

Title:

Standard Testing

Revision:

B, 2

Revision Date:12/02/2009

Process Description/Objective:

This process describes the testing of materials and articles according to well-defined and established protocols. These include, but are not limited to: NASA Standard 6001, TP-WSTF-629, ASTM E-595, ASTM G-72, ASTM D-93, ASTM E-1354, SP-R-022A (Appendix A), and TP-WSTF-922.

Process Steward(s):

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Interfacing Processes

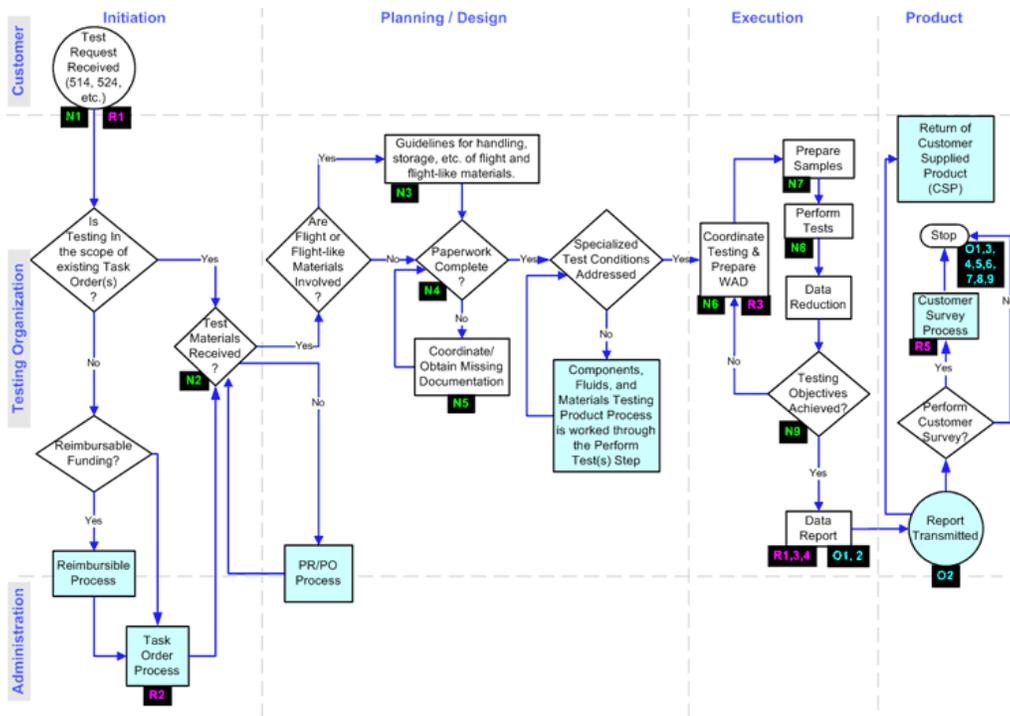
- Return Customer Supplied Product
 - Component, Fluid, and Material Testing
 - Customer Surveys
 - Purchase Request-Purchase Order
 - Task and Delivery Order
 - Reimbursable
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Input Requirements:

Test Request (WSTF Form 514, TPS, etc.), possibly Customer Supplied Product

Output Requirements:

Data Report, possibly Customer Supplied Product



Note: The following measures may be taken at any time during the process:

R6 This Process is Controlled Through the Materials and Components Testing (MCT) Information Management System

NOTES

Note 1

The Customer Agreement Review (CAR) for most Standard Testing has already been completed.

The project managers are empowered to establish the threshold at which routine customer communication becomes a complaint, and are accountable to management for the customer relationship. WSP09-0014, *Project Management* and WSI 01-SW-0001, *Customer Survey Process* discuss processing customer input in general.

Note 2

The following processes may be called as required:

- Critical Material Receiving Infrastructure Process

The following Handbooks are referenced:

- *Receiving, Handling, Storage, and Shipment of Bonded Property* (WSI-LABPROJS-0001)
- *Bonded, Controlled, In-Process, and Temporary Storage of Flight-Class and Critical Materials* (WSP 15-0002)

Note 3

Flight and Flight-Like Documents

- [Integrity Controls, Travellers, and Tags](#) (WSI 08-SW-0001)
- [Receiving Inspection of Critical Materials](#) (WSI 10-SW-0002)
- [Receiving, Handling, Storage, and Shipment of Bonded Property](#) (WSI LABPROJS-0001)
- *Bonded, Controlled, In-Process, and Temporary Storage of Flight-Class and Critical Materials* (WSP 15-0002)

Note 4

The following processes may be called as required:

- Test Preparation Sheet (TPS) Infrastructure Process
- Discrepancy Record (DR) Infrastructure Process
- Materials Safety Data Sheet (MSDS) Infrastructure Process

Note 5

Coordinate/Obtain Missing Documentation WJIs
["Materials Coordination"](#) (WJI-800-0023)

Note 6

MCT is an accepted WAD.

Note 7

List of Tests & corresponding WJIs

The following processes may be called as required:

- Fabrication Shop Infrastructure Process
- Calibration Infrastructure Process
- Component Services Infrastructure Process
- Parts Manufacturing Infrastructure Process
- Photo Lab/ Motion Picture/Video Infrastructure Process

The following Handbooks are referenced:

- Receiving, Handling, Storage, and Shipment of Bonded Property (WSI-LABPROJS-0001)

Note 8

List of Tests and Corresponding WJIs

The following processes may be called as required:

- Calibration Infrastructure Process

The following Handbooks are referenced:

- Receiving, Handling, Storage, and Shipment of Bonded Property (WSI-LABPROJS-0001)
- Control of Shelf Life Sensitive Materials (WSI-LABPROJS-006)

Note 9

Coordinated with the Customer, as required

RECORDS

Record 1

NASA WSTF Hypervelocity Test Request (WSTF Form 524) and NASA WSTF Test Request (WSTF Form 514)

Record 2

Task Order

Record 3

Work Authorizing Document (WAD).

Record 4

Data Report

Record 5

SM & A Office Customer Survey Files

Record 6

MCT

IN PROCESS METRICS

OUTPUT METRICS

OutPut Metric 1

Percentage of Materials Prepared without Rework.

OutPut Metric 2

Percentage of Materials Tested without Rework.

OutPut Metric 3

Percentage of Reports Completed without Rework.

OutPut Metric 4

Percentage of Reports Transmitted on Schedule.

OutPut Metric 5

Average Number of Days Reports are in Review.

OutPut Metric 6

Facilities Readiness

OutPut Metric 7

Total Hypervelocity Points Earned

OutPut Metric 8

Total Acceptable Hypervelocity Points Earned.

OutPut Metric 9

Hypervelocity Total Successful Shot Percentage.

MSM DOCUMENTS

Project Management (WSP-09-0014)

Receiving, Handling, Storage, and Shipment of Bonded Property (WSI-LABPROJS-0001)

Integrity Controls, Travellers, and Tags (WSI-08-SW-0001)

Receiving Inspection of Critical Materials (WSI-10-SW-0002)

Materials Coordination (WJI-800-0023)

Bonded, Controlled, In-Process and Temporary Storage of Flight-Class and Critical Materials (WSP-15-0002)

REFERENCES

Flammability, Odor, Offgassing, and Compatibility Requirements and Test Procedures for Materials in Environments that Support Combustion

General Specification Vacuum Stability Requirements of Polymeric Material for Spacecraft Application (Appendix A)

Guide for Hypervelocity Impact Testing for the NASA Johnson Space Center Hypervelocity Impact Technology Facility (HITF)

Materials and Components Testing System User Manual

Security Plan for the Materials and Components test Information System

Standard Test Method for Autogenous Ignition Temperature of Liquids and Solids in a High-Pressure Oxygen-Enriched Environment

Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter

Standard Test Method for Total Mass Loss and Collected Volatile Condensable Materials from Outgassing in a Vacuum Environment

Standard Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester

Test Protocol and Quality Assurance Program for the Navy Submarine Atmosphere Material Control Program at White Sands Test Facility