



AS9100 Overview



Adele Woodbridge – AEA AS9100 & 9120 Auditor & Aerospace Technical Manager

28th August 2024

OUR PURPOSE

IS TO HELP
CUSTOMERS
DELIVER PRODUCTS
THE WORLD CAN

TRUST

NQA is a world leading certification body with global operations.

NQA specialises in certification in high technology and engineering sectors.



AMERICA'S
No. 1

Certification body in aerospace sector

Top3
IN THE UK

ISO 9001
ISO 14001
ISO 45001
ISO 27001

LONDON

BOSTON

BANGALORE

CHINA'S
No. 1

Certification body in automotive sector

SHANGHAI

GLOBAL
No. 1

Certification body in telecommunications and Automotive sector

GLOBAL
No. 3

Certification body in Aerospace sector

UK'S
No. 2

Certification body in Aerospace sector



Webinar Objectives

- **To understand which AS standard would be applicable to your Organisation**
 - **To better understand what the AS series of standards are, who uses them and who requires them.**
 - **How a Quality Management System to the AS series Standards can bring value to your Organization**
 - **To provide an overview of how to implement an AS Quality Management System**
-

What are Quality Management Principles...

- – customer focus;
- – leadership;
- – engagement of people;
- – process approach;
- – improvement;
- – evidence-based decision making;
- – relationship management.

A Process Approach

- – What is a process ? A set of activities that turn an input into an output
- The process approach involves the systematic definition and management of processes, and their interactions, so as to achieve the intended results in accordance with the quality policy and strategic direction of the organization.

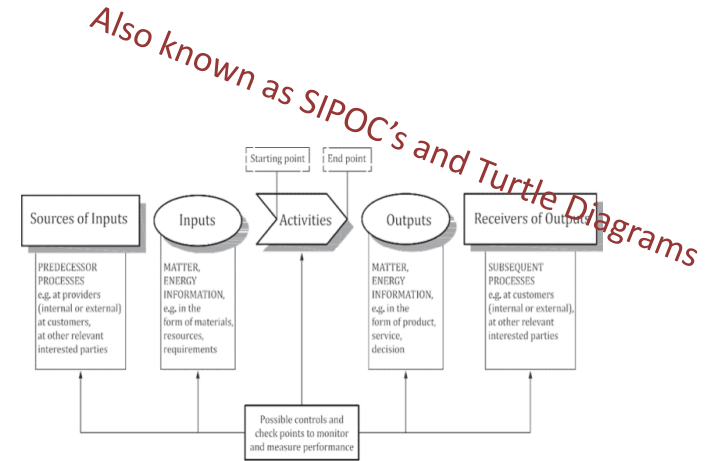
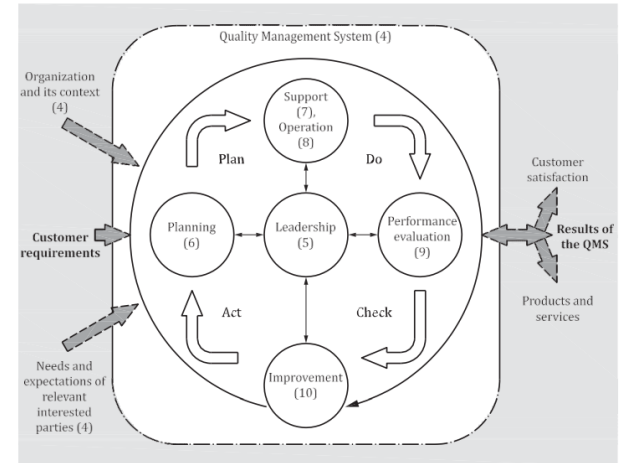


Figure 1 – Schematic representation of the elements of a single process

Quality Management System

- **Process Approach**
- Management of the processes and the system as a whole can be achieved using the PDCA cycle with an overall focus on risk-based thinking aimed at taking advantage of opportunities and preventing undesirable results.

- **PDCA**
- – plan, do, check act



Aerospace Quality Standards

AS9100

- This standard is intended for use by organizations that design, develop, or provide aviation, space, and defense products and services; and by organizations providing post-delivery activities, including the provision of maintenance, spare parts, or materials for their own products and services



Aerospace Quality Standards

AS9120

- This standard is intended for use by organizations that procure parts, materials, and assemblies and resell these products to a customer in the aviation, space, and defense industries. This includes organizations that procure products and split them into smaller quantities, including those that coordinate a customer or regulatory controlled process on the product. This standard is not intended for organizations that maintain or repair products, or for organizations that perform work that affect or could affect product characteristics or conformity.



AS9110

- This standard is intended for use by organizations whose primary business is providing maintenance or continuing airworthiness management services for civil or military aviation articles and products and by original equipment manufacturers with maintenance, repair, and overhaul operations that are operated autonomously, or that are substantially different from their production operations.



What is the difference between an ISO 9001 and AS Quality Management System...

- AS9100, AS9120 and AS9110 all use the ISO 9001 standards as a foundation but also include additional regulatory requirements, provision for further customer requirements, additional operational and design controls, emphasis on more detailed risk management requirements, product safety, counterfeit controls and further documented information.
-

Highlighted differences between an ISO 9001 and AS Quality Management System

AS9100, AS9120 and AS9110 all use the ISO 9001 standards as a foundation but include additional and enhanced requirements including:

- Customer Requirements – Provision for further understanding and applying any Customer Requirements along with any applicable statutory and regulatory QMS requirements
 - Enhanced Processes – Identifying Key processes, additional documentation around these and the implementation of KPI's (key performance indicators) to determine process effectiveness, along with On-Time Delivery measures
-

Highlighted differences between an ISO 9001 and AS Quality Management System

- Management Representative – Required to be in place who has responsibility and authority for the oversight of the standard requirements, along with unrestricted access to top management
 - Employee Awareness – Additional requirements around awareness of QMS documentation, ethical behavior's, contribution to product safety and more.
-

Highlighted differences between an ISO 9001 and AS Quality Management System

- Operational Planning & Controls – Enhanced Planning, Risk Management, Identification of Key Characteristics Configuration Management, Product Safety
 - Counterfeit Avoidance – Controls and awareness around Counterfeit Parts
 - Design Controls – Enhanced Design Reviews, Validation and Verification. Changes
 - Purchasing – Additional requirements for Supplier, Sub-Contractors and Products when incorporated into the end product or service offered to the customer.
-

Highlighted differences between an ISO 9001 and AS Quality Management System

- Production Controls – Additional and enhanced requirements around Traceability, Inspection, Special Process Controls, Product Preservation, FOD, Product Acceptance and Release, Control of Equipment, Tooling/Software, Production Process Verification (can be referred to as FAIRs) and Controlling Nonconforming Products
-

Overview of Implementing AS9100, AS9120, AS9110

- Research and learn the requirements of the applicable standard and your customer requirements
 - Initially identify what your Processes are, both key and supporting ones and how they interact
 - Do a Gap Analysis against the standard requirements to see where you comply or do not comply
 - Prepare an implementation plan that addresses the gaps and what you need to do to become compliant.
 - Decide what documentation is required for your Quality Management System and to meet standard requirements
 - Perform training for those involved with the Quality Management System (typically, this would be all staff, Quality is everyone's responsibility)
 - Implement your plan!
-

Q&A



THANK YOU

Warwick House | Houghton Hall Park | Houghton Regis | Dunstable | LU5 5ZX | United Kingdom
0800 052 2424 | www.nqa.com
