

1. General Scope of Work

1.1 Purpose and Objective

Perform standard NASA-STD-6001 (NHB 8060.1) flammability and ignition susceptibility, odor, offgassing, and compatibility testing, test maintenance, and all test equipment operation to support Space Shuttle Standard testing activities. Included in this Delivery Order is all test coordination, materials purchasing and storage, test sample preparation, testing, reporting, and all maintenance and repair activities for Space Shuttle materials and components. This Delivery Order also includes related consensus methodology testing and maintenance activities such as thermal-vacuum stability testing (SP-R-0022A), autogenous ignition (ASTM G 72), limiting oxygen index (ASTM D 2863 or ASTM G 125), thermal-vacuum conditioning, and heat of combustion (ASTM D 240).

2. Technical Requirements

2.1 Description of Work

Under this Delivery Order the TEAM Contractor will perform test coordination, materials and components receipt and storage, test material or item preparation, testing, reporting, test system maintenance, and materials control. These tasks will be performed following WSI-LABPROJS-0001 and LABPROJS-0006, WJIs in the 320-31, 320-34, 800, 800HFF, 800HFT, 800HPT, LFACMGMT, LQUALITY, LSAFETY, LTRAINING, and PUBS series, RD-WSTF-0018, and RD-WSTF-009. Test protocols are provided in NASA-STD-6001 (NHB8060.1B or C), SP-R-0022A, ASTM E 595, ASTM D 240, ASTM D 2863 or ASTM G 125, and ASTM G 72. Minor changes to the process developed under continuous improvement are included in this delivery order as well as proposing more significant process improvements. Once proposals are developed, test methodology or equipment improvements will be performed as projects under separate Delivery Orders.

Maintenance and operation of the test capabilities is also included under this Delivery Order. All test capabilities will be kept in immediate readiness for testing except as noted below:

Heat and Visible Smoke Release Rates - Test 2,
Flammability Test for Materials in Vented or Sealed Containers - Test 8,
Simulated Panel or Major Assembly Flammability - Test 10,
Pressurized Gaseous Oxygen Pneumatic Impact for Nonmetals - Test 14,
Arc Tracking - Test 18,
Autogenous Ignition Test - ASTM G 72,
Limiting Oxygen Index - ASTM D 2863 or ASTM G 125,
Heat of Combustion - ASTM D 240,
Instrumented Mechanical Impact Testing - ASTM G 86 pending).

These capabilities will be brought to test readiness within 10 working days after notification of need.

The contractor will provide a monthly report of activities performed or not performed against the maintenance plans. The contractor will prepare and submit a

monthly report detailing days available for all test capabilities. Days available is defined as immediately capable of testing or use without interruption throughout the entire regular shift except for scheduled downtime for maintenance. If a system or capability is down for repair, that is an unavailable day.

2.2 Contractor Products/Services Required

The number of Basic (C.N. EMF) Standard Shuttle tests anticipated for fiscal year 2004

are as follows:

Test Protocol *	Approx # Tests
Test 1	30
Test 4	10
Test 6	10
Test 7(flight)	5
Test 7(materials)	40
Test 13A	3
Test 13B	20
Test 14	10
ASTM E 595	30
CTVS	2
TOTAL TESTS	160

The number of KSC (C.N. EMK) Standard tests anticipated for fiscal year 2004 are as follows:

Test Protocol *	Approx # Tests
Test 2	2
Test 13A	8
Test 13B	10
Test 15	2
VCM	20

*Unless otherwise specified the requirements for this test are detailed in NASA-STD-6001.

The contractor will participate in formal program reviews, up to two customer familiarization and training classes, and up to two technical interchanges with common interest test organizations per year. In addition, the contractor will support round robin tests every two years, conduct test quality and accuracy validations, and will conform to the good laboratory practices outlined in NASA-STD-6001.

The contractor will prepare and submit monthly reports detailing: materials tested for each test type, percent material preparations reworked, percent retest, number of reports transmitted, report percentage rejected during NASA review, and report

percentage transmitted within the committed schedule.

2.3 Materials and Travel Requirements

No NASA materials are required.

Travel to attend ICES 1 person
 ASTM E5 1 person
 ASTM G4 2 persons
 TIM (NASDA and NASA) 2 persons
 NASA M&P meeting 1 person
 Travel to two NASA 1 person
 sites

2.4 Task Plan/Summary Sheet

S:\cpe\Approved FY04 Taskplans\Labs EMA 4IFSHUT.mpp
 S:\cpe\FY04 Task Plan Summary\Labs\4IFSHUT.xls
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3. Schedule Requirements

For all tests, material test reports will be submitted for NASA acceptance at least 3 days before the customer need date.
 Preventative maintenance schedules will be negotiated in maintenance plans.
 Unforseen maintenance will be performed on an as-needed basis.

4. Cost Tracking Requirements

Charge Number	Rev	Function Codes	Fund Source	WSTF Overhead %	\$K Amounts	Charge Number Title
EMA			37670		75	Project management, process/methods improvements/travel
EMD			37670		105	MCT tasks
EMF			37670		211	Flight hardware and materials testing
EMK			37670		59	Testing for Kennedy Space Center
EMS			37670		90	Test Facility and systems support maintenance

EMM	37670	116	Ignition/combustion systems maintenance
EMQ	37670	30	Standard Test Quality Assurance tasks
EMC	37670	24	MCT Maintenance tasks
HER	94910	25	Maintenance of MCT and Laboratories Office Mini-Computer Equipment and Software

Notes Total \$K 735

Reimbursable repair and maintenance costs other than normal wear and tear will be charged to specific customer's whose test causes this damage.

5. Evaluation Criteria

PROCESS: At completion of work, each Work Authorizing Document (WSTF 514) and report is reviewed to ensure requirements were met.

Contractor performance will be evaluated based on the quality of products (technical and schedule) delivered to NASA.

- CRITERIA: 1. Meets Technical Requirements
2. Meets offsite customer Due Date

Metrics: Percent materials or component preparations reworked, percent materials or components retested, number of test methods and number of reports transmitted, test method and report percentages rejected during NASA review, and report percentage transmitted within the committed schedule.

Note: This is only a summary of revision history. Details of the changes must be contained in the text of the Delivery Order.

Rev	Approved	Change (+/- \$K)	Contract Value	Revision Summary
A	24-JUN-04	16.5	748.35674	This revision is to perform Test #7 Round Robin tasks. The funds for this work are already allocated in 4IFSHUT, but these

funds have not been committed.