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MILITARY STANDARD

VENDOR SUBSTANTIATION FOR AEROSPACE PROPULSION SYSTEM ITEMS

FSC 2840

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DEPARTMENT OF THE AIR FORCE

Vendor Substantiation for Aerospace Propulsion System Items

MIL-STD-1529 (USAF)

1. This Military Standard has been approved for use by activities under the cognizance of the Air Force effective as of date of issue.

2. Recommended corrections, additions, or deletions should be addressed to the 4950th Test Wing (TZSA), Wright-Patterson Air Force Base, Ohio 45433.

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FOREWORD

Aerospace propulsion system items must be produced to exceptionally high standards due to the critical function of the system. Initial qualification establishes the acceptability of the item qualified and the producer of the specific item qualified. Over a period of time, new producers of items will be needed for one reason or another. Steps must be taken to make certain that subsequent producers are qualified to produce the items. It is intended that the criteria provided herein will aid in the achievement of this goal.

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VENDOR SUBSTANTIATION FOR AEROSPACE PROPULSION SYSTEM ITEMS

1. SCOPE AND PURPOSE

1.1 Scope. Initial qualification tests serve the dual purpose of establishing qualification approval of both the design of an aerospace propulsion system and the fabrication sources of propulsion system items. However, such approval applies only to those fabrication sources whose items were represented in the specific aerospace propulsion system which satisfactorily passed the qualification tests. Substantiation tests have the single objective of proving the ability of an alternate source to process, fabricate, and manufacture aerospace propulsion system items which are at least equal in quality to those items on the latest or current production aerospace propulsion system.

1.2 Purpose. The purpose of this standard is to establish a requirement for and prescribe the procedure by which substantiation tests will be conducted for aerospace propulsion system items manufactured by fabrication sources not represented in the specific aerospace propulsion system which passed the aerospace propulsion system qualification tests.

2. REFERENCED DOCUMENTS (Not applicable)

3. DEFINITIONS

3.1 Qualification tests. Qualification tests are those tests performed on aerospace propulsion systems and aerospace propulsion system items to determine qualification as a satisfactory product.

3.2 Vendor substantiation. Vendor tests are those tests performed on aerospace propulsion system items and checks on manufacturing capability necessary to establish satisfactory alternate fabrication sources. Substantiation tests include, but are not limited to, those tests required by applicable Government and aerospace propulsion system manufacturers' specifications.

3.3 Fabrication source. The fabrication source is the prime physical source that produces an aerospace propulsion system item. This source includes any producer, vendor, manufacturer, contractor, or subcontractor who performs operations or processes such as assembling, machining, forging, rolling, drawing, forming, casting, plating, heat treating, and manufacture of items. Changes of fabrication location, such as to another plant of an individual supplier, shall be construed as a change of fabrication source.

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3.4 Vendor substantiation data. Vendor substantiation data is information that describes all phases of the specific tests and production requirements which the prime aerospace propulsion system manufacturer designates as necessary to qualify fabrication sources.

4. GENERAL REQUIREMENTS

4.1 Prime contractor list. For each aerospace propulsion system model, the prime aerospace propulsion system contractor shall maintain a current listing of system items and a corresponding listing of qualified fabrication sources. These listings shall be subject to the scrutiny of the local Government representative and the procuring activity to insure their completeness and adequacy. The specific substantiation test data required to qualify new fabrication sources for these items shall be developed and shall be delivered on an as-required basis for unrestricted use by the Government.

4.2 Responsibility for control of tests. The prime responsibility for effective control of all fabrication sources and changes in these sources shall rest with the prime aerospace propulsion system contractor during the period of performance for any contract which incorporates this document. The Government reserves the right to qualify alternate fabrication sources for spare parts procurement or to require the prime aerospace propulsion system contractor to conduct specific substantiation tests when deemed to be in the best interest of the Government. The prime aerospace propulsion system contractor will be advised of any fabricator approved by the Government so that he will be able to maintain a list of qualified fabricators. This will not relieve the prime aerospace propulsion system contractor of his responsibility for the substantiation of other production sources.

4.3 Reasons for conducting tests. It is the intent of the Government to be sure that there is an adequate production base available to assure the availability of parts of acceptable quality and to maintain a reasonably competitive atmosphere. Substantiation tests for additional fabricators shall be conducted provided sufficient funds and facilities are available when one or more of the following occurs:

a. The current fabrication source(s) can not supply items in sufficient quantity or in a timely manner to meet actual or projected requirements

b. The qualification of additional fabrication sources will result in a net savings to the Government

c. The quality of the item(s) being produced by the currently qualified fabricator(s) becomes marginal or falls below acceptable standards.

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4.4 Cost of substantiation testing. Substantiation testing can be very expensive and care must be exercised to assure that the cost of such testing be held to a minimum consistent with the needs of a competent, viable, and reasonably competitive production base. Where possible and feasible, substantiation tests should be run in conjunction with other tests. Only in cases of extreme urgency should a substantiation test requiring the operation of an aerospace propulsion system be run solely to qualify a new fabricator. Substantiation testing conducted solely at the request of a potential fabricator will be paid for by the potential fabricator. Since most substantiation testing will be conducted in conjunction with other tests, only a pro-rata share as agreed to prior to the testing will be charged to the potential fabricator.

5. DETAIL REQUIREMENTS (Not applicable).

Custodian:
Air Force - 11

Review Activities:
Air Force - 12, 16, 71, 82

Preparing activity:
Air Force - 11

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SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity *(as indicated on reverse hereof)*.

SPECIFICATION

ORGANIZATION *(Of submitter)*

CITY AND STATE

CONTRACT NO.

QUANTITY OF ITEMS PROCURED

DOLLAR AMOUNT
$

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

☐ YES ☐ NO IF "YES", IN WHAT WAY?

4. REMARKS *(Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)*

SUBMITTED BY *(Printed or typed name and activity)*

DATE

DD FORM 1 APR 63 1426 REPLACES NAVSHIPS FORM 4863, WHICH IS OBSOLETE PLATE NO. 15419