



9100 revision 2016

Changes presentation clause-by-clause

IAQG 9100 Team
November 2016

INTRODUCTION

In September 2016, a revision of the 9100 standard has been published by the IAQG (International Aerospace Quality Group)

The 9100 standard is based on the ISO 9001 standard, with specific requirements for the Aviation, Space and Defense Industry. Its revision includes the ISO 9001 content published in September 2015.

A “key changes presentation” from the 9100:2009 to the 9100:2016 is available on the IAQG web site. It provides general information about the main changes introduced in the ISO 9001 content and in the 9100 additions.

This presentation complements the previous one. It is organized clause by clause and is more intended for experts.

What is 9100?

ISO 9001:2015 Baseline Text



9100 Series

International Aviation, Space and Defense Quality Requirements

ADDITIONAL REQUIREMENTS

- Operations Risk Management
- Product Safety
- Special Requirements
- Critical Items
- Configuration Management
- On Time Delivery
- Counterfeit Parts
- Expanded requirements for production and external providers

ISO 9001

Quality Management System

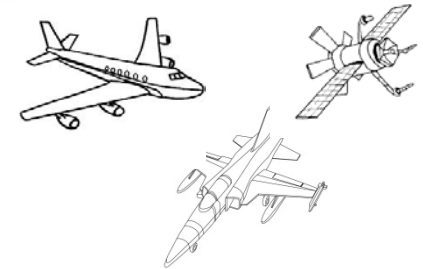
The “ISO 9001” needed to change, to:

- Adapt to a changing world
- Enhance an organization's ability to satisfy its customers
- Provide a consistent foundation for the future
- Reflect the increasingly complex environments in which organizations operate
- Ensure the new standard reflects the needs of all interested parties
- Integrate with other management systems



The “9100” needs to change, to:

- Incorporate changes made by ISO TC176 to the ISO 9001:2015 requirements
(ISO liaison organized to collaborate with the IAQG 9100 team and to obtain consideration for IAQG requirements)
- Consider Aviation, Space and Defense stakeholders’ needs identified since the last revision
(web survey performed in 2013)
- Consider clarifications to 9100 series requests issued by IAQG since the last revision
(requirements clarified or notes added)



In the following slides, the changes are identified by:

- ISO 9001 >>>>>>> — 
- **9100 additions** >> — 
(specific to AS&D: Aviation, Space & Defense)



Additional slides provide more information on topics identified with ⓘ

- ✓ Interested parties
- ✓ Scope of a QMS
- ✓ Quality manual
- ✓ Organizational knowledge
- ✓ Awareness
- ✓ Documented information
- ✓ Risk management
- ✓ Product safety
- ✓ Prevention of counterfeit parts
- ✓ Evaluation of test reports
- ✓ Human factors

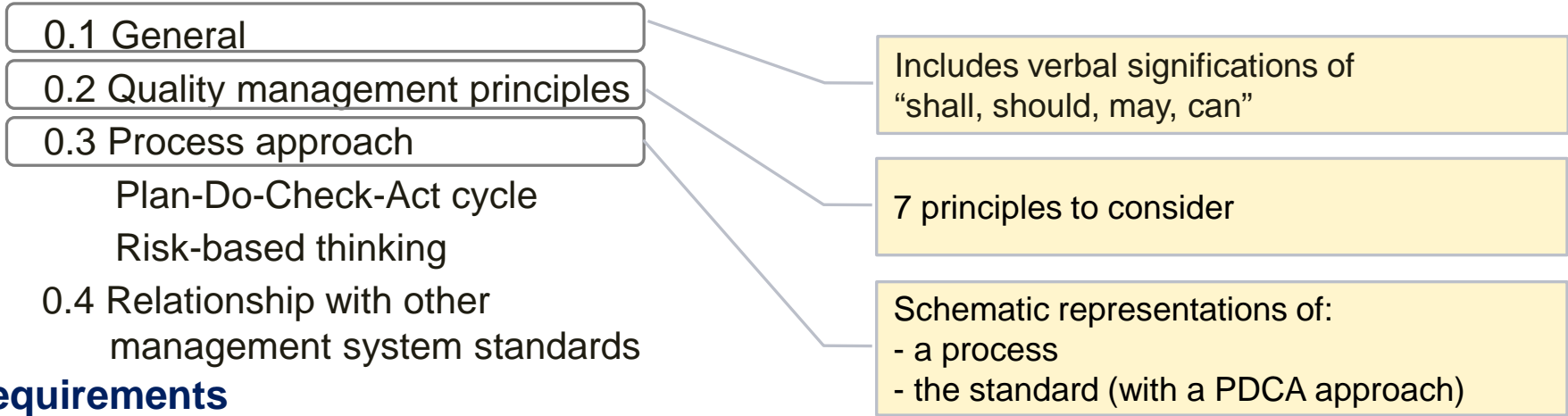
9100 revision 2016

Summary of changes - clause by clause



Foreword, Revision summary/Rationale, Intended application

Introduction



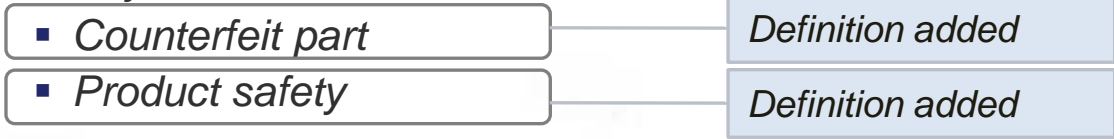
Requirements

1. Scope

2. Normative references

3. Terms and definitions

- *Special requirements*
- *Critical items*
- *Key characteristic*



4. Context of the organization

4.1 Understanding the organization and its context

Determine relevant **external issues** (legal, technological, competitive, market, cultural, social, and economic environments) and **internal issues** (values, culture, knowledge, and performance of the organization)

4.2 Understanding the needs and expectations of interested parties

Determine relevant **interested parties** and **their requirements** (such as customers, partners, authorities) (i)

4.3 Determining the scope of the quality management system

Document the **scope** of the QMS and **justification** for any case where a requirement cannot be applied (**exclusion**) (i)

4.4 Quality management system and its processes

Define the documented information to be maintained or to be retained "**to the extent necessary**"

Explicit requirement for a documented information maintained with content defined (can be called **quality manual**) (not required by ISO) (i)

Interested parties

Definition (ISO 9000)

- stakeholder
- person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity

Examples of interested parties:

- employees, management, organization owners, unions
- suppliers, customers, partners
- regulatory authorities (Aviation, Space, Defense)
- certification organizations, ...

Criteria to determine interested parties relevancy, requirements and clause applicability:

- Tier level in the supply chain: Original Equipment Manufacturers, Production Approval Holders / Design Organization Approval / Production Organization Approval, Systems integrators
- Product families: raw materials, components, assemblies
- Activity: distribution, design, maintenance, manufacturing, service

Scope of the QMS

9100:2016 no longer refers to “**exclusions**” in relation to the applicability of its requirements to the organization’s quality management system.

The **applicability** of each requirement of the standard depends on:

- the size or complexity of the organization
- the management model of the organization
- the range of the organization’s activities
- the nature of the risks and opportunities for the organization

The organization can **decide** that a requirement is not applicable, only if this decision will not result in failure to achieve:

- conformity of products and services
- enhancement of customer satisfaction

Justifications must be provided for non applicability

For **AS&D**, non applicability outside clause 8 (Operation) would be unusual

The negative word « exclusion » is not used
The positive word « applicability » is preferred

Quality Manual

- The 9100 requires to **establish and maintain documented information** describing: Interested Parties; QMS Scope; Process Description, Sequence & Interactions; and Responsibilities and Authorities.
- The requirement can be met in **different ways**: document, webpages, CD Rom, electronic document management system, etc.
- The intent of the AS&D **note** *“The above description of the quality management system can be compiled into a single source of documented information and referred to as a quality manual.”* is
 - to convey the practicality to maintain the required information in a centralized location for ease of audit and availability for customers and other interested parties
 - to highlight that this documented information may or not, be called a quality manual. (terms “management handbook” or “company management manual” are often used).
NOTE: A document called “quality manual” may be required for the organization by relevant interested parties

5. Leadership

5.1 Leadership and commitment

5.2 Policy

5.3 Organizational roles, responsibilities and authorities

Leadership instead of only management of responsibilities (management to demonstrate their leadership)

Top management to ensure integration of QMS into **business processes** (now explicit)

Policy aligned with organization **strategic direction**

A “management representative” required as focal point for QM issues (removed from ISO 9001:2015)

6. Planning

6.1 Actions to address risks and opportunities

6.2 Quality objectives and planning to achieve them

6.3 Planning of changes

Determine **risks** and **opportunities**, considering the issues raised and requirements identified.
Plan appropriate **actions** to reduce undesired effects on the QMS and evaluate effectiveness

Planning the **achievement** of objectives more prescriptive and includes the evaluation of **results**

Changes to the QMS to be carried out in a **planned** manner

9100 revision 2016

Summary of changes - clause by clause



7. Support

7.1 Resources

7.1.1 General

7.1.2 People

7.1.3 Infrastructure

7.1.4 Environment for the operation of processes

7.1.5 Monitoring and measuring resources

7.1.6 Organizational knowledge

Environment includes **human and physical factors**

Determine necessary **knowledge** gained from experience, lessons learned, success, failures, conferences, ... (i)

Added the requirement for persons to be aware of:

- **their contribution to product or service conformity**
- **their contribution to product safety**
- **the importance of ethical behavior** (i)

7.2 Competence

7.3 Awareness

7.4 Communication

7.5 Documented information

7.5.1 General

7.5.2 Creating and updating

7.5.3 Control of documented information

Determine the **external** communications relevant to the QMS

New **terminology** (replacing “documents” and “records”)

No requirement for **6 mandated procedures**, but still a requirement to identify the documented information & processes needed for the QMS (i)

Added the requirement to define “data protection processes” for documented information managed electronically

Organizational knowledge

Knowledge specific to the organization is gained by experience.

Rationale:

- To safeguard the organization from **loss of knowledge**, e.g.,
 - through staff turnover
 - failure to capture and share information
- To encourage the organization to **acquire** (e.g., learning from experience, benchmarking ...) and **share knowledge** (e.g. mentoring of newcomers);

Implementation consideration

- Activities to benefit from **lessons learned**, e.g., database, communications, incorporation of lessons learned in processes and procedures
- Identification of **experts** able to transfer knowledge, on job training, tutorial sessions
- Implement **succession** planning activities

Awareness

- The 9100:2016 requires the employees aware of:
 - ✓ their contribution to **product or service conformity**
 - ✓ their contribution to **product safety**
 - ✓ the importance of **ethical behavior**

- **Awareness activities** can be performed in different ways:
 - direct communication of expectations between managers and employees
 - communication campaigns on dedicated topics, e.g., posters, pamphlets, fliers, newsletters, videos
 - identification of focal points with responsibility for communication and promotion
 - formal training

- **What is expected:**
 - individuals should be able to explain their own role, how they contribute to quality
 - quality basics (follow instructions, report events, maintain records ...)
 - individuals know the use of the products and potential impact of failures

“importance of ethical behavior”

- Organizations should make their **own determination** of what is important to communicate to their employees in regard to ethics
- Below some examples:
 - ✓ Establishing a **culture** where employees understand their responsibilities
 - ✓ Managers **listening** to employees and effectively **recognizing** their work (in addition it can help boost productivity)
 - ✓ Reporting and **not passing** on defects or non conformances (e.g., line stoppage as appropriate, recalling delivered non conforming product, ..)
 - ✓ A culture allowing unethical behavior can breed all manner of **damaging** and even criminal activity
 - ✓ Respect the **laws, regulations, internal rules**, regarding e.g. : conflict of interests, export compliance regulations, intellectual property agreements, acceptance or proposals of gifts, invitations or favors with customers and suppliers

Documented information

There is no longer a requirement for six mandatory documented procedures in the ISO 9001:2015, however...the **extent of the documentation** that is needed will depend on the business context.

- It is the responsibility of the organization to **maintain** documented information to support the operation of its processes:
 - **Topics to be documented:**
 - Interested parties; QMS scope; Process description, sequence & interactions; Responsibilities and authorities
 - Quality Policy and Objectives
 - **AS&D requires** maintained documented information regarding **nonconformity and corrective action** management processes as it is a key process for aerospace.
 - **Various methods** can be used to meet the requirement (e.g., procedures, process flow diagrams, videos, graphic instructions, screen shots, etc.)
- It is the responsibility of the organization to **retain** the documented information necessary to have confidence that the processes are being carried out as planned.

8. Operation

8.1 Operational planning and control

Project Management (9100:2009 clause 7.1.1) and **Control of Work Transfers** (9100:2009 clause 7.1.4) **no more separated clauses but incorporated in clause 8.1 (with risk concept introduced for work transfer) and clarified**

Reinforce the **planning** and **control** activities with dispositions

- to ensure **On-Quality** and **On-Time** delivery of products or services
- to **prevent** delivery of nonconforming products and services
- to ensure involvement of **representatives** from all functions

Promoting in a note the implementation of **“integrated phased processes”** as a method to achieve operational planning and control

8.1.1 Operation risk management

8.1.2 Configuration management

8.1.3 Product safety

8.1.4 Prevention of counterfeit parts

8. Operation

8.1 Operational planning and control

8.1.1 Operation risk management

Based on the requirements of 9100:2009 (7.1.1) this clause is related to *risks in operational processes* defined in clause 8 (no major change) while 6.1 is related to risks in QMS of the organization



8.1.2 Configuration management

Based on the requirements of 9100:2009 (7.1.3), revised to *clarify* stakeholders expectations

8.1.3 Product safety

Added new requirements to address "*product safety*" considerations throughout the product lifecycle



8.1.4 Prevention of counterfeit parts

Added new requirements to prevent the use of counterfeit or suspect *counterfeit parts*



Risk management

Clause 6.1 is related to risks in “QMS of the organization”:

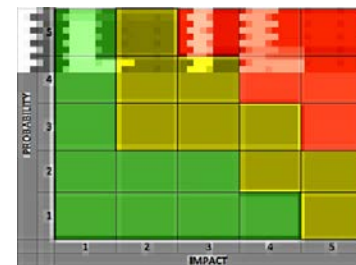
- Manage risks at organization / processes level
(such as: new customers, new market, company partnerships, business localizations, ...)



Clause 8.1.1 is related to the risks in “Operational Processes”

defined in clause 8:

- Implement a formal process to manage risks
- Adapt the process to the organization and the product
(e.g. quantitative requirements and probabilistic risk analysis may be required in some cases ; determine people involved in this activity)
- Deploy the risks analysis within the operation activities
(such as : contract review and signature, new technologies introduction, external providers selection, ...)



Risk management

Annex A.4 – ISO 9001

- Risk-based thinking → the organization to understand its context and determine risks as a basis for **planning**
- Key purpose of QMS is to act as a **preventive** tool, hence no separate clause on preventive action
- Risk-based thinking has enabled some reduction in prescriptive requirements and greater **flexibility**
- There is **no requirement for formal** methods for risk management

Annex A.4 – 9100 additions

- Within Aviation, Space, and Defense (AS&D) , risk is expressed as a combination of severity and likelihood of having a **potential negative impact** to processes, products, services, customer, or end users.
- Due to the complexity of AS&D processes, products, and services, and the severity of the potential consequences of failures, **a formal process to manage operational risks** is required

Addition

- New clause (8.1.3) on **Product Safety**, including requirements to address product safety considerations throughout the **product lifecycle** (use the NOTE as guidance) + *revision for consistency of other clauses related to safety – 7.3, 8.1, 8.4.3 & 8.5.4*
- A full Safety Management System (SMS) as defined by ICAO (International Civil Aviation Organization) is not required by 9100, but the introduction of this new clause contributes to the SMS approach

Rationale

- Industry acknowledgement of the importance of increasing safety
- Recognition of the 9100 certifications by authorities is part of IAQG strategy



Definition

- “The state in which a product is able to perform to its designed or intended purpose without causing unacceptable risk of harm to persons or damage to property”

Product safety

Examples of activities to consider:

- **Assessment of hazards and mitigation of associated risks:**
 - ✓ Implement FMEA relating to product (DFMEA) and process (PFMEA)
 - ✓ Perform safety analysis
 - ✓ Identify and mitigate risks relating to the organization and its personnel (human factors, management of responsibilities)

- **Management of safety critical items:**
 - ✓ Define and implement a monitoring control plan for critical items identified through FMEA and safety analysis

Product safety

Examples of activities to consider (cont.)

- **Analysis and reporting of occurred events affecting safety:**
 - ✓ Organize the collection of potential and occurred events, and analyze their impacts with specialists
 - ✓ Organize the internal escalation process and external reporting to interested parties
 - ✓ Analyze the adverse trends of products in service reliability and define appropriate actions

- **Communication of these events and training of personnel:**
 - ✓ Promote safety culture and lessons learned from occurred events (impacts of the parts delivered by the organization on the final product safety)
 - ✓ Prevent occurrence of safety issues by taking into account industry **experience** (including occurrences on other products with similar functions or based on same technologies or components)

Addition

Counterfeit parts prevention

- New clause (8.1.4) including requirements for prevention of **counterfeit parts** and a note giving examples of the associated processes
+ *revision of affected clauses: 8.4.2 ; 8.4.3 (external provisions) & 8.7 (nonconformities)*

Rationale

- Mitigate effects of growing threat of counterfeit / fraudulent product
- Recognize the emerging counterfeit/fraudulent statutory/regulatory requirements on QMS processes



Definition

- “An unauthorized copy, imitation, substitute, or modified part (e.g., material, part, component), which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer.

NOTE: Examples of a counterfeit part can include, but are not limited to, the false identification of marking or labeling, grade, serial number, date code, documentation, or performance characteristics.”

Counterfeit parts prevention

Processes to consider:

- **Training** in the awareness and prevention of counterfeit parts
 - ✓ Procurement personnel in trusted source selection and requirements
 - ✓ Inspection personnel for prevention of counterfeit items (visual/test)
 - ✓ Design personnel in obsolescence management

- **Obsolescence** monitoring → design decisions and parts selections to be appropriate for service life of product

- **Controls for acquiring parts** from original manufacturers, authorized distributors, or other approved sources

- **Assuring traceability** of parts and components to their original manufacturers :
 - ✓ Original Equipment Manufacturer (OEM) or
 - ✓ Authorized manufacturer (e.g., in case of PMA, direct delivery authorizations)

Counterfeit parts prevention

Processes to consider:

- **Verification and test methodologies** to detect counterfeit parts:
 - ✓ Parts identification or marking
 - ✓ Tests or chemical analysis

- **Counterfeit parts reporting**
 - ✓ Monitoring reporting from external sources (access to databases, information letters from OEMs)
 - ✓ Quarantine and reporting of internal incidences in appropriate government and industry reporting systems
(determine the responsibilities in the escalation process, the process to follow to report to authorities / customers)

Requirement regarding non conformance control:

- ✓ Segregate and control suspected or known counterfeit products
- ✓ Ensure these products are not re-introduced into the supply chain

8. Operation

8.2 Requirements for products and services

8.2.1 Customer communication

Extended to requirements regarding **contingency** actions

8.2.2 Determining the requirements related to products and services

Added consideration for the organization to **meet the claims** for products and services

8.2.3 Review of the requirements related to products and services

Added requirement that review shall be *coordinated* with applicable functions of the organization

8.2.4 Changes to requirements for products and services

Added requirement for actions in case of *not meeting* some customer requirements

8. Operation

8.3 Design and development of products and services

8.3.1 General

8.3.2 Design and development planning

8.3.3 Design and development inputs

8.3.4 Design and development controls

8.3.5 Design and development outputs

8.3.6 Design and development changes

Clause **re-structured** to allow for a more process orientated approach
Requirement to maintain a “**process**”

Clear **flexibility** (nature, duration and complexity) in determining stages and controls

Consider documented information needed for **demonstration** of compliance to requirements

Added requirement to take account of handling **obsolescence, where applicable**

Ensure monitoring and measuring **devices used for testing are properly controlled**

Outputs shall be **approved by authorized person(s) prior to release**

Added requirement for a process and criteria for **notifying customers, about changes that affect customer requirements**

8. Operation

8.4 Control of externally provided processes, products and services

8.4.1 General

8.4.2 Type and extent of control

8.4.3 Information for external providers

New terminology. Clause covering the previous “purchases” and “outsourcing”
Externally provided processes include “outsourced processes” (processes needed for the QMS, for which 4.4 applies in addition to 8.4).

Explicit requirement for external providers to apply appropriate controls to their direct and sub-tier external providers, to ensure the consistency in the whole supply chain
NB: a sub-tier external provider means the external providers of a direct external provider of an organization.

Added evaluation of data on test reports provided, to confirm the results comply with requirements

i

Added validation process of tests reports accuracy for raw materials identified as a significant operational risk

i

More explicit topics to be considered to communicate requirements to external providers

Requirements added back-in from previous 9100 version

Evaluation of data on test reports

Rationale

- Avoid non compliance of test reports results with the requirements

Implementation

- Determine the products for which test reports will be required
- At receiving, check the test results are compliant before accepting the parts



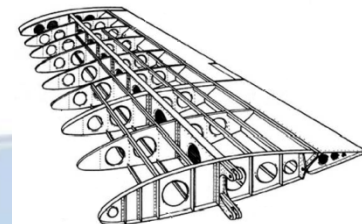
Validation process of tests reports accuracy for raw materials

Rationale

- Inaccurate, incomplete or unduly altered test reports for raw materials have introduced undue risks on critical applications

Implementation

- Determine the critical raw material for which this clause will apply (according to customers requirements or as design outputs, safety analysis outputs)
- Define the process to be applied (e.g. periodic scheduled retests performed on samples)
- Apply the process and take necessary actions



9100 revision 2016

Summary of changes - clause by clause



8. Operation

8.5 Production and service provision

8.5.1 Control of production and service provision

8.5.2 Identification and traceability

8.5.3 Property belonging to customers or external providers

8.5.4 Preservation

8.5.5 Post-delivery activities

8.5.6 Control of changes

8.6 Release of products and services

8.7 Control of nonconforming outputs

This clause considers monitoring and measurement activities will ensure the **control** of processes and outputs, and that **acceptance criteria** for products and services are met.

Review *structure* of sub-clauses:

- 8.5.1.1 “Control of equipment, tools and software programs”
- 8.5.1.2 “Validation and control of special processes”
- 8.5.1.3 “Production process verification”

New ISO clause (as per 9100:2009)

Clarified that when problems are detected *after delivery* the organization shall take appropriate actions

New ISO clause to emphasize on this topic

New ISO clause to verify that all activities have been carried out before release and delivery by authorized persons

Outputs including products and services

Maintained the requirement for a “*procedure*” to define the NC process and responsibilities on this key topic for AS&D

9100 revision 2016

Summary of changes - clause by clause



9. Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General

9.1.2 Customer satisfaction

9.1.3 Analysis and evaluation

9.2 Internal audit

9.3 Management review

Specific requirements for analysis and evaluation when using results as inputs to management review

Outputs from the analysis are clearer

Explicit **topics to consider** for the internal audit programme(s)

Added “on-time delivery performance” as input

10. Improvement

10.1 General

10.2 Nonconformity and corrective action

10.3 Continual improvement

Added requirement to evaluate the need for action based on **human factors to ensure nonconformities do not recur** i

Nonconformity and corrective action “procedure**” added back-in from ISO**

Annex (informative)

A. Clarification of new structure, terminology and concepts

B. Standards developed by ISO/TC 176

C. Standards developed by IAQG

For **risk management, added the 9100 clarification**

Bibliography

Full list of IAQG standards available

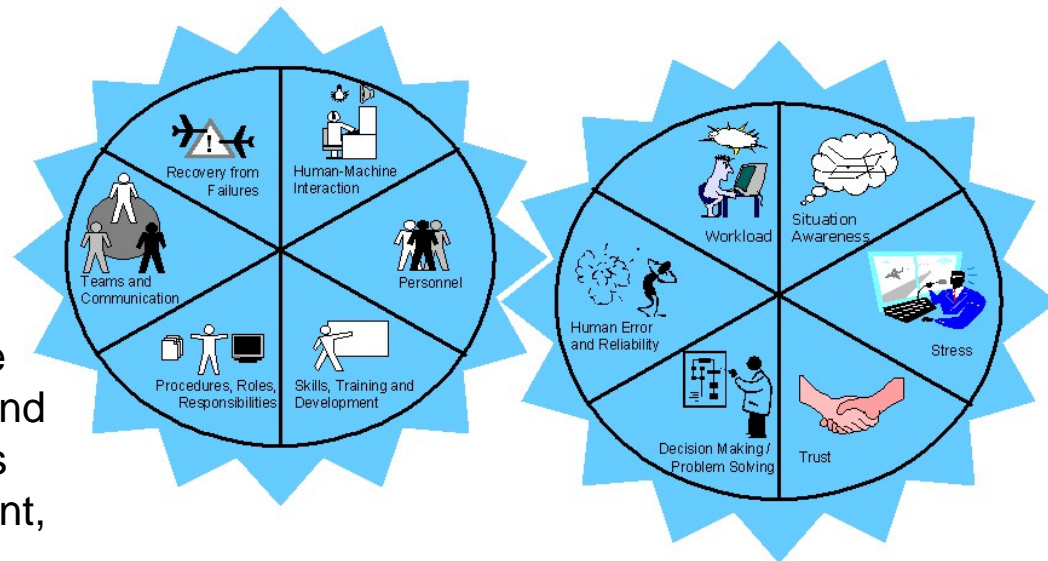
Human factors

Addition

- Requirement to include the **human factors** considerations in the root causes analysis of nonconformities

Definition

- The understanding of the interactions between people, machines and each other and their impact on human performance.
- Example: Recognition that persons performing tasks are affected by physical fitness, physiological characteristics, personality, stress, fatigue, distraction, communication and attitude in order to ensure a safe interface between the persons and all other environmental elements such as other persons, equipment, facilities, procedures and data.



Human factors

Rationale

- To reinforce the controls linked to clause 7.1.4 (environment for the operation of processes) and clause 8.5.1 g (prevention of human errors)
- Recognize the importance of human factors in the origin of nonconformities

Implementation considerations

- Determine the human factors to be considered according to the products, workplaces, equipment and people of the organization
- Include the elements to be reviewed during the root causes analysis of nonconformities
- Capitalize with lessons learned on occurred human errors



9100 Revision 2016

High Level Summary of Changes Implementation benefits

9100 Changes - High Level Summary

No Requirements

Clause 1 Scope

- New process model
- Added a PDCA model
- Added “Risk-based thinking”
- Emphasis on defining the QMS and context of the organization

Clause 2 Normative ref

- ISO 9000:2015 referenced

Clause 3 Terms and definitions

- ISO 9001 terms and definitions moved to ISO 9000
- Added 9100 “product safety”, “counterfeit part”

Clause 4 Context of the organization

- Maintained documented information is required, *can be named Quality Manual*
- Justified exclusions not limited to Realization/Operations processes
- QMS processes have performance indicators

Clause 5 Leadership

- QMS compatible with strategic direction
- QMS requirements integrated into business processes
- Processes deliver their intended outputs

Clause 6 Planning for the QMS

- When planning the QMS, determine the actions needed to address opportunities and risks (prevention)
- Increases requirements for planning of changes

Clause 7 Support

- Determine knowledge management requirements
- *Awareness on product conformity, product safety, ethical behavior*

Clause 8 Operation

- *Planning for product obsolescence*
- *Plan activities needed to assure product safety*
- *Prevention of counterfeit parts*
- *Process to validate test reports for raw material based on risks*
- Release of products and services

Clause 9 Performance evaluation

- Assess performance of QMS processes
- *Added Note to evaluate performance indicators on internal audits*

Clause 10 Improvement

- *Consider human factors in nonconformity / corrective action*

All ISO MS standards will now have this common 10 clause structure

Implementation Benefits

- When implemented and managed well:
 - Produce and continually improve safe and reliable products
 - Meet or exceed customer and regulatory requirements to ensure satisfaction
 - Processes necessary to conduct day-to-day business are defined where necessary and managed
 - Improved integration with business operations and strategy
 - Documentation accurately reflects the work to be performed and actions to be taken
 - Focus on the complete supply chain and stakeholders
 - Fewer customer unique documents
 - Recognized by Regulatory Authorities



9100 series Revision 2016

Transition summary

9100/9110/9120:2016 Transition Summary



Key Dates	Major activities
September 2015	ISO 9001:2015 Standard published and a 36 Month Certified Client ISO transition begins
October 2015	IAQG General Assembly approval of ICOP 9100/9110/9120:2016 Transition Plan
May 2016	9100 completes final approval and editing and is released for publication bodies
September 2016	9100 standard published in all 3 sectors
October 2016	9101, 9110 & 9120 published in all 3 sectors
November 2016	Mandated Aerospace Auditor “transition” training available in IAQG languages. OASIS Next Generation project phase 1 complete. Database available for entry of transition audit results
June 2017	All future audits must be to the 9100/9110/9120:2016 standard using 9101:2016 audit process.
September 2018	Transition complete all 9100/9110/9120:2009 certificates are no longer valid.

AQMS transition timeline revised based upon change in key dependencies completion dates

9100 Revision 2016

Deployment Support Material Where to find it ?

Path through the IAQG web site



www.iaqg.org

Home

Organization

Membership

IAQG Dictionary

IAQG Forms

Supply Chain Management Handbook SCMH

Publications

Deployment Support Materials

Events

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The IAQG is an international non-profit association under the Belgium registered in Brussels (Belgium).

The IAQG is a cooperative organization within the aerospace comprised of 3 sectors (Americas - AAQG, Asia/Pacific - A...

Purpose

- Establish and maintain a dynamic cooperation between aerospace & defense companies on initiatives to improve quality performance and reductions in cost through...
- Initial focus is to continuously improve the process to consistently deliver high quality products, thereby reducing activities and costs.

Objectives

- Establish commonality of aviation, space and defense documented" and "as applied"
- Establish and implement a process of continual improvement to life
- Establish methods to share best practices in the aerospace industry
- Coordinate initiatives and activities with regulatory/other industry Stakeholders

Mission

1


CLICK ON THE REQUIREMENT STANDARD BELOW FOR ADDITIONAL INFORMATION

Oversight of Certification Scheme				
9104-1 Requirements for ASD QMS Certification Program	9104-2 Oversight of ASD QMS Registration/ Certification Programs	9104-3 ASD Auditor Competency and Training Courses		
Certification Scheme QMS Standards	9100 QMS - Requirements for ASD Organizations	} 9101 QMS Audit Requirements for ASD Organizations		
	9110 QMS - Requirements for Aviation Maintenance Organizations			
	9120 QMS - Requirements for ASD Distributors			
9102 First Article Inspection Requirement	9103 Variation Management of Key Characteristics	9107 Direct Delivery Authorization Guidance	9114 Direct Ship Guidance for Aerospace Companies	9115 QMS – Requirements for ASD Orgs – Deliverable Software
9116 Notice of	9117 Delegated	9131 Nonperformance	9132 Data Matrix	9133 Qualification

2

IAQG 9100 - Quality Management Systems - Requirements for Aviation, Space and Defense Organizations

This document standardizes quality management system requirements to the greatest extent possible and can be used at all levels of the supply chain by organizations around the world. Its use should result in improved quality, schedule and cost performance by the reduction or elimination of organization-unique requirements and wider application of good practice. While primarily developed for the aviation, space and defense industry, this standard can also be used in other industry sectors where a quality management system with additional requirements over an ISO 9001 system is needed.

- 9100:2016 - Quality Management Systems: Aviation, Space and Defense Organizations
 - [Key Changes Presentation](#)
 - [Clause-by-Clause Presentation](#) 
 - [Correlation matrices between 9100:2009 and 9100:2016](#)
 - [Matrix of 9100:2009 mapped against the 9100:2016](#)
 - [FAQ](#)
 - [2016 August Quality Progress: Prepare for Landing - How to get ready for the revised AS9100 series of standards](#)
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Questions

