

AS9110C Quick Reference

AS9110:2016 Clauses	Summary of Requirements
4. Context of the Organization	
4.1 Understanding the organization and its context	Internal / external issues; strategic direction; intended results
4.2 Understanding the needs and expectations of interested parties	Relevant interested parties; their relevant requirements
4.3 Determining the scope of the quality management system	Boundaries and applicability of quality management system; Types of products and services covered; documented scope
4.4 Quality management system and its processes	
4.4.1 (untitled)	Needed processes, their interactions, their application; customer and legal requirements for QMS
4.4.2 (untitled)	Support for process operation; evidence for confidence; list of required documented information
5. Leadership	
5.1 Leadership and commitment	
5.1.1 General	Accountability; demonstrated leadership and commitment; Safety policy; safety objectives; audit corrective actions
5.1.2 Customer focus	Requirements; risks addressed; customer satisfaction; Measurement of conformity and on-time delivery performance
5.2 Policy	
5.2.1 Establishing the quality policy	Meet requirements; continual improvement; set objectives
5.2.2 Communicating the quality policy	Documented policy; communicated; understood; available
5.2.3 Establishing and communicating the safety policy	Framework for safety objectives; safety reporting; continual improvement of safety management
5.3 Organizational roles, responsibilities, and authorities	Assigned; communicated; understood; performance reporting; Management representative with organizational freedom
5.3.1 Accountable manager	Top executive with responsibility for scope of approval; ensures financing and that activities carried out to AS9110
5.3.2 Quality manager	Responsible for monitoring QMS; independent audit program; Ensures "accountable manager" informed on quality matters
5.3.3 Other appointed manager(s)	Responsible for assuring operational activities carried out; ultimately responsible to "accountable manager"
6. Planning	
6.1 Actions to address risks and opportunities	
6.1.1 (untitled)	Issues (4.1); requirements (4.2); risks determined
6.1.2 (untitled)	Actions planned; integrated; implemented; evaluated
6.2 Quality objectives and planning to achieve them	
6.2.1 (untitled)	Match policy; measurable; monitored; communicated
6.2.2 (untitled)	What done; who does; when done; how evaluated
6.3 Planning of changes	Purpose; consequences, resources; responsibilities
7. Support	
7.1 Resources	
7.1.1 General	Resource capabilities; constraints; external needs; Available resources for safe, timely completion of activities
7.1.2 People	People for implementation; operation; control
7.1.3 Infrastructure	Facilities; equipment; transportation; information technology; means to segregate articles and products
7.1.4 Environment for the operation of processes	Social, psychological, and physical factors
7.1.5 Monitoring and measuring resources	
7.1.5.1 General	Resources for valid, reliable monitoring and measuring results
7.1.5.2 Measurement traceability	Calibration; verification; traceability to standards; recall; register of equipment; calibration in suitable environment
7.1.6 Organizational knowledge	Maintained; available; how to acquire, access, and update
7.2 Competence	Education; training; experience; evidence of competence; Competency for airworthiness management and maintenance

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7.3 Awareness	Policy; objectives; contributions; nonconformity implications; contributions; safety; ethical behavior; human factors
7.4 Communication	On what; when; with whom; how; who communicates
7.5 Documented information	
7.5.1 General	Required by ISO 9001; determined by organization; necessary for effectiveness of product safety management
7.5.2 Creating and updating	Identification; description; format; media; approvals
7.5.3 Control of documented information	
7.5.3.1 (untitled)	Available; suitable; protected from loss or improper use
7.5.3.2 (untitled)	Access; use; storage; version control; retention; disposition; obsolete documented information; data protection
8. Operation	
8.1 Operational planning and control	Requirements; criteria; resources; controls; outsourcing; scheduled events in planned sequence
8.1.1 Operational risk management	Responsibilities; criteria; communication; actions; acceptance
8.1.2 Configuration management	Identify and control physical and functional attributes
8.1.3 Product safety	Assure product safety during entire life cycle
8.1.4 Prevention of counterfeit parts	Plan, implement, control processes to prevent counterfeit use
8.1.5 Prevention of suspected unapproved parts	Prevent use of unapproved and suspected unapproved parts
8.1.6 Installation of approved parts	Identified; acceptable; satisfactory condition; dismantled
8.2 Requirements for products and services	
8.2.1 Customer communication	Information; inquiries; changes; complaints; property
8.2.2 Determining requirements for products and services	Defined requirements; legal requirements; meet claims; determine special requirements; identify operational risks
8.2.3 Review of requirements for products and services	
8.2.3.1 (untitled)	Customer; organization; legal; differing from prior expressions; coordinated review; negotiation; technical data revision
8.2.3.2 (untitled)	Records of review results; new requirements
8.2.4 Changes to requirements for products and services	Amended documents; awareness of changes
8.3 Design and development of products and services	
8.3.1 General	Process established; implemented; maintained; aircraft and engine status; preparation of work order
8.3.2 Design and development planning	Stages; controls; activities; reviews; roles; resources
8.3.3 Design and development inputs	Functions; performance; legal requirements; standards; evaluation of continuing airworthiness requirements
8.3.4 Design and development controls	Results; reviews; verification; validation; actions; records; authorized stage progression; review participants
8.3.5 Design and development outputs	Inputs met; adequate; acceptance criteria; safe provision; required data defined; outputs incorporated into work orders
8.3.6 Design and development changes	Identify, review; control; no adverse impacts; records; customer notification; changes per configuration management
8.4 Control of externally provided processes, products and services	
8.4.1 General	Controls; evaluation; selection; monitoring; re-evaluation; customer-designated sources; risks of external providers
8.4.1.1 (untitled)	Approval status; external provider register; periodic reviews; actions if nonconforming; flow down of safety principles
8.4.2 Type and extent of control	Potential impact; effectiveness of controls; verification; performance review; approvals; certificates; risks identified
8.4.3 Information for external providers	Approvals; interactions; controls; verification; validation; change notification; flow down; right of access
8.5 Production and service provision	
8.5.1 Control of production and service provision	Characteristics; measurements; competencies; human error; verification points; foreign objects; work handover; utilities

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8.5.1.1 Control of Equipment, Tools and Software Programs	Controlled (calibrated); storage; periodic condition checks
8.5.1.2 Validation and Control of Special Processes	Approval criteria; facilities; qualification of persons; methods
8.5.1.3 Production Process Verification	(not applicable)
8.5.1.4 Evaluation of a new capability	First article; capability list; first application of maintenance
8.5.2 Identification and traceability	Outputs; identification; status; traceability; actual vs. required configuration; acceptance authority media
8.5.3 Property belonging to customers or external providers	Identify; verify; protect; safeguard; report if unsuitable
8.5.4 Preservation	Preserve outputs to ensure conformity to requirements; cleaning; foreign objects; labels; warnings; shelf-life; rotation
8.5.5 Post-delivery activities	Potential undesired consequences; lifetime; feedback; product and customer support; problems after delivery
8.5.6 Control of changes	Review and control changes; authorization; needed actions; approval of production or service provision changes
8.6 Release of products and services	Verify requirements met; evidence of conformity; release documents; documented information for delivery
8.7 Control of nonconforming outputs	
8.7.1 (untitled)	Correction; containment; return; inform customer; concession; documented process; dispositions; counterfeit parts
8.7.2 (untitled)	Record of nonconformity; actions; concessions; authority
9. Performance evaluation	
9.1 Monitoring, measurement, analysis, and evaluation	
9.1.1 General	What done; methods; when measured; results; performance; evaluation of safety performance for products and services
9.1.2 Customer satisfaction	Perceptions; how obtained, monitored, and reviewed; delivery performance; complaints; corrective action requests
9.1.3 Analysis and evaluation	Conformity; performance; improvement needs; safety improvements; prevention of maintenance error
9.2 Internal audit	
9.2.1 (untitled)	Planned intervals; conformity to requirements; effectiveness
9.2.2 (untitled)	Audit frequency; methods; criteria; scope; results; actions
9.3 Management review	
9.3.1 General	Action status; audits; issues; resources; performance; Changes to safety policy and safety objectives
9.3.2 Management review inputs	Objectives; performance; actions; results; on-time delivery; product safety performance;
9.3.3 Management review outputs	Decisions; actions; improvements; evidence of results; risks
10. Improvement	
10.1 General	Improve products, services, and QMS; address future needs
10.2 Nonconformity and corrective action	
10.2.1 (untitled)	Correct; eliminate causes; review effectiveness; update risks; flow down; documented process
10.2.2 (untitled)	Evidence of nonconformities; actions taken; results
10.3 Continual improvement	Improve suitability, adequacy, and effectiveness of system; monitor implementation; evaluate effectiveness

This reference is a quick clause-by-clause summary of the AS9110C requirements. The AS9110C clause titles and key requirements beyond those in ISO 9001:2015 are shown in a unique "red font".

See the actual AS9110C standard for a complete description of the requirements.

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