Configuration management

History

All	Creation	01/01/2016
Page	**Change**	**Date**

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1. Subject

1.1 Purpose

The purpose of this procedure is to define the activities to establish, implement and maintain configuration management for our company by providing evidence of product compliance with specifications.

1.2 Scope

This procedure applies to all documentation and changes to our Aerospace Quality Management System (AQMS) related to product specifications, customer and supplier contracts and legal and regulatory requirements.

Some benefits of configuration management in our company:

- documentation is at the latest approved version
- consistency between the product and the product information is ensured
- the traceability of changes is recorded
- the authors of the modifications are identified
- the distinction between the different modifications (versions, revisions, evolutions, changes) of the documents is clearly established
- the return to an old version of the configuration is easily achievable

1.3 Glossary

AQMS: Aerospace Quality Management System
Configuration item: a unit of a configuration that satisfies an end-use function
Configuration: set of characteristics of a product defined in the documents
Reference configuration: product configuration information at one stage of the product's lifetime
Derogation: written authorization, for a particular case, not to meet a specified requirement (concession, waiver, deviation)
Configuration management: activities of identifying, controlling, recording and verifying any changes to a product
Product configuration information: requirements for the design, construction, verification, use and maintenance of a product
NOC: notice of change

2. Responsibility

The quality manager is responsible for ensuring the strict application of this procedure. All departments of our company are responsible for updating their respective documentation.

3. Documents

3.1 Procedures

Documented information
Process control

Responsibility and authority
Changes
Design and development

3.2 Instructions and records

Notice of change
Configuration management plan
Configuration report
Audit report

4. Requirements of AS9100D

§ 8.1.2 Plan, implement and control a process for configuration management as appropriate to the organization and its products and services in order to ensure the identification and control of physical and functional attributes throughout the product lifecycle. This process shall:
a. control product identity and traceability to requirements, including the implementation of identified changes;
b. ensure that the documented information (e.g. requirements, design, verification, validation and acceptance documentation) is consistent with the actual attributes of the products and services.

5. Development

5.1 Responsibility

Top management has identified the persons responsible for implementing, maintaining and verifying configuration management over the life cycle of each product, equipment, software (see organization chart and job descriptions).

Configuration management includes contracts, specifications and product requirements.

5.2 Authority

Top management has identified the persons with the authority to make decisions regarding activities related to the changes (see organization chart and job descriptions). These activities include analyzing the need for the changes, estimating whether the consequences are acceptable, and monitoring how the documents are maintained.

5.3 Planning

The configuration management planning activities are coordinated and recorded in the plan. The plan is agreed with stakeholders and then checked and approved.

The configuration management plan is kept up to date (revised) and includes activities, identification of the configuration, responsible persons, deadlines, recording of the configuration status and configuration audits.

5.4 Identification

The selected configuration attributes fully describe the product (functional and physical characteristics) and its tree structure.

The quality records are also configuration materials such as:

- first-article inspection reports
- results of production and end product inspections
- certificates of conformity

Product configuration information includes product requirements from design to end use, as well as customer and supplier contracts.

The coding used allows unequivocal control of the configuration attributes (each configuration attribute is assigned a unique identifier).

Reference configurations allow us to record the stages of the product life cycle that help us to establish subsequent activities.

5.5 Change control

All requests for changes or derogations shall be submitted in writing and recorded by the document manager with an ascending code number. The request may be internal or external (customer or supplier). The change may concern the design, the product or the process. The form used complies with SAE AS 9016 (2009) "Notice of Change (NOC) Requirements".

The change request contains the name of the applicant, a summary description of the change (what), how, when, who, where to make the change, the configuration attributes and documents involved and the reasons for the request (why).

The application is analyzed by the quality manager taking into account the benefits, risks and possible consequences.

When the request is approved the resources are provided, an implementer is appointed, a timeframe is determined, the decision is communicated to the stakeholders and a compliance check of the change is planned (see section 5.7).

5.6 Records

Configuration status records are made throughout the product lifecycle during configuration identification and change control activities. The records include change requests and approvals obtained.

The records are automatically saved on the Intranet server every day at one o'clock in the morning.

Configuration reports contain three parts:

- the product tree structure
- the status of the documentation

- change status

The reports we write on a regular basis include product configuration information of the reference configuration, list of configuration attributes, revision status, change history and products delivered with traceability.

5.7 Audits

The configuration audit allows us to verify product compliance with customer requirements and configuration information.

The annual audit program is established and monitored by the quality manager. In this program are included:

- documentation (contracts, specifications)
- raw materials (certificates, storage, traceability)
- outcomes of machines (dimensions, process performance)
- special processes (process control, records)
- product qualification (first article inspection, reviews)

The functional configuration audit checks whether a configuration attribute has the functional characteristics of the product configuration information.

The physical configuration audit checks whether a configuration attribute has the physical characteristics of the product configuration information.

Records of the audit reports are kept in accordance with the internal audit procedure.