CTRM
aero composites

SQR

supplier **quality** requirement

005

SUPPLIER QUALITY ASSURANCE PLAN (QAP)

Effective Date

29-Jul-2024

A Member of DRB-HICOM

WARNING

The document is also available on our website at the following link:

https://www.ctrm.com.my/ctrm-vendor.php

REVISION HISTORY

Revision	Date	Description of Changes
NC	01-Apr- 2021	Initial Release
A	29-Jul-2024	Revised SQR template 5.2 – Added definition table of contents 5.5 – Added details specific exclusions 6.0 – Added SQR 001 title

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1.0 Purpose

This document are intended to provide guidelines for suppliers to develop Quality Assurance Plan if required by CTRM AC.

2.0 Scope

Supplier shall develop and submit Quality Assurance Plan for approval when it is defined in contract or Purchase Order.

3.0 Abbreviation

3.1 Quality Assurance Plan (QAP)

Specification of the actions, responsibilities and associated resources to be applied to a specific work package / contract.

3.2 Documented Information

Information required be controlling and maintaining by an organization and the medium on which it is contained.

3.3 NADCAP

National Aerospace and Defense Contractors Accreditation Program. Performance Review Institute (PRI) of the industry-managed program for special processes in the aerospace industry.

3.4 NOE

Notification of Escape.

3.5 Output

Output is the result of a process.

4.0 Quality Assurance Plan (QAP) Introduction

4.1 QAP describes how the supplier will provide an intended output, whether that output is a process, product, service or project. QAP is developed where they are considered necessary to meet needs and expectations related to a specific activity.

4.2 Where required by CTRM AC, suppliers shall submit QAP in accordance with ISO10005 or SQR 005.

4.3 The supplier shall demonstrate compliance to the applicable SQR 001 clauses.

4.4 The QAP shall apply all requirements of CTRM AC, CTRM AC's customers, and AS9100 Quality Management System requirements.

4.5 The QAP shall be used by CTRM AC and / or CTRM AC's customer when required as a basis for audit to ensure that the contract quality requirements are being achieved.

4.6 The QAP shall be reviewed annually as a minimum by the supplier and shall be formally approved by an authorized person.

4.7 The QAP will also be reviewed whenever there is a significant change to the production processes, procedures, bill of material (BOM), resource, and etc. At this point it will be re-submitted to the CTRM AC SQA Head of Department (HoD) for review and approval.

4.8 Presentation of QAP may be in any format deemed suitable for meeting the agreed requirements. Example includes textual, table or flow chart. Other formats better suited to a specific case may be used.

4.9 The QAP may reference to documented information, such as internal procedures or standard operating procedure (SOP).

4.10 Supplier's QAP front page should have following at minimum:

a. Company Logo

b. Title

c. Reference Number and issue number

d. Approval authority by the following:

- Prepared by: (Program Quality / Supplier's Quality)
- Checked by :(Supplier's Quality Head / Manager)
- Released / Approved by :(Supplier's Quality Head Director)
- Customer's Approval by: (CTRM AC SQA HoD)

Refer Appendix A as reference.

4.11 QAP shall be written in English.

5.0 Content of the Quality Plan

Refer Appendix B for content and framework of the QAP structure.

The content / structure of the quality assurance plan should include at least the following sections:

5.1 Revision / Issue History

Revision / Issue, date and description of changes.

5.2 Table of Contents

Shall list all content available in the QAP along with their respective page numbers.

5.3 General / Introduction

Introduction for the specific work package / contract with overview of the framework of Quality Management System and quality organization within the supplier is structure. If the supplier has more than one work package, the plan should cover all work packages.

5.4 Scope of the quality plan

Define the work package / contract for which the quality plan is applicable.

5.5 Specific Exclusions

QAP shall identify elements of the quality management system which are excluded and the reason of their exclusion.

5.6 Quality Management System (QMS)

The QAP provide Supplier's Qualification / Accreditation / Approval Summary Status (By Third party and Customers) relating to work package / program.

5.7 Special Process Approval

5.7.1 NADCAP

If supplier is involved in one of the PRI / NADCAP AC7004 families of special processes, QAP plan should identify which NADCAP special process accreditations the supplier has and document how the supplier will maintain these accreditations.

5.7.2 Customer Approval

The QAP should list all necessary customer approvals related to the work package and each individual process. The process and qualification status to subsequently obtain any missing approvals should also be described.

5.8 Supplier's Project Organization

The QAP should define the roles and responsibilities for managing and accomplishing the work package / program and allocating resources appropriately.

5.9 Notification of Company Changes

The QAP should identify notification to CTRM AC a written statement of any changes to processes, products, or services that would affect the product and /service supplied including change in top management, ownership, company name, manufacturing facility location, quality approval, changes in product and / or process, changes of sub-tier and etc.

5.10 Control of documented information

The QAP should identify the documents needed by the supplier to ensure the effective planning, operation and control of its processes. This includes:

- Define the method of controlled of the documents
- Define the method of establish and maintain the records to provide evidence of conformity to requirements and effective operation of the QMS shall be controlled.

5.11 Resources

The QAP should identify how the supplier determines and provides resources needed for the successful implementation of the QAP. These resources can include people, materials, products and services, infrastructure and environment for the operation of processes, monitoring and measurement resources, and specialized knowledge and expertise.

5.11.1 People

The QAP should specify, where applicable, the competence required for defined roles or activities within the specific case. The QAP should define any specific training, organizational knowledge or others activities required for personnel. This should include:

a) the need for, and training of new personnel

b) the training of existing personnel in new or revised operating methods.

5.11.2 Materials, Products and Services

Where there are specific characteristics for required materials, products and services, the specifications or standards to which these resources need to confirm should be stated or referenced in the QAP.

5.11.3 Infrastructure and environment for the operation of processes

The QAP should state the requirements of the specific case with regard to buildings and associated utilities, workspace, tolls and equipment, information and communication technology, support services and transportation.

Where the operational environment has a direct effect on product, service or process quality, the QAP should specify the relevant environmental characteristics to be considered.

5.11.4 Monitoring and measuring resources

The QAP should specify the resources needed to ensure valid and reliable results when monitoring or measuring to verify the conformity of products and services to requirements.

The QAP should specify the controls to be used for monitoring and measuring resources intended for use for the specific case, including requirements for calibration or verification, or reference to relevant documented information.

5.12 Competence

The QAP should specify:

- the necessary competence of person doing work under its control that affects the performance and effectiveness.
- these persons are competent on the basis of appropriate education, training or experience.

5.13 Prevention of Counterfeit Part

The QAP should specify:

- Prevent use of counterfeit parts and comply with the requirements of AS5553 or
- Purchase material directly from original equipment manufacturers (OEM), original component manufacturers (OCM), or their authorized distributors.
- Notification within 24 hours if supplier aware or suspects that it has furnished counterfeit part to CTRM AC.

5.14 Foreign Object Damage / Debris (FOD)

The QAP should determine implementation a program for the prevention, detection and removal of FOD in accordance with AS9146.

5.15 Customers and other interested parties communication

The QAP should determine the need to communicate information externally to CTRM AC regarding the effectives of QMS. The various processes or means of external communication may include as appropriate

- Publications in the media and focus groups
- Publications on website, meetings or questionnaires.

5.16 Design and development

The QAP should define how the Supplier plans and controls the design and development of product if applicable.

5.17 Externally provided processes, products and services

The QAP should:

- Describe method to be used for selection and evaluation of external providers and periodically performance review.
- Ensure, when required, that customer-designated or approved external providers, including special processes are used.
- Describe verification activities of externally provided process, product, and services conforms to specified requirements.
- List of subtiers used for CTRM work package

5.18 Production and service provision

The QAP should:

- Identify production and service provision under controlled conditions
- Availability and use of equipment and tools

- Describe the monitoring and measurement activities for verification of control criteria.
- Suitable infrastructure (e.g: jigs, fixtures, mold, software) and environment for the operation processes
- Validation and periodic revalidation of special process
- Address actions to prevent human error
- Address provision for the prevention, detection, and removal of foreign objects
- Implement production process verification (FAI) to ensure the production process meet the requirements.

5.19 Identification and traceability

The QAP should:

- Specify methods/means to identify outputs to ensure the conformity of products and services. Example stamps, tagging, electronic signatures, passwords
- Specify documented information to be retained to provide evidence of meeting traceability requirements.

5.20 Property belonging to customers or external providers

The QAP should:

- Specify how products and services provided by customers or external providers are identified and controlled.
- Mention method to be used to verify that these products and services meet specified requirements.
- Specify non-conforming products and services will be controlled.

  Customer's property can include materials, components, tools and equipment, premises, intellectual property and personal data.

5.21 Preservation of outputs

The QAP should specify method of preservation of outputs during production and service provision to ensure conformity to requirements.

5.22 Control of nonconforming outputs

The QAP should ensure that outputs that do not conform to the requirements are identified and controlled to prevent unintended use or delivery until proper disposition or acceptance by concession is completed.

The QAP shall define NOE issue shall notify to CTRM AC within 24 hours when a non-conformance is determined to exist, or suspected to exist on the product already delivered to CTRM AC that may affect the reliability or safety.

5.23 Monitoring and measurement

The QAP should define how objective evidence of conformity will be obtained. In some cases, CTRM AC may request submission of monitoring and measurement plans as a basis for monitoring conformity and specified requirements. The QAP should:

- Process and output monitoring and measurements to be applied
- The characteristics to be monitored and measured
- Acceptance criteria to be used
- Statistical process control method if any
- Product and service verification and validation

5.24 Audits

The QAP should specify the type of audits to be performed to ensure conform to its quality management system.

6.0 Reference

AS9100	Quality Management Systems - Requirements for Aviation, Space and Defense Organizations
SQR-001	Supplier Quality Requirements – General Requirement
ISO 10005	Quality Management Systems - Guideline for Quality Plans
	Customer's Quality Assurance Plan Procedure

7.0 Appendix

Appendix A: QAP Front Page (Example):

COMPANY

LOGO

QUALITY ASSURANCE PLAN

QAP RUNNING NO

JOB SCOPE

Prepared For

CTRM AC

Issue No

DATE: Date/Month/Year

CTRM AC:

Prepared by: _____
Name, Designation

Checked by: _____
Name, Designation

Authorized: _____
For Release Name, Designation

CUSTOMER APPROVAL: CTRM AC

Accepted and _____
Approved by: CTRM AC SQA HoD

Appendix B: Content and framework of the QAP Structure

Section	Content of the Quality Plan
1	Revision / Issue History
2	Table of Contents
3	General / Introduction •Introduction for the specific work package / contract •Supplier's Quality Management System •Supplier's Oranization Chart / Structure
4	Scope
5	Specific Exclusions
6	Quality Management System (QMS) •Supplier's Qualification / Accreditation / Approval Summary Status (By Third party and Customers) relating to work package / program.
7	Special Process Approval •NADCAP •Customer Approval
8	Supplier's Project Organization
9	Notification of Company Changes
10	Control of documented information •Controlled of the documents •Control of records
11	Resources •Facilities •Equipment •Competency •Infrastructure •Technical Capability •Monitoring and measuring
12	Competence •List of stamp
13	Prevention of Counterfeit Part
14	Foreign Object Damage / Debris (FOD)
15	Customers and other interested parties communication •Focal point by supplier to customer •Method of communication
16	Design and development •Design and development process •Control of design and development changes
17	Externally provided processes, products and services •method to be used for selection and evaluation •customer-designated or approved external providers •verification activities
18	Production and service provision •Provision under controlled conditions •Equipment and tools •Monitoring and measurement activities •Suitable infrastructure and environment •Validation and periodic revalidation of special process •Actions to prevent human error •FOD •Process verification (FAI)

19	Identification and traceability •Outputs to ensure the conformity of products and services •Records to be retained
20	Property belonging to customers or external providers •Products and services provided by customers or external providers are identified and controlled. •Method to be used to verify that these products and services meet specified requirements. •Non-conforming products and services will be controlled
21	Preservation of outputs •Method of preservation of outputs during production and service provision
22	Control of nonconforming outputs •Outputs that do not conform to the requirements are identified and controlled
23	Monitoring and measurement •Process and output monitoring and measurements to be applied •The characteristics to be monitored and measured •Acceptance criteria to be used •Statistical process control method if any •Product and service verification and validation
24	Audits •Type of audits to be performed

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