

## Task Order 15-12

### **1. TITLE OF EFFORT: JSC Pressure Systems & WSTF Safety & Mission Assurance Requirements**

### **2. TASK DESCRIPTION:**

The contractor shall provide the JSC and White Sands Test Facility (WSTF) S&MA offices with support in the establishing and implementing of policies and program requirements, engineering and technical support for the JSC and WSTF ground-based pressure systems certification programs, quality assurance inspection and quality engineering support to flight and flight-related systems to assure that quality requirements are satisfied, and performance of activities related to institutional safety and health. This activity may be extended to areas of engineering technical support, including government facilities other than JSC and WSTF, upon request of the Technical Monitor or COTR.

**2.1 SOW Reference:** Section 9.0 Institutional Safety and Quality

### **2.2 REQUIREMENTS**

#### **2.2.1 JSC Ground-Based Pressure Systems**

Manage and implement the JSC ground-based pressure systems certification / re-certification program in accordance with JPR 1710.13 (current version) in the following areas:

- a. Review of design documents (drawings, calculations, manufacturers' data, etc.) from JSC user organizations for new or modified ground-based pressure vessels/systems (PV/Ss) for compliance with NASA requirements.
- b. Review remaining life assessments and risk assessments prepared by JSC user organizations for existing, new, or modified ground-based PV/Ss for compliance with NASA requirements.
- c. Verify welding/brazing procedures and personnel qualifications and prepare Weld/Braze Inspection Records (WIR's) as a prerequisite for commencing welding/brazing operations involving JSC ground-based PV/S's.
- d. Perform internal, external, wall thickness, and welding/brazing inspections and witness proof pressure tests/pressure relief valve set pressure tests as a basis for initial certification/periodic re-certification of ground-based PV/Ss as safe to operate.
- e. Manage the PV/S inventory/recall process and generate Status Reports, Inspection Due Notifications, and Delinquency Reports for action by responsible JSC PV/S user organizations.
- f. Review PV/S waiver/exception requests and recommend approval/disapproval to the JSC Pressure Systems Manager (PSM).

- g. Support the processes required to perform re-certification and modification of existing ground-based pressure systems and certification of new ground-based pressure systems in accordance with facility policies/procedures, applicable national consensus codes and standards (NCS), and governing NASA standards. Perform Pressure System Specialists activities in addition to providing technical consultation on applicable code requirements.
- h. Develop and present (or facilitate) JSC in-house PV/S training classes associated with areas of direct responsibility (e.g., Hydrostatic Testing/Pressure Relief Valve Set Pressure Testing Training, Pressure Systems Familiarization Training, etc.).

### **2.2.2 JSC Ground-Based Pressure Systems – Special Projects**

- a. In accordance with the tasks identified in section 2.2.1, manage and support the processes required to perform re-certification and modification of existing ground-based pressure systems and certification of new ground-based JSC pressure systems for S&MA supported special projects.

### **2.2.3 WSTF Safety and Mission Assurance**

Perform Quality Engineering, Quality Assurance, Pressure Systems Engineering/Inspection and Administrative tasks in support of the WSTF S&MA Office in the following areas in accordance with the associated WSTF Management System:

- a. Facilitate management of the WSTF Corrective/Preventive Action Request (C/PAR) and Internal Audit Programs. Process submitted C/PARs, including tracking of C/PAR resolution status and performing follow up audits to determine closure or non-closure of C/PARS. Maintain and process records associated with these programs including the maintenance of the C/PAR and Root Cause databases.
- b. Work with WSTF design groups, technical offices, and S&MA Office to develop and implement quality and safety improvements and changes.
- c. Perform quality assurance surveillance and government mandatory inspection point (GMIP) verifications of WSTF flight and ground support hardware manufacture, assembly, and test activities.
- d. Provide flight hardware acceptance test verification.
- e. Provide auditor and administrative resources to support the performance of annually scheduled internal audits associated with the implementation of WSTF ISO (i.e., 9001/14001/AS9100) Management Systems.
- f. Issue Field Surveillance Reports to document surveillance findings.
- g. Implement a field surveillance and root cause trend analysis system.
- h. Review operational documentation for conformance to requirements.

- i. Review WSTF management system documents for sufficiency in addressing and conformity to meeting requirements.
- j. Maintain the WSTF Surveyed Vendor List (SVL) Program documentation including the SVL database.
- k. Coordinate WSTF management system documentation review and maintain associated management system documentation.
- l. Support the maintenance of the WSTF Process Safety Management Program. Provide consultation and support to facility safety, risk and system safety agency requirements implementation tasks.
- m. Support the processes required to perform re-certification and modification of existing ground-based pressure vessels and pressurized systems (PV/Ss) and certification of new ground-based PV/Ss in accordance with facility policies/procedures, applicable national consensus codes and standards (NCS), and governing NASA standards. Perform Authorized Inspector activities in addition to providing technical consultation on applicable code requirements and their associated applications.
- n. Provide ISO 9001/14001 management program expertise and administrative support to the WSTF Management Council Review Programs (i.e., Quality, Environmental, Health and Safety).
- o. Facilitate and support in-house S&MA training classes associated with areas of direct responsibility (i.e., Corrective & Preventive Action Team Lead Training, ISO 9001 Internal Auditor Training, Root Cause Analysis Training, PV/S-Related Training).

**3.0 PERIOD OF PERFORMANCE:** October 1, 2011- April 30, 2012

#### **4.0 ESTIMATED COST**

Contractor may provide travel, training, materials, and other non-labor resources as necessary to support task order requirements. Training may include selected professional discipline-based or spaceflight-based conferences with approval of the TMR.