

MANUFACTURE QUALIFICATION REQUIREMENTS (MQR) FOR PROPULSION CRITICAL SAFETY ITEMS (CSI) & CRITICAL APPLICATION ITEMS (CAI)

WARNING: This Qualification Requirement (QR) does not apply to any items with an Acquisition Method Suffix Code (AMSC) of G, A, B, H, L, U or Y. [REDACTED] Engineering Support Activity (ESA) must obtain a waiver for these items, except for G coded items, from the appropriate authorization office, AFLCMC/LPS or AFS/PK, depending upon the item criticality.

1. **APPLICATION.** This QR applies to CSI and CAI with an AMSC code of C, D, K, M, N, P, Q, R, S, V and Z. This QR does not apply to items with an AMSC of G, A, B, H, L, U and Y.

1.1. The intent of this QR is to meet the Operational Safety, Suitability and Effectiveness (OSS&E) requirement, while maximizing competition and complying with AFMCI 23-113, Pre-Award Qualification of New or Additional Parts Sources and the Use of the Source Approval Request (SAR) and the Joint Aeronautical Commander's Group Aviation Sources Approval and Management (SAM) Handbook.

1.2. This QR sets Qualification Waiver, SAR and Source Resubstantiation Request (SRR) requirements.

2. **SCOPE.**

2.1. This QR establishes the minimum technical requirements, which Potential Sources (PS) must satisfy in order to obtain ESA approval to manufacture propulsion items for the specific applications.

2.2. The PS may qualify for a number of waivers. The waiver conditions are defined in section 7. PS should submit a waiver request when one of the waiver conditions applies.

2.3. If the PS does not qualify for any of the waivers, then the PS must submit a SAR package. The SAR requirements are defined in section 8.

2.4. Approved sources shall submit SRR packages prior to expiration of the current approval period or when any significant changes to ownership, address, process sequence, process parameters, technical data, Sub-Tier Supplier (STS) and/or significant quality deficiencies occur. The re-substantiation requirements are defined in section 9.

2.4.1. Significant changes, as defined in FAR 9.207, or unresolved quality deficiencies may result in additional testing, or revocation of source approval status, depending on the nature and extent of the changes and/or quality deficiencies.

2.4.2. If an SRR is not submitted prior to the expiration date or after significant changes have occurred, the associated CAGE shall be removed from the approved sources listing.

2.5. ESA source approval expiration is defined in section 12.

3. CONTRACTOR RESPONSIBILITY STANDARDS (FAR 9.104).

- 3.1. PS must submit a complete waiver request or SAR data package as defined per the category selected.
- 3.2. General standards as specified in FAR 9.104-1 apply.
- 3.3. Special standards as specified in FAR 9.104-2 apply.
- 3.4. Certification Regarding Responsibility Matters as specified in FAR 9.105-1 apply.
- 3.5. Qualifications Requirements as specified in FAR 9.2 apply.
- 3.6. Higher-Level Contract Quality Requirement as specified in FAR 52.246-11 apply.

4. POTENTIAL SOURCE SUBMITTAL DETERMINATION.

4.1. The forecasts contained on Requirement Projections on the Web (RPOW) may or may not generate due to variability in customer demands and priorities. The forecast data is for planning purposes only and does not constitute an invitation for bid or request for proposal and is not a commitment by the government to purchase the described items.

4.2. The PS should consider submitting a SAR package for evaluation after considering the following:

4.2.1. Has the United States Air Force (USAF) listed a requirement in the Federal Business Opportunities (FEDBIZOPPs) at www.fbo.gov or RPOW at <http://rpow.wpafb.af.mil/>?

4.2.2. Has the procurement history for the item been researched and determined to be active?

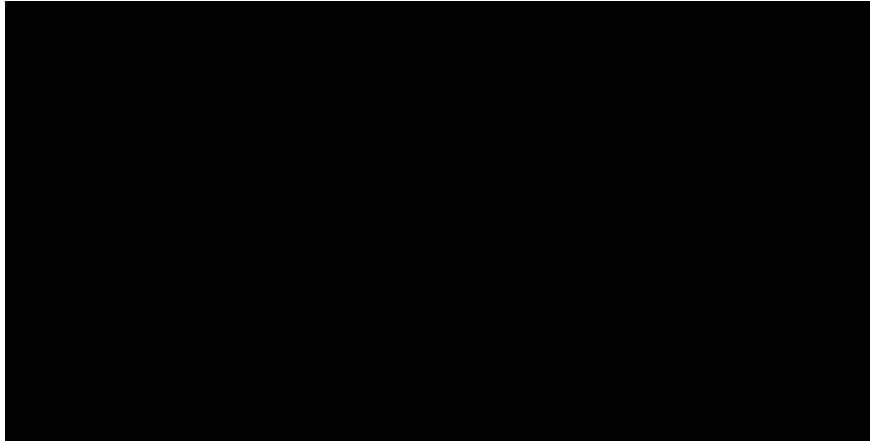
4.2.3. Has the PS established that they can conduct business with the Government?

4.3. Technical Data Request.

4.3.1. Requests Related to Procurement Announcements. Request should be submitted to the announcing Contracting Officer and specify the solicitation, specific drawing(s) and specification(s) for verification and authorization of requested data on company letter head. The PS must provide an approved DD Form 2345.

4.3.2. Requests Related to SAR Package Approval –The PS must provide a justification letter identifying specific drawing(s) and specification(s) on company letter head to the Tinker Engineering Drawing Public Sales. The PS must provide an approved DD Form 2345.

4.3.2.1. SAR Data Request can be submitted via Mail to:



nd at
n be found at

5. SAR, WAIVER, OR RE-SUBSTANTIATION FORMAT. All financial data must be redacted from all documents submitted.

5.1. SAR(s), WAIVER(s), OR RE-SUBSTANTIATION(s) packages can be submitted in one of three ways:

5.1.1. The packages can be submitted in a 3 ring binder. The three-ring binder or a similar product will contain a table of contents and 21 A-U element tabs. This will significantly reduce the turn-around time for engineering evaluation as well as reduce the likelihood of oversight or loss of valuable data that could have a significant bearing on the outcome of the evaluation.

5.1.2. The package can be submitted on a Compact Disc (CD) in a .pdf file format. The package can be a single .pdf file with index to each element or a series of folders for each element.

5.1.3. The package can be a combination of the physical paper and CD with .pdf files.

5.2. The documentation should follow the MQR call out order. Quality Manual and supporting documentation can be submitted on a CD in .pdf file format. All CDs should be scanned for viruses prior to submitting the documentation.

5.3. A table of contents is required for both physical paper and electronic submittal.

5.4. Each package will have the required tabs. If an element is not required by the category selected, it must be labeled and the PS must state that the element does not apply.

6. USE OF PROPRIETARY DATA IN SOURCE APPROVAL REQUESTS. PSs are not to utilize intellectual property (IP) of any third parties without appropriate authorization of the IP owner. The PSs are cautioned that no part of the government QR is intended to endorse or

encourage the improper use of IP developed by the Original Equipment Manufacturer (OEM) or any other third party.

7. QUALIFICATION WAIVER REQUIREMENTS. Waiver elements are listed in Table 1 and defined in section 8.

7.1. QUALIFICATION WAIVER REQUEST DETERMINATION. The PS may apply for a waiver for all or part of the qualification requirements, if any of the following Source Qualification Waiver Criteria (QWC) apply.

7.1.1. QWC1: The PS submits written certification that the articles have been supplied to the government or original equipment manufacturer (e.g., DD Form 250, Material Inspection and Receiving Report, Purchase Order invoice, e.g.). This waiver condition will be used to meet the AFI 20-106 waiver conditions.

7.1.2. QWC2: The PS is qualified on the right-hand article and requests to be qualified on the left-hand article. If the right-hand and left-hand articles are mirror images of each other, then approval can generally be given.

7.1.3. QWC3: A source qualified to provide an assembly is usually qualified to provide subassemblies, major components and items of that assembly. Applies only if all the manufacturing or repair for subcomponents is conducted in-house and elements G, H, K, L and M were provided during the qualification of the assembly.

7.1.4. QWC4: A source qualified to provide earlier dash numbers of a basic P/N may be qualified to provide other dash numbers of that same basic P/N, provided there is no increase in complexity, criticality or other relevant requirements.

7.1.5. QWC5: Does not Apply, PS must submit SAR CAT II.

7.1.6. QWC6: A previously qualified source, which has been purchased, sold, merged, absorbed, reformed, split, etc., may qualify, if it can be established that the qualification is currently with the PS and that the PS has the same or equivalent facilities, tooling, equipment, personnel and utilizes the original forging, castings, etc., in the manufacturing process.

7.1.7. QWC7: Other.

7.1.7.1. The PS will provide a cover letter detailing the specifics of how the waiver category applies.

7.1.7.2. SBO will forward the request to the ESA, who will determine if the QWC7 applies. If it is determined that the QWC7 applies, the ESA will specify the elements required for the waiver and the submitter will provide the required data.

7.1.8. If the waiver is granted and the offeror is awarded a contract, the offeror may be required to undergo First Article Testing (FAT) to verify production capability.

7.2. QUALIFICATION WAIVER REQUEST (QWR) REQUIREMENTS. QWC elements are listed in Table 1 and defined in section 8. The CSI production documentation will be frozen, after the ESA has granted approval or after the FAT is completed, if required.

Element	Title	Qualification Waiver Criteria						
		1	2	3	4	6	7	
A	Cover Letter	■	■	■	■	■	■	
B	Technical Data Rights Certification Statement, if required	■	■	■	■	■	□	
C	Brochure & Correspondence (Tool List Only)	■	■	■	■	■	□	
D	Quality Assurance Documentation					■	□	
E	Subject Item Technical Data						□	
G	Sub-Tier Supplier (Sub-Vendor) Information (Frozen for CSI)	■	■	■	■	■	□	
H	Quality History	■	■	■	■	■	□	
J	Similarities/Differences of Subject/Similar Items		■		■		□	
K	Purchase Orders & Shipping Documents	■	■	■	■	■	□	
L	Process/Operations Sheets & Travelers (Frozen for CSI)	■	■	■	■	■	■	
M	Inspection Method Sheets (IMS) (Frozen for CSI)	■	■	■	■	■	■	
N	Prime Contractor's Quality Rating System Report	■				■	□	
O	License Agreement, If Applicable	■	■	■	■	■	□	
Q	Government/Prime Contractor Surveys	■			■	■	□	
T	Master Tooling Certifications	■	■	■	■	■	□	
U	Government Quality Assurance Compliance	■	■	■	■	■	□	
AA	ESA/OEM Approval Letter	■	■	■	■	■	□	
AB	Novation Letter					■	□	

Table 1. Qualification Waiver Request Requirements

8. SOURCE APPROVAL REQUEST REQUIREMENTS. SAR elements are listed in Table 2 and defined below.

8.1. SAR Categories Determination. There are three SAR categories and two formats:

8.1.1. ACTUAL ITEM (Category I). This category covers PSs who manufacture the exact (Subject) item, using OEM technical data, for the prime contractor, OEM, another service, civil agencies, foreign governments or for the civil sector under Federal Aviation Administration (FAA). Category applies to CSI and CAI. The item will be manufactured and evaluated against the ESA approved technical data.

8.1.2. SIMILAR ITEM (Category II). This category covers the PSs who have not previously manufactured the subject item, but have manufactured other items similar in complexity, design, criticality, industrial processes, materials and application for the prime contractor, OEM, another service, civil agencies, foreign governments or for the civil sector under FAA. Category applies to CSI and CAI. The item will be manufactured and evaluated against the ESA approved technical data.

8.1.3. NEW MANUFACTURER OF ITEM (Category III). This category covers the PSs, who do not meet Category I or II criteria, but have the legal access to the OEM’s technical data and intends to manufacture to the ESA approved technical data with the same part number. Category applies to CAI only, and **cannot** be used for CSI. The item will be manufactured and evaluated against the ESA approved technical data.

8.2. SAR Format Determination.

8.2.1. If multiple SAR packages are to be submitted within a one month period, then the PS can submit one Master SAR (MSAR) package and a series of SAR lite packages for each additional output NSN that is submitted.

8.2.2. MSAR Package is the same as individual SAR packages.

8.2.2.1. The MSAR must be constructed in a manner that allows for the reduction of data in SAR lites by including all part numbers or providing an enterprise point of view.

8.2.2.2. The MSAR should be the most complex of parts within the set of parts that will be submitted.

8.2.3. SAR lite packages. The SAR lite packages must be submitted within one month of the MSAR submittal.

8.2.3.1. The SAR lite package will only contain the unique part data for each additional NSN

8.2.3.2. Each SAR lite package cover letter will reference the MSAR.

		CAT I		CAT II		CAT III		Remarks
	CRITICALITY APPLICABILITY	CI		CI		CAI ONLY		CI- Critical Safety & Application Items
ELEMENT	REQUIRED ELEMENTS	M	S	M	S	M	S	M (MASTER) S (SARLITE)
A	COVER LETTER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
B	TECHNICAL DATA RIGHTS CERTIFICATION STATEMENT (CRITICAL)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Include all NSN and PN
C	BROCHURE & CORRESPONDENCE	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Submit the complete tool list
D	QUALITY ASSURANCE DOCUMENTATION * Site Survey Meets Requirement	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Only submit once for all the SARs
E	SUBJECT ITEM TECHNICAL DATA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	For all NSN and PN
F	SUBJECT ITEM SPECIFICATIONS	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	For all NSN and PN
G	SUB-TIER SUPPLIER LIST (FROZEN FOR CSI)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
H	QUALITY HISTORY	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		Include all NSN and PN
I	SIMILAR ITEM TECHNICAL DATA			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
J	SIMILARITIES/DIFFERENCES OF SUBJECT/SIMILAR ITEMS			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
K	PURCHASE ORDERS & SHIPPING DOCUMENTS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
L	TRAVELERS & PROCESS/OPERATIONS SHEETS (POS) (FROZEN FOR CSI)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
M	MANUFACTURE PROCESS SHEETS AND / OR INSPECTION METHOD SHEETS (IMS) (FROZEN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

	FOR CSI)						
N	PRIME CONTRACTOR'S QUALITY RATING SYSTEM REPORT	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Only submit once for all the SARs
O	LICENSEE AGREEMENT (IF APPLICABLE)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Include all NSN and PN
P	VALUE ADDED (BY PRIME OR OEM)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	For all NSN and PN. Only submit once for all the SARs
Q	GOVERNMENT / PRIME CONTRACTOR SURVEYS	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Submit once per CAGE
T	MASTER TOOLING CERTIFICATIONS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
U	GOVERNMENT QUALITY ASSURANCE COMPLIANCE	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	Include all NSN and PN

Table 2. Source Approval Request Requirements

8.3. Element A, Cover Letter. Provide a cover letter that includes the following information:

- Solicitation Number (if applicable):
- Contracting Officer POC (if applicable):
- Engine Type:
- Company Name:
- Company CAGE:
- Company Address:
- Company Point of Contact: (Name, phone, fax and email):
- Company Size: (Large or Small),
- Qualification Requirement Designation and Revision: (i.e. MQR-PSD-1, Rev 1)
- Qualification Waiver Criteria: (if Applicable)
- SAR: (SAR, Master SAR or SARlite (Master SAR Date: _____))
- Technical Data Proprietary: No, Yes or Partial (Select One)
- NSN(s):
- Part Number(s):
- Nomenclature:
- Type: (New or Distributor (New))
- Submittal Category: (Cat I (Subject), Cat II (Similar) or (Cat III (New Manufacturer))
- ERRC Code (if known):
- SAR Package Inventory: (Paper/Binder, CDs, Electronic or sample parts).
- Disposition: (Return to Vendor or Destroy)

8.3.1. For proprietary technical data, the PS must provide a statement that proprietary data or processes will be used and submit an ownership statement or a Licensing Agreement that conveys the rights to specifically use the data or process in element O.

8.3.2. PS must provide a statement that the contractor is willing to provide a technical briefing on the SAR package submittal to the procuring activity or ESA, if required.

8.3.3. PS must provide a disposal statement that directs the destruction/shredding of the submitted material or the return of the submitted material at their expense after the evaluation is complete.

8.3.3.1. If no disposal statement is provided, the SAR will be shredded, after the evaluation is complete.

8.3.3.2. If the SAR is to be returned, SBO will contact the cover letter POC to obtain the authorization shipping code or label to return the submitted material.

8.4. Element B, TECHNICAL DATA RIGHTS CERTIFICATION STATEMENT. The PS must provide a certification of rights to use technical data in the format provided in Appendix A, signed on company letterhead by an authorized binding company official, President, Owner or Facility General Manager. This certificate states the data was obtained by legal means and the company has the rights to use the data supplied in the SAR for manufacture purposes.

8.5. Element C, BROCHURE AND CORRESPONDENCE.

8.5.1. Provide a company brochure and website if available.

8.5.2. Provide a synopsis outlining the applicant firm's capabilities, experience, facilities including location, number of buildings and square footage.

8.5.3. Provide an equipment list. The equipment list must list equipment, the equipment's accuracy, size, capability and precision. This information should be updated as facility and facility operations change.

8.6. Element D, QUALITY ASSURANCE DOCUMENTATION. Provide a synopsis of the proposed PS's Quality Assurance System (QAS) capabilities, reporting system and its certifications.

8.6.1. Quality Assurance System (QAS)

8.6.1.1. Provide a statement that the DOD site survey approval letter with a current expiration date has been attached in Tab Q or

8.6.1.2. Provide a copy of the PS's QAS manual and all supporting/referenced documentation. A copy of the documentation may be kept by the ESA.

8.6.2. The PS's QAS must comply with the requirements as described in this document and meet one of the following, AS9100, ISO 9001:2008, NATO AQAP-2070 or equivalent. Provide a copy of the QAS certificate with a valid expiration date.

8.6.3. OEM, DOD or NADCAP approval/certification is required for all significant industrial processes. Provide a copy of special industrial process approvals and certifications for those that require third party certification as denoted by the NADCAP checklist indication in Appendix B.

8.7. Element E, SUBJECT ITEM TECHNICAL DATA. The subject item technical data may include references to materials, mandatory inspections, inspection intervals, processes and specifications.

Note: Before proprietary data is submitted, the PS should determine if the data is available (see section 4.3). If so, it should be submitted in place of the proprietary marked data, else a license agreement or ownership statement will be required in Element L.

8.7.1. For Government Technical Data.

8.7.1.1. If located within the United States or Canada, provide the PS's DD form 2345 with a valid expiration date, Engineering Data List (EDL) and the latest legible revision of all technical data required to clean, inspect, manufacture, assemble and test the subject item or a copy of the sales receipt detailing the data purchased.

8.7.1.2. If not located within the United States or Canada, provide a copy of the export control license, EDL, and the latest legible revision of all technical data required to clean, inspect, manufacture, assemble and test the subject item or a copy of the sales receipt detailing the data purchased.

8.7.2. For Proprietary Technical Data.

8.7.2.1. If proprietary data can be submitted, provide EDL and the latest legible revision of all technical data required to clean, inspect, manufacture, assemble and test for the subject item.

8.7.2.2. If proprietary data cannot be provided, submit a statement declaring that the data cannot be submitted and the licensing agreement or ownership statement that ensures the most current data will be used to perform the required work, EDL and a copy of the title page. The images may be redacted to only reveal the technical data number, title, revision and proprietary statement.

8.7.3. Provide a special tool statement detailing the tooling or tooling drawings availability, ownership, usage rights and state if the special tools will be leased, purchased or manufactured.

8.8. Element F, SUBJECT ITEM SPECIFICATIONS.

8.8.1. For Government available Subject specifications, provide:

8.8.1.1. For CAT I and III, Subject Item, provide a complete list of the applicable specifications identified on the subject item manufacture technical data and a copy of the title page of the latest revision of each specification.

8.8.1.2. For CAT II, Similar Item, provide a complete list of the applicable specifications identified on the subject and similar item(s) manufacture technical data and a copy of the title page of the latest revision of each specification.

8.8.2. For Proprietary, OEM or Prime Subject Specifications, provide:

8.8.2.1. For CAT I and III, Subject Item, provide a complete list of the applicable specifications identified on the subject item manufacture technical data and a copy of the title page of the latest revision of each specification. The images may be redacted to reveal the Specification Number, Title, Revision and proprietary statement.

8.8.2.2. For CAT II, Similar Item, provide a complete list of the applicable specifications identified on the subject and similar item(s) manufacture technical data and a copy of the title page of the latest revision of each specification. The images may be redacted to reveal the Specification Number, Title, Revision and proprietary statement.

8.8.3. For PS or Internal specifications, identify the commercial or government equivalent specification (if known/available) and provide a copy of the latest revision of each specification.

8.9. Element G, SUB-TIER SUPPLIER (STS) INFORMATION. OEM, DOD or NADCAP significant industrial processes approval/certification is required for those processes denoted by the NADCAP checklist indication in Appendix B. Either ISO 9001:2008 or AS 9100 Rev C certification is required for all STS used to perform work on Critical Items. Provide a matrix, figure 1, with the CAGE, STS Name, Specification/Process, Prime/OEM, Government, or NADCAP certification/approval date, ISO 9001:2008, and AS 9100 for all STSs. Please select all that apply.

G. SUB-TIER SUPPLIER (STS) (SUB-VENDOR) INFORMATION:				Yes	No	NA
1. Are STS used for manufacture or repair?				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If STS are used for manufacture or repair, enter data below: (Select all that apply)			Certifications or Approval (Expiration Date)			
CAGE	STS Name	Specification/Process	Prime/ OEM	DoD	NADCAP	AS9100 ISO 9001 :2008+

Figure 1. Sub-Tier Supplier Qualifications

8.9.1. For raw material STS, provide CAGE, STS Name and material specification/process only.

8.9.2. For STS(s) of castings or forgings, substantiate that the source(s) are currently OEM or DOD approved. If not approved by the OEM or DOD provide a rationale proving to the ESA that the casting or forging source is capable of manufacturing the replacement part to the established OEM or DOD quality standards.

8.9.3. For laboratory testing STS, provide CAGE, STS Name, specification/process, ISO/IEC 17025 or NADCAP certification only.

8.9.4. Provide copies of the current STS's Prime/OEM, DOD and/or NADCAP certificates or approval letter(s) and all conditions and restrictions imposed for the significant industrial processes with the expiration date highlighted.

8.9.4.1. It should be noted that ESA may specify additional testing.

8.9.4.2. If the approval does not have a defined expiration date, enter IND for indefinite.

8.9.5. Provide a copy of ISO 9001:2008 or AS9100 certifications for the STS used to perform work on Critical Items.

8.9.6. Provide a copy of NDI Level III certificate for all NDI Methods for the PS or/and STS.

8.9.7. For assemblies, identify all sub-assembly component sources. All Critical Item sub-components must only be supplied by government approved suppliers.

8.9.8. For STS providing proprietary industrial process support, provide a letter of support, capability and an expiration date.

8.10. Element H, QUALITY HISTORY.

Note: Nonconformance is not necessarily perceived as an increase in risk when considering alternate source qualification. In fact, identification of nonconformance can illustrate a successful quality assurance program.

8.10.1. If the PS and STS facilities have not experienced any quality deficiencies within the last 36 months, provide a statement stating such.

8.10.2. Else, provide a PS and all STS quality history summary of Deficiency Reports experienced for the last 36 months including but not limited to, internal deficiencies, commercial deficiencies, FAA Service Bulletins, MRB actions, Quality Deficiency Reports (QDR), Laboratory Quality Review Orders (LQRO), Offeror Report of Nonconformance (ORON), Supplier Report of Nonconformance (SRON), Material Deficiency Reports (MDR), statistical reports of nonconformance and nonconforming material rejection reports for the subject and/or similar item(s).

8.10.2.1. The Company President, Facility General Manager or the Quality Assurance Manager must coordinate on the summary. If the government source inspections were conducted, the Government Quality Assurance Representative will coordinate on the summary.

8.10.2.2. The summary will include the following data: P/N, Nomenclature, feature, deficiency, quantity, date and corrective action. It can be provided for the entire company or the specific part number or NSN.

8.10.3. Provide all corrective action requests and corrective action plans or resolutions for identified deficiencies.

8.10.4. Provide the PS's and the STS's scrap rates.

8.11. Element I, SIMILAR ITEM TECHNICAL DATA. For Category II SARs Only

NOTE: This information includes drawings (casting, forging, detail, assembly, source controlled, masters, airfoil data, schematics, etc.), specification, configuration (revision), parts list and Quality Assurance Document (QAD), etc.

8.11.1. For Government Similar Item Technical Data, provide:

8.11.1.1. The similar item EDL and the front page of the all similar item technical data or a copy of the sales receipt detailing the data purchased.

8.11.1.2. If not located within the United States or Canada, provide a copy of the export control license.

8.11.2. For Proprietary Similar Item Technical Data, provide:

8.11.2.1. The similar item EDL, the latest legible revision of all drawings and specifications required to clean, inspect, manufacture, assemble and test the similar item.

8.11.2.2. If proprietary similar item data cannot be provided, submit a statement declaring that the data cannot be submitted, EDL and a copy of the title page, the licensing agreement or ownership statement ensuring the most current data was used to perform the required work. The images may be redacted to only reveal the technical data number, title, revision and proprietary statement.

8.11.3. For Non-Proprietary or Non-Government Similar Item Technical Data, provide EDL, the latest legible revision of drawings and specification required to clean, inspect, manufacture, assemble and test the similar item.

8.12. Element J, SIMILARITIES AND DIFFERENCES BETWEEN SUBJECT AND SIMILAR ITEMS.

8.12.1. For CAT II SARs Only, provide a comparison matrix identifying the specific similarities and differences in materials, coatings, design features, industrial processes, operating environment, etc. between the subject and similar item. Multiple similar items can be used to illustrate the capability necessary to perform work on the subject item.

8.12.2. For Proprietary industrial processes supported by a STS place an * next the process. Ensure Element G has a support letter for that process.

8.13. Element K, PURCHASE ORDERS AND SHIPPING DOCUMENTS. The contract performance documentation provided for CSI shall be within three (3) years and within seven (7) years for CAI, as evidenced by latest shipping document. The threshold should apply on the date the SAR is received by the Small Business Office. All financial information must be removed, else the SAR may be returned. Highlight the date on all documents in this section and ensure all items are accounted for. The data provided in this section should be from the same contract(s) as those provided in SAR Elements L and M.

8.13.1. For Cat I or II, provide copies of at least one purchase order(s), all amendments and shipping documents from the Prime/OEM, DOD, foreign government, or other commercial customers for the Subject or Similar item.

8.13.2. For Cat III, provide a statement stating no manufacture has been conducted for the Subject item.

8.13.3. If a contract was terminated, state the reason for the termination.

8.14. Element L, TRAVELERS AND PROCESS/OPERATION SHEETS (POS). The data provided in this section pertaining to the manufacture history should be from the same contract(s) as those provided in SAR Elements K and M.

Note: Travelers that may be enclosed in this section are not to be considered a replacement for detailed POS. Lack of detailed POS(s) pertaining to manufacture is cause for disapproval of the PS's SAR.

8.14.1. The subject item travelers and/or POS must have the Name, Address and CAGE for the PS on the top of every page. The following requirements must be met:

8.14.1.1. The documentation must be from the actual manufacturer.

8.14.1.2. The traveler and POS must include all part numbers that are covered by the production documentation.

8.14.1.3. The traveler must include a detailed step-by-step account of the proper sequenced procedures necessary for the manufacture.

8.14.1.4. The traveler must include the operation number, process description, location, STS Name and CAGE; software data file name, etc. necessary to control the manufacture operations and must be signed or stamped off by in-process operator and/or inspector. For Proprietary Travelers and POS, the process description may be redacted.

8.14.1.5. The traveler must track the disposition of all parts during the entire manufacture operation to include rejects and laboratory samples.

8.14.2. Any sub-vended process listed in the traveler must identify the STS by name and CAGE at each applicable operational step with clearly identified process or procedure.

8.14.3. For Category I, provide copies of the subject item traveler and POS used for the manufacture submitted.

8.14.4. For Category II provide copies of the similar item(s) manufacture traveler and POS and detailed proposed manufacture subject item traveler and POS to be used.

8.14.5. For Category III, provide the proposed manufacture subject item detailed traveler and POS sheets to be used.

8.15. Element M, MANUFACTURE PROCESS SHEETS (MPS) and INSPECTION METHOD SHEETS (IMS). The MPS and IMS should include the nomenclature, part number, characteristics inspected, special instructions, zone, tolerances and actual measurements, inspection tooling/method, frequency and inspector's stamp. MPS and IMS may be included as an integral part of the POS(s) in SAR Element L. The data provided in this section should be from the same contract(s) as those provided in SAR Elements K and L.

8.15.1. The subject item IMS or MPS must have the Name, Address and CAGE for the PS on top of every page. The following requirements must be met:

8.15.1.1. The documentation must be from the actual PS.

8.15.1.2. The IMS or MPS must include part number(s), dimensions and proper units.

8.15.1.3. The IMS or MPS must include a detailed step-by-step account of the proper sequenced procedures necessary to inspect the subject and/or similar item.

8.15.1.4. If a sampling plan is used, provide the sampling plan and the approval letter.

8.15.2. For Category I, provide the actual subject item MPS and IMS with the manufacture data. Blank Subject MPS and IMS do not meet this requirement.

8.15.3. For Category II, provide the actual similar item MPS and IMS with the manufacture data and proposed MPS and IMS for subject item. Blank similar item MPS and IMS do not meet this requirement.

8.15.4. For Category III, provide proposed detailed MPS and IMS for subject item.

8.16. Element N, PRIME/OEM CONTRACTOR'S QUALITY RATING SYSTEM REPORT.

8.16.1. If the company has not manufactured the item(s) for a Prime/OEM and thus no quality rating is available, provide a statement stating that no quality rating is available.

8.16.2. Provide the PS's quality system report or rating from the Prime/OEM responsible for the subject item. If no rating is available for the subject part from Prime /OEM, provide alternate quality ratings from another prime contractor, OEM and/or commercial customer.

8.17. Element O, LICENSEE AGREEMENT (If applicable).

8.17.1. If there is no proprietary data or process used, provide a statement stating as such.

8.17.2. For an item with an AMSC Code of V or where proprietary data is used, provide an ownership statement or a copy of the licensee agreement between the PS and the data owner.

8.17.2.1. If an ownership statement or a copy of the entire licensee agreement cannot be provided, at a minimum provide a redacted portion showing the details of Material Review Board (MRB) activity, data rights, configuration control, source control, etc.

8.17.3. If a STS will be supporting a proprietary process, the PS will provide a letter of support from the STS. The letter should state the duration of the proprietary process support, availability and capacity.

8.18. Element P, VALUE ADDED (By Prime OR OEM).

8.18.1. If there is no Prime/OEM value added, provide a statement stating as such.

8.18.2. Provide a statement identifying any value added provided by the Prime, OEM or any Proprietary Industrial Process STS in the manufacture of the subject or similar item(s).

8.19. Element Q, GOVERNMENT/PRIME CONTRACTOR SURVEYS. This section can include any available DOD technical evaluations of the PS's manufacture capability, quality assurance procedures, industrial resources, material purchasing and STS controls.

8.19.1. If no onsite inspection, site survey or self-assessment has been performed within the last 7 years, provide a statement stating as such.

8.19.2. If applicable, provide a copy of the latest onsite inspection, site survey, self-assessment (survey, findings and corrective actions) or DOD site survey acceptance letter performed within the past seven years.

8.20. Element R, PRE-QUALIFICATION TEST PLANS. Not Applicable.

8.21. Element S, TEST RESULTS. Not Applicable.

8.22. Element T, MASTER TOOLING CERTIFICATIONS.

8.22.1. Provide a list for all equipment/tooling requiring calibration to include the part number, serial number, location and date of calibration and expiration for each item.

8.22.2. If no master tooling is required, provide a statement stating as such.

8.22.3. Provide certification of access to and the right to use any required master tooling, special tooling/test equipment, Mylars (stable base drawings), glass layout, and loft data/contour data as applicable to the latest item technical data or drawing required for repair.

8.23. Element U, GOVERNMENT QUALITY ASSURANCE COMPLIANCE. Provide a statement that the PS will comply with all government imposed quality assurance provisions, testing requirements, etc. as identified in the solicitation or contract for the subject item.

NOTE: Elements V-Z Left Blank Intentionally

8.24. Element AA, ESA/OEM APPROVAL LETTER. Provide a copy of the ESA/OEM approval letter or certificate with the expiration or issuance date circled.

8.25. Element AB, NOVATION LETTER. Provide a copy of the novation letter submitted to the PCO for the given NSN.

9. SOURCE RESUBSTANTIATION REQUEST (SRR). Only Approved Source that have produced CSI within 36 months or CAI within 84 months can submit a SRR. SRR elements are listed in Table 3 and defined in section 8.

9.1. SRR DETERMINATION.

9.1.1. If multiple SRR packages are to be submitted within a one month period, then the PS can submit one Master SRR (MSRR) package and a series of SRRlite packages for each additional output NSN that are submitted.

9.1.2. MSRR packages.

9.1.2.1. The MSRR must be constructed in a manner that allows for the reduction of data in SRR lites by including all part numbers or providing an enterprise point of view.

9.1.2.2. The MSRR should be the most complex of parts within the set of parts that will be submitted.

9.1.3. SRR lite packages. The SRR lite packages must be submitted within one month of the MSRR submittal.

ATTN: (Procurement Official's Name)
Solicitation Number: (Solicitation Number)

[REDACTED]
[REDACTED]

10.4. The PS shall retain the SAR package or a copy until the approval expires.

11. SAR, WAIVER AND RESUBSTANTIATION EVALUATION.

11.1. The ESA will evaluate the approval request, SAR, Waiver or Resubstantiation packages, submitted using the LPS Form 815 (815), Propulsion Sustainment Directorate Source Request Review. The ESA will tailor the 815 to the type of approval request and category identified in the approval request package. ESA will scan all CD(s) for viruses prior to inserting them into the assigned government computer system.

NOTE: A public release copy of the 815 can be found on the following site:

[REDACTED] The 815 can be modified by the ESA in accordance with the established QR.

11.2. The ESA will identify any issues, missing data or discrepancies, found during the evaluation of the approval request package. The ESA will provide the PS a list of issues that need to be resolved.

11.2.1. The PS will be given 3 working days to provide either the data required to eliminate the issues identified or provide a date the data will be submitted.

11.2.2. If the PS provides a Data Submission Date (DSD), then the ESA will determine if the established deadline allows for the approval request package to sit in abeyance until the DSD. If the DSD is acceptable, the ESA will continue the evaluation once the data is provided within the set DSD. If the DSD is not met, then ESA will complete the evaluation and forward a disapproval letter. The PS will be encouraged to resubmit the SAR, waiver or RSS package once all identified issues have been resolved.

11.2.3. If the PS provides the required data, the ESA will complete the evaluation. If the issues were not resolved, the ESA will forward a disapproval letter with a list of issues that need to be resolved. If the issues were resolved, the ESA will approve the approval request package and inform AFS/SB of the results.

11.3. If the ESA evaluation determines that the approval request package met the requirements established in the QR, then the ESA will approve the source and update the approved source list.

11.4. All transactions required to evaluate the approval request will be documented on the 815. All necessary artifacts will be recorded on the 815 and retained in an ESA designated information system.

11.5. Once all the approval request requirements have been met, the ESA will issue an approval letter with expiration date in accordance with section 12.

12. SAR, WAIVER AND RESUBSTANTIATION APPROVAL DURATION. ESA source approval expiration is defined Table 4. The expiration date will be based on the date affixed on the Propulsion ESA approval letter.

APPROVAL DURATION MATRIX		
Criticality	Approval Duration	Reference
CSI	3 Years	AFI 20-106
CAI	7 Years	AFMCI 23-113/(SAM)

Table 4. Propulsion approval duration

13. Self-Assessment Checklist (SAC) and Site Survey Checklist (SSC). The ESA may require a SAC and then a SSC, after determining if one has been conducted by the USAF or another Military Service.

13.1. SAC. The SAC is similar to the Site Survey checklist found in the SAM.

13.1.1 The ESA will forward the SAC to the PS with a 30 day deadline.

13.1.2 The PS will provide a completed SAC to the ESA with all the artifacts required to demonstrate compliance.

13.1.3 The ESA will review the SAC and determine if a follow-on site survey is required.

13.2. SSC. The SSC will use the SAC submitted by the PS to conduct a site survey of the PS facility. The primary focus of the site survey will be to resolve any issues that were discovered during the SAC. The site survey duration will be between one to three days.

14. LOSS OF QUALIFICATION APPROVAL. The PS should be aware that qualification approval may be lost per the conditions detailed in FAR Part 9.207 and the following:

14.1. Products or services, submitted for inspection or acceptance, that do not meet the requirement;

14.2. Products or services that were previously rejected and the defects were not corrected when submitted for inspection or acceptance;

14.3. An approved source fails to request resubstantiation following change of location or ownership of the plant where the product which met the qualification requirement was manufactured (see the FAR clause at 52.209-1, Qualification Requirements);

14.4. If manufacture is discontinued;

14.5. A condition of meeting the qualification requirement was violated; e.g., advertising or publicity contrary to FAR part 9.204(h)(5);

14.6. A revised specification imposes a new qualification requirement;

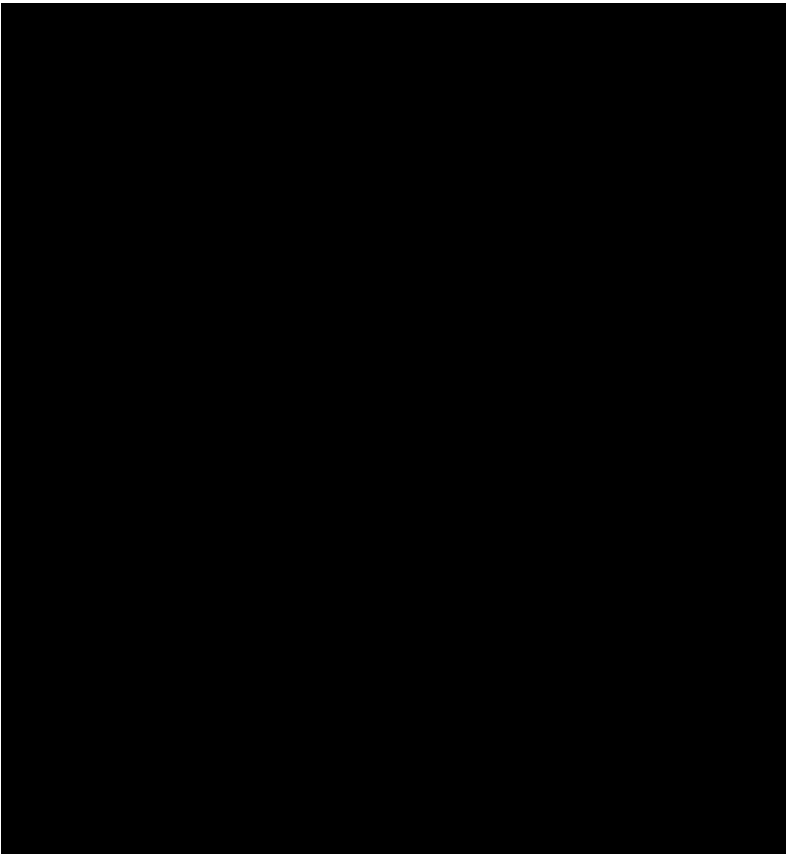
14.7. Manufacturing, design or repair changes have been incorporated in the qualification requirement;

14.8. Performance of a contract subject to a qualification requirement is otherwise unsatisfactory.

Coordination:



Approval:



The authority granted by the signatures for qualification requirement shall not exceed seven (7) years past the last signed date. Qualification requirements shall be examined and revalidated if the last signed date is over 7 years old (FAR 9.202(f)).

APPENDIX A
TECHNICAL DATA RIGHTS CERTIFICATION LETTER

I am an officer and employee of the above name legal entity with the responsibility for investigating the facts upon which this certification is made. To the best of my knowledge and information obtained from my recent investigation:

I certify that the technical data submitted as a part of my company's request for approval as potential source for the purpose of obtaining a contract were obtained by legal means by my company, without breach of any contractual or confidential relations pertaining to said technical data by my company, its current or recent employees; and

I certify that my company, its current or recent employees did not obtain or receive any technical data marked with a company's proprietary rights legend or a Government limited rights legend from any U.S. Government's agency or employee or other third parties that were used in the preparation of or were incorporated into the request for approval or its supporting technical data other than as described herein; and

I certify that my company has the legal right to use said technical data to manufacture the below identified part for the United States Government. To the extent that said technical data are marked with a company's proprietary rights or a Government limited rights legend or are otherwise believed to be or have in the past been the proprietary data of another company, the following documents which are attached hereto and made a part of the certification have formed the basis for claiming legal right to use said technical data. Such documentation must clearly cover the data necessary for source approval.

THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER THE TITLE 18, UNITED STATES CODE, SECTION 1001.

THIS CERTIFICATION APPLIES TO:

NSN _____ P/N _____

Note: If SAR package is for multiple NSNs, all NSNs, Part Numbers, Nouns must be listed. The list can be attached to the letter.

(Signature) (Date)
(Typed or printed name & title)

This document must be signed by the Company President, Owner or Plant Manager.

APPENDIX B
SIGNIFICANT INDUSTRIAL PROCESSES

The following examples are typical processes considered significant in that they are capable of producing alterations to material structures, mechanical properties and ultimately, item reliability, if performed improperly and cannot normally be evaluated without destructive testing.

#	SIGNIFICANT INDUSTRIAL PROCESSES	NADCAP
1	Casting Processes	NA
2	Forging Processes	NA
3	Other Forming Processes	NA
4	Disassembly Procedures	NA
5	Blending/Reworking	NA
6	Heat Treatment and Surface Hardening Processes	7102
7	Brazing	7102
8	Chemical Processes: Chemical Cleaning, Anodizing, Conversion/Phosphate Coatings, Paint/Dry Film Coatings, Stripping, Chemical Milling, Surface Treatment/Passivation and Etching (Nital/Pre-Penetrant/Temper/Macrostructure/Blue Etch Anodize)	7108
9	Metal Electroplating (Plating) Processes	7108
10	Coating Processes:	7109
10a	Plasma Spray	7109
10b	Wire Spray	7109
10c	HVOF	7109
10d	Diffusion Coatings	7109
11	Welding/Fusion	7110
12	Non-Destructive Inspections:	7114
12a	Visual Inspection	7130*
12b	Fluorescent Penetrant	7114
12c	Magnetic Particle	7114
12d	Eddy Current	7114
12e	Ultrasonic	7114
12f	Radiography	7114
12g	Laser Holography	NA
13	Electrochemical Machining Processes (Cavity Sinking, Drilling, Grinding, etc.)	7116
14	Electro-Discharge Machining	7116
15	Electro-Stream Drilling	7116
16	Laser Beam Metal Removal Processes	7116
17	Electron Beam Processes	7116
18	Blasting Processes:	NA
18a	Aluminum Oxide	NA
18b	Silicon Carbide	NA
18c	Plastic Bead	NA
18d	Glass Bead	NA
19	Peening Processes	7117
20	Soldering	7120
21	Broaching	7126
22	Grinding	7126
23	Drilling, Reaming and Boring	7126
24	Milling	7126
25	Finish Turning	7126
26	Surface Finishing Processes:	NA
26a	Honing	NA
26b	Sutton Barrel	NA
27	Dimensional Inspection/Tolerancing	7130
28	Water-Jet Stripping	NA
29	Assembly Procedures	NA

APPENDIX C
DEFINITIONS

Approval Part/Item – Part/Item for which source approval is sought.

Actual Manufacturer – An individual, activity, or organization that performs the physical material fabrication processes that produce the deliverable part or other items of supply for the Government. The actual manufacturer must produce the part in-house and may or may not be the design control activity.

Critical Application Item – (CAI) An item, part, assembly, installation or production system that is essential to weapon system performance or operation, or the preservation of life or safety of operating personnel, as determined by the military services.

Critical Characteristic – Any feature throughout the life cycle of a Critical Item, such as dimension, tolerance, finish, material, or assembly, manufacture, manufacture or inspection process, operation, field maintenance, or depot overhaul requirement that if non conforming, missing, or degraded may cause the failure or malfunction of the Critical Item.

Critical Safety Item (CSI) – An item, part, assembly, installation or production system with one or more critical or critical safety characteristics that, if missing or not conforming to the design data or quality requirements, would result in an unsafe condition that could cause loss or serious damage to the end item or major items, loss of control, uncommanded engine shutdown, or serious injury or death to personnel. Unsafe conditions relate to hazard severity categories I and II of MIL-STD-882, System Safety Requirements. The determining factor in CSIs is the consequence of failure, not the probability that the failure or consequence would occur.

Engineering Support Activity (ESA) – The Military Service organization assigned responsibility and authority to perform and approve engineering and quality assurance actions necessary to evolve detail design disclosures for systems, subsystems, equipment and components exhibiting attributes essential for products to meet specific military requirements. During the operational phase, it includes any engineering activity, the results of which would add to or alter the design of equipment in such a manner, or to such an extent, as to change its operational capabilities or its design attributes of performance, reliability, maintainability and parts interchangeability, or to render it capable of alternative or additional use. For the Air Force and this QR, the ESA is synonymous with the Designated Air Force Single Manager for the Weapon System, Design Control Activity, the Cognizant Engineering Authority (CEA) and the USAF Propulsion Division Engineering Chief.

Inspection Method Sheets (IMS) – document used to describe the steps involved in executing an inspection or series of inspections to include tooling, gages, fixtures, dimensions and other parameters necessary to execute the required inspections(s). Sheets must be certified by an authorized representative empowered to comply with the inspection process.

Major Characteristics – A part feature which, if non-conforming, could compromise the function of the part, resulting in a significant maintenance burden and/or reduction in weapon system performance.

Material – A general term referring to material at any stage in the manufacture process.

National Aerospace & Defense Contractors Accreditation Program (NADCAP) – The Performance Review Institute (PRI), an independent, not-for-profit trade association affiliated with the Society of Automotive Engineers (SAE) through NADCAP, accredits subcontractors and sub-tier suppliers to aerospace and defense industry consensus standards.

NIST – National Institute of Standards and Technology.

Original Equipment Manufacturer (OEM) –An individual, activity, or organization that performs the physical fabrication processes that produce the deliverable part or other items of supply for the prime contractor. The OEM must produce the part in-house. The OEM may or may not be granted design responsibility by the prime contractor for preparation and technical currency of technical data.

Potential Source – Any potential offeror who wants to be considered as a source for a given part, but who has not yet been approved/disapproved. A source of this type would normally be required to meet prequalification requirements prior to contract award and may also be subjected to production inspection or surveillance if a contract is received.

Prime Contractor – A contractor having responsibility for design and/or delivery of a system, subsystem, or equipment such as aircraft, engines, ships, tanks, vehicles, guns and missiles, ground communications and electronics systems and test equipment.

Process/Operation Sheets – Sheets used in manufacturing to reflect the step-by-step process / operation used to manufacture the complete item. Includes detailed shop sketches.

Production Quantities – Quantities that establish a reasonable level of confidence in a prospective source's ability to consistently produce parts whose integrity is equivalent to that exhibited by parts that originally passed substantiation testing. As a minimum it shall be considered representative of several production lots or greater quantities commensurate with those specified in current solicitations or AFSC annual buy projections and shall be exclusive of quantities produced in experimental or developmental programs.

Qualification Waiver Criteria (QWC) – A set of guidelines that may be used to determine if part or all of the source qualification requirements may be waived.

Purchaser – The Purchaser as defined in all applicable government specifications as well as all OEM specifications relative to the part described in this document shall refer to the AFMC contracting activity issuing the procurement requirement.

Raw Material – Ingot, bar, billet, or sheet stock used directly in the fabrication/manufacture of the replacement part or forgings/castings used in the manufacture.

Manufacture Process Sheets (MPS) – documents used to describe the steps involved in executing an operation or series of operations to include tooling, machinery, dimensions, speeds, feed rates,

coolants, cutters, tape numbers and other operating, process and/or set-up parameters necessary to execute the operation. At a minimum, significant processes in Appendix B shall be fully defined.

Significant Industrial Process – A process which is capable of producing alterations in the material structure of a part which cannot normally be evaluated without destructive testing and which can compromise the mechanical properties and ultimately the reliability of the part. Examples of processes that are considered to be significant by [REDACTED] are listed in Appendix B.

Similar part - The part must be used in a proven aircraft turbofan or turbojet engine. The part must be fabricated from the same or a similar material that is equivalent or more difficult than the subject item to form and finish. The similar part must demonstrate the ability of the prospective source, in conjunction with their STSs, to perform all requisite significant manufacturing/repair processes applicable per the technical data and sub-tier specifications. Significant processes are defined in Appendix B.

Sub-Tier Supplier (Sub-Vendor) (STS) – A source supplying material, products and/or services to the PS as required in the performance of the contract. This term applies to all facilities other than the PS's facility including those of the same company.

Technical Data – Data required for the accomplishment of logistics and engineering processes in support of the contract end item. It includes drawings, operating and maintenance instructions, provisioning information, specifications, inspection and test procedures, instruction cards and equipment placards, engineering and support analysis data, special purpose computer programs and other forms of audio visual presentation required to guide personnel in the performance of operating and support tasks.

Technical Order – A technical manual published by the Air Force containing (in this case) technical information required to develop inspection methods processes for aircraft engine parts.

Value Added By OEM – Any action, manufacture or inspection process, data, instructions, or equipment that is essential to the manufacture of the part, but is not documented in the data package. Examples of value added are the use of OEM qualification of sources for forgings, castings and raw materials; the use of OEM tooling, fixtures, gages or inspection master hardware; the use of OEM MPS, IMS, or other process related data not referenced on the part drawing(s); quality assurance of sub-vendors of significant processes all as related to the performance of manufacture.