

**BY ORDER OF THE COMMANDER  
AIR FORCE MATERIEL COMMAND**

**AIR FORCE MATERIEL COMMAND  
INSTRUCTION 23-110**



**3 APRIL 2020**

***Materiel Management***

***POST-AWARD PART VERIFICATION  
AND APPROVAL***

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(Heather J. Moore)

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This instruction implements Air Force Policy Directive (AFPD) 23-1 *Supply Chain Materiel Management*, AFPD 64-1 *The Contracting System*, Air Force Instruction (AFI) 63-101/20-101, *Integrated Life Cycle Management*, and AFI 63-145, *Manufacturing and Quality Management*. The Supply Chain directive establishes as policy that the Air Force (AF) will develop guidance that emphasizes supply chain responsiveness and prudent stewardship in supply chain sourcing. The Contracting System directive establishes policies and requirements for application of first article testing (FAT), production part approval (PPA), approval requirements in contracts, and for managing contracts that specify the use of Federal Acquisition Regulation (FAR) Subpart 9.3, *First Article Testing and Approval*, FAR Part 46 and Defense FAR Supplement (DFARS) Part 246, *Quality Assurance*, including contract quality requirements for specialized inspections and testing such as form, fit, and function (FFF) testing performed solely by the Air Force, FAR 46.201(c). This instruction applies to all AFMC units utilizing first article testing, production part approval, specialized inspection and testing, FFF and other testing requirements for post award verification, including foreign military sales. This publication is not applicable to the Air Force Reserve Command (AFRC) or Air National Guard (ANG). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field

through the appropriate functional chain of command. This publication may be supplemented at any level, but all Supplements must be routed to the OPR of this publication for coordination prior to certification and approval. The authorities to waive requirements in this publication are identified with a Tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the waiver approval authorities and the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. In this instruction content that is recommended, informational or descriptive (i.e., not mandatory) is indicated as "recommended" or is indicated by words such as "should," "may," "can," "consider," etc. All other content is mandatory and may include words such as "shall," "must," or "will" for additional emphasis. See [Attachment 1](#) for a glossary of references and supporting information.

**SUMMARY OF CHANGES**

The series of this instruction has changed from 64 (Contracting) to 23 (Materiel Management). The Title was changed to POST-AWARD PART VERIFICATION AND APPROVAL which reflects a change in the focus of the instruction from exclusively first article test management, to a broader coverage of other forms of product verification performed after the award of a contract. The instruction has been extensively revised and should be reviewed in its entirety.

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**1. Overview.** Post award part verification and approval requirements are imposed by Air Force Engineering to ensure acceptance of robust products and systems which exhibit the required attributes of systems security, mission assurance, and operational safety, suitability and effectiveness (OSS&E). Post award part verification and approval may consist of FAT, PPA, specialized testing, FFF testing, or any other defined testing, individually or in combination.

**1.1. First Article Testing (FAT)**

1.1.1. Upper level policy. Upper level policy on the use of first article inspection can be found in FAR Subpart 9.3, *First Article Testing and Approval*. Use first article inspection to verify that the contractor can provide an item manufactured to a qualified design. This applies to vendors as well as manufacturers; however, do not use first article requirements for products normally sold in the commercial market (as specified in FAR Subpart 9.304). Any first article solicitation or purchase document must contain detailed technical requirements and adequate quality assurance provisions to ensure that the contractor is capable of furnishing or manufacturing the item. This information is defined in the configuration product baseline. **(T-0)**.

1.1.2. Base the decision to require first article inspection on careful consideration of the following (as specified in FAR Subpart 9.302): technical aspects, cost of first article inspection and availability and suitability of less costly methods of ensuring desired quality, safety risk, impacts to delivery schedule, and other pertinent factors. First article is not the procedure used to qualify new or modified designs. FAR Subparts 9.2 and 46.4 address qualification requirements and contract quality assurance requirements. **(T-0)**.

1.1.3. First article inspection shall be performed by the government when: **(T-3)**.

1.1.3.1. OSS&E authority determines technical requirements are too complex for contractor evaluation.

1.1.3.2. There is a need for complementing FAT with FFF evaluation within a government owned system or sub system.

1.1.3.3. A government owned fixture or test equipment not readily available outside of the government is required to evaluate an item's acceptability.

1.1.3.4. It is not practical for an OSS&E engineering authority to be available at the contractor facility to witness (when necessary) first article testing.

1.1.4. First article inspection may be performed at an approved contractor facility when there are no government unique testing requirements and it is in the best interest of the government. In this case, buying organizations should, when feasible, use Defense Contract Management Agency (DCMA) (FAR 42.203), with a Quality Assurance Letter of Instruction (QALI) or Memorandum of Agreement (MOA).

1.1.5. To ensure receipt of the contractor's test report, provide a DD Form 1423, Contract Data Requirements List, to the buying organization's contracting office. Data Item Description DI-NDTI-80809B is an appropriate reference for block 4 of the DD Form 1423.

1.1.6. Delegate contract administration according to DFARS 242.202.

**1.2. Production Part Approval (PPA).** Production Part Approval shall be implemented in accordance with SAE AS9145, *Requirements for Advanced Product Quality Planning and Production Part Approval Process*. **(T-3)**. PPA is a flexible process that considers more than pre-productions samples, as with FAT. When samples are used to evaluate initial production lots, the PPA samples are selected randomly to be representative of the actual entire manufacturing process and production lot. AF Engineering may tailor PPA requirements as defined by the type of submission (i.e., full, partial, initial, resubmission) indicating the reason for PPA. PPA's AF engineering effort will be funded by the procurement activity. **(T-3)**.

1.2.1. Production Part Approval (PPA) may be considered as a method for post-award part approval to accept an item from a manufacturer's process. PPA IAW SAE AS9145 defines requirements for production part approval to confirm that a manufacturer's production process can produce parts according to design requirements. The purpose is to determine if engineering design records, functional, and specification requirements are understood and if the manufacturer's process has the capability to produce product consistently and continuously. All requested samples for PPA shall be manufactured using the same personnel, processes, materials, equipment and tooling that will be used for regular production. **(T-3)**. The manufacturer assumes all risks associated with PPA.

1.2.2. The PPA provides the parts characteristics, part sample size, documentation, and requirements based on AF's needs for assessing the manufacturers' product. Varying degrees of requirements may be needed to demonstrate the manufacturing capability. Manufacturers will submit samples, documentation, and indicate whether or not results meet design, functional, and specification requirements. Pass or fail blanket statements of conformance will not be acceptable. **(T-3)**.

1.2.3. PPA shall be performed only on production parts and with production processes, documentation, tooling, and measurement systems used and approved for the manufacturing process. **(T-3)**.

1.2.4. PPA samples shall be selected at random by the cognizant government quality assurance representative (QAR). **(T-3)**.

1.2.5. Under PPA all the manufacturer's approved product which is shipped to the government must conform to all technical, quality and contractual requirements at all times. **(T-3)**.

1.2.6. PPA part approval does not imply the implementation of ANSI/ASQ Z1.4 Sampling Procedures and Tables for Inspection by Attributes. Z1.4 is a quality inspection technique which allows examination of production lot testing (PLT) sampling to determine acceptance or rejection of production lots based on a sample quality level. This sampling process determines if a production lot could be shipped by the manufacturer or be approved by the government after receiving the production lot. Modern quality assurance programs, such as PPA based on SAE AS9145, establish manufacturing processes that are capable and stable, with less variation. In contrast, the Z1.4 sampling technique does not assure that all items in the production lots meet all requirements. Consequently, the Z1.4 PLT sampling process may still allow acceptance of a production lot which might include non-conforming material. While Z1.4 sampling techniques may be used as secondary means of inspecting quality, it may not be used as the main quality

assurance program for operations and manufacturing processes of parts shipped to the Government. **(T-3)**.

1.2.7. PPA may be referred to as production lot testing (PLT) for items managed by the Defense Logistics Agency (DLA); but the DLA process must conform to SAE AS9145. **(T-3)**.

1.2.8. After production part approval (PPA) is granted, ensure that the manufacturer's production processes are in control and capable to deliver to the Government conforming products that meet at all times all technical, quality and contractual requirements. For all subsequent production lots of items shipped to the Government, there must be no lot failures and no discrepant product of adverse quality. **(T-3)**.

1.2.9. Acceptance of production lots. Failed production lots shall not be delivered to the government and must be segregated from subsequent lots to prevent the potential delivery of discrepant material. **(T-3)**. Discrepant material shall be marked to preclude inadvertent or aftermarket delivery or use. **(T-3)**.

1.2.10. Rework of production lots. The responsible AF engineering authority may authorize failed production lots to be reworked to correct minor discrepancies. The lot shall be 100% screened for the original defect and resampled. **(T-3)**. If the second sampling fails, the lots shall be condemned. **(T-3)**.

1.2.11. Tailoring of PPA. The AF LSE/CE has the sole discretion over the extent of PPA tailoring. Tailoring refers to the degree of evidence to be included in the PPA submittal such as requiring more or fewer certificates of conformance, product testing, and manufacturing process analyses. Independent of the level of PPA tailoring, all manufacturer PPA approved parts of subsequent lot-items sent to the Government will meet at all times all technical, quality and contractual requirements. **(T-3)**.

1.2.12. Additionally, when the Government approves a manufacturer part using tailored PPA, ensure the contractor will retain and submit to the Government upon request: part samples certifications, documentation with dimensional testing results, and any other testing documentation, completed by the contractor before or during the initial stage of production for verification of requirements. **(T-3)**.

**1.3. Specialized inspection and testing.** Specialized testing is a process to determine if the supplied parts can be successfully integrated into the Air Force system to meet system requirements. AF specialized testing refers to Form, Fit and Function (FFF) testing but it may include other types of testing. Specialized testing may be used independently or in combination with any other forms of post award verification to determine part acceptability.

1.3.1. Upper level policy. Upper level policy on the use of specialized inspection and testing can be found in FAR 46.201(c)(1).

1.3.2. Specialized testing will be included as a separate contract line item number (CLIN).

1.3.3. Specialized test exhibits may be required to have successfully passed a regimen of FAT or PPA testing prior to the specialized testing.

1.4. **Other types of testing.** The AF engineering authority is encouraged to validate and take advantage of emerging technology to evaluate an item's compliance with quality, technical and performance requirements.

1.5. **When post award verification is required**

1.5.1. FAT, PPA, Specialized or Other Testing for post award verification may be imposed individually or in combination on critical application parts not subject to pre award qualification.

1.5.2. Post award verification will be imposed when: a part is manufactured for the first time; there is a change in machine layouts, tooling, manufacturing location, manufacturing process, manpower, sub-suppliers, material source; there are changes in design and specification; changes in material, alternate construction; when there is a lapse in production for three years; or when specified for other reasons by the AF Lead Systems Engineer (LSE)/Chief Engineer (CE). **(T-3)**.

1.5.3. Post award verification submissions will not be waived for first time suppliers of the part or when a change in production location has occurred. **(T-3)**.

1.6. **When post award verification is waived**

1.6.1. The LSE/CE or their designee have sole authority to waive or modify post award verification requirements submission if the manufacturer: (1) was previously approved for that item, (2) has successfully manufactured and delivered the specific item within the past three years, (3) has no unfavorable quality history, and (4) has not made any changes to the item, processes, manufacturing location or subcontractors used to manufacture the item successfully in the past.

1.6.2. During the Solicitation phase, a bidder may request a waiver or modification of the verification requirements from the LSE/CE through the contracting officer. The LSE/CE has sole authority to waive technical requirements in accordance with their processes.

1.6.3. When post award verification submission is waived, the contractor will be required to submit a signed warrant stating that all lots of product/items/parts shipped to the Government will meet all specified contract requirements. **(T-3)**. Additionally, the contractor will be required to retain and submit to the Government upon request: part samples certifications, documentation with dimensional testing results, and any other testing documentation, completed by the contractor before or during the initial stage of production for verification of requirements. **(T-3)**.

**2. Roles and Responsibilities.** The commander, vice commander, or executive director of each center shall implement this instruction. **(T-2)**. It is the goal of this command to complete all post award verifications (first article inspections, production part approvals, specialized FFF and other testing) as soon as possible but not later than 150 calendar days from receipt of the sample at the supply point of the government testing facilities through approval/disapproval by the testing organization. All organizations will strive to meet this goal by scheduling resources and work assignments to accommodate prompt accomplishment of tasks associated with post award verifications. An expedited 30 calendar day process will be established at each field activity for high priority procurements. **(T-2)**. When required, expedited testing may be used to support Mission Impaired Capability Awaiting Parts (MICAP), Aircraft On Ground (AOG), Non

Mission Capable, Supply (NMCS) or Programmed Depot Maintenance (PDM) work line stoppage requirements. **NOTE:** All contractor responsibilities and requirements contained within this instruction must be included in the contract/grant/agreement to be enforceable.

## 2.1. AFMC Directorates and Program Offices:

2.1.1. **Lead Systems Engineer (LSE) / Chief Engineer (CE).** The LSE/CE is responsible for the following actions which may be delegated IAW AFMCI 63-1201:

2.1.1.1. Specify post award quality verification requirements using AFMC Form 761 *AMC/AMSC Screening Analysis Worksheet*. Consider impacts on cost, delivery dates and risk to the government (risk to aircraft, systems, personnel safety and other safety considerations) of foregoing testing. Give special attention to items with a history of excessive product quality deficiency reports, or for which a Government Industry Data Exchange Program (GIDEP) alert has been issued.

2.1.1.2. Review the specified post award quality verification requirements to ensure the correct instructions for the required inspections are included in the purchase request (PR) according to AFMCI 20-102, *Requirements Definition and Purchase Instrument Development*. Use the store attachments function in the Purchase Request Process System (PRPS) to attach the requirements to the National Stock Number (NSN) / National Item Identification Number (NIIN).

2.1.1.3. Initiate the AFMC Form 260 *First Article Requirements* (for FAT) and attach to the AFMC Form 761. Document the rationale for these higher level quality requirements in “Remarks” at section F, block 3 of AFMC Form 260. Specify whether first article inspection will be done by the government or the contractor; identify the detailed technical requirements to which the first article will be subjected; include test requirement plan and reference the applicable configuration baseline specification; and specify whether Alternate I and/or Alternate II of FAR 52.209-3 or -4 are applicable. Consider Alternate II, if forgings or other long lead time items are required. The contracting officer (CO) will make the final determination regarding the use of Alternate II based on a review of contractor records and accounting systems. **(T-0).**

2.1.1.3.1. Provide the following information to the procuring activity IAW FAR 9.306 when the contractor is to be responsible for the first article approval testing: **(T-0)**

2.1.1.3.1.1. The performance or other characteristics that the first article must meet for approval;

2.1.1.3.1.2. The detailed technical requirements for the tests that must be performed for approval;

2.1.1.3.1.3. The necessary data that must be submitted to the Government in the first article approval test report;

2.1.1.3.2. Provide the following information to the procuring activity IAW FAR 9.306 when the Government is to be responsible for the first article approval testing: **(T-0)**

2.1.1.3.2.1. The performance or other characteristics that the first article must

meet for approval;

2.1.1.3.2.2. The tests to which the first article will be subjected for approval (FAT test requirements plan)

2.1.1.4. Initiate AFMC Form 807 *Recommended Quality Assurance Provisions and Special Inspection Requirements* (for PPA, its tailoring, specialized FFF testing, or any other testing), and attach to the AFMC Form 761. Document the rationale for these higher level quality requirements in the "Remarks" area in block 8 of the AFMC Form 807. Specify whether PPA inspection will be done by the government or the contractor; identify the detailed technical requirements to which the PPA articles will be subjected; include test requirement plan and reference the applicable configuration baseline specification.

2.1.1.4.1. Provide the following information to the procuring activity when the contractor is to be responsible for the PPA approval testing: **(T-3)**

2.1.1.4.1.1. The performance or other characteristics that the PPA articles must meet for approval;

2.1.1.4.1.2. The detailed technical requirements for the tests that must be performed for approval;

2.1.1.4.1.3. The necessary data that must be submitted to the Government in the PPA test report;

2.1.1.4.2. Provide the following information to the procuring activity when the Government is to be responsible for the PPA testing: **(T-3)**

2.1.1.4.2.1. The performance or other characteristics that the PPA articles must meet for approval;

2.1.1.4.2.2. The tests to which the PPA articles will be subjected for approval.

2.1.1.5. When AFMC does not have engineering responsibility, ensure LSE/CE inputs to AFMC Form 761 and AFMC Form 260 are complete, and necessary information is provided to the contracting officer (CO). Coordinate all engineering decisions with the government agency having engineering responsibility.

2.1.1.6. Prepare and attach the QALI or MOA to the PR package if first article inspection will be done by the contractor and DCMA support will be required. Provide necessary information to the buyer or CO for specifying inspection and acceptance locations if testing will be done at other than the manufacturer's facility (e.g., independent laboratory).

2.1.1.7. Provide test and inspection requirements documentation (e.g., drawings, test plans, specifications, etc.) to the inspection activity for their use in completing the required testing/inspection. **NOTE:** AF engineering organizations are encouraged (but not required) to request contractors to use the Aerospace Standard SAE AS9102 *Aerospace First Article Inspection Requirement* forms to document the first article inspection requirements, data, and results. Forms can be located at: <https://www.sae.org/iaqg/forms/index.htm>



2.1.1.8. For Acquisition and Due-in System (ADIS) (J041), ensure appropriate code is entered in the first article indicator field to identify specific first article requirements. See AFMCMAN 64-104 Volume 1, *Acquisition and Due-in System*, Attachment 3, J041 DATA ELEMENTS.

2.1.1.9. When requiring FAT or PPA to be performed by the government, determine if government facilities have the capacity and capability to do the inspections. Coordinate with those facilities to perform the inspection. Ensure the government facilities have the appropriate technical information.

2.1.1.10. Provide assistance to maintain expertise and obtain the necessary support for PPA or first article inspection and/or testing at the government facility responsible for the PPA or first article inspection.

2.1.1.11. Obtain coordination on testing requirements and schedule milestones from the responsible government test facility. Enter the name, office symbol and telephone number of the test organization point of contact in the remarks block of the AFMC Form 260 (for FAT) or AFMC 807 (for PPA).

2.1.1.12. Annotate on the AFMC Form 260 the necessary time for inspection report review and track milestones to ensure established schedules are met. If schedules cannot or will not be met, notify appropriate LSE/CE and the CO of schedule slippage and the reason for slippage, including a new estimated date of completion.

2.1.1.13. Provide the CO with estimated costs for first article government inspection (AFMC Form 260, block 9G). Estimated costs should include labor costs for government personnel to monitor and conduct tests (locally or at designated test facility), cost of the time for the First Article Focal Point (for DLA managed items), cost of lab time (such as metallurgical lab or measurement lab), cost of temporary work request to shops for a fit check, purchase of special tools or test equipment, transportation cost of first article to test site (excluding contractor expense), and any other applicable government costs. For contractor testing, include the cost of government evaluation of test reports.

2.1.1.14. Coordinate efforts of materiel receiving and testing activities, when informed of test/inspection exhibit receipt or pending delivery, to ensure inspections are completed within schedule.

2.1.1.15. If first article or PPA article fails to meet requirements, determine the adverse impact on supply support. Consult with all affected activities and make a recommendation to the CO. Recommendation may include: conditional approval, pending corrective action; disapproval with required reinspection; or contract termination.

2.1.1.16. Provide status and disposition instructions for first articles, after completion of government testing, as follows:

2.1.1.16.1. First Article Approved (Not Destroyed in Testing). When the contract provides for the first article to be considered as part of the scheduled delivery quantity, arrange for appropriate acceptance signature on the DD Form 250, *Materiel Inspection and Receiving Report* or Wide Area Workflow (WAWF)

Report and Invoice or WAWF Combo. The item shall be tagged as serviceable and forwarded to Central Receiving for placement in storage condition code A or returned to the contractor, if the approved first article is to be used as a manufacturing standard. **(T-3)**. Send written notification of satisfactory completion of first article inspection and the evaluation of the test results to the procuring CO. **(T-3)**.

2.1.1.16.1.1. Foreign Military Sales (FMS) items shall be returned to the contractor for follow-on delivery with the production quantity. Cognizant engineer shall fill out a FMS specific AFMC Form 260 and select "Approved First Article will be returned to the contractor for shipment with the production item." **(T-3)**.

2.1.1.16.1.2. When first article test determination to approve or disapprove is reached on an FMS asset, the engineer will contact the local FMS office via workflow at [FMS.Workflow@tinker.af.mil](mailto:FMS.Workflow@tinker.af.mil). **(T-3)**.

2.1.1.16.2. First Article Destroyed or Left Installed After Government Testing. Provide a letter to the CO stating the disposition of the first article or, if applicable, a certificate of destruction. Forward a copy to the center supply organization. **(T-3)**.

2.1.1.16.3. Conditional Approval. Provide a list of all discrepancies, which must be corrected, an engineering assessment of the contractor's ability to provide the item, and the rationale for conditional approval, to the CO. **(T-3)**. Annotate the disposition of the first article on the appropriate tag (serviceable, unserviceable, return to contractor), and arrange for acceptance signature on DD Form 250. **(T-3)**. Conditional approval is discouraged unless it is in the government's best interest (i.e., deficiencies are minor in nature and do not affect form, fit or function).

2.1.1.16.4. First Article Rejected or First Article Inspection Report Not Acceptable. Notify the CO of the reasons for the rejection or non-acceptance and provide the following information: **(T-3)**

2.1.1.16.4.1. Document inspection results, including all discrepancies, whether they are critical, major or minor.

2.1.1.16.4.2. Detailed description of the discrepancies and a recommendation regarding whether the contractor should be permitted to submit another article for inspection (considering cost and schedule). If failure appears to be due to incorrect, inadequate, or incomplete government data, then this fact should be stated. Deficiencies in the technical data package must be corrected before further attempts are made to procure the item. **(T-3)**.

2.1.1.16.4.3. An itemized listing of the actual government test and evaluation costs associated with the first article to enable the CO to determine that the costs are properly chargeable to the contractor.

2.1.1.17. Advise the CO of required changes if the first article or PPA inspection identifies specification/drawing deficiencies or inadequacies in the contract technical

requirements. **(T-3)**. Provide corrections to the CO as soon as possible to ensure timely modifications to the contract. Inform the CO and LSE/CE of estimated impact on delivery schedule and price.

2.1.1.18. Request from the procurement activity the supplier's pertinent documentation, dimensional results, test results, laboratory and material certifications, and production sample parts. Determine if additional testing is required for completing evaluation. Provide approval of the PPA samples and accept the contract quantity only after the offered manufacturer's product samples pass all established requirements. **(T-3)**.

2.1.1.19. When using PPA, if additional, ongoing random sample production lot testing (PLT) is required, LSE/CE must as minimum provide: detailed test requirements/test plan, test characteristics to be inspected, accept/reject criteria for all required test and inspections, number of test exhibits required, sampling method and time frames for pulling the exhibits. **(T-3)**.

2.1.1.20. If appropriate, tailor PPA requirements based on engineering decision and risk management. The PPA requirements may include 100% verification of all design characteristics and technical data package requirements, or a PPA could be partial indicating verification of less than 100% of all requirements.

2.1.1.21. Determine all AF PPA requirements, for items managed by the AF or DLA, using Aerospace Standard SAE AS9145. **(T-3)**.

2.1.1.22. When appropriate, determine requirements for specialized service FFF testing and other types of testing (including but not limited to nondestructive testing, electrical testing, materials testing, chemical testing, physical testing, and compatibility) to complement or replace other types of post award verification such as FAT or PPA. Requirements should include location and method of the testing.

2.1.1.23. Samples that could be made compliant with rework may be conditionally approved. Rework may be performed by the Air Force. Funding for the expense of rework will be negotiated with the procurement activity prior to execution of the rework. **(T-3)**. All quantities delivered to satisfy the contract must be modified by the manufacturer per AF instructions.

2.1.1.24. When technically feasible and cost effective, update the parts technical data package using pertinent data derived from past specialized testing to reduce the need for specialized testing.

2.1.1.25. Receive the test report from the manufacturer, government test facility or DLA after testing is complete and evaluate it to determine if the item meets the verification requirements. Send a notice of technical determination to the contracting officer. If the technical determination is Conditional Approval or Disapproval, include a detailed explanation for the determination. **(T-3)**.

2.1.1.26. Report all occurrences of suspected and confirmed counterfeit material to appropriate authorities in accordance with AFI23-101, *Air Force Materiel Management*. **(T-3)**.

2.1.1.27. Submit a monthly test status report for all pending post award verification. Reports will be submitted to AFMC centers-EN workflow. **(T-3)**. Include the following information:

2.1.1.27.1. Number of calendar days spent in each of the following states: Awaiting Test, Testing, Awaiting Report, and Evaluating Report. Report should include number of days in the current state for Work In Process (WIP).

2.1.1.27.2. Original estimated cost of government testing/inspection evaluation.

2.1.1.27.3. Breakdown of actual government costs incurred in each of the following states: Testing and Evaluating Report. Report should only include actual cost information for completed states.

2.1.1.28. Develop a Corrective Action Plan (CAP) for any FAT/PPA/FFF/other testing response that is pending over 60 calendar days. **(T-3)**. CAPs shall be documented on AF Form 1768, Staff Summary Sheet and approved by the Program Manager (PM) (for AFLCMC Organizations) or by the group Director or Vice Director (for 448 SCMW organizations). **(T-3)**. Testing responses pending over 120 calendar days require Program Executive Officer (PEO) coordination (for AFLCMC Organizations) or Wing Commander or Vice Commander coordination (for 448 SCMW organizations). **(T-3)**. CAPs will be submitted to AFMC centers-EN workflow. **(T-3)**.

2.1.1.29. CAPs for FAT/PPA/FFF/other testing shall include the following elements: problem definition, immediate fix, root cause, corrective action, and verification of effectiveness. **(T-3)**. The CAP must provide a firm completion date. **(T-3)**. A problem definition identifies what went wrong, failures, and consequences. An immediate fix identifies the activities that will address the problem so testing can proceed to completion. The root cause identifies the underlying source of the delays and explains why the problem occurred. A corrective action is what will be implemented to eliminate the root cause. Verification of effectiveness explains how the elimination of the root cause will be monitored going forward to confirm the problem does not recur and cause delays on future FAT/PPA/FFF/other testing.

2.1.2. **Systems Engineering Authority.** PRs valued at \$25,000 or less, which specify first article inspection, will be evaluated and the need for first article will be validated by an engineering authority at least one level higher than the requesting LSE/CE. First article inspection shall not be requested when the first article is the only deliverable item of its type on the PR. **(T-3)**.

2.1.3. **AFMC/A4/10-EN.** AFMC/A4/10-EN will standardize reporting and communication processes to ensure effective management of FAT, PPA, Specialized FFF or other testing.

2.1.3.1. Develop and publish standard monthly test status report templates.

2.1.3.1.1. Ensure reports capture government costs incurred in the Testing and Evaluating Report states, including engineering support hours.

2.1.3.1.2. Ensure reports demonstrate positive control of exhibits.

2.1.3.2. Develop and publish standard CAP templates.

2.1.3.3. Designate a repository to collect and disseminate monthly test status reports and CAPs.

2.1.3.4. Ensure that FAT/PPA/FFF testing requirements are being stored in PRPS.

2.1.3.5. Review CAPs and monthly test status reports and provide summary reporting to AFMC leadership.

**2.2. Contracting Responsibilities.** Function as the focal point for post award part verification as follows:

2.2.1. When PRs are received which identify first article inspection requirements, incorporate appropriate requirements and clauses (as specified in FAR Subparts 9.306 and 9.308) in solicitations and contracts. **(T-0).**

2.2.2. When contractor testing is designated, determine whether Alternate I and/or Alternate II of FAR Subpart 52.209-3 are applicable based on a review of contractor records and ensure appropriate contract administration delegations have been included. **(T-0).**

2.2.3. Provide a copy of all contracts/modifications containing post award part verification and approval requirements (and all pertinent correspondence) to the LSE/CE, at the same time they are sent to the contractor.

2.2.4. Notify the contractor and Contract Administration Office upon receipt of the LSE/CE's notification of approval, conditional approval or rejection. Include authorization to begin production with the approval notification, when applicable. When conditional approval is authorized, identify the deficiencies which must be corrected before delivery of production items. When the first article or sample has been rejected with approval for resubmission, indicate the reason for rejection, desired schedule for resubmission, and the estimated additional cost to the government for additional testing. When resubmission is authorized, the CO should require an equitable reduction of contract price for any change of the delivery schedule and additional testing/approval costs. When the first article or sample has been rejected without approval for resubmission, send the reasons for rejection with the notification of possible termination action. Unless otherwise provided for in the contract, removal and disposition of an item failing post award part verification is at the contractor's expense. Unless otherwise specified in the contract, require the contractor to provide disposition instructions for failed items within 21 calendar days after notification of test failure. Forward these disposition instructions to the item/system manager or first article manager and distribution or supply activity.

2.2.5. Ensure reasonable delivery dates are negotiated and that proper consideration is received from the contractor if the first articles / samples or contractor prepared test reports are delinquent.

2.2.6. Manage all post award part verification contracts; monitor all first article / sample delivery/inspection schedules, and follow up on all delinquencies. Use bimonthly ADIS reports to track each first article contract delivery requirement and update to reflect any changes in contract delivery schedules. Notify the LSE/CE when first articles / samples or test reports will not be delivered according to the terms of the contract.

2.2.7. Maintain a list of all post award part verification contracts and appropriate management information (such as contract number, delivery dates, testing schedule, special inspection requirements, etc.). Listing should be maintained at an appropriate level within the organization to ensure effective tracking and contract administration.

2.2.8. Enter appropriate code in the J041 first article indicator field to facilitate management of delivery/inspection requirements. See AFMCMAN 64-104 Volume 4, *Acquisition and Due-in System*, Chapter 5, *Post-Award Contract (Including Category II Contracts & Category I PR/MIPR Award Document) Processing*.

2.2.9. When post award verification submission is waived, ensure the following requirements are included in the contract:

2.2.9.1. The contractor will submit a signed warrant stating that all lots of product/items/parts shipped to the Government will meet all specified contract requirements.

2.2.9.2. The contractor will retain and submit to the Government upon request: part samples certifications, documentation with dimensional testing results, and any other testing documentation, completed by the contractor before or during the initial stage of production for verification of requirements.

2.2.10. For PRs valued at \$25,000 or less, which specify first article inspection, ensure that the need for first article inspection was validated by an engineering authority at least one level higher than the requesting LSE/CE.

**2.3. Distribution and Supply Responsibilities.** Establish procedures to ensure control over the receipt and processing of first article / sample items. Include the following requirements:

2.3.1. Expedite delivery of the items to the appropriate location as determined by engineering.

2.3.2. Notify the CO and LSE/CE when first articles / samples are returned from the inspection activity. Process items for storage or return to the contractor as directed by the CO.

2.3.3. Process serviceable items (condition code "A") to accountable records after receipt from the inspection organization. Unserviceable items (condition code "J") will be processed for release via shipment to the contractor after direction is provided by the CO.

2.3.4. First article / sample items will be maintained under positive control and shipped via traceable means.

**2.4. Maintenance and Inspection Facilities Responsibilities:**

2.4.1. Provide technical support, to include FAT and FFF testing to support post award part verification and approval, when requested.

2.4.2. Immediately notify the LSE/CE and CO if difficulties or delays are expected to prevent completion of post award part verification testing according to the established schedule, and provide expected completion date.

2.4.3. When test exhibits are required for government testing the government test facility will receive the exhibits and securely store and track the exhibits. Contract exhibits will be segregated from exhibits for other contracts and from operational stock to prevent the mingling of material.

2.4.4. Disposition of successful specialized testing samples. When a sample meets the requirements established by the engineering authority after integration into the system, it may be in the best interest of the government to leave the sample in place rather than extract sample from the system. When the sample is left in place, the Air Force will reimburse the procuring activity the published unit price for the sample, and treat the part as a delivered part using the procurement activity processes.

2.4.5. Disposition of unsuccessful specialized test samples. When a sample fails to meet performance requirements when integrated into the system, the testing organization or the responsible engineering authority will document the reason for failure and inform the contracting activity for notification of the manufacturer. Failed samples shall be indelibly marked as failed samples and returned to the manufacturer. **(T-3)**.

2.5. **Safety Office.** Provide technical support to post award part verification and approval to ensure compliance with established safety and operational requirements. **(T-3)**.

**3. Process Overview.** There are three top-level phases in the post award part verification and approval process.

### 3.1. Process Phases.

3.1.1. Pre-Solicitation. The Pre-Solicitation phase begins when a buy requirement is received through PRPS or a DLA Form 339 and ends when the methods of product verification have been identified and documented in a current validated technical data package (TDP).

3.1.2. Solicitation. The Solicitation phase begins when the validated TDP, including product verification documentation, is communicated to the procuring activity for inclusion, as appropriate, in the solicitation. The Solicitation phase ends with evaluation of bids.

3.1.3. Post Contract Award. The Post Contract Award phase begins with contract award and ends with the acceptance of compliant product from the manufacturer. Depending on whether testing will be performed by the contractor or the government, there are several possible states within this phase.

3.1.3.1. Awaiting Exhibits. The period after contract award until exhibits are delivered to the government (when testing is done by the government).

3.1.3.2. Awaiting Test. The period after exhibits are delivered and before testing has begun (when testing is done by the government).

3.1.3.3. Testing. The period of the actual test (when testing is done by the government).

3.1.3.4. Awaiting Report. The period after testing is complete and before the test report is available, when testing is done by the government. When testing is done by the contractor, the period from contract award until delivery of the test report.

3.1.3.5. Evaluating Report. The period after delivery of the test report to the program office LSE/CE and before the LSE/CE has made a technical determination. If technical determination is Disapproval, the process will revert back to Awaiting Exhibits or Awaiting Report as appropriate (unless disapproval results in contract termination).

3.2. **Process Management.** Each AFMC center or location responsible for post award verification will track the progress of the process from delivery of exhibits until final disposition of exhibits (when testing is performed by the government) or from delivery of test report until the LSE/CE makes a technical determination (when testing is done by the contractor). **(T-3).**

3.2.1. Monthly test status reports will identify the current status of the post award verification process.

3.2.1.1. Report will include time spent (measured in calendar days) in each of the following states: Awaiting Test, Testing, Awaiting Report, and Evaluating Report. Include time spent in the current state for WIP.

3.2.1.2. Report will include estimated government costs to be incurred in each of the following states: Testing and Evaluating Report.

3.2.1.3. Report will include actual government costs incurred in each of the following states: Testing and Evaluating Report. Report should only include actual cost information for completed states.

3.2.2. Corrective Action Plans will be used to address any evaluation that has exceeded the 60/120 calendar day thresholds.

STACEY T. HAWKINS, Major General, USAF  
Director of Logistics, Civil Engineering, Force  
Protection, and Nuclear Integration



**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

ANSI/ASQ Z1.4-2003—*Sampling Procedures and Tables for Inspection and Attributes*

AFI 23-101, *Air Force Materiel Management*, 5 December 2016

AFI 33-322, *Records Management and Information Governance Program*, 23 Mar 2020

AFI 33-360, *Publications and Forms Management*, 1 December 2015

AFI 63-101/20-101, *Integrated Life Cycle Management*, 9 May 2017

AFI 63-145, *Manufacturing and Quality Management*, 30 September 2016

AFMCI 20-102, *Requirements Definition and Purchase Instrument Development*, 11 July 2013

AFMCI 63-1201, *Implementing Operational Safety, Suitability, and Effectiveness (OSS&E) and Life Cycle Systems Engineering (LCSE)*, 28 March 2017

AFMCMAN64-104 Volume 1, *Acquisition and Due-in System (ADIS)*, 27 December 2016

AFMCMAN64-104 Volume 4, *Acquisition and Due-in System (ADIS)*, 9 August 2018

AFPD 23-1, *Supply Chain Materiel Management*, 7 September 2018

AFPD 64-1, *The Contracting System*, 6 November 2018

DoD Directive 5000.01, *The Defense Acquisition System*, Certified Current as of 20 November 2007

DoD Instruction 5000.02, *Operation of the Defense Acquisition System*, 7 January 2015

*Defense Federal Acquisition Regulation Supplement*

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SAE AS6500, *Manufacturing Management Program*, November 2014

SAE AS9100, *Quality Management Systems - Requirements for Aviation, Space and Defense Organizations*, September 2016

SAE AS9102, *Aerospace First Article Inspection Requirement*, October 2014

SAE AS9103, *Aerospace Variation Management of Key Characteristics*, August 2012

SAE AS9145, *Requirements for Advanced Product Quality Planning and Production Part Approval Process*, November 2016

***Prescribed Forms***

AFMC Form 260, *First Article Requirements*

***Adopted Forms***

AFMC Form 761, *AMC/AMSC Screening Analysis Worksheet*

AFMC Form 807, *Recommended Quality Assurance Provisions and Special Inspection Requirements*

AF Form 847, *Recommendation for Change of Publication*

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFMC**—Air Force Materiel Command

**AFMCI**—Air Force Materiel Command Instruction

**AFRIMS**—Air Force Records Information Management System

**AFPD**—Air Force Policy Directive

**AMC**—Acquisition Method Code

**AMSC**—Acquisition Method Suffix Code

**AOG**—Aircraft On Ground

**CO**—Contracting Officer

**DCMA**—Defense Contract Management Agency

**DFARS**—Department of Defense FAR Supplement

**DoD**—Department of Defense

**ESA**—Engineering Support Activity

**FAR**—Federal Acquisition Regulation

**FAT**—First Article Testing

**FFF**—Form, Fit, and Function

**IAW**—In Accordance With

**LCSE**—Life Cycle Systems Engineering

**LSE/CE**—Lead Systems Engineer / Chief Engineer

**MICAP**—Mission Impaired Capability Awaiting Parts

**MIPR**—Military Interdepartmental Purchase Request

**MOA**—Memorandum of Agreement

**NIIN**—National Item Identification Number

**NMCS**—Non Mission Capable, Supply

**NSN**—National Stock Number

**OSS&E**—Operational Safety, Suitability and Effectiveness

**PDM**—Programmed Depot Maintenance

**PLT**—Production Lot Testing

**PM**—Program Manager

**PPA**—Production Part Approval

**PRPS**—Purchase Request Process System

**QALI**—Quality Assurance Letter of Instruction

**QAR**—Quality Assurance Representative

**SAE AS**—Society of Automotive Engineers International Aerospace Standard

**TDP**—Technical Data Package

### *Terms*

**First Article**—Pre-production model, initial product sample, test sample, first lot, or pilot lot, or pilot models.

**First Article Testing**—Testing and evaluating the first article for conformance with specified contract requirements before or in the initial stage of production. First Article Testing does not necessarily assess manufacturing processes and controls nor does it assure the effectiveness of a supplier's quality system. First Article Testing is not synonymous with qualification testing.

**Inspection**—Evaluation by observation and judgment accompanied as appropriate by measurement, testing or gauging to assess the conformance of supplies and services to contract requirements.

**Lead Engineer (LE)**—Supports the Lead Systems Engineer / Chief Engineer (LSE/CE) with responsibility for implementing systems engineering technical processes for commodities, subsystems, or end items. Responsible for implementing OSS&E and systems engineering technical processes for subsystems or end items.

**Lead Systems Engineer/Chief Engineer (LSE/CE)**—The senior (having precedence in making decisions) responsible engineer in a program office. The LSE/CE, with Lead Engineer (LE) support, is the primary program Engineering/Technical Authority responsible for establishing, implementing, managing and controlling life cycle systems engineering (LCSE) activities necessary to develop and field robust products and systems that exhibit attributes of systems security, OSS&E and mission assurance.

**Operational Effectiveness**—The overall degree of mission accomplishment of a system or end item used by representative personnel in the environment planned or expected (e.g., natural, electronic, threat) for operational employment, considering organization, doctrine, tactics, cybersecurity, force protection, survivability, vulnerability, and threat (including countermeasures; initial nuclear weapons effects; and nuclear, biological, and chemical contamination threats). The PM maintains the operational effectiveness of the system by ensuring that it continues to satisfy the documented user capability requirements.

**Operational Safety**—The level of safety risk to the system, the environment, and the occupational health caused by a system or end item when employed in an operational environment. The PM shall utilize the established system safety process to assure operational safety.

**Operational Suitability**—The degree to which a system or end item can be placed satisfactorily in field use, with consideration given to availability, compatibility, transportability, interoperability, reliability, maintainability, wartime use rates, full-dimension protection, operational safety, human factors, architectural and infrastructure compliance, manpower supportability, logistics supportability, natural environmental effects and impacts, and documentation and training requirements.

**Production Part Approval**—Tests and examinations performed on items randomly selected from a contract, production line, or inventory to verify the items fully conform to all applicable requirements and are suitable for use. Production Part Approval may be performed by the Government, at a Government designated testing laboratory or facility, or by the contractor as established in the contract.

**Product Verification**—See inspection.

**Quality**—The degree to which material attributes, performance features, and characteristics of a product satisfy a given need. Quality may apply to a product, process, or system and may be physical, sensory, behavioral, temporal, ergonomic, or functional.

**Quality Assurance (QA)**—That part of quality management focused on providing confidence that quality requirements will be fulfilled. (ISO 9000:2015 and Defense Acquisition Guidebook)

**Quality Management**—The coordinated activities to direct and control an organization with regard to quality policy, quality objectives, quality planning, quality control, quality assurance and quality improvement. (ISO 9000:2015)

**Verification**—Confirmation through the provision of objective evidence that specified requirements have been fulfilled.