SLOVENSKI STANDARD
kSIST FprEN 9131:2015

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Aeronavtika - Sistemi vodenja kakovosti - Definicija podatkov o neskladnosti in dokumentacija

Aerospace series - Quality Management Systems - Nonconformance Data Definition and Documentation

Luft- und Raumfahrt - Qualitätsmanagementsystems - Nichtkonformitäts Dokumentation

Série aérospatiale - Systèmes de management de la qualité - Documentation des non-conformités

Ta slovenski standard je istoveten z: **FprEN 9131**

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English Version

Aerospace series - Quality Management Systems - Nonconformance Data Definition and Documentation

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This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee ASD-STAN.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Foreword

This document (FprEN 9131:2015) 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 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 document is currently submitted to the Formal Vote.

This document will supersede EN 9131:2009.

Rationale

This standard has been significantly revised further defining process requirements and data expectations; restructuring the nonconformity documentation data and providing further definition of data descriptions; and providing process defect, cause, and corrective action codes.

This standard was created to provide for the uniform submittal of nonconformance information for notification and/or approval when contractually invoked at any level or as guidance within the aviation, space, and defence industry. This 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, has complicated this objective. End-product organizations face the challenge of assuring the quality of, and integrating, 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 document standardizes requirements for nonconformance data definition and documentation for the industry. The establishment of common requirements, for use at all levels of the supply-chain by organizations, should result in improved quality and safety, and decreased costs, due to the elimination or reduction of organization-unique requirements and the resultant variation inherent in these multiple expectations.

1 Scope

This standard defines the common nonconformance data definition and documentation that shall be exchanged between an internal/external supplier or sub-tier supplier, and the customer when informing about a nonconformity requiring formal decision. The requirements are applicable, partly or totally, when reporting a product nonconformity to the owner or operator, as user of the end item (e.g., engine, aircraft, spacecraft, helicopter), if specified by contract.

The process of exchanging, coordinating, and approving nonconformance data varies with the multiple relationships and agreements among all parties concerned. The information provided by this standard forms guidelines for submitting and managing of data through accurate communication. The main objective 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).

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

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.

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*

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

3 Terms and Definitions

For the purposes of this document, the terms and definitions given in ISO 9000 and the following apply.

3.1 Customer

The recipient of a product provided by an internal/external supplier or sub-tier supplier

3.2 Mandatory Data

Common and transferable data systematically filled in and provided. The data field must be printed out on the paper form.

3.3 Optional Data

All data fields that are not defined as mandatory by this standard. These fields may be requested by a customer or needed by the originator for their own purposes.

3.4 Product

Any vehicle, engine, equipment, component, deliverable software, or parts and materials thereof

3.5 Product Quality Escape

Any product released by an internal/external supplier or sub-tier supplier that is subsequently determined to be nonconforming to contract and/or product specification requirements

3.6 Waiver/Concession

Written authorization from the customer to the internal/external supplier to use or release a product which does not conform to the specified requirements

Note 1 to entry: Waiver/concession and product quality escape differ with respect to the point in time when a nonconformance is detected during the product life cycle. Waiver/concession is evident before delivery to the customer, while a product quality escape is identified after delivery to the customer.

4 Requirements

4.1 Data related to the description of a nonconformity (i.e., content, format, size) shall be in accordance with the complete set defined in Appendix A and the contractual requirements.

a. Mandatory data fields, identified in bold text and marked with an asterisk (*) shall be systematically recorded and reported to the customer.

b. Optional data fields shall be recorded, when required, provided that it is not in contradiction with contractual requirements.

NOTE 1 For any data field, whether mandatory or optional data, recorded and reported to the customer that is not applicable shall have N/A entered in the field, prior to final approval/signature.

NOTE 2 Customers may require different optional data fields be recorded and reported. It is therefore recommended to ensure the Information Technology System is capable of modifying the optional data fields and inactivating those not being used to be able to fulfil new customer's requirements and where existing customers change their requirements. This includes the capability of the Information Technology System to process with data types and data sizes specified in this standard.

4.2 Nonconformity data recording and approval shall be in accordance with contractual and regulatory requirements.

4.3 Attached files should be in a protected format (e.g., pdf, tif, jpg), whenever possible. Where this is not practical, appropriate precautions shall be taken to prevent inadvertent changes.

4.4 Where file sizes are constrained, file size optimization tool shall be used. If a file compression is not capable of meeting file size constraints, the data exchange has to be agreed upon between both parties [e.g., via compact disk, USB flash drive, e-mail correspondence, direct access to data system].

4.5 A nonconformance form shall contain, at a minimum, the fields defined in Appendix A and depicted in the example provided (see Appendix B). However, the size and order of the fields may be changed to suit the individual application provided that:

c. The contents of the boxes specified in this standard are maintained; alternatively a cross reference can be used.

d. The form is identified as a nonconformance record.

e. Complies with contractual/regulatory requirements.

4.6 When required, continuation/additional sheets and attachments shall include the same reference number as the original document.

NOTE Reference Appendix A, the data fields 'Nonconformance Description' (see No. 19) and 'Disposition' (see No. 25) may be presented either as a summary or in a clearly defined sub-structure (see No. 19 a-i and No. 25 a-e).

4.7 The forms may be pre-printed, computer generated, or accessed via a net-based system (intranet/internet), but in all cases, the printing of lines and characters shall be clear and legible. The details entered on the forms shall preferably be machine/computer printed, but may be handwritten as long as capital letters are used and the document remains legible.

NOTE The use of abbreviations should be kept at a minimum.

4.8 The information shall be in English, but other languages are acceptable (e.g., bilingual: English and native) when specified in the contract.

NOTE The use of abbreviations should be kept to a minimum.

5 Code Catalog

The following codes are recommended for codifying affected processes, causes of process deviations, and corrections made to remedy the nonconformity. If codes are defined by a contract and/or the originators already have codes defined that satisfy their needs, these codes shall take precedence over the following.

NOTE The following codes represent a minimum selection of possible variances. In case of needing additional code definitions (e.g., software, electronic, composites, structures), the tables can be enhanced by using the existing structure.

5.1 Nonconformance Process Codes

A product nonconformance is typically associated with a process deviation. See Table 1 for a selection processes.

5.2 Nonconformance Cause Codes

The causes of process deviations are defined in Table 2. In order to assist categorization, the list is set up to facilitate the use of process improvement tools (e.g., cause and effect diagram). The ‘Main Term’ code can be used as the cause code, if appropriate, or further definition may be provided.

NOTE 1 One or more cause codes may be used to define the cause(s) for a product nonconformity.

NOTE 2 The allocation of a cause code could be either apparent (preliminary/initial) or final, depending on the status of root cause analysis. For further support see Supply Chain Management Handbook (SCMH); “Root Cause Analysis and Problem Solving” Chapter – www.iaqg.org/scmh.

5.3 Nonconformance Corrective Action Codes

Common corrective action codes are defined in Table 3; intended to correspond directly to the cause codes identified in Table 2, as appropriate.

NOTE One or more corrective action codes may be used to define the corrective action(s) taken for a product nonconformance/cause code.

Table 1 — Nonconformance Process Codes

Main Term	Process Code	Definition / Description
P1 – Shipping and Transportation	P11	Shipping
	P12	Transportation
	P13	Order Preparation
	P14	Preparation of Packaging
	P15	Packaging
P2 – Manufacturing	P201	Assembly
	P202	Test
	P203	Balancing
	P204	Benching
	P205	Blasting
	P206	Bonding
	P207	Brazing
	P208	Broaching
	P209	Casting
	P210	Cleaning
	P211	Coating
	P212	Composite Manufacturing
	P213	Crimping
	P214	Deburring
	P215	Drilling
	P216	Electrochemical Processing
	P217	Etching
	P218	Forging
	P219	Forming
	P220	Grinding
	P221	Heat Treatment
	P222	Precision Hole Making
	P223	Honing and Lapping
	P224	Hot Isostatic Pressing
	P225	Inspection
	P226	Machining
	P227	Marking
	P228	Melting
	P229	Milling
	P230	Moulding
	P231	Painting
	P232	Peening
	P233	Plating
	P234	Polishing
	P235	Riveting
	P236	Rolling / Pressing
	P237	Soldering
	P238	Stamping
	P239	Surface Treatment
	P240	Turning
	P241	Welding
P3 – Document Preparation	P31	Documentation Error
	P32	Incomplete