Plum Brook Station Work Instruction

Handling of Critical / Non-Critical Hardware

APPROVED

Approved by Plum Brook Management Office/7030:

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Change Record

Rev.	Effective Date	Description
Draft1	7/9/99	Draft Release
Initial Release	7/21/99	CR 1999-57, Initial Release
A	2/10/00	CR 2000-18, in step 6.10 incorrect section referenced.
B	8/11/00	CR 2000-54, in Section 2.1, change the document number for the Glenn Research Center (GRC) safety Manual from "LeR-M0530.001" to LeR-P0530.001"
B1	10/27/2000	CR 2000-115, Update Approving Authory to match current list.
C	5/13/03	CR 2003-24, Removed deleted procedures and modified document numbers in Section 2.0, removed deleted procedures from Sections 6.9, 7.0, 8.5, and 9.0.

1.0 PURPOSE

The purpose of this work instruction is to provide for the safe and practical movement of critical and non-critical hardware, minimizing risk of injury to personnel, or damage to hardware.

2.0 REFERENCES

Document Number	Document Title
GRC-P3.9.9	Handling, Storage, Packaging, Preservation and Delivery Revision A
LeR-M0530.001	GRC Safety Manual, Chapter 20
NSS/G0-1740.9B	"NASA Safety Standard for Lifting Devices and Equipment", dated Nov. 1991
Internal	Task Hazard Assessment
Internal	Safety Assessment
GRC-F7030.037	Daily Inspection of Critical Hardware Handling Equipment Checklist: • Crane Inspection Forms • Forklift Maintenance Form • Forklift Inspection Form
GRC-F7030.029	Proof Load Verification Test Form
GRC-F7030.035	Facility Critical Lift Acknowledgement Form

3.0 SAFETY PRECAUTIONS

Proper personal protective equipment is dependent upon the equipment used.

4.0 TOOLS, EQUIPMENT AND MATERIALS

Overhead Crane/Mobile Crane
Forklift, Transport Truck
Dolly, Cart, etc. **(will vary with material)**

5.0 PERSONNEL TRAINING AND/OR CERTIFICATION

Persons must receive on-the-job training prior to critical lift to be licensed to operate critical lift cranes or critical lift equipment. To perform a non-critical lift, persons must be a qualified crane or equipment operator. Training certifications must be kept on file in the employees' training record.

6.0 CRITICAL HARDWARE INSTRUCTIONS

6.1 The hardware is deemed critical by the NASA Facility Manager or NASA Program Manager in accordance with the NASA Lifting Standard.

6.2 Perform critical hardware handling equipment qualified operator training and complete GRC-F7030.035.

6.3 Perform critical lift with crane or other lifting device? If crane, proceed to step 6.4. If other than a crane, proceed to step 6.6.

6.4 If a crane is used for the critical lift, proceed in accordance with NSS/GO-1740.9B. Then proceed to step 6.5.

6.5 Perform daily inspection of the handling equipment and proceed to step 6.7.

6.6 If equipment (other than crane) is used for the critical lift, perform daily inspection for critical lift hardware handling by completing GRC-F7030.037 and GRC-F7030.029.

Any items deemed critical must be lifted with critical lift certified handling equipment. This equipment must be load tested to rated capacity, documented, and tagged to be critical lift certified.

6.7 Is the handling equipment found to be in good working condition as a result of the inspection? If no, proceed to Step 6.8; if yes, proceed to Step 6.10.

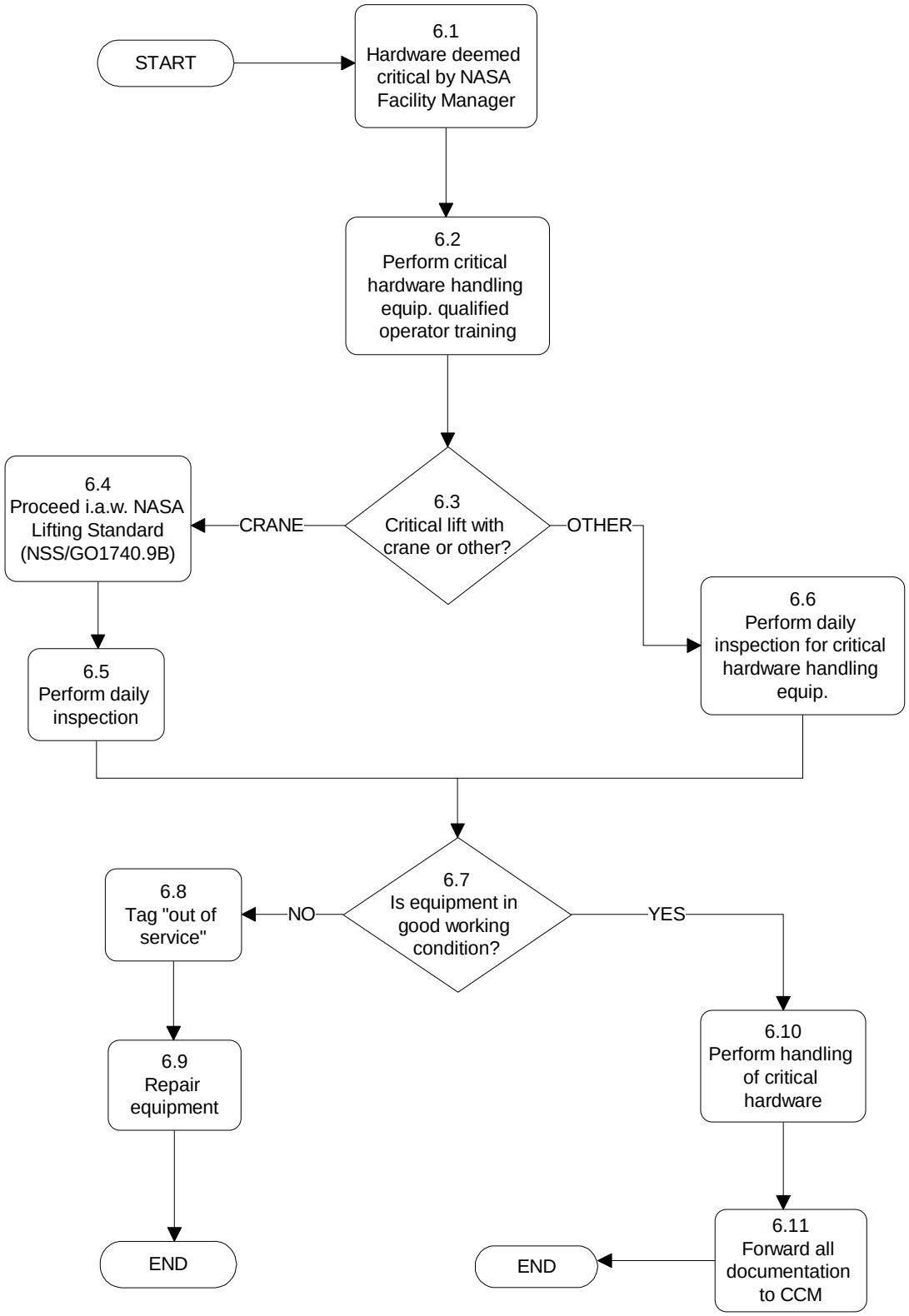
6.8 Tag handling equipment "out of service".

6.9 Arrange to have equipment repaired.

6.10 Perform handling of critical hardware and complete necessary forms per Section 2.0 References of this work instruction. Photographs will be taken when applicable.

6.11 All documentation must be sent to the Configuration Control Monitor (CCM) for final or further disposition. END OF INSTRUCTION.

7.0 CRITICAL HARDWARE FLOW DIAGRAM



8.0 NON-CRITICAL HARDWARE INSTRUCTIONS

8.1 Verify that the operator of the handling equipment is a documented qualified operator for the equipment to be used for handling of non-critical hardware.

8.2 Perform daily inspection of the handling equipment.

8.3 Is the handling equipment found to be in good working condition as a result of the inspection. If no, proceed to Step 8.4; if yes, proceed to Step 8.6.

8.4 Tag handling equipment "out of service".

8.5 Arrange to have equipment repaired.

8.6 Perform lift.

8.7 All documentation must be sent to the Configuration Control Monitor (CCM) for final or further disposition. END OF INSTRUCTION.

9.0 NON-CRITICAL HARDWARE FLOW DIAGRAM