

ANNEX 6.2

QUALITY AND RELIABILITY

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6.2.1 SCOPE OF WORK

The Contractor shall be responsible for the planning and management of the contract Reliability Program and the Quality Management System to ensure its effective execution. Although the accomplishment of many of the program tasks may not be a line function of the S&MA management organization, the organization shall monitor and ensure that all S&MA program tasks are accomplished effectively.

The Contractor shall ensure that S&MA programs are consistent with SSC mission requirements that apply to SSC systems, equipment, facilities and operations. Specific quality and reliability services described below shall be provided and optimized from conception to completion for all aspects of contractor activities.

6.2.2 GENERAL REQUIREMENTS

The Contractor shall maintain a reliability activity planned and developed in conjunction with other NASA contracted elements. Reliability functions shall be an integral part of the design and development process and shall include the evaluation of hardware and operational reliability through analysis, review and assessment. The reliability program shall be in accordance with the requirements and guidelines of NASA's Reliability Centered Maintenance Guide for Facilities and Collateral Equipment (Dec. 1996).

Contract requirements for ISO-9001 are located in Annex 1.1.9.

SSC's ISO 9001 Level 1 and 2 documents can be found in the Technical Reference Library (TRL).

6.2.3 Definitions/Acronyms

ANSI: The American National Standards Institute (ANSI) is the U.S. member body of ISO.

ASQC: The American Society for Quality Control (ASQC) is the U.S. member of ANSI responsible for quality management and related standards.

FMEA: Failure Modes and Effect Analysis

Inspection: Activity such as measuring, examining, testing, or gauging one or more characteristics of an entity and comparing the results with specified requirements in order to establish whether conformity is achieved for each characteristics.

Quality Management: All activities of the overall management function that determines the quality policy, objectives and responsibilities, and implements them by means such as quality planning, quality control, quality assurance and quality improvement within the quality system.

Quality Surveillance: The continuing monitoring and verification of an entity and analysis of records to ensure that specified requirements for quality are being fulfilled.

S&MA: Safety and Mission Assurance

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6.2.4	Quality Program	<p>Implement surveillance control over special processes where uniform, high quality cannot be assured by inspection of article alone. These processes include, but are not limited to metallurgical and chemical processes, metal joining processes, bonding processes, plastics application, plating and coating processes and surface treating processes. In addition, processes such as environmental controls, the methods of verifying the adequacy of processing materials, solutions and equipment will be controlled to ensure that the results indicate the appropriate quality levels of articles and/or materials. Surveillance requirements are performed independent of those responsible for performing the services and who report directly to the project manager.</p> <p>Establish points of contact responsible for receiving inspection results from Government QA Personnel. These individuals shall be knowledgeable of the area being reviewed, authorized to represent the Contractor, and capable of implementing corrective measures.</p>		<p>Establish surveillance control over special processes where uniform, high quality cannot be assured by inspection of articles and/or materials alone.</p> <p>Establish points of contact for each functional area selected for review during the assessment process.</p>
6.2.4.1	Control of Non-Conforming Products and/or Services	<p>Measures must be established to control materials, parts, or components, which do not conform to requirements in order to prevent their inadvertent use or installation. These measures must include, as appropriate, procedures for identification, documentation, segregation disposition, and notification to affected organization.</p> <p>Nonconforming items must be reviewed and accepted, rejected, repaired, or reworked in accordance with documented procedures.</p>		ASQC Q9001-1994/Element 13
6.2.4.2	List of Nonconforming Products and/or Services (NPS) (DR 6-RA04)	All nonconforming products and/or services that are documented shall be reported in accordance with DR 6 – RA04.	Monthly list	Conformance with DR
6.2.4.3	Material Review Board Members List	Provide a list of qualified personnel for the Material	1 MRB List	Conformance with DR

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	(DR 6-RA03)	<p>Review Board (MRB) and submit membership list in accordance with DR 6-RA03.</p> <p>MRB activities can be reviewed in SSC HB 5300.1B. (Part A) Chapter 8.</p>		<p>MRB members must be selected on the basis of technical competence and shall have sufficient authority to make appropriate dispositions of articles or materials involved.</p>
6.2.4.4	Personnel Certification Plan (DR 6-RA01)	<p>Develop a personnel training program that will systematically identify planning needs and provide the appropriate training to those personnel whose work affects quality, to ensure that they possess the necessary knowledge, skills and proficiency to consistently meet requirements.</p> <p>Develop a Personnel Certification Plan in accordance with DR 6-RA01.</p> <p>SSC has adopted an electronic, site-wide database system "Training Certification Personnel Records" prior to award of this contract. This system will be used by the FOSS.</p>	1 Certification Plan	<p>The Personnel Certification Plan must provide for certification and recertification of personnel.</p> <p>Certified personnel must be given a card, badge, or similar evidence of certification. Personnel controlling selected processes and operations must be certified per DR 6- RA01.</p> <p>Personnel certification plan must be submitted within 60 days of contract start.</p> <p>Conformance with DR.</p>
6.2.5	Reliability			
6.2.5.1	Reliability Program Plan (DR 6-RA06)	<p>Provide, implement and maintain a Reliability Program Plan, which shall be submitted and shall serve as the master planning and control document for the Reliability Program.</p> <p>Management must provide for checking, auditing, or</p>	1 Plan	Conformance with DR.

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		<p>otherwise validating and verifying that an activity has been correctly performed, independent of the individual or groups directly responsible for performing the specific activity.</p> <p>Examples of reliability engineering techniques used to validate and verify reliability include FMEA, Reliability Trade-Offs, and Cost Benefit Analysis.</p>		
6.2.5.2	Reliability Program Self-Assessment and Implementation Report (DR 6-RA08)	Prepare and submit per DR.	Report	Conformance with DR.
6.2.5.3	Parts Control Program	Contractor shall establish and implement a parts management program for ensuring the integrity of all mechanical and electrical electronic, and electro-mechanical (EEE) parts per NASA standards.	Program	Conduct Parts Program per NPD 8730.2 - NASA Parts Policy
6.2.5.4	GIDEP Usage Report (DR 6-RA09)	Contractor shall participate in the Government Industry Data Exchange Program (GIDEP). An annual usage report will be submitted per program requirement.	Annual Report	Conformance with DR
		Contractor will evaluate all incoming GIDEP documents for SSC applicability and take appropriate action per program requirements.	200 Incoming Alerts/Advisories	Conduct GIDEP Program per NPG 8735.1 - GIDEP Conformance with DR
6.2.5.5	NASA Alerts/Advisory Program Participation	Contractor will input SSC specific information into the GIDEP System. Contractor shall participate in the NASA Alerts/Advisory Program. Contractor will evaluate all incoming NASA Alerts/Advisory.	5 Alerts/Advisories 20 Incoming Alerts/Advisories	Conformance with DR Conduct Program per NPD 8730.2 - NASA Parts Policy