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Procedures for DOE-Navy Exchange and Approval of Engineering Information and Material Management Required for Production of W88-0/MK5 RBA

Edward J. Barkocy

Prepared by
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for the United States Department of Energy
under Contract DE-AC04-84AL85000

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Procedures for DOE-Navy Exchange and Approval of Engineering Information and Material Management Required for Production of W88-0/MK5 RBA

Revised edition:
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Abstract

This report [Grey Book] establishes the procedures whereby information pertaining to the W88-0/MK5 RBA, MK5 JTA, and associated test equipment configurations and nonconformances will be exchanged and approved by the US Navy and DOE agencies. Material management procedures common to the Navy and the DOE will be implemented according to the provisions agreed to and reported here. Parties to this agreement are: Department of the Navy Strategic Systems Programs; Department of Energy Albuquerque Operations Office; Navy Contractor (Lockheed Missiles and Space Co., Inc.); Mason & Hanger-Silas Mason Co., Inc., Pantex Plant; Los Alamos National Laboratory; Sandia National Laboratories; and Allied Signal/Kansas City Division.

MASTER

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STATEMENT OF AGREEMENT

Engineering information pertaining to W88-0/MK 5 RBA, MK5 JTA, and associated test equipment configurations and nonconformances will be exchanged and approved by Navy and DOE agencies per the procedures contained herein. Material management procedures common to the Navy and DOE will be implemented per this agreement. The parties to this agreement are:

Department of the Navy, Strategic Systems Programs (SSP)
Department of Energy, Albuquerque Operations Office (DOE-AL)
Navy Contractor (Lockheed Missiles & Space Co., Inc.)
Mason & Hanger - Silas Mason Co., Inc., Pantex Assembly Plant (PX)
Sandia National Laboratories (SNL)

K. W. Tobin
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11/18/87
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Program Office
Los Alamos National Laboratory

11/18/87
Date

G. A. Whitaker-Daniels
Program Office
Lockheed Missiles & Space Co.

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W88/MK5 Program Manager
MH-SM Co., Inc.
Pantex Assembly Plant

6/15/94
Date

Procedures for DOE-Navy Exchange and Approval of Engineering Information and Material Management Required for Production of W88-0/MK5 RBA

1. General

This document defines the procedures whereby the DOE and the Navy and their contractors will exchange and approve certain engineering information during production of the War Reserve (WR) MK5 RBA and the MK5 JTA, and the common material management procedures applicable to these agencies.

1.1 Scope

The procedures herein pertain to:

- a. Navy configuration changes (drawing number changes) for items shipped from the Navy Contractor to DOE production agencies.
- b. Disposition of Navy Contractor-supplied material found to be discrepant upon receipt at DOE production agencies, or determined to vary from specification at some point in the assembly process.
- c. Identification of Navy-approved nonconforming material supplied by LMSC to the DOE.
- d. Authorizations to use DOE material that varies from specifications.
- e. Alteration of Navy material and equipment via Navy Strategic Systems Program Alteration (SPALT) or Trident Alteration Directive (TAD) that may affect material delivered to DOE production agencies.
- f. DOE production agency use of Navy-supplied test and handling equipment.
- g. Reporting requirements for engineering and material management information.
- h. Disposition of disassembled DOD material.

1.2 Configuration Control

The DOE configuration control system and DOD/DOE configuration interface during WR production are depicted in Chart 1.

1.3 Material Management

Material management procedures are established between the Navy, Navy Contractor, and the DOE production agencies to avoid material shortages and schedule delays, and encompass the subjects of:

- a. Interproject Schedules (IPS)
- b. Interproject (IP) Order Numbers
- c. Controlling material returned for repair
- d. Reconciliation of DOD material deliveries and receipts
- e. Mutual agreement on how parts are packaged, identified, quantities in each package, and quality evidence required

2. Design Changes

2.1 Interface Control Drawing

DOD and DOE agreements regarding technical interface requirements are documented in the Interface Control Drawings (ICD). ICDs are prepared, controlled, and maintained in accordance with OD55553. Proposed changes must be reviewed and approved by all signers of the drawing.

The applicable ICDs are:

W88-0/MK5 physical 5628505
W88-0/MK5 functional 5628504
MK5 JTA physical 5634469
MK5 JTA functional 5634468
MK5 DW/JTA RB RIMU Systems Tester functional and physical 5634473
MK5 Container 5634709
MK5 DW/JTA RB RIMU to Health Tester functional and physical 5634472
MK5 JTA RB physical ICD 5664800
MK5 JTA Reentry Body functional ICD 5664801
MK5 JTA Reentry Body RIMU (Strapdown) to Health Test functional ICD 5664799

The DOE design agencies, Los Alamos and Sandia, prepare production drawings and specifications in consonance with the ICD and release a WR baseline configuration to the DOE production agencies.

2.2 Navy Design Change

Refer to Chart 2, which depicts the information flow whereby LMSC notifies Sandia and Los Alamos of design changes for items shipped to the DOE. If a change to the ICD precedes the Navy design change, the information flow shown at the bottom of Chart 2 is followed.

2.3 DOE Design Changes

The DOE production agencies may make requests for design agency approval of design changes. If an ICD change is required, refer to Chart 3, which depicts the information flow and approvals necessary for ICD revision. Design agency approved change orders authorize changes to the baseline. Significant changes require identification by a new part number (suffix change) and/or a change effectivity. The product submitted for DOE acceptance must conform to the authorized configuration.

3. Record of Assembly

A Record of Assembly (ROA) listing part numbers, serial numbers, etc., of the major items assembled into each reentry body (per RD301741) is prepared by the DOE production agency. This record is maintained by Sandia for the stockpile life of the RB, except for limited life components whose records are maintained by DOE-AL.

4. Nuclear Ordnance Record Card

A Nuclear Ordnance Record Card (NORC) is prepared by the DOE production agency for each Tactical and JTA reentry body assembly (RBA) produced at Pantex. The RBA NORC and release assembly (RA) NORC are both required for shipment from Pantex. Program Management Office, Strategic Systems Programs, Sunnyvale, CA (SPL) is the office of record for the NORC.

Upon final disassembly due to dismantlement or for surveillance testing, which results in retirement, a copy of the NORC showing disposition should be sent to the SPL office of record by the production agency via SNL.

5. DOD-Furnished Ancillary Equipment

5.1 Design Control

The Navy supplies ancillary equipment to the DOE production agencies for use in testing and handling the W88-0/MK5 RB and W88-0/MK5 JTA. This equipment remains under the design control of the Navy and is identified by Navy drawing numbers and nomenclature. It is the responsibility of LMSC to maintain continuing functional design equivalency with similar items of equipment in use at Navy facilities. If Navy equipment is used for testing, the operating procedures and calibration procedures shall be defined by Navy OD and provided to the DOE.

5.2 DOE Requested Change

Configuration changes desired by DOE agencies will be submitted by Change Request (CR) letter from Sandia to the Navy Contractor, through SPL, for concurrence with the proposed equipment modification. LMSC and Navy approval or rejection of proposed changes will be by letter to Sandia. The Navy Contractor will revise drawings to reflect approved equipment changes. Refer to Chart 3A.

Provisions for emergency changes do exist. A "critical change" is considered to exist when an immediate solution to a problem is required in order to maintain the capability of proofing, testing, inspecting, or processing operations such as to correct a hazardous condition that could result in injury to personnel; or damage/destruction of equipment. Emergency changes desired by DOE agencies will be telephoned to the Navy Contractor, followed by confirming FAX or overnight mail, directed to the cognizant design organization for equipment affected, with copies to SPL and affected government facilities. Refer to Chart 3B. Upon receipt of an emergency CR, the cognizant design organization may give approval for a Critical Condition Engineering Order (CCEO) to be written. The CCEO will include design change, hardware alteration instructions, recertification requirements, safety certification requirements, and reidentification requirements. The CCEO will constitute authority to perform the emergency change.

5.3 LMSC/Navy Change

Navy Contractor/Navy-initiated configuration changes to equipment located at either DOE or Navy facilities, or at both locations, will be documented in TAD documents. SPL will send a copy of each TAD document proposal affecting equipment used by DOE agencies to Sandia for concurrence. Approved TADs will be incorporated in revised Navy drawings as authorization to modify equipment. SNL will notify the Navy Contractor by letter via SPL when the TAD is completed so LMSC can enter TAD complete into the CAS system. Refer to Chart 3A.

6. DOD Alteration Documents

6.1 Navy Strategic Systems Program Alterations (SPALT)

A SPALT is an instruction to alter, rework, or replace Navy-supplied material. Material may be located at the Navy Contractor, at a DOE production agency, or delivered to the Navy. Authorization will be given to the Navy Contractor by a Navy-approved SPALT. (Changes to material delivered to stockpile will be handled by a Nuclear Weapons Retrofit Order.) The information flow depicted in Chart 4 covers the Navy Contractor/Sandia/Los Alamos technical coordination, SPALT coordination and approval, and DOE-AL instructions to production contractors regarding material located within the DOE.

6.2 Trident II (D5) Alteration Directive

A TAD is an instruction to alter, rework, or replace Navy-supplied support equipment. The equipment may be located at the Navy Contractor, at a DOE production agency, or delivered to the Navy. Authorization will be given to the Navy Contractor by a Navy-approved TAD in accordance with OD56278.

7. Discrepant Material Authorization

7.1 Waiver and Deviation Authorizations for DOD Material

Refer to Chart 5, which depicts the flow of approved Category B, and observable Category C Waivers and Deviations (reference Navy Instruction SSPINST4200.1A) for Navy material shipped to DOE.

Material recycled by the Navy Contractor for repair or rework and subsequently returned to DOE will be accompanied by a Discrepancy Record Summary, which documents all acceptable Waivers and Deviations. This record will be handled by the DOE production agencies in the same manner as Waivers and Deviations per Chart 5.

Note: Material may be located in stockpile by means of the ROA System (see Section 3), which records the serial/lot number of the item as shown on the approved Waiver or Deviation or Discrepancy Record Summary.

7.2 Specification Exception Authorizations for DOE Material

DOE material that varies from specifications in a manner that will not affect the DOD user may be approved for use by Sandia or Los Alamos. If the DOD user is affected, then DOE-AL/AAO will negotiate disposition with SSPO/SPL. Refer to Chart 6.

8. Disposition of Discrepant DOD-Supplied New Material

8.1 Evaluation Criteria and Repair Procedure

SSP OD58292, Volume II, describes the criteria by which defects in DOD supplied MK5 RB/RA material may be evaluated. It also authorizes DOE to perform certain repairs. The repair procedures are described in SSP OD59041. These criteria and procedures are a part of Sandia SS379447, which is used by the DOE production agencies.

8.2 Disposition Specified in Drawings

Dispositions of material that is acceptable (defects that are acceptable for use without repair), repairable, consumable, or salvageable, as designated in SS379447, are shown in Chart 7A, steps 1 through 2d. Disposition is not required for acceptable defects.

Salvageable items shall be returned to the Navy Contractor when found to be defective and unrepairable. The shipper shall be marked "Salvageable Material," and no "Notice of Disposition" is required.

8.3 Disposition Not Specified in Drawings

For disposition of unrepairable material that is not designated as consumable or salvageable and material with defects that are not defined in SS379447, the production agency shall initiate a "Request for Disposition of Discrepant DOD Material." After the request has been processed through the appropriate DOE and DOD agencies, the production agency will receive a "Disposition Reply." See steps 2e through 8, Chart 7A.

DOE-AL and SSPO/SPL will be parties to the disposition decision when delivery schedules are affected. DOE-AL will release schedule changes to the DOE agencies.

8.4 Navy Contractor Discovered Discrepancies

Discrepancies noted by the Navy Contractor after delivery of material to the production agency will be processed as shown in Chart 7B.

8.5 Disposition of Reentry Body Inertial Measuring Units (RIMU)

The disposition of a RIMU shall follow Chart 7 except that the DOE production agency will be Allied Signal Inc., Kansas City Division (KCD) in addition to Pantex. If a RIMU, P/N 5655128 or 5663184, fails at Pantex, as part of the telemetry assembly, Pantex will follow Chart 7 for disposition of the RIMU. All RIMUs that are dispositioned shall be in the unclassified condition. See paragraph 9.3 for further information.

9. Disposition of DOD Surveillance and Fleet-Returned Material

DOD material that is disassembled during New Material Laboratory Testing (NMLT), New Material Flight Testing (NMFT), Stockpile Laboratory Testing (SLT), Stockpile Flight Testing (SFT), or repair of fleet-returned RBs performed by the DOE will be disposed of as follows.

9.1 Disposition of Surveillance Material

Routine disposition has been predetermined and specified in DOE drawings BB301741 (Laboratory Test Program Requirements, W88-0/MK5) and RS379460 (Reprocessing Specification, W88-0/MK5), which shall be prepared from the plan provided in OD60118, OD57008, and OD59856.

- a. Routine disposition for individual items of DOD material may be:
 - (1) returned to Navy Surveillance Facility (NSF) for stockpile evaluation, recertification of structural components for Joint Test Assembly (JTA), or stockpile use
 - (2) retained and recertified by the DOE production activity for JTA or stockpile use
 - (3) retained for continuation of joint DOE/DOD surveillance activities or
 - (4) returned to the Navy Contractor for analysis, refurbishment, repair, recertification, reuse, and/or scrap.
- b. Surveillance items routinely returned to the NSF will be conspicuously annotated "Surveillance Material - Replacement Not Required" on Form PX 859A. Replacement for these routine returns is not made on a one-for-one basis, but rather on a predetermined basis by quantities and time frames as indicated in the IPS.

When material is shipped directly to the NSF, an information copy of Form PX 859A will be mailed to the Navy Contractor.

- c. Discrepant Flight Test Units are dispositioned in accordance with Chart 8.
- d. Where routine disposition is not applicable, surveillance materials shall be dispositioned in accordance with Chart 8.

9.2 Disposition of Fleet Returned Material

When discrepant fleet-returned material is found, disposition is made in accordance with Chart 8.

An Unsatisfactory Report (UR) will be prepared by the NSF Representative (Albuquerque) for defects found during surveillance and for defects found on fleet-returned repair units that were not reported on the Fleet UR. Disposition of discrepant material will be in accordance with the Navy/Contractor UR response. The NSF representative will review the finding with Sandia Stockpile Evaluation and, if required, Sandia Stockpile Evaluation will issue a Significant Finding Notice. Items returned to the Navy Contractor or NSF on special request for additional evaluation will be annotated on Form PX 859A, "Surveillance Material - UR Processed." This annotation will be a "flag" to evaluate the UR response for possible item replacement.

These items will be shipped on a separate Form PX 859A and not combined with routine returns. When material is shipped directly to NSF, an information copy of Form PX 859A will be mailed to the Navy Contractor.

9.3 Disposition of Discrepant RIMUs

The RIMU is a DOD-supplied subsystem to the DOE Allied Signal Inc. (KCD) facility for assembly into Joint Test Subassembly (JTS) units and Telemetry (TM) reference units. RIMUs shall be returned to the DOD from KCD if they are determined to be discrepant within the DOE. This determination can be the result of "Health Testing" at KCD or at Pantex.

These testing operations can result in a classified, discrepant RIMU (see PS376501 and/or PS377237). Before the RIMU is dispositioned, it shall be placed in an unclassified condition. In the event that a RIMU is discrepant and it is impractical to put it in an unclassified state, it may be returned as "classified." The RIMU shipping container and shipping papers must be marked accordingly. Honeywell International shall be notified in advance that the RIMU is being returned in a classified state and of the shipping arrangements. The test data, including the calibration trailer tape, shall accompany the discrepant RIMU when dispositioned. The RIMU and its test data shall be dispositioned as a unit and shall follow Chart 7 for new material and Chart 8 for JTAs/RIMUs returned from the fleet, except that the DOE production agency will be Allied Signal Inc. in addition to Pantex.

10. Interproject Schedule

10.1 Preparation

An Interproject Schedule (IPS) is prepared by the DOE production agency and released by DOE-AL. This schedule contains delivery requirements for the Navy Contractor material, including attrition quantities mutually agreed to by DOD and DOE, to be shipped to the DOE production agencies to meet the Program Control Document (PCD) schedule requirements. Interproject order numbers are used in development of the IPS. The Navy will assist with the preparation of the IPS as requested by DOE.

10.2 Revision

IPS revisions will be issued by DOE-AL upon substantial changes in the DOE-AL PCD or as deemed necessary. Interim revisions to the IPS will be made by TWX with distribution the same as that of the original IPS.

10.3 Attrition

DOE production agencies will review attrition losses periodically and, subsequent to Navy/Contractor coordination, adjust the requirements for future deliveries if necessary.

11. Shipping

11.1 Notification

Prior to Navy material shipment by the Navy Contractor, the contractor will telephone the DOE production agencies and provide pertinent shipping information, including estimated time of arrival.

11.2 Material Return Authorization

The Material Return Authorization (MRA) control number, assigned by the DOE production agency, is used to control the receipt and shipment of Repairable/Replacement DOD hardware to and from the Navy Contractor. Actual shipment of hardware from the DOE facility to the Navy Contractor will be as directed by the Navy/SPL.

11.3 Shipping Document

The DOE production agencies use form PX 859A "Shipping Voucher" to return DOD hardware to Navy/Navy Contractor. This form will reference the DOD Discrepant Material Disposition number, the MRA number, the item serial number (if any), and one of the following statements: "Replacement Required - UR Processed" or "Replacement Not Required." Allied-Signal KCD will ship on form KCD136. Navy material will be shipped to the DOE production agencies on form DD250, DD1149, or DD1348-1, referencing an MRA number if appropriate. Material issued to a using site from a DOD stockpoint is in "Ready-for-Issue" condition unless otherwise specifically noted. A condition code is shown in card column 71 on the form DD1348-1. Material shown with a condition code "A" will be processed and used as new material received from the Navy on form DD250.

11.4 Release Assemblies

Release assemblies (R/A) returned to Navy Contractor/Navy or NSF shall include its Nuclear Ordnance Record Card (NORC).

12. DOD Material Reconciliation

The DOE Pantex Plant will forward copies of all DOD material shipping vouchers and receiving reports to the Navy Contractor/SPL monthly. Navy/DOE Pantex Assembly Plant personnel will communicate on the status of DOD-furnished, limited shelf life stock as required. The DOE and Navy Contractors will periodically review and identify all currently open MRAs. At times mutually agreed to by DOE-AL and SSPO/SPL, current inventories of selected items at Pantex will be provided.

13. Predisposition of Defective DOD Material at Pantex

The W88-0/MK5 Logistics and Production Subcommittee (LPSC) developed disposition procedures for several hardware items if they are found to be defective at Pantex. The LPSC directed that these disposition procedures be inserted in this procedure. See the Appendix for specific disposition procedures.

APPENDIX

Predisposition of W88-0/MK5 DOD Hardware at Pantex

1. Predisposition of Defects

Disposition of hardware contained in Table A may be performed by Pantex (Mason and Hanger) personnel in accordance with the following ground rules.

- 1.1 Predisposition applies to new production, piece-part hardware, contained in Table A only.
- 1.2 Parts listed may be dispositioned in accordance with Table A without RD/DR action.
- 1.3 Documentation of predisposition actions will be in accordance with Table A by one of three methods:
 - (1) Periodic notices of disposition, i.e., records of actions, will be accumulated and periodically documented on a single notice of disposition for distribution
 - (2) By requiring normal ND action, or
 - (3) Predisposition without ND action.

2. Request for Disposition - Action Priority Codes

- 2.1 Coding system to identify Pantex production priority requirements:

Code	Response Time
A	Immediate
B	3 days
C	10 days
D	30 days

Action priority codes will be established by Mason and Hanger/DOE-AAO.

2.2 Line flow sequence for coded actions:

2.2.1 Codes A and B

- (1) Telecon Mason Hanger Pantex to SNL or DOE-AAO to SPL, identifying request for disposition DOD number, code, and proposed action.
- (2) Relay request by telecon SNL to LMSC or SPL to LMSC.
- (3) LMSC evaluate technical and program risk and submit to SPL-25 for approval.
- (4) Telecon LMSC to SNL to Mason Hanger Pantex or LMSC to Mason Hanger Pantex.
- (5) FAX/TWX SNL to Mason Hanger Pantex as required.

2.2.2 Codes C and D

- (1) Telecon Mason Hanger Pantex to SNL.
- (2) Telecon SNL to LMSC.
- (3) LMSC evaluation and SPL approval.
- (4) Telecon LMSC to SNL.
- (5) Telecon SNL to Mason Hanger Pantex with TWX follow-up.

3. Documentation

3.1 All discrepancy dispositions, regardless of action codes, shall be documented and distributed via the DOE/RD/DR/ND system.

3.2 The RD/DR/ND messages shall contain program identifiers as follows:

- (1) For WR Production: "Program: 8-XX"

Note: XX is a sequential number identifying the numerical sequence of a WR discrepancy.

- (2) For JTA Production: "Program: 88 JTA-XX"

Note: XX is a sequential number identifying the numerical sequence of a JTA discrepancy.

- (3) For Field Return Units: "Program: 88 REP-XX"

Note: XX is a sequential number identifying the numerical sequence of field return units.

4. Periodic LMSC/SPL Visits to Pantex

- 4.1 Stock screening may be conducted by LMSC/SPL at Pantex when determined to be necessary, i.e., in the best interest of DOE/DOD.
- 4.2 Repair of DOD hardware may be accomplished by LMSC/SPL at Pantex when determined to be in the best interest of DOE/DOD.
- 4.3 Timing of visits will be established by DOE-AL and SPL coordination.

5. Points of Contact (RD/DR/ND message addresses)

5.1 RD/DR/ND addresses:

To/from Pantex Plant/Sandia, as appropriate. Information copies as follows:

US DOE-AL, K. Smithson, WPD, Albuquerque, NM
US DOE-AAO, Pantex Plant, Amarillo, TX
PMOSSP, SPL-25/181, Attn: D. Kletter, Sunnyvale, CA
LMSC, Attn: A. D. Knapp, 80-02/154, Sunnyvale, CA
LMSC, Attn: R. D. Teter, 81-70/157, Sunnyvale, CA
LMSC, Attn: A. Afanasieff, 84-40/182, Sunnyvale, CA
SNL, J. Middleton, 12363, Attn: L. Hull, LMSC Rep

5.2 LMSC/SPL points of contact:

LMSC:	Technical/PA	R. Teter, 81-70/157 A. Afanasieff, 84/40/182
	RIMU	C. D. McCready, 84-30/182
	Program Requirements	A. Knapp, 80-02/154 E. Alvarez, 80-02/154 R. Kissinger, 87-30/157
SPL:	Technical	D. Kletter, SPL-25/181
	Program Requirements	J. A. Leetham, SPL-612/181 J. A. Fritz, SPL-623/181

5.3 LMSC/SPL address for MK5 mass property measurement data for WR and JTA RBs from DOE/SNL is:

Program Management Office
Strategic Systems Programs
Lockheed Missiles & Space Company, Inc.
Attn: SPL-25
Pass copies to:
LMSC, B. G. Giancola, 81-10 (2 copies)
PO Box 3504
Sunnyvale, CA 94088-3504

TABLE A

MK5 Predisposition

Part Name	Defect Description	Predisposition	Notice of Disposition
Aft Closure Assembly	A. Exceeds accept/reject criteria	Return to LMSC/SCF	Required
Forward Transmission Lines	A. Lockwire holes	If diagnostic testing is not required – scrap at Pantex	PX to inform LMSC PA before scrapping – LMSC may request line for diagnostic testing
	B. Coupling nuts		
	C. Exceeds accept/reject criteria		
	D. Packaging damage		
	E. Improper marking on hardware		
	F. Improper marking on box/packaging documentation	Telecon Pantex/SNL/LMSC required	Not required
	G. Failed RF test	Telecon Pantex/SNL/LMSC required – return to Kaman Instrumentation	Required (Ref original system failure)
Release Assembly	A. All LMSC installed lockwires broken, missing, or incorrectly installed	Return to LMSC/SCF	Required
	B. Damaged or missing protective caps/sleeves	Replace at Pantex	Not required
Forebody Assembly	A. Nose plug defect	Return to LMSC/SCF	Required
	B. Seal surface defect		
Aft Shell	A. Insert problems	Return to LMSC/SCF	Required
	B. Seal surface defect	Telecon Pantex/SNL/LMSC required – return to LMSC/SCF.	Required
	C. RF test failures		
	D. Damaged or missing protective caps	Replace at Pantex	Not required
IFD Nuts	A. Exceeds accept/reject criteria	Return to LMSC/SCF	Periodic notices required

Chart 1. DOE Configuration Control

Chart 2. Navy Design Changes (ICD Not Affected)

NAVY DRAWING NUMBER CHANGES (ICD AFFECTED)

KEY:

—— NORMAL FLOW

- - - - ALTERNATE FLOW

○ OPERATION

○ TRANSMIT

□ REVIEW

◇ APPROVE

Chart 3. DOE (SNL/LANL) Design Changes (ICD Affected)

*NOTE: ICAL MAY BE ORIGINATED BY SNL OR LANL

KEY: ○ OPERATION □ REVIEW
○ TRANSMIT ◇ APPROVE

Chart 3A. DOD Ancillary Equipment Modernization Actions (CR, TAD)

KEY

—— NORMAL FLOW
 - - - - - ALTERNATE FLOW

○ OPERATION
 ○ TRANSMIT

□ REVIEW
 ◇ APPROVE

NOTES: * OR BY TRANSMITTAL OF "DISPOSITION REQUEST"

** CRs ORIGINATED BY THE CONTRACTOR THAT AFFECT SAFETY
 MAY BE SUBMITTED TO SPL FOR REVIEW/COORDINATION

REF: OD 56278 CONFIGURATION CONTROL OF SUPPORT EQ AT SPECIFIC LOCATIONS

Chart 3B. DOD Ancillary Equipment Modernization (Emergency*) Actions (CR, CCEO, TAD)

KEY

—— NORMAL FLOW
 - - - - - ALTERNATE FLOW

○ OPERATION
 ○ TRANSMIT

□ REVIEW
 ◇ APPROVE

NOTES: * A "CRITICAL" CONDITION EXISTS WHEN IMMEDIATE SOLUTIONS ARE REQUIRED WHEN TEST OR INSPECTION CAPABILITY IS REQUIRED TO BE MAINTAINED.

** ALL UNITS, INCLUDING THOSE UNITS ALTERED BY CCEO, SHALL BE ALTERED IN ACCORDANCE WITH THE TAD.

Chart 4. DOD Modernization Actions (SPALT/NWRO/TAD*)

KEY: ——— NORMAL FLOW

○ OPERATION

□ REVIEW

- - - - - ALTERNATE FLOW

○ TRANSMIT

◇ APPROVE

*STATEMENT REGARDING EFFECT
ON DOE INTERFACES AND TOOLING*NOTE: TAD PROCEDURES FOR EVALUATION AND APPROVAL ARE THE SAME AS
FOR SPALT/NWRO EXCEPT THAT STEP 4B APPLIES IN LIEU OF 4A.

Chart 5. Waiver and Deviation Authorization for DOD Material

*REFERENCE SSPINST4200.1A

NOTE: CAT. "B" AND OBSERVABLE "C"
DEVIATIONS AND WAIVERS ARE FILED IN
THE UNIT RECORD (BOMB BOOK) AT THE
DOE PRODUCTION AGENCY.

KEY:

——— NORMAL FLOW

◇ APPROVE

○ OPERATION

○ TRANSMIT

Chart 6. Specification Exception Authorization for DOE Material

KEY

—— NORMAL FLOW

○ OPERATION

□ REVIEW

---- ALTERNATE FLOW

○ TRANSMIT

◇ APPROVE

Chart 7. Disposition of Discrepant DOD Supplied New Material

7A	DISCREPANCIES NOTED BY DOE PRODUCTION AGENCIES	
DOE PRODUCTION AGENCIES	1. NOTE DEFECT	2a. ACCEPT PER SS379447 2b. REPAIR PER SS379447 2c. SCRAP (CONSUMABLES) PER SS379447 2d. TO NAVY CONTRACTOR (SALVAGEABLE) PER SS379447 2e. "REQUEST FOR DISPOSITION" TO SNL*
SNL/LANL		3. CONTACT NAVY CONTRACTOR (VIA SPL) FOR DISPOSITION PREPARATION
NAVY CONTRACTOR		4. NAVY/CONTRACTOR PREPARE DISPOSITION TO SPL FOR APPROVAL***
NAVY-SPL		5. REVIEW, DISPOSITION APPROVAL TO CONTRACTOR
7B		DISCREPANCIES NOTED BY NAVY CONTRACTOR
NAVY CONTRACTOR	1. NOTE DEFECT	2. DISPOSITION TO SPL FOR APPROVAL
NAVY-SPL		3. DISPOSITION TO DOE/AL
DOE/AL		4. DISPOSITION TO DOE/AREA OFFICE**
DOE AREA OFFICE		5. ACTION INFO TO SNL/LANL SAME AS 7 & 8 ABOVE

*W/INFO COPIES TO DOE/AL**, DOE AREA OFFICE, SPL, NSF AND NAVY CONTRACTOR.

**NEGOTIATE SCHEDULE MODIFICATIONS WITH SSPO AS REQUIRED.

***INCLUDE ANY REQUIRED NORC ENTRIES.

Chart 8. Disposition of Discrepant DOD Surveillance, Fleet Returned, and Repair Material

KEY:

— NORMAL FLOW

○ OPERATION

□ REVIEW

○ TRANSMIT

*ENCLOSE COPY OF

TWX WITH SHIPMENT

Glossary

Advance Change Order (ACO). A release to change released design definition before the drawing changes are all incorporated in new drawing issues and to authorize the DOE production agency to implement the change.

Alterations (ALTS) Number. An alteration number identifies incorporation of a change to a DOE weapon that does not alter the operational capability of the assembly, but is sufficiently important to the user regarding assembly, maintenance, storage, and testing to require controlled application and identification.

Consumable Material. An item that is not normally repairable or reusable.

DD250. DOD Form, Material Inspection and Receiving Report, used as proof of delivery of specific contract items.

DD1149. DOD Form used by Navy as invoice and/or shipping document.

DD1348-1. DOD single line item release/receipt document.

Deviation. A deviation is a Navy-specific authorization granted before the item is produced to depart from a particular requirement of a contract or other document.

Discrepancy Record Summary (DRS). The DRS documents all acceptable waivers and deviations.

Drawing Change Notice (DCN). A DCN is released with a Navy drawing that has been altered or revised in any manner.

Engineering Change Screening Request (ECSR). The ECSR is prepared when investigation (of a Design Change Request) has established the probable need for a change to Navy drawing.

Flight Test Program. A test program to verify complete weapon system function (less nuclear assembly) in normal stockpile-to-target sequence environments and to check compatibility between DOE and DOD hardware. Rebuilt units are from samples returned from stockpile. Prebuilt units are built originally from new production parts.

Interface Control Action List (ICAL). The ICAL is used as an official change request or to document interface problems and provide a record of the course of corrective action and scheduled completion (see OD55553).

Interface Control Drawing (ICD). A drawing that depicts physical and functional interface engineering requirements for the W88-0/MK5 RB.

Interproject Schedule (IPS). A schedule for delivery of material to DOE production agencies to meet Program Control Document (PCD) schedule requirements.

Joint Atomic Weapons Publication System (JAWPS). A system of technical manuals on nuclear weapons and associated material and such supplemental information or data determined appropriate by either DOD or DOE in connection with the general field of nuclear weapons.

Material Return Authorization (MRA). A DOE production agency authorization used to control the receipt and shipment of repairable and replacement DOD hardware to and from the Navy Contractor.

Modification (Mod) Number. A modification number identifies a change to a DOE weapon that alters its operational capability.

Navy Contractor. The Navy Contractor is Lockheed Missiles & Space Company, Inc.

Navy Surveillance Facility (NSF). The Navy or Navy Contractor activity established by SSPO to perform disassembly, test, and analysis for DOD material returned from the DOE assembly facility (Pantex). DOD material, returned by DOE Pantex, includes DOD surveillance and fleet returned items.

New Material Laboratory Test (NMLT). A test and inspection of samples of newly produced weapons and material accepted for WR to detect significant design, production, or weapon assembly defects.

Nuclear Ordnance Record Card (NORC). A permanent record of significant historical and operational information that accompanies each RB and Release Assembly.

Nuclear Weapons Retrofit Order (NWRO). A document, based on a SPALT, that provides instructions for the Navy to modify material in stockpile.

Production Waiver (PW). An authorization for use of limited quantities of DOE material that departs from product definition requirements in a manner that affects either reliability or function, interchangeability, assembly operations, storage life, and/or storage inspection frequency. Production Waivers impose restrictions, limitations, or cautions upon the Ultimate User but do not affect safety.

Program Control Document (PCD). A section of the DOE-AL Program Management Document that implements production and retirement directives from the Division of Military Application (DMA) and provides programming and administrative guidance necessary for weapons production and retirement. The Program Control Document establishes Pantex production schedules and provides procurement authorization guidance.

Quality Assurance Agency (QAA). A DOE organization that inspects and accepts nuclear weapons and weapons material submitted by DOE production agencies.

Record of Assembly (ROA). A record of the association of weapon parts and assemblies that provides a means of locating material for inspection, modification, or replacement.

Salvageable Material. An item that is not normally repairable but has salvage value.

Significant Design Change. DOE design changes are considered to be significant for any of the following reasons: (1) the change significantly improves safety, stockpile life, function, reliability, or interchangeability; (2) the changed part must be correlated with revised acceptance equipment; (3) the change adds a capability that affects use of the part; (4) the changed part must be correlated with an associated part also affected by the change; or (5) stockpile traceability is required through the Record of Assembly system.

SSPINST4200.1A. A Department of the Navy Strategic Systems Program Office instruction that establishes policy and procedures for reviewing and approving requests for waivers and deviations for the production of tactical, tactical training, training nontactical, and related support equipment and their spare parts for the Strategic Weapon System (SWS).

Strategic Systems Program Alteration (SPALT). A Navy-approved instruction to alter, rework, or replace Navy material or equipment as a result of an engineering change.

Specification Exception Release (SXR). An engineering release authorizing the use of a specific quantity of DOE product that does not completely meet its specifications.

Stockpile Laboratory Test (SLT). A periodic test and inspection of samples of weapons and weapons material that have experienced stockpile handling and storage environments to detect and evaluate any degradation that may have occurred.

Trident II (D5) Alteration Directive (TAD). A Navy prime contractor system for altering, reworking, or replacing support equipment that the contractor uses for missile or reentry body production. Unlike equipment that is SPALTed, this equipment does not undergo Navy delivery acceptance, i.e., DD250 acceptance.

Unsatisfactory Report (UR). A UR is a report of an unsatisfactory item or condition pertaining to nuclear weapons material or an instruction or procedure that requires clarification, correction, amplification, or resolution.

Waiver. A waiver is a Navy affirmative administrative action authorizing the acceptance by the Inspector of designated items which, after manufacture, having been submitted for inspection, are found not to meet contract technical requirements.

References

Document Number	Document Title	Document Source
5628504	MK5 RB to W88-0 and Fuzing – Functional – ICD	Navy Contractor
5628505	MK5 RB to W88-0 and Physical – ICD	Navy Contractor
5634468	MK5 JTA RB Functional – ICD	Navy Contractor
5634469	MK5 JTA RB Physical – ICD	Navy Contractor
5634472	MK5 DW/JTA RB RIMU to Health Tester Functional and Physical – ICD	Navy Contractor
5634473	MK5 DW/JTA RB RIMU Systems Tester Functional and Physical – ICD	Navy Contractor
5664799	MK5 JTA Reentry Body RIMU (Strapdown) to Health Test Functional ICD	Navy Contractor
5664800	MK5 JTA RB Physical ICD	Navy Contractor
5664801	MK5 JTA Reentry Body Functional ICD	Navy Contractor
OD55553	W88-0/MK5 Operational Interface Control Drawing Procedure	SSPO
OD56278A	Trident II (D5) Program Configuration Control of Support Equipment and Associated Software/Firmware at Specified Locations	SSPO
OD57008	W88-0/MK5 Surveillance Test Program Plan	SSPO
OD58292	MK5 Reentry Body Material Review Board Accept/Reject Criteria	SSPO
OD58398	Assembly/Disassembly Procedures for W88-0/MK5 Reentry Body	SSPO
OD59041	MK5 Reentry Body Repair Procedure	SSPO
OD59042	Workmanship Standards for Components of MK5 Reentry Body	SSPO
OD59856	W88/MK5 Reentry Body Surveillance Test and Analysis Requirements	SSPO

References (continued)

Document Number	Document Title	Document Source
OD60118	Separation System Surveillance Test Procedure	SSPO
BB301741	Lab Test Program Requirements, W88-0/MK5	Sandia
RD301741	Record of Assembly Requirements, W88-0/MK5	Sandia
RS379460	Reprocessing Specification, W88-0/MK5	Sandia
SSPINST4200.1A	Waiver and Deviation, Strategic System Program Office (SSPO) Policy and Procedure for Granting of . . .	SSPO
SS379447	Accept/Reject for W88-0/MK5 RB	Sandia

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