Aerospace series - Notice of Change (NOC) Requirements

EESTI STANDARDIKESKUS
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NATIONAL FOREWORD

See Eesti standard EVS-EN 9116:2015 sisaldab Euroopa standardi EN 9116:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 9116:2015 consists of the English text of the European standard EN 9116:2015.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.12.2015.	Date of Availability of the European standard is 23.12.2015.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 49.020

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 9116

December 2015

ICS 49.020

English Version

Aerospace series - Notice of Change (NOC) Requirements

Série aérospatiale - Avis de modification

Luft- und Raumfahrt - Anforderungen an eine Änderungsmitteilung

This European Standard was approved by CEN on 26 September 2015.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 9116:2015 E

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European foreword

This document (EN 9116:2015) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this European Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

RATIONALE

This European Standard was created to define the process requirements and data expectations for the submission of proposed changes in design information that requires concurrent approval of the design authority, when the design authority is different from the design activity. This European Standard provides for the organizational requirements, definitions, and data submission, including suggested data descriptions and format (paper or electronic submission).

This European Standard was created to provide for the uniform submittal of change notifications and/or approval when contractually invoked at any level or as guidance within the aviation, space, and defence industries. This European Standard can be invoked as a stand-alone requirement or used in conjunction with 9100-series standards (i.e., 9100, 9110, 9120).

To assure customer satisfaction, aviation, space, and defence industry organizations must produce and continually improve safe, reliable products that meet or exceed customer and regulatory authority requirements. The globalization of the industry and the resulting diversity of regional/national requirements and expectations have complicated this objective. End-product organizations face the challenge of assuring the quality and integration of product purchased from suppliers throughout the world and at all levels within the supply chain. Industry suppliers and processors face the challenge of delivering product to multiple customers having varying quality expectations and requirements.

The aviation, space, and defence industry established the International Aerospace Quality Group (IAQG) for the purpose of achieving significant improvements in quality and safety, and reductions in cost throughout the value stream. This organization includes representation from companies in the Americas, Asia/Pacific, and Europe. This international standard has been prepared by the IAQG.

A change process consists of design change management and/or manufacturing process change to a previously approved design (baseline configuration) of the product. This document standardizes requirements for Notice of Change (NOC) data definition and documentation for the aviation, space, and defence industries. The establishment of common requirements for use at all levels of the supply-chain is intended to improve quality, safety, and decrease costs by the elimination or reduction of organization-unique requirements and the resultant variation inherent in these multiple expectations.

1 Scope

1.1 General

The aviation, space, and defence industries rely on the development and manufacture of complex products comprised of multiple systems, subsystems, and components each designed by individual designers (design activities) at various levels within the supply chain. Each design activity controls various aspects of the configuration and specifications related to the product. When a change to design information is requested or required, the change has to be evaluated against the impacts to the higher-level system.

Proposed changes to design information that the design activity identifies to be minor and have no effect on their product requirements or specifications have the potential to be concurrently implemented and approved, where authorized to do so. Changes that affect customer mandated requirements or specifications shall be approved prior to implementation. In many cases, the design activity is not the design approver or authority; ultimate approval may be several layers above the design activity. The typical flow of design requirements to the supplier, from the design authority, and the change notification flow is presented in Figure 1.

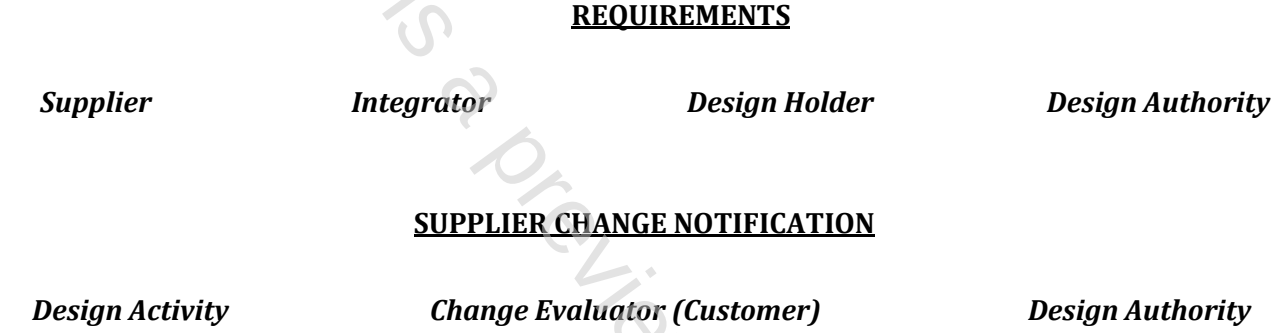

Figure 1 — Typical design requirements and change notification flow

Submitting NOC data either electronically or conventionally on paper is subject to the terms and conditions of the customer's contract. This also includes, where applicable, data access under the regulations of export control.

The process of exchanging, coordinating, and approving NOC data varies with the multiple relationships and agreements among all organizations concerned. The information provided by this European Standard forms the architecture for submitting and managing data that allows for concise and accurate communication using various methods. One objective of this European Standard is to provide the definition of a data set that can be integrated into any form of communication (e.g., electronic data interchange, submission of conventional paper forms).

If all or part of this European Standard is invoked in the contract, design activities and design holders (i.e., the organization responsible for the design) that have responsibility for change management of products used on other higher-level designs shall use the information and processes defined in this European Standard, and in accordance with the contract, for submitting change notifications to customers.

1.2 Application

This European Standard defines the common NOC requirements for aviation, space, and defence organizations. Included are the requirements that an internal/external supplier or subcontractor shall

use when submitting a NOC to the customer for either change authorization or notification. A NOC informs the customer of physical or functional (including software) changes to an established baseline configuration. Retention of the NOC establishes a means of configuration control and captures the evolution of the part. This requirement is of utmost importance in commercial/civil aviation products where changes to type certificated products are mandated by regulations. However, these same concepts are also required to some degree in defence and space applications per contractual requirements.

This European Standard is not applicable to products that are manufactured by a supplier to their customer's designs and processing requirements (also known as build-to-print). Change requests to this type of product shall be formally submitted to the customer and approved via the customer's change request process. Additionally, this European Standard is not applicable to commercial parts (off-the-shelf items not specifically designed for aviation, space, or defence products) for which changes in product definition is not affected or known, but change to commercial parts that are known (i.e., change in definition from one commercial part number to a different commercial part number) shall be processed in accordance with this European Standard.

When this European Standard is applied to an organization that distributes product, then this European Standard shall be a requirement from the distribution organization to the organization from which the product is procured. The distribution organization may act as a conduit for the NOC or the design activity (supplier) may work directly with the design authority (customer). The distributor should be compliant with the 9120 standard, as defined by customer requirements.

Application or implementation of this European Standard in any form, either expressed or implied, is not allowed for product which has escaped the supplier's quality system.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. When a conflict in requirements between this document and referenced standards exists, the requirements of this document shall take precedence. Nothing in this document, however, supersedes applicable laws and regulations, unless a specific exemption has been obtained.

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defence Organizations*

EN 9110, *Quality Management Systems — Requirements for Aviation Maintenance Organizations*

EN 9120, *Quality Management Systems — Requirements for Aviation, Space, and Defence Distributors*

NOTE Equivalent versions (e.g., AS, EN, JISQ, SJAC, NBR) of the IAQG standards listed above are published internationally in each sector.

ANSI/ASME Y14.24, *Types and Applications of Engineering Drawings* [document available from American National Standards Institute (ANSI); www.ansi.org]

ARP9034, *A Process Standard for the Storage, Retrieval and Use of Three-Dimensional Type Design Data*

EIA – 649, *National Consensus Standard for Configuration Management* [document available from Electronic Industries Alliance (EIA) Publications; www.eia.org]

ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary*

RTCA/DO-254 (EUROCAE ED-80), *Design Assurance Guide for Airborne Electronic Hardware* [document available from Radio Technical Commission for Aeronautics Inc.; www.rtca.org]