensure that eye examinations, including visual acuity and color vision, as applicable, are administered by a medically qualified / trained person to all individuals performing visual inspection and/or other product acceptance activities that require visual acuity.

- Intervals shall not exceed one year.
- Individuals shall be tested in at least one eye, either corrected or uncorrected.
- Color Perception testing is required one time only. Individuals shall be capable of adequately distinguishing and differentiating colors used in the method which certification is required, the process being performed or inspection activity. Documentation shall be retained.
- Records shall be retained for each individual.
- Visual inspection (i.e. calibration, non-weld, in process, layout, dimensional)
- Near vision requirements of:
 - Snellen 14/18, (20/25),
 - Jaeger 2 at not less than 12 inches
 - Visual Inspections on Welds American Welding Society Standard (AWS) D17.1
 - Nondestructive Testing (NDT) Aerospace Industries Association National Aerospace Standard (AIA/NAS) 410

Note: Vision tests may be substituted for the options listed above providing the equivalence is verified and documented by a licensed optometrist.

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7.3 Awareness.

Supplier shall ensure that persons doing work under its control are aware of:

- Quality Objectives;
- Their contribution to the effectiveness of the Quality Management System;
- Their contribution to products and services conformity;
- Their contribution to products safety, and
- The importance of ethical behavior.


7.4 Communication.

AKAER expects that Supplier determined the internal and external communication relevant to its quality management system.

7.5 Documented Information.

Supplier shall determine the documented information necessary to assure the effectiveness of its quality management system. Documented information identify as necessary for its Quality Management System shall ensure appropriate identification and description, format, approval process suitable.

All documented information determined as necessary for planning and operation of the Quality Management System shall be controlled, retained, and retrievable as appropriate to assure the evidence of conformity of its processes and products. When documented information is managed electronically, data protection processes shall be defined.

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7.5.1 Control of Documented Information.

Documented information shall be retained for a minimum period of 10 years or as specified by AKAER record retention requirements or Purchase Order and, will be made available upon request by AKAER or its customers at no charge.

All electronic documented information must be controlled, retained, and retrievable per the same requirements identified for hard copy records. For electronic records that are transferred from computer files, the storage media must be capable of maintaining the data integrity for the full retention period.


Examples of Quality Documented Information to be retained are, but not limited:

- Deliverable and non-deliverable software verification & validation
- First article inspection reports
- In process / final inspection & test records
- Training records
- Manufacturing / fabrication records (e.g., planning sheets, etc.)
- Nonconforming material disposition
- Procurement documents (supplier placed orders)
- Process control records (used as acceptance criteria)
- Radiographs, technique sheets and related acceptance reports
- Receiving inspection records (e.g., test reports, material certifications, etc.).

8 - OPERATION.

8.1 Operational Planning and Control.

Supplier shall plan, implement and control the process needed to meet the requirements for the provision of products and services, and to implement the actions determined during planning phases.

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- determining the requirements for the products and services;
- establishing criteria for the processes and the acceptance of products and services;
- determining the resources needed to achieve conformity to the product and service requirements;
- implementing control of the processes in accordance with the criteria;
- determining and keeping documented information to the extent necessary to have confidence that the processes have been carried out as planned and demonstrate the conformity of products and services to their requirements.
- determining the processes and controls needed to manage critical items, including production process controls when key characteristics have been identified;
- engaging representatives of affected organization functions for operational planning and control;
- determining its process and resources to support the use and maintenance of the products and services;
- determining the products and services to be obtained from external providers, and
- establishing the controls needed to prevent the delivery of nonconforming products and services to AKAER.

8.1.1 Operational Risk Management.

Supplier shall plan, implement, and control a process for managing operational risks to the achievement of applicable requirements, which includes as appropriate to its organization and products and services:

Assignment of responsibilities for operational risk management;

Definition of risk assessment criteria;

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Identification, assessment, and communication of risks throughout operations;

Identification, implementation and management of actions to mitigate risks that exceed the defined risk acceptance criteria, and

Acceptance of risks remaining after implementation of mitigation actions.

8.1.2 Configuration Management.

Supplier shall maintain a change control management and verification system for documents and electronic media, including applicable government, association, society, industry and AKAER furnished configuration data.

8.1.3 Product Safety.

Supplier shall plan, implement and control the processes needed to assure product safety during the entire product life cycle, as appropriate to its organization and product.


8.1.4 Prevention of Counterfeit Parts.

Supplier 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 products delivered to AKAER.

8.2 Requirement for Products and Services.

Supplier shall be established a communication with AKAER in order to:

- Provide Information relating to products and services;

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- Handling enquires, contracts, or orders, including changes;
- Obtain AKAER feedback relating to products and services, including AKAER complaints;
- Handling or controlling AKAER property, and
- Establishing specific requirements for contingency actions, when relevant.

When determining the requirements for the products and services to be offered to AKAER, Supplier shall ensure that any applicable statutory and regulatory requirements are defined.


Supplier shall ensure that the special requirements of the products and services are determined, operational risk have been identified and claims for the products and services it offers could be met.

Before committing to supply products and services to AKAER, Supplier shall ensure its ability to meet the requirements through Requirements Review Process established. AKAER requirements shall be confirmed by Supplier before acceptance, when AKAER does not provide a documented statement of their requirements.

Supplier shall ensure that relevant documented information is amended, and that relevant persons are made aware of the changed requirements, when requirements for products and services are changed.

8.3 Design and Development of Products and Services.

Supplier shall establish, implement, and maintain a design and development process that is appropriate to ensure the subsequent provision of its products and services.

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8.3.1 Design and Development Planning.

In determining the stages and controls for design and development, the Supplier shall consider:

- the nature, duration, and complexity of the design and development activities;
- the required process stages, including applicable design and development reviews;
- the required designs and development verification and validation activities;
- the responsibilities and authorities involved in the design and development process;
- the internal and external resource needs for the design and development of products and services;
- the need to control interfaces between persons involved in the design and development process;
- the need for involvement of AKAER and users in the design and development process;
- the requirements for subsequent provision of products and services;
- the level of control expected for the design and development process by AKAER and other relevant interested parties;

The documented information needs to demonstrate that design and development requirements have been met.

Design and development planning shall consider the ability to provide, verify, test and maintain products and services.

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8.3.2 Design and Development Inputs.

Supplier shall determine the requirements essential for the specific types of products and services to be designed and developed, considering as minimum the issues below:

- functional and performance requirements;
- information derived from previous similar design and development activities;
- statutory and regulatory requirements;
- standards or codes of practice that the organization has committed to implement;
- potential consequences of failure due to the nature of the products and services, and
- when applicable, the potential consequences of obsolescence.


Inputs shall be adequate for design and development purposes, complete, and unambiguous. Conflicting design and development inputs shall be resolved.

Documented information on design and development inputs shall be maintained by Supplier.

8.3.3 Design and Development Controls.

Supplier shall apply controls to its design and development process to ensure that:

- the results to be achieved are defined;
- reviews are conducted to evaluate the ability of the results of design and development to meet requirements;
- verification activities are conducted to ensure that the design and development outputs meet the input requirements;

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- validation activities are conducted to ensure that the resulting products and services meet the requirements for the specified application or intended use;
- any necessary actions are taken on problems determined during the reviews, or verification and validation activities;
- documented information of these activities is retained, and
- progression to the next stage is authorized.

Participants in design and development reviews shall include representatives of functions concerned with the design and development stage(s) being reviewed.

When tests are necessary for verification and validation, these tests shall be planned, controlled, reviewed, and documented to ensure and prove the following:


- test plans or specifications identify the test item being tested and the resources being used, define test objectives and conditions, parameters to be recorded and relevant acceptance criteria;
- test procedures describe the test methods to be used, how to perform the test, and how to record the results;
- the correct configuration of the test item is submitted for the test;
- the requirements of the test plan and the test procedures are observed, and the acceptance criteria are met.

At the completion of design and development, Supplier shall ensure that reports, calculations, test results, etc., are able to demonstrate that its design for the product or service meets the specification requirements for all identified operational conditions.

8.3.4 Design and Development Outputs.

Supplier shall ensure that design and development outputs:

- meet the input requirements;

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- are adequate for the subsequent processes for the provision of products and services;
- include or reference monitoring and measuring requirements, as appropriate, and acceptance criteria;
- specify the characteristics of products and services that are essential for their intended purpose and their safe and proper provision;
- specify, as applicable, any critical items, including any key characteristics, and specific actions to be taken for these items, and
- are approved by authorized person(s) prior to release.

Supplier shall define the data required to allow the product to be identified, manufactured, verified, used, and maintained.

8.3.5 Design and Development Changes.

Supplier shall identify, review, and control changes made during, or subsequent to, the design and development of products and services, to the extent necessary to ensure that there is no adverse impact on conformity to requirements.

A process with criteria for notifying AKAER prior to implementation, about changes that affect their requirements shall implement by Supplier.


Design and development changes shall be controlled in accordance with the configuration management process requirements.

8.4 Control of Externally Provided Processes, Products and Services

Supplier shall ensure that the externally provided processes, products and services conform to AKAER requirements.

The Supplier shall be responsible for the conformity of all externally provided processes, products, and services, including from sources defined by AKAER.

Supplier shall ensure, when required, that AKAER-designated or approved external providers, including process sources (e.g., special processes), are used.

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And also the risks associated with the external provision of processes, products, and services, as well as the selection and use of external providers.

The use of directed sources does not relieve the responsibility for subcontractor control (i.e., an approved source for Non-Destructive Testing, Plating, Coating, etc.). Supplier shall require that external providers apply appropriate controls to their direct and sub-tier external providers, to ensure that requirements are met.


The Supplier shall determine the controls to be applied to externally provided processes, products, and services when:

- products and services from external providers are intended for incorporation into the Supplier's own products and services;
- products and services are provided directly to AKAER by external providers on behalf of the organization;
- a process, or part of a process, is provided by an external provider as a result of a decision by the Supplier.

Criteria for the evaluation, selection, monitoring of performance, and re-evaluation of external providers shall be determined by Supplier, based on their ability to provide processes or products and services in accordance with requirements from the evaluations.

Processes, responsibilities, and authority for the approval status decision, changes of the approval status, and conditions for a controlled use of external providers depending on their approval status shall be defined by Supplier. As well as the other issues below shall:

- maintain a register of its external providers that includes approval status (e.g., approved, conditional, disapproved) and the scope of the approval (e.g., product type, process family);
- periodically review external provider performance including process, product and service conformity, and on-time delivery performance;
- define the necessary actions to take when dealing with external providers that do not meet requirements;

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- define the requirements for controlling documented information created by and/or retained by external providers.

8.4.1 Type and Extent of Control.

8.4.2 Purchasing Process.

Supplier agrees that it will not enter into a subcontract for the procurement of any goods covered by a Purchase Order in their complete or substantially complete form without prior written consent of AKAER.

No material substitutions, omissions or modifications will be allowed without prior written consent of AKAER.


The Supplier will assure that all material, services, and software procured from, or performed at sub tier Suppliers is in conformance to contractual requirements and specifications and ensure that all such requirements / specifications are flowed down to their sub tier Suppliers.

All special processes must be approved by AKAER, its customer and / or Nadcap.

The supplier shall have a counterfeit detection process for all electrical, electronic, electro-mechanical and electro-optical component parts that meets the intent of SAE standard AS5553, Counterfeit Electronic Parts, Avoidance, Detection, Mitigation, and Disposition.

For all electrical, electronic, electro-mechanical and electro-optical component parts delivered and/or used in the manufacture of deliverable products shall be from the Original Component Manufacturer (OCM)/ Original Equipment Manufacturer (OEM) or franchised distributors or Authorized Aftermarket Manufacturer (AAM).

For all non-electrical standard parts, like fasteners, nuts, washers, springs, O-rings, inserts, and pins, must have a certification from the Original Component

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Manufacturer (OCM)/ Original Equipment Manufacturer (OEM) or Authorized Aftermarket Manufacturer (AAM) or authorized distributor.

In the event a part is not directly available from the OCM/ OEM/ AAM or franchised distributors (electronics) or authorized distributor (non-electronics), purchase from independent distributors may be made but the evidence of supply chain traceability (chain of custody) back to the OCM/ OEM/ AAM shall be provided. The Certification shall clearly identify the name and location of all of the supply chain intermediaries from the original manufacturer to the final source of the product delivered to AKAER.


Note: Distributors in addition to the above shall include their company's certification for each part number shipped.

8.4.3 Purchasing Information.

The Supplier shall ensure the adequacy of requirements prior to their communication to the external provider.

Supplier shall communicate to external providers its requirements for:

- the processes, products, and services to be provided including the identification of relevant technical data (e.g. Specifications, drawings, process requirements, work instructions);
- the approval of:
 - products and services;
 - methods, processes, and equipment;
 - the release of products and services;
- competence, including any required qualification of persons;
- the external providers' interactions with the Supplier;
- control and monitoring of the external providers' performance to be applied by Supplier;
- verification or validation activities that the Supplier, or its AKAER, intends to perform at the external providers' premises;

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- test, inspection, and verification (including production process verification);
- the use of statistical techniques for product acceptance and related instructions for acceptance by the Supplier;

Where AKAER owns the design of an article purchased from a supplier (first-tier) who further subcontracts all or portions of that work to other subcontractors (second-tier), the first-tier supplier's purchase order must state that the articles are for applicable AKAER's "end use" and must be controlled per applicable purchase order requirements.

8.4.4 Type and Extent Control

Suppliers must provide raw materials test reports / certification results / laboratory analysis requirements (e.g., tensile strength, stress rupture, hardness, chemical composition, etc.), as defined by the product definition and/or the purchase order.

Where the supplier utilizes test reports to verify purchased product, the data in those reports shall be acceptable per applicable specifications. The supplier shall periodically validate test reports for raw material.


Upon receipt of AKAER purchase order requiring Government oversight (notify the Government Representative who services your facility or if there is none, the Government Inspection office nearest to your facility).

8.5 Product and Service Provision.

8.5.1 Control of Production and Service Provision.

Supplier shall implement production and service provision under controlled conditions. This control shall include, as applicable:

- the characteristics of the products to be produced, the services to be provided, or the activities to be performed;
- the results to be achieved;
- the availability and use of suitable monitoring and measuring resources;
- the implementation of monitoring and measurement activities at appropriate stages to verify that criteria for control of processes or outputs, and acceptance criteria for products and services, have been met.
- the use of suitable infrastructure and environment for the operation of processes;
- the appointment of competent persons, including any required qualification;
- the validation, and periodic revalidation, of the ability to achieve planned results of the processes for production and service provision, where the resulting output cannot be verified by subsequent monitoring or measurement;
- the implementation of actions to prevent human error;
- the implementation of release, delivery, and post-delivery activities;
- the establishment of criteria for workmanship (e.g., written standards, representative samples, illustrations);
- the accountability for all products during production (e.g., parts quantities, split orders, nonconforming product);
- the control and monitoring of identified critical items, including key characteristics, in accordance with established processes;
- the determination of methods to measure variable data;
- the identification of in-process inspection/verification points when adequate verification of conformity cannot be performed at later stages;

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- the availability of evidence that all production and inspection/verification operations have been completed as planned, or as otherwise documented and authorized;
- the provision for the prevention, detection, and removal of foreign objects;
- the control and monitoring of utilities and supplies (e.g., water, compressed air, electricity, chemical products) to the extent they affect conformity to product requirements;
- the identification and recording of products released for subsequent production use pending completion of all required measuring and monitoring activities, to allow recall and replacement if it is later found that the product does not meet requirements.

8.5.1.1 Control of Equipment, Tools, and Software Programs.


Supplier shall ensure that the equipment, tools and software programs used to automate, control, monitor, or measure production processes shall be validated prior to final release for production and shall be maintained.

Storage requirements shall be defined for production equipment or tooling in storage including any necessary periodic preservation or condition checks.

Calibration Systems shall meet the applicable requirements of ISO 10012, ISO 17025 or ANSI/NCSL Z540.3. If ANSI/NCSL Z540.3 is applicable, the Handbook shall be used as the interpretive guide.

In accordance with the industry, standards and guidance referenced above, stated reliability goals, accuracy ratios and Significant–Out–Of–Tolerance condition criteria must be established.

The Calibration interval analysis methodology used to maintain the reliability of Measuring and Test Equipment (M&TE) shall have a stated reliability goal to meet a minimum 95% reliability target for M&TE in–tolerance at the end of their interval schedule.

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Significant-Out-Of-Tolerance conditions are defined as any M&TE out-of-tolerance condition exceeding 25% of the product tolerance. These conditions require documented review of impact on quality and notification to the AKAER if product received by the AKAER has been affected.

The supplier shall generally select M&TE with an accuracy ratio of 10 to 1 (product tolerance to M&TE tolerance) however, accuracy ratios as low as 4 to 1 are acceptable, unless otherwise specified.


Use of M&TE with accuracy ratios less than 4 to 1 are not permitted unless a detailed measurement uncertainty analysis in accordance with ANSI/NC SL Z540.3 indicates an uncertainty ratio of 1.5 to 1, or better, and the measurement process is maintained under statistical quality control.

8.5.1.2 Production Process Verification.

Source Inspection is required for all FAIR's unless otherwise waived by AKAER Supplier Quality.

First Article Inspections (FAI) shall be performed in accordance with SAE AS 9102 and the additional requirements below:

- A full or partial FAI shall be performed for affected characteristics when any of the following occurs:
 - Change in design
 - Change in manufacturing source(s), process(s), inspection method(s), and locations of manufacture, tooling or materials.
 - Change in numerical control program or translation to another media.
 - Natural or man-made event, which may adversely affect manufacturing process.
 - Lapse in production for two years or as specified by the AKAER.
 - A replication of product part marking (via photograph or sample) that represents production marking must be included within the FAI Report

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- The Supplier holding AKAER purchase order is responsible for assuring completion of the FAI Report for all finished part characteristics generated by sub-tier suppliers.
- At any time, AKAER may request a complete FAI to be performed in lieu of a partial (delta) FAI.

Additional requirements for AS 9102 FAI Form 1:

Field 14, for each characteristic: Record FAI Inspection Measuring Equipment used as a media of inspection. Record FAI inspector identification (e.g., signature, stamp, electronic authorization, etc.) used to signify the person that accomplished the inspection.


8.5.1.3 Validation and Control of Special Processes.

Suppliers and all members of their supply chain that only provide special processes (not part manufacturing suppliers) must be Nadcap accredited for the following special processes:

- Brazing;
- Chemical Processing;
- Coatings;
- Heat Treating;
- Materials Testing;
- Nonconventional Machining;
- Nondestructive Testing;
- Shot Peening, and
- Welding.

Nadcap requirements may be further defined by AKAER.

Supplier shall establish procedures for controlling special processes, including but not limited:

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Qualification or initial approval – Special Processes shall be qualified or approved by the Supplier before manufacturing the first delivery. Supplier shall keep available for AKAER review the following data:

Identification and address of the facility;

Identification of the special processes and applicable specification number;

Report of process parameters controls (temperature, pressure, concentration, pH, hardness, conductivity, etc.) according to the limits and frequency specified in the specifications;

Calibration standards list (including calibration reference procedures and calibration frequency);

List of qualified personnel; evidences of their qualification (training, knowledge, experience, skills), and


Qualified materials list used in the process.

Qualification maintenance – Special processes shall be maintained through periodic verification. Periodic verification shall consist of monitoring the special process parameters at in interval established in the process specification requirements.

Flow down of the requirements – Supplier shall flow down applicable requirements and control of special process performed by Sub-tiers. Supplier control of Sub-tiers shall include qualification, maintenance, control of Non-Conforming Product and corrective action. Sub-tiers shall keep records of list described on item 1 (above) as well.

8.5.2 Identification and Traceability.

The Supplier shall use suitable means to identify outputs when it is necessary to ensure the conformity of products and services.

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Configuration of the products and services shall be maintained in order to identify any differences between the actual configuration and the required configuration.

Supplier shall identify the status of outputs with respect to monitoring and measurement requirements throughout production and service provision.

When acceptance authority media are used (e.g., stamps, electronic signatures, passwords), Supplier shall establish controls for the media.

Supplier shall control the unique identification of the outputs when traceability is a requirement, and shall retain the documented information necessary to enable traceability.

8.5.3 Property Belonging to Customers or External Providers.

Supplier shall exercise care with property belonging to AKAER or external providers while it is under the Supplier's control or being used by the Supplier.


The Supplier shall identify, verify, protect, and safeguard AKAER or external providers' property provided for use or incorporation into the products and services.

When the property of AKAER or external provider is lost, damaged, or otherwise found to be unsuitable for use, the Supplier shall report this to AKAER or external provider and retain documented information on what has occurred.

Return all documents, records, gaging, stamps, or other AKAER supplied product upon written notification from AKAER or when business with AKAER has ceased.

8.5.4 Preservation.

Supplier shall preserve the outputs during production and service provision, to the extent necessary to ensure conformity to requirements.

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8.5.5 Post-Delivery Activities.

If any goods are found to be defective or otherwise not in conformance with the requirements of the Purchase Order, AKAER may, in addition to its other rights and remedies, reject such goods and require their prompt correction or their replacement at Supplier's expense, including shipping and packaging charges.

Alternatively, AKAER may repair or replace such Non-Conforming goods at Supplier's expense.

8.5.6 Aerospace Advanced Production Quality Planning Process.

Suppliers shall implement the APQP (SCMH/IAQG), including APPAP (Aeronautical Part Approval Process) when invoked by drawing related documents, purchase order, or any other contractual requirement.


8.6 Release of Product and Services.

Supplier shall implement planned arrangements, at appropriate stages, to verify that the product and service requirements have been met. The release of products and services to AKAER shall not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, as applicable, by AKAER.

Supplier shall retain documented information on the release of products and services. The documented information shall include:

- evidence of conformity with the acceptance criteria;
- traceability to the person(s) authorizing the release.

When required to demonstrate product qualification, the Supplier shall ensure that retained documented information provides evidence that the products and services meet the defined requirements.

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Supplier shall ensure that all documented information required to accompany the products and services are present at delivery.


AKAER's verification by source inspection of goods shall not be deemed to constitute acceptance of any goods, which do not conform to the specifications thereof, or to waive any of AKAER's rights or remedies arising by virtue of such defects or Non-conformances being discovered at a later time.

AKAER retains the right to invoke source inspection of Product, processes and goods at the Supplier or sub tier Supplier's facility. When invoked, the Supplier shall provide adequate resources to the AKAER representative requested in the course of verifying conformance to requirements. Contact AKAER at least two weeks in advance to arrange for source inspection. Source Inspection may be waived at the discretion of AKAER's Supplier Quality Assurance.

Unless otherwise noted in the Purchase Order, Source inspection may be required on first article and delta first article parts. Source inspection may be required for follow-on production shipments. Should source inspection be required on an on-going basis due to quality concerns, the cost of such services will be the responsibility of the Supplier.

When functional performance / test data is required, include the following minimum requirements:

- Test specification number, revision status, amendment number and addendum.
- Part number / serial number and revision letter of material / component being tested.
- Test paragraph, required reading, actual reading (use positive statement, e.g., "No Leakage" if actual reading is not quantifiable).
- Date test was performed.
- Operator identification.
- Inspection approval signature / stamp.
- Blank entries that are not applicable shall be noted "N/A".

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8.7 Control of Nonconforming Outputs.

The Supplier is required to notify AKAER within 24 hours of any product and service that has escaped from the Supplier's facility. The Supplier is required to provide as much detailed information as possible including a complete description of the defect, the requirement and specification(s), part numbers affected, PO numbers affected, quantity, method of discovery, any traceability information and any inspection/ test data that may be applicable.

The Supplier will submit the description of non-conformances along with a proposed disposition and completed corrective action to AKAER.

AKAER will forward the Supplier's proposed disposition of the nonconforming product to the affected AKAER plant for potential customer submission and disposition. AKAER will coordinate final response and disposition to the Supplier.

When nonconforming product is reported to AKAER, a nonconforming material document will be issued for all nonconforming product, and will require immediate containment of all such Product under the Supplier's control. Disposition of Product will be provided to the AKAER promptly.


In certain circumstances, AKAER may need to use a nonconforming product supplied by a Supplier.

Failure of Supplier to respond will result in a potential change in approval status. At a minimum, a meeting will be held with the supplier to review the issues.

8.7.1 Control of Nonconforming.

Supplier shall ensure that outputs that do not conform to their requirements are identified and controlled to prevent their unintended use or delivery.

The Supplier shall take appropriate action based on the nature of the nonconformity and its effect on the conformity of products and services. This shall also apply to nonconforming products and services detected after delivery of products, during or after the provision of services.

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The nonconformity control process shall be maintained as documented information including the provisions for:

- defining the responsibility and authority for the review and disposition of nonconforming outputs and the
- process for approving persons making these decisions;
- taking actions necessary to contain the effect of the nonconformity on other processes, products, or services;
- timely reporting of nonconformities affecting delivered products and services to AKAER and to relevant interested parties;
- The cognizant AKAER must be informed immediately (not to exceed 24 hours other next business day) of suspect nonconforming product shipped regardless of destination. Method of notification is determined per applicable AKAER requirements.
- defining corrective actions for nonconforming products and services detected after delivery, as appropriate to their impacts.

Supplier shall deal with nonconforming outputs in one or more of the following ways:

- correction;
- Ensure that related characteristics, which may be affected by rework or repair operations are identified and re-inspected after these operations are performed.
- segregation, containment, return, or suspension of provision of products and services;
- Suppliers shall coordinate all reports of non-conformances for AKAER supplied material in accordance with the applicable AKAER requirements;
- obtaining authorization for acceptance under concession by a relevant authority and, when applicable, by AKAER.

Dispositions of use-as-is or repair for the acceptance of nonconforming products shall only be implemented:

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- after approval by an authorized representative of the organization responsible for design or by persons having delegated authority from the design organization;
- after authorization by AKAER, if the nonconformity results in a departure from the contract requirements.

Articles deemed scrap must be clearly identified and rendered unusable within 30 days of final disposition unless otherwise instructed, in writing, by the applicable AKAER.

Counterfeit, or suspect counterfeit, parts shall be controlled to prevent reentry into the supply chain.

Conformity to the requirements shall be verified when nonconforming outputs are corrected.


8.7.2 Customer Communication.

Changes that may affect quality must be documented and communicated to the applicable AKAER Quality Assurance and/or Procurement Representative Prior to effectively of the change.

8.7.3 Supplier Disposition Authority.

Supplier disposition authority for Non-Conforming Product is limited to “Rework”, “Return-to-Supplier”, and “Scrap”. The Supplier shall notify AKAER in writing immediately if disposition actions taken have an effect on the ability of the Supplier to deliver Product as specified or agreed upon.

Note: Rework is defined as a process performed entirely within the confines of the drawing and referenced specifications that will result in characteristic(s) that conforms completely to the drawings, specifications, and contract requirements.

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9 - PERFORMANCE EVALUATION.

9.1 Monitoring, Measuring, Analysis and Evaluation.

Supplier shall determine:


- what needs to be monitored and measured;
- the methods for monitoring, measurement, analysis, and evaluation needed to ensure valid results;
- when the monitoring and measuring shall be performed, and
- when the results from monitoring and measurement shall be analyzed and evaluated.

Supplier shall evaluate the performance and the effectiveness of its quality management system. Information documented of the results, shall be retained, as appropriated.

9.1.1 Customer Satisfaction.

Supplier shall monitor AKAER perceptions of the degree to which their needs and expectations have been fulfilled. The Supplier shall determine the methods for obtaining, monitoring, and reviewing this information.

Information to be monitored and used for the evaluation of AKAER satisfaction shall include, but is not limited to, product and service conformity, on-time delivery performance, AKAER complaints, and corrective action requests. The Supplier shall develop and implement plans for AKAER satisfaction improvement that address deficiencies identified by these evaluations, and assess the effectiveness of the results.

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9.1.2 Analysis and Evaluation.

Supplier shall analyze and evaluate appropriate data and information arising from monitoring and measurement. The results of analysis shall be used to evaluate:

- conformity of products and services;
- the degree of AKAER satisfaction;
- the performance and effectiveness of the quality management system;
- if planning has been implemented effectively;
- the effectiveness of actions taken to address risks and opportunities;
- the performance of external providers, and
- the need for improvements to the quality management system.

9.2 Internal Audit.

Supplier shall conduct internal audits at planned intervals to provide information on whether the quality management system, conforms to:


- the own requirements of its quality management system, and
- the requirements of International Standard, applied to its quality management system.

10 - IMPROVEMENT.

Supplier shall determine and select opportunities for improvement and implement any necessary actions to meet requirements and enhance AKAER satisfaction.

10.1 Nonconformity and Corrective Action.

When requested to provide corrective action, the supplier shall prepare a report documenting the occurrence, findings, and assessment of the affected product

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and submit to the AKAER. Provide objective evidence of root cause analysis and implementation of corrective action that eliminates risk of reoccurrence.

To ensure effectiveness of the corrective action, suppliers shall perform 100% inspection of the deviated characteristics for a minimum of the next (3) three consecutive manufactured lots unless otherwise specified by AKAER.

Corrective actions shall be appropriate to the effects of the nonconformities encountered.

Supplier shall maintain documented information that defines the nonconformity and corrective action management processes.


11 - ADDITIONAL PROVISIONS.

If the goods are to be produced by Supplier in accordance with designs, drawings, blueprints, mylars, tooling or fixtures furnished by AKAER, the Supplier shall return the same to AKAER at AKAER's request upon completion or cancellation of this Purchase Order.

AKAER furnished and/or owned property condition shall be identified, maintained and inspected regularly for suitability of use. Supplier shall notify AKAER immediately if the property is lost, stolen, or unfit for use for any reason. AKAER makes no warranties of any nature with respect to any property or data it may furnish to Supplier hereunder. Supplier shall notify AKAER immediately of furnished property, which becomes lost, stolen, missing, destroyed or damaged.

Property furnished by AKAER shall be used solely in the performance of work ordered by:

- a) AKAER, or
- b) The Government, if the Government has title or rights in the property.

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Property shall be subject at all times to disposition as AKAER may direct. Supplier agrees to maintain inventory control of all such tooling and property and to furnish inventories thereof when required by AKAER.

Supplier shall notify AKAER prior to destruction of any furnished materials, or equipment.


If AKAER has provided the raw material for this order, no material substitution is allowed unless authorized in writing by AKAER. The Supplier shall not return any furnished material without prior approval of AKAER.

11.1 Notice of Escapement.

The Supplier shall notify AKAER, within 24 hours of discovery, of any Non-Conforming Product shipped (escapement) and/or any changes in Product or process definition. Records of Non-Conforming Product must be maintained and made available to the AKAER immediately upon request.

In the event of an escapement, the Supplier shall send a "Notification of Escapement" in writing to AKAER and shall contain the following as a minimum:

- a) Supplier Name,
- b) Description of Non-Conformance;
- c) A list of all affected Part Numbers;
- d) Part number and traceability number which identify the Non-Conforming
- e) Parts, if applicable;
- f) All affected Purchase Order Numbers;
- g) Packing Sheet Numbers;
- h) Quantities and Date Shipped;
- i) Information Regarding Quarantine of All Related Work-In-Process and/or;
- j) Finished Goods, and
- k) Any other information that is required.

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11.2 Part Marking.

When a part mark specification or direction is provided by the drawings, specifications or Purchase Order, the following shall be applied below those part mark requirements.

- the manufacturing date;
- the Supplier's name or cage code traceable to the Supplier, and
- the number used by the Supplier to provide traceability of their quality records. (e.g., Serial number, Lot number, Control number).

When a part mark specification or direction is not provided by the drawings, specifications or Purchase Order, the part mark shall be applied in accordance with MIL-STD-130 or equivalent, shall include the following:


- the part number specified on Purchase Order;
- the manufacturing date;
- the Supplier's name or cage code traceable to the Supplier, and
- the number used by the Supplier to provide traceability of their quality records.

Traceable items that size and/ or application that do not allow the part number and serial number identification shall be individually packaged and identified by an appropriate label.

11.3 Sampling.

The Supplier shall provide 100% inspection of Products delivered. Sampling may only be performed when authorized in writing by AKAER.

Note: Sampling plans need to be approved by AKAER.

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11.4 Packaging and Delivery Documentation.

- When a packaging specification or direction is not provided by the engineering drawings, specifications or Purchase Order, the packaging shall be in accordance with: Commercial: ASTM-D3951, Standard Practice for Commercial Packaging, or
- Military: MIL-STD-2073-1D, Standard Practice for Military Packaging.

Supplier shall provide a Packing Sheet for each separate shipment that includes as a minimum:

- Supplier's name and address,
- AKAER's Purchase Order number, change order number and applicable line item number,
- Part number and quantity,
- Applicable engineering drawing revision levels and engineering drawing changes (ADCN, EO, etc.) as stated on the AKAER's Purchase Order or subsequent Purchase Order revision.


Foreign Suppliers shall additionally provide:

- Custom's Declaration Letter, and
- Declaration of Origin.

11.5 Digital Data.

When the AKAER or AKAER's Customer provides electronic engineering definition of the Product, the Supplier shall have a documented procedure for:

- a) verifying the integrity of the file transfer;
- b) a system for storing and maintaining the file;
- c) a system for the security (limited access) of the file;
- d) a system for change verification and notification;
- e) full traceability of all derivative data back to the original AKAER provided definition, and


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- f) When models are provided by the AKAER along with other configuration control documents (engineering drawings, specifications, condition of supply etc.), Supplier is to ensure that all documents have been properly reviewed prior to production. This includes the evaluation of all imbedded notes in the engineering model. Any conflict between these documents and files shall be brought to the attention of the AKAER for resolution.

For dimensions checked with a CMM the Supplier shall provide:

- a) an AS 9102 submittal with all dimensions specifically called out in the model listed in Form 3. (Example - GD & T, hard callout dimensions, drive to points, etc.);
- b) for all other measurements taken from the model but not specifically called out as in letter (a) above, include a bubbled drawing of dimensions taken from the model or bubbled screen shot showing where the points were taken. There must be correlation between the bubbled features and the CMM report;
- c) a CMM report that identifies the tolerance for each feature point and the amount of deviation from the nominal. The report must clearly indicate any out of tolerance conditions, and
- d) The CMM report shall be traceable to the specific part and retained by the Supplier. The CMM report shall be given a naming convention that can be identified on the AS9102 form 3. A copy of the CMM report shall accompany the FAI. If the size of the CMM report is not feasible to include a copy, it shall be retained in such a manner that can be made available immediately upon request.

For dimensions not checked with the CMM the Supplier shall provide a bubbled drawing of dimensions taken from the model or bubbled screen shots (these must be controlled in the same manner as an engineering drawing) showing where the points were taken. These manually inspected features shall be recorded on form 3 of the AS 9102 form. There must be correlation between the bubbled features and the Form 3 report.

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Documents must reference the model file name/drawing and revision levels.


11.6 Certificate of Conformance.

When the AKAER Certificate of Conformance (CoC) document form is not specified on the AKAER's Purchase Order, the Supplier shall use Supplier's Certificate of Conformance form if it contains the following as a minimum:

- Supplier's name and address;
- Part number and part name;
- Purchase Order number or AKAER's name;
- Quantity;
- All drawings, parts lists, sheet numbers, revision levels and amendments, models;
- A certification statement to read as follows: "(Supplier) certifies that these parts were purchased, and/or manufactured, and/or processed, and/or assembled, and inspected and meets all applicable OEM customer and AKAER requirements";
- An authorized Quality Assurance stamp (where applicable), signature and date;
- The number used by the Supplier to provide traceability of their quality records. This should be the same number applied in the part mark;

Note: The following should be listed in the CoC or attached to the CoC in the form of certifications:

- Material type, alloy, temper, thickness or other size dimension(s), lot number, manufacturer and specification number and revision level,
- Heat treat facility, lot number, process name, quench method, specification number and revision level,
- Hardness and conductivity readings (required and actual) and percentages tested,

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- All other special processes performed, by facilities, specification names, specification numbers and revision levels,

For supplied raw material or materials used in the subsequent manufacture of parts, components or assemblies a copy of the original mill or manufacturer test reports shall be provided.

For any designated special processes or testing performed, a copy of the original processor or testing facility certificate containing the process performed and the actual test results stated shall be provided. A reference to the specification, standard or method used to validate acceptance shall be stated, including the revision level for each identified document.

11.7 Inspection Delegation Authority.


The Supplier, when issued an “Inspection Delegation Authority Memo” by AKAER Quality Assurance, is authorized to inspect products identified within the Purchase Order on behalf of AKAER Quality Assurance, unless otherwise excluded.

The Supplier’s Delegation Authority is subject to the limitations as may be specified in the “Inspection Delegation Authority Memo”, and/or as specified within the Purchase Order/Contract.

AKAER Quality Assurance reserves the right to conduct Product integrity audits, quality system assessments, verify Suppliers conformance to delegation requirements and to revoke the Supplier’s delegation authority at any time.

11.8 Foreign Object Damage Control.

The Supplier shall ensure that Product delivered to AKAER is controlled in a manner that will prevent FOD from being introduced into the final product.

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11.9 Customer & Program Specific Requirements.

In addition to the requirements contained herein, there are specific Customer and Program related requirements that apply based on the type of Product being provided by the Supplier and the AKAER's end item Customer.

The Supplier is hereby required to implement the Customer and Program specific requirements, as applicable.