ORIENTATION ON
FIRST ARTICLE TESTING (FAT)
(CONTRACTOR TESTING)

Aviation and Missile Center (AvMC)
Systems Readiness Directorate (SRD)
Sustainment Division

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INTRODUCTION

This document is provided as an orientation to familiarize the Contractor with the purpose and scope of the First Article Test, Contractor Tested, as performed on this contract. It provides a detailed review of the processes, controls, and procedures described in the first article approval clause of the contract, FAR 52.209-3. Moreover, it is provided for informational purposes only and is not part of the terms and/or conditions of the contract. The contents of this orientation document shall not be construed or interpreted as direction to perform tasks, work, or labor which could result in a monetary charge to the U.S. Government. Additionally, the contents of this document shall not be used as direction to modify any existing contract between vendors and the U.S. Government. For questions regarding contracts and changes to contracts, consult your contracting officer. The contracting officer is the approving authority for all matters related to contracts.

TESTING

The purpose of the first article test and approval process are to assure that the Contractor has the capability to manufacture a product that conforms to all contract requirements. Per FAR 52.209-3, participation in the FAT is an option available to the Government. It is imperative that the local Defense Contract Management Agency (DCMA) Quality Assurance Representative (QAR) participate in the test, whether or not other government representatives attend. The on-site test participants should communicate expectations for the First Article Test Report (FATR), possibly preventing delays in approval.

The FAT normally begins with a meeting between all cognizant government and contractor personnel. The purpose of this meeting is to review the scope of the FAT and to agree upon the manner in which it will be conducted. A contractor representative is normally designated as a focal point of contact for government participants to coordinate actions and to obtain authoritative responses to issues that may arise. Prior to the meeting, a thorough review of the procurement package is completed to determine the technical scope involved and to ensure that participating personnel are intimately familiar with overall requirements. Additional meetings are held as often as necessary, and a final critique is conducted upon completion of the test. The

FAT process will **neither exceed nor modify** the contract requirements in any way. Any contract modifications, if required, will be through the Contracting Officer.

The test of the first article candidate is the responsibility of the Contractor; however, the government representatives may, at their option, perform any of the required inspections and/or tests with assistance from any specially trained Contractor personnel necessary to operate unique or complex special inspection and test equipment. The on-site FAT consists of, but is not limited to, a thorough examination of certifications; employee training records (where certifications are required); material; processes, procedures; item characteristics; manufacturing, inspection and test equipment calibration records; dimensions; marking; preservation, packaging, packing operations; and special and/or functional testing, necessary to assure compliance. This information should be included in the FATR. The Contractor is responsible for providing the facilities and test equipment and any additional administrative or technical support personnel necessary to assist in conducting the FAT. The product of this process is the FATR, which must include all of the information required by the contract. The importance of the test report cannot be underestimated, as it is the deliverable which forms the basis of acceptability of the FAT, notwithstanding the observations of government representatives while on-site. Any questions related to the content of the FATR may be submitted to the Government though the contracting officer. Deficiencies are defined as any nonconformance or departure from any contractually required material; physical, operational, functional, or special characteristics; processes; and/or procedures. To increase the likelihood of a successful first-time submission of the FATR, the Contractor may request a courtesy review of the draft report by the government Quality Assurance Specialist (QAS) prior to formal submission to identify any possible causes for eventual rejection (A list of common causes for FATR rejection is provided below). This is <u>not</u> a guarantee that the FATR will be accepted; it is only a courtesy offered to increase that likelihood. Please note that if the procured item is highly complex (e.g., an engine transmission) and performing a courtesy review could significantly extend the length of the FAT visit, time for a complete courtesy review may not be permitted.

Upon completion of the FAT, an exit brief will be conducted on-site. Findings and/or results of the FAT will be discussed and differences resolved. As the FATR is a contractual line item with inspection at origin, the test report must be annotated by the DCMA QAR recommending approval/disapproval. The Contractor will finalize the report and forward it through the Administrative Contracting Officer (ACO) to the Procurement Contracting Officer (PCO) who will provide it to the SRD for review. In the event that a FATR is disapproved, another FAT may be scheduled depending on the number and complexity of the issues involved. Any second FAT should be scheduled after the Contractor has implemented the appropriate actions to determine the cause of the nonconformance, taken required corrective actions, and presented a reworked or replacement first article test piece. With PCO concurrence, it is appropriate to contact the QAS to seek clarity on FAT findings, but all official FAT/FATR corrective actions must be routed through the DCMA QAR to the PCO. Purchase of materials, components, and /or commencement of production for the balance of the contract quantity is at the sole risk of the Contractor unless the PCO grants specific written authorization (see paragraph (g) of FAR 52-209-3 Alt 2).

SUMMARY

There may be variations in the basic guidance presented herein, based on the peculiarities of specific products. The FAT is a thorough assessment to determine the ability of the Contractor to produce conforming material on a repetitive basis and to ascertain the adherence to product specifications and adequacy of operational requirements. When fully supported by contractor and government personnel, FATs play an extremely important role in the overall objective to provide quality materiel to the Warfighter.

COMMON CAUSES OF FATR REJECTIONS

No indication of DCMA participation in first article testing process (e.g., missing DD Form 1222 and/or DD Form 250)

No evidence that contractor has a quality program as required by contract. (FAR 52.246-11)

Missing material/process certifications

Lack of traceability for material process/certifications showing requirements are flowed to subcontractors

Missing special process certifications for personnel (e.g., NDT, welding)

Wrong material used

A 100% dimensional characteristics check taken during first article test in-process and final inspections not recorded on appropriate documentation

No part marking or bar code label verification

Packaging/packing requirements not verified

Functional test not performed/documented as required

Lack of required calibration data

No certification the first article and production quantity will be produced in the same facility

Non-conforming characteristics not approved under waiver/deviation process

Lack of traceability for material process/certifications showing requirements are flowed to subcontractors