



AF 9100:2026

Aerospace Quality Management System

PROCEDURE

Cleanliness, Preservation, Packaging and Property

AF-PR-9100-018

FIRST EDITION

30 September 2026 | English master text

Publication identity and application

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Responsible owner function	Materials and preservation owner
Primary source anchors	7.5, 8.5.3, 8.5.4, 18.7, 21.5
Delivery status	Prepared implementation companion. Actual approval, adoption, effectivity and operational decisions are recorded separately.

Use and document-control boundary

This companion implements the supplied AF 9100 requirement basis without changing the original standard. Its process allocation, examples, checklists and record design are authored implementation material. Actual mission or product limits, specialist procedures, permissions and genuine observations must be completed before consequential use. Applicable source minima and independent decision conditions cannot be reduced by this companion.

The printed edition date identifies the companion series; it is not evidence that later preparation, review or operational decisions occurred on that date. New support codes in this set are proposed allocations for controlled registration. Established AF-IG-9100-001, AF-FAQ-9100-001 and AF-TR-9100-001 identities are retained; earlier files, the corporate master list and ASTRA codes are not overwritten.

Equivalent combined or digital records are permitted when all required fields, relationships, authority and history remain intact. A completed PDF field or typed name is not evidence of an authenticated approval. Blank records in this delivery contain no invented applicant, signature, event or result.

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Select actual scope → complete application criteria → use the applicable procedure and technical book → capture authentic evidence → evaluate every applicable condition → obtain the required independent decision. Document availability does not establish implementation or conformity.

1 Scope, responsibility and source priority

Applies to the responsible function and exact evaluated object selected from the source. Use only the duties triggered by actual activity and retained responsibility.

Boundary	Required implementation decision
Object and route	Identify ORG, PRD, SVC, PRC, PER, SUB or CAB separately. Combined records do not merge outcomes.
Activity	Apply source technical modules by performed or retained responsibility, including relevant outsourced work.
Authority	Technical release, employer task permission, independent attestation and statutory authorization remain distinct.
Source priority	AF 9100:2026 and all compatible binding obligations control. This companion does not import ASTRA programme rules or external normative schemes.

2 Trigger, inputs and handover

Trigger: Handling, storage, cleaning, packaging, transport or custody of product and external property.

Accountable process owner: Materials and preservation owner. Actual named appointments and deputies are maintained locally.

Input to verify	Required output / receiving function
Exact request, object and source profile	Accepted scope and controlled work package, or a reasoned hold/refusal.
Current people, authority, data and equipment	Authorized assignment and evidence-access boundary.
Original execution, adverse evidence and source history	Attributable result, identified limitations and required action.
Relevant source clocks and actual event times	Genuine due/completion history and timely recipient communication.

3 Operating sequence

3.1 Define preservation needs

Identify moisture, temperature, corrosion, vibration, cleanliness, ESD, shelf life, compatibility and hazardous-interface requirements from the actual article and route.

3.2 Control environment and entry

Assign clean-zone materials, access, approved methods and monitoring. Identify equipment and observation locations able to establish the required condition.

3.3 Protect external property

Register received tools, intellectual property, data, access credentials and physical items. Confirm permitted use, condition, custody and reporting obligations.

3.4 Qualify packaging and transfer

Use representative route and exposure evidence where required. Preserve labels, seals, quantities, environmental history and receiving checks through every transfer.

3.5 Handle excursions

Identify exposure duration, actual items, sensitive characteristics and downstream recipients. Restoring the room or replacing packaging does not itself establish product suitability.

3.6 Release or dispose responsibly

Obtain authorized technical disposition for expired or exposed stock. Return or dispose of property and restricted items with actual evidence, and retain the necessary history and unresolved duties.

4 Decision, interruption and escalation

Unknown damaging exposure or incompatible preservation prevents routine acceptance of affected items.

State or event	Action and limit
Evidence valid and criteria met	Record the bounded result and pass it to the authorized receiving function; do not enlarge scope.
Evidence missing, invalid or inconclusive	Keep the dependent conclusion not yet demonstrated / HOLD, preserve the reason and define competent next work.
Valid evidence demonstrates failure	Record nonconformity and protect the affected population; follow actual technical disposition and source status controls.
Trigger genuinely absent	Record the exclusion and its approved responsibility basis. Resource shortages do not justify N/A.
Interrupted or changed work	Preserve prior state and actual configuration; complete impact and revalidation before claiming completion.

5 Required records and receiving checks

Document	Record purpose
AF-FR-9100-024	Contamination, Preservation and External Property
AF-FR-9100-020	Incoming Material and Authenticity Verification
AF-FR-9100-026	Service, Maintenance, Life and Retirement Record

At handover the receiver checks object, scope, current version, original evidence, open conditions, true event chronology and the action they may authorize. An email sent, field marked complete or invoice paid is not acceptance of that handover.

6 Worked case and adverse challenge

Synthetic scenario: A humidity alarm clears before a stored electronic assembly is dispatched.

Required reasoning: Identify the exposed assembly and its time and packaging history, assess suitability under the actual technical basis, and document disposition rather than assuming the cleared alarm closes the issue.

Challenge before local use	Expected behavior
Missing essential input	Dependent conclusion remains held; no favorable default.
Wrong configuration or performer	Detect the mismatch and reassess relevant evidence.
Expired or conflicted authority	Block the prohibited assignment or decision; later renewal cannot validate earlier unauthorized work.
Failed mandatory condition with high total score	No compensation; preserve the failure and required action.

Challenge before local use	Expected behavior
Correction without original history	Reject an apparent closure that erases relevant earlier evidence.

Appendix A — Controlling source and evidence

Source: AF 9100:2026, Aerospace Quality Management System, FIRST EDITION, 29 September 2026; supplied 131-page PDF. Source page references below locate the original publication. These excerpts are read with the complete applicable standard; local implementation sequences do not replace it.

7.5 Work environment, cleanliness and contamination

SOURCE p. 18 | Normative when applicable

7.5(a) The organization shall define necessary environmental conditions for work, storage, inspection and testing. Controls shall address relevant temperature, humidity, vibration, lighting, electromagnetic disturbance, cleanliness, electrostatic discharge, contamination and biological or chemical exposure.

7.5(b) Clean zones, sensitive assemblies and contamination-critical processes shall have controlled entry, materials, cleaning methods and verification. Excursions shall trigger an assessment of exposed products and evidence, including material already transferred downstream. Restoration of room conditions alone shall not close the product-impact assessment.

Required evidence: Environmental specifications; monitoring logs; excursion investigations; cleanliness verification.

8.5.3 Customer and external-provider property

SOURCE p. 25 | Normative when applicable

8.5.3(a) Property under the organization's control shall be identified, protected and used only as authorized. This includes physical items, tooling, intellectual property, technical data, software, personal information and access credentials.

8.5.3(b) Loss, damage, unsuitable condition or unauthorized use shall be reported to the owner through the agreed channel and recorded. The organization shall preserve evidence and assess product or service impact rather than treating the issue solely as an administrative property loss.

Required evidence: Property register; receipt checks; access controls; condition and incident records.

8.5.4 Preservation, packaging and transport

SOURCE p. 25 | Normative when applicable

8.5.4(a) The organization shall preserve conformity during handling, storage, packaging and transport. Controls shall address cleanliness, FOD, humidity, temperature, corrosion, ESD, shock, shelf life, material compatibility, hazardous conditions and stock rotation as applicable.

8.5.4(b) Packaging methods shall be qualified for the actual route and exposure where risk warrants. Excursions or damaged packaging shall trigger a product assessment. Expired, life-limited or environmentally exposed material shall not be returned to normal stock without an authorized disposition based on technical evidence.

Required evidence: Preservation specifications; packaging qualification; environmental history; shelf-life controls; excursion dispositions.

18.7 Surface engineering, cleanliness and contamination-sensitive products

SOURCE p. 37 | Normative when applicable

18.7(a) Coatings, plating, surface treatments, lubrication and cleaning shall be controlled for material compatibility, essential variables, residue, thickness or other relevant characteristics. The organization shall assess effects on fatigue, corrosion, bonding, electrical contact and contamination.

18.7(b) Changes in chemicals, suppliers, bath condition, preparation or cure shall be reviewed. Cleanliness acceptance shall use a defined method and sampling location. A generic statement that an item is "clean" shall not establish conformity to a contamination-sensitive requirement.

Required evidence: Surface-process qualification; bath or chemical controls; test results; cleanliness criteria and records.

21.5 Logistics, storage and remote support

SOURCE p. 40 | Normative when applicable

21.5(a) Logistics providers shall establish preservation and security controls appropriate to the product, route, mode and duration. Transfer points shall have defined custody, inspection and environmental responsibilities. Transport restrictions and hazardous-goods obligations shall be identified by competent personnel.

21.5(b) Remote support shall verify asset identity, configuration, authorization and the reliability of available information before directing an action. Advice affecting safety or configuration shall be controlled and recorded. Loss of communication shall have a defined safe response.

Required evidence: Logistics plan; custody records; excursion assessments; remote-support authorization and advice records.

Appendix B — Local implementation and release

Readiness condition	Evidence before consequential use
Authority and responsibility	Actual legal operator, owner, competent technical authority, independent reviewer and permitted result class are recorded.
Scope and criteria	Object, configuration, site, period, trigger, every technical value or observable attribute, units and prospective approval are complete.
Evidence and methods	Original accessible evidence, representative observations, valid methods, uncertainty, adverse cases and limitations support the intended conclusion.
People and independence	Competence is current for each task; genuine conflicts, relevant prior work and needed separation have been checked.
Records and tools	Field meanings, unique IDs, original history, access, retention, recovery and actual deployed workflows have passed local validation.
Decision and public use	All relevant blockers are resolved; required independent decision and written permissions precede the exact public claim.
Continuity and handover	Receiving custody, unresolved duties, corrections and historical decisions survive transfer, retirement or provider closure.

Record the completed local readiness and actual authorization in AF-FR-9100-032 or an equivalent controlled record. Preserve the unchanged source standard and each earlier decision basis. A blocked activity may continue only within a genuinely permitted development boundary, not as a provisional conformity certificate.