SLOVENSKI STANDARD
SIST EN 9104-3:2024

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Aeronavtika - Sistemi vodenja kakovosti - 003. del: Zahteve za usposabljanje, razvoj, usposobljenost in preverjanje avtentikacije presojevalcev na področju zračnega prometa, vesoljskih poletov in obrambe

Aerospace series - Quality management systems - Part 3: Requirements for Aviation, Space, and Defence Auditor Training, Development, Competence, and Authentication

Luft- und Raumfahrt - Qualitätsmanagementsysteme - Teil 003: Anforderungen an Schulung und Qualifikationen von Auditoren für Qualitätsmanagementsysteme der Luft- und Raumfahrt (AQMS)

Série aérospatiale - Systèmes de management de la qualité - Partie 003 : Exigences relatives à la formation, au développement, à la compétence et à l'authentification des auditeurs dans le domaine aéronautique, spatial et de défense

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Série aérospatiale - Systèmes de management de la qualité - Partie 3: Exigences relatives à la formation, au développement, à la compétence et à l'authentification des auditeurs dans le domaine aéronautique, spatial et de défense

Luft- und Raumfahrt - Qualitätsmanagementsysteme - Teil 3: Anforderungen an Schulung, Entwicklung, Kompetenz und Authentifizierung von Auditoren in den Bereichen Luftfahrt, Raumfahrt und Verteidigung

This European Standard was approved by CEN on 18 December 2022.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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

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European foreword

This document (EN 9104-3:2023) 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 document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, 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 May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

This document supersedes EN 9104-003:2010.

EN 9104-3:2023 includes the following significant technical changes with respect to EN 9104-003:2010:

- Update reference Table 2
- Update paragraph 8.4.2
- Update paragraph and reference 9.4.4
- Revision and restructuring paragraph 10
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Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

Industry established the IAQG, with representatives from Aviation, Space, and Defence (ASD) companies in the Americas, Asia/Pacific, and Europe, to implement initiatives that make significant improvements in quality and reductions in cost throughout the value stream.

The IAQG developed a global scheme for the acceptance and recognition of audits performed by Certification Bodies (CBs), using the EN 9100 series standards and taking into account the schemes already in use or under development in the various IAQG sectors, including the application of a:

— 3rd party audit certification scheme with specific ASD requirements, under the guidance and oversight of the ASD industry; and

— harmonized approach for the purpose of improving the quality and process control throughout the entire supply chain.

Confidence and reliance in the audit process depend on the development and provision of auditor training, robust auditor authentication, and competence of those conducting the audits. Competence is based on the demonstration of personal attributes, and the ability to apply knowledge and skills gained through education, training, and experience.

This document has been prepared by the IAQG and standardizes the requirements for ASD Quality Management System (QMS) auditor training, development, competence, and authentication in support of certification to Aerospace Quality Management System (AQMS) standards. This document supplements existing international standards for competency requirements.

In this document, the following terms are used:

— “shall” indicates a requirement;

— “should” indicates a recommendation;

— “may” indicates a permission;

— “can” indicates a possibility or capability.

Words “example” or “e.g.” indicate suggestions given for guidance. Information marked “NOTE” is for guidance in understanding or clarifying the associated requirement.

Rationale

This document has been revised to align with the latest revisions of the International Aerospace Quality Group (IAQG) EN 9104-001 and EN 9104-002 standards, the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) EN ISO/IEC 17021-1 and EN ISO/IEC 17021-3 standards, and to incorporate lessons learned from past activities, including feedback from interested parties.

1 Scope

This document defines the minimum requirements for auditors, CBs, auditor authentication bodies (AABs), training provider approval bodies (TPABs), and training providers (TPs) who participate in the IAQG industry controlled other party (ICOP) scheme. The requirements in this document supplement those defined within the EN 9104-001, EN 9104-002, EN ISO/IEC 17021-1, and EN ISO/IEC 17021-3 standards.

Data protection for the parties subject to this document and other relevant requirements of the ICOP scheme are managed via bi-lateral contracts between the joint controllers of the data.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 9100[1], *Quality Management Systems — Requirements for Aviation, Space and Defence Organizations*

EN 9110[1], *Quality Management Systems — Requirements for Aviation Maintenance Organizations*

EN 9120[1], *Quality Management Systems — Requirements for Aviation, Space and Defence Distributors*

EN ISO/IEC 17000, *Conformity assessment — Vocabulary and general principles (ISO/IEC 17000)*

3 Terms and definitions

For the purposes of this document, the terms and definitions in EN ISO/IEC 17000, the EN 9104 series standards, the IAQG International Dictionary, and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/

— IEC Electropedia: available at https://www.electropedia.org/

3.1
audit experience
experience gained and demonstrated by direct involvement in an audit as a team leader or team member conducting 2nd or 3rd party QMS or AQMS audits

3.2
auditor authentication
process and output from confirming an auditor's competence has met or exceeded the minimum requirements for an auditor, as defined in this document

3.3
auditor authentication cycle
period of three years from initial authentication or re-authentication

[1] As developed under the auspice of the IAQG and published by various standards bodies [e.g., ASD-STAN, SAE International, European Committee for Standardization (CEN), Japanese Standards Association (JSA)/Society of Japanese Aerospace Companies (SJAC), Brazilian Association for Technical Norms (ABNT)].

3.4
auditor performance management
activity undertaken to monitor individual 3rd party auditor performance and establish improvement programs, as required, to maintain auditor authentication, based on the results of performance information gathered

3.5
authenticated auditor
AA
person with the demonstrated competence (i.e., knowledge, skills, and personal attributes) to conduct an audit on ASD organizations that has been authenticated in accordance with the requirements of this document

3.6
authenticated experienced auditor
AEA
person with the demonstrated competence (i.e., knowledge, skills, and personal attributes) to lead an audit on ASD organizations that has been authenticated in accordance with the requirements of this document, together with appropriate recognized work experience and demonstrated knowledge in the ASD industry

3.7
Aviation, Space, and Defence (ASD) lead auditor course
interactive training course approved by a TPAB, that includes current EN 9100 standard requirements, the process approach as it applies to auditing an entire AQMS, and how to plan, conduct, report, follow-up, and close an AQMS audit

3.8
continual professional development
CPD
means by which professionals improve and broaden their knowledge and skills required to enhance individual capability

Note 1 to entry: CPD includes relevant structured learning activities that focus on subjects and topics that are related to the audit profession, including emerging industry technologies and regulatory requirements.

3.9
contractor
person who undertakes work on behalf of an organization on a contract basis that is specified in a mutually binding agreement

Note 1 to entry: This does not include individuals who provide expert advice professionally (i.e. consultancy).

3.10
full system audit
direct involvement as a team leader or team member (as applicable) in a QMS (EN ISO 9001) or AQMS (EN 9100, EN 9110, EN 9120) audit that covers all requirements of the respective standard, aligned to the certification scope of the audited organization

3.11
International Aerospace Quality Group (IAQG) sanctioned requisites
activity mandated by the IAQG to support auditor authentication (e.g., training, assessment, evaluation)

3.12
performance improvement plan
PIP
means to address performance improvement that includes a clear, structured set of actions and deliverables, together with timescales, in order to attain a specified level of performance

3.13
regulatory aviation maintenance specific training course
interactive training course (or a series of courses) approved by a civil/military aviation authority, conducted over a minimum two working days relating to aviation maintenance regulations

3.14
suspension
temporary restriction(s) applied to authentication or approval activity due to the non-fulfilment of requirements

3.15
withdrawal
cessation of authentication or approval due to the non-fulfilment of requirements

4 Auditor authentication

4.1 General

4.1.1 Auditors seeking authentication shall meet the requirements defined within this document and provide documented evidence of the required baseline training, audit experience, IAQG sanctioned requisites, work experience, industry knowledge, and CPD (as applicable) relative to the applicable AQMS standard to the AAB.

4.1.2 The following auditor grades have been established for each AQMS standard:

a) authenticated auditor (AA);

b) authenticated experienced auditor (AEA).

4.2 Auditor authentication requirements

4.2.1 Auditor authentication shall be undertaken in accordance with the applicable requirements relating to each authentication phase:

a) auditor initial authentication (see Clause 5);

b) auditor re-authentication (see Clause 6); or

c) auditor advancement (see Clause 7).

4.2.2 Auditors shall only conduct audits for which they are authenticated (e.g. AA/AEA EN 9100 auditors cannot perform audits to EN 9110 or EN 9120).

4.2.3 Auditors can be authenticated for one or more grades and/or standards, but only for one grade (AA or AEA) per standard at the same time.

4.2.4 Auditors shall be authenticated to EN 9100, in order to be authenticated for other AQMS standards (i.e. EN 9110 and/or EN 9120).

Where an auditor is already authenticated to EN 9100 and is seeking authentication to another AQMS standard, the work experience utilized for initial authentication may be used to demonstrate compliance to the requirements, provided the EN 9100 authentication is current.

4.2.5 Auditors shall disclose within their application to the AAB if they have had any previous applications or authentications rejected, suspended, or withdrawn; including the reason(s) why.

4.3 Auditor work experience

4.3.1 Authenticated auditor work experience

Work experience shall be full time as an employee or contractor in industries with similar scopes of applicability (e.g. automotive, nuclear, maritime, medical devices, other high risk/safety critical industries), with direct involvement in engineering, design, manufacturing, quality, or process control.

4.3.2 Authenticated experienced auditor work experience

Work experience shall be full time as an employee or contractor within the ASD industry with direct involvement in engineering, design, manufacturing, quality, or process control within any of the following organizations:

a) major equipment manufacturer/integrator organization – an organization that designs, produces, and delivers complete vehicles or systems for ASD applications (e.g. aircraft, ships, submarines, major weapon systems, launchers or spacecraft);

b) prime organization – an organization that designs and/or produces a major assembly, major subassembly, or major component of an ASD end item (e.g. cabins, wings, fuselages, propulsion systems, control systems, health monitoring systems, ordnance management systems, radar systems, emergency or backup systems);

c) ASD Regulatory Agency – a civil [e.g. National Aviation Authority (NAA)], military [e.g. Ministry of Defence (MoD)], or space organization [e.g. European Space Agency (ESA), National Aeronautics and Space Administration (NASA), Canadian Space Agency (CSA), Japan Aerospace Exploration Agency (JAXA), China National Space Administration (CNSA)].

4.3.3 Authenticated experienced auditor maintenance work experience

Work experience shall be full time as an employee or contractor within an aviation maintenance organization authorized by a civil or military aviation authority with direct involvement in overhaul, disassembling, inspection, testing, replacement, defect rectification, and the embodiment of a modification or repair.

4.4 Aviation, space, and defence industry knowledge

4.4.1 Industry knowledge shall include at a minimum, an understanding of the processes and controls for:

a) advance product quality planning;

b) change control;

c) containment, cause analysis, and corrective action;

d) configuration, identification, and traceability;

e) critical items and key characteristics;