

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 21-204**

**28 AUGUST 2014**



**Maintenance**

**NUCLEAR WEAPONS MAINTENANCE  
PROCEDURES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**RELEASABILITY:** There are no releasability restrictions on this publication.

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OPR: AF/A4LW

Certified by: AF/A4L (BG Johnson)

Pages: 48

Supersedes: AFI21-204, 30 November 2009

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This publication implements Air Force Policy Directive (AFPD) 21-2, *Munitions* and is consistent with AFPD 13-5, *Air Force Nuclear Enterprise Policy Directive*. It provides nuclear weapons maintenance and handling guidance and procedures. It applies to all personnel who maintain and handle nuclear weapons. Units will contact the applicable MAJCOM for interpretations of the guidance contained in this publication. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (“**T-0, T-1, T-2, T-3**”) number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternatively, to the publication office of primary responsibility (OPR) for non-tiered compliance items. MAJCOM directed supplements to this publication must be routed to the OPR of this publication for coordination prior to certification and approval. Units will not publish a supplement to this publication. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). Refer recommended changes and questions about this publication to the OPR using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional’s chain of command.

**SUMMARY OF CHANGES**

This document has been revised and must be completely reviewed. This revision identifies tiered waiver authorities for unit level compliance items, defines Air Force Nuclear Weapons

Center/Logistic Group (AFNWC/LG) responsibilities, deletes the supervisor certification and Air Launched Cruise Missile (ALCM) Loaded Launcher/Loaded Pylon Tests, deletes build-up sheets and implements configuration records. Units have 90-days from the date of this revision to fully implement the revised procedures.

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## Chapter 1

### GENERAL

#### 1.1. Purpose and Guidance.

1.1.1. **Purpose.** This instruction provides guidance, delineates responsibilities, and establishes nuclear weapons maintenance and handling procedures.

1.1.2. **Guidance.** Nuclear Weapons Related Material procedures are located in AFI 20-110, *Nuclear Weapons Related Materiel (NWRM) Management*. General munitions maintenance responsibilities are located in AFI 21-200, *Munitions and Missile Maintenance Management*. Nuclear Bomb Dummy Units (BDUs) and TYPE Trainers are managed in Combat Ammunitions System (CAS) using procedures in AFI 21-201, *Conventional Munitions Management*. Missile maintenance guidance is located in AFI 21-202 Volumes 1 and 2, *Missile Maintenance Management*. Nuclear accountability guidance is located in AFI 21-203, *Nuclear Accountability Procedures*. Command disablement procedures are located in AFI 21-205, *Command Disable Systems (CDS) (Secret)*.

**1.2. General.** Nuclear weapons require special consideration because of their political and military importance, destructive power, cost and potential consequences of an accident or unauthorized act. Conserving nuclear weapons as national resources and ensuring the safety of the public, operating personnel, and property are most important during maintenance, storage, handling and logistics movement, and operational employment of nuclear weapons.

#### 1.3. Major Commands.

##### 1.3.1. General.

1.3.1.1. Oversee nuclear weapons employment, maintenance, and storage activities. Assist with weapons system sustainment activities and provide current information to all planning agencies as to weapon availability, compatibility, and capability. Coordinate technical support and provide guidance on maintenance issues beyond unit capabilities.

1.3.1.2. Ensure weapon and equipment resources are managed to comply with operational testing, Department of Energy (DoE) Quality Assurance and Reliability Testing (QART) and all Air Force testing program requirements.

1.3.1.3. Validate and forward Limited Life Component (LLC) expiration date extension requests, weapons maintenance delay waivers that exceed timelines established in paragraph 4.1.2.5., early LLC maintenance requests that exceed timelines established in paragraph 2.2.1.1., and Unsatisfactory Report (UR) or Deficiency Report (DR) repair action delays to the AFNWC Nuclear Weapons Logistics Division (NCL). Ensure LLC expiration date extension requests contain circumstances requiring an extension or delay. Ensure weapons maintenance delay waivers and UR/DR repair action delays contain the scheduled completion dates.

1.3.1.4. Verify integration of changes to technical data and review changes for accuracy.

1.3.1.5. Identify unit taskings in Maintenance Capability Letters (MCL). MCLs identify all weapons maintenance capabilities in support of contingencies and/or reconstitution taskings.

1.3.1.6. Develop and ensure units use MAJCOM standardized training outlines for all certifiable tasks, component packaging, H1616/H1700, and chaff operations.

1.3.2. **Air Force Global Strike Command (AFGSC).** AFGSC/A4 will serve as MAJCOM OPR for developing nuclear weapons maintenance and sustainment guidance.

1.3.3. **Air Force Materiel Command (AFMC).** AFMC/A4 is the OPR for AFMC nuclear weapons maintenance and sustainment guidance.

1.3.3.1. AFNWC. In addition to the responsibilities identified in AFI 21-2XX Series, AFNWC oversees Air Force nuclear weapon stockpile stewardship, including Air Force requirements, program planning, system development, stockpile life extension and sustainment programs. AFNWC provides support for reentry systems (RS), gravity weapons, warheads, cruise missiles, and weapons storage and security system (WS3). AFNWC serves as the primary point of contact on matters pertaining to weapons development and resolution of weapons maintenance issues.

1.3.3.1.1. AFNWC/LG provides a 24hr POC for notifications to AFNWC. AFNWC POC contact information will be disseminated to Joint Staff, Defense Threat Reduction Agency (DTRA), National Nuclear Security Administration (NNSA), AF/A4LW, AF/A10, and MAJCOM units within the nuclear enterprise.

1.3.3.1.1.1. AFNWC Sustainment and Technical Integration Center (STIC) provides a 24/7 integration, synchronization, advocacy, situational awareness and emergency response focal point for all nuclear enterprise mission areas ensuring safe, secure, reliable, effective and accountable nuclear weapon systems.

1.3.3.1.2. AFNWC/NI Intercontinental Ballistic Missile (ICBM) System Program Office and AFNWC/NCM Missile Sustainment Division, Nuclear Capabilities Directorate (Cruise Missile Program Office) will:

1.3.3.1.2.1. Provide status on nuclear related issues in work or requiring resolution to include sustainability of current programs in use by the field to the AFNWC, AFMC and applicable MAJCOM.

1.3.3.1.2.2. Provide disposition instructions to AFNWC/NCL for DoD-designed items requiring evaluation based upon their interface with DoE designed items. Disposition instructions will be included with the UR or DR response.

1.3.3.1.3. AFNWC/NCL will:

1.3.3.1.3.1. Serve as the Service Logistics Agent for all nuclear weapons assigned to the Air Force.

1.3.3.1.3.2. Represent the Air Force as a member of the Nuclear Reports Management Group.

1.3.3.1.3.3. Coordinate with appropriate MAJCOM to ensure weapons stockpile quantities align with the Nuclear Weapons Stockpile Memorandum (NWSM), and are available to meet operational mission requirements. Direct charge code

changes through either the Nuclear Ordnance Shipping Schedule (NOSS) or other means (e.g., Stockpile Lab Test (SLT) / Stockpile Flight Test (SFT) Warning Orders).

1.3.3.1.3.4. Direct as necessary, through official memorandum, additional inspections and maintenance of nuclear weapons and/or components, within the scope of approved technical procedures, to ensure availability of weapons to meet operational requirements, logistics plans, and other stockpile management requirements.

1.3.3.1.3.5. Manage SFT selections and provide SLT candidates to NNSA as required.

1.3.3.1.3.6. Develop Fiscal Year LLC Forecast and provide DTRA with Air Force requirements.

1.3.3.1.3.7. Determine retrofit kit requirements.

1.3.3.1.3.8. Fund procurement and transportation for Military Spares and DoE designed Air Force owned TYPE 3 trainers and special equipment.

1.3.3.1.3.9. Serve as the focal point for Nuclear Ordnance Controlled Material support, provide units and MAJCOMs assistance and coordinate with DTRA and NNSA, as required, to resolve nuclear management, technical, and sustainment issues.

1.3.3.1.3.10. Provide technical orders, supply support, test and handling equipment, and training devices.

1.3.3.1.3.11. Ensure required weapons trainers are serviceable and in the latest configuration.

1.3.3.1.3.11.1. Prepare and develop funding requests and program objective memorandum (POM) submissions for procurement of parts for fielded trainers, trainers undergoing refurbishment, and unique nuclear support and test equipment.

1.3.3.1.3.11.2. Develop life cycle plans for nuclear weapons trainers and coordinate with applicable MAJCOMs on availability of trainers for shipment to NNSA for repair/refurbishment.

1.3.3.1.3.11.3. Ensure TYPE 3 trainers managed by the AFNWC/NCL are inspected, maintained and repaired. Not all trainers managed by the AFNWC/NCL require inspection and maintenance (i.e., obsolete and excess trainers). Reference paragraph 4.1.9. for further trainer maintenance requirements.

1.3.3.1.3.12. Serve as the focal point for Code Management System (CMS) development, procurement and support. Provide DoD repair activity for Use Control equipment.

1.3.3.1.3.13. Serve as the single point within the Air Force for management and coordination of nuclear weapons and associated equipment materiel defects and deficiency UR program.

1.3.3.1.3.13.1. Collect, disseminate, and resolve issues concerning unsatisfactory conditions and forward corrective actions to units and applicable MAJCOMs.

1.3.3.1.3.13.2. Approve/disapprove UR/DR repair action delay requests and return as necessary to the unit and MAJCOM.

1.3.3.1.3.14. Coordinate with applicable organizations to provide support and guidance on maintenance issues beyond unit capability.

1.3.3.1.3.15. Publish a monthly Time Change Item/Support Schedule. This schedule will identify LLC component/support kits scheduled for delivery to each unit.

1.3.3.1.3.16. Publish a monthly Time Change Item Return Schedule (may be combined with support schedule). This schedule will identify component/kits to be returned to NNSA. This schedule may require coordination with affected unit to ensure availability.

1.3.3.1.3.17. Serve as the Air Force Executive Agent and single point of contact for management and coordination of change proposals affecting Joint Nuclear Weapons Publication System (JNWPS) documents. JNWPS change proposals affecting Air Force policy must be coordinated and approved by AF/A4LW.

1.3.3.1.3.18. Approve/disapprove unit requests to exceed LLC expiration dates and forward approved requests to DTRA for approval by NNSA.

1.3.3.1.3.19. Approve/disapprove weapons maintenance delay requests and return as necessary to the unit and MAJCOM.

1.3.3.1.3.20. Approve/disapprove early LLC maintenance requests and return as necessary to the unit and MAJCOM.

1.3.4. **United States Air Forces in Europe (USAFE).** USAFE/A10 will serve as MAJCOM OPR for developing nuclear weapons maintenance and sustainment guidance.

#### **1.4. Unit Responsibilities.**

1.4.1. **Wing Commanders.** In addition to the applicable responsibilities found in AFI 21-2XX series, Wing Commanders will:

1.4.1.1. Provide storage, security, control, and custodial responsibility for all nuclear weapons and nuclear components. **(T-0).**

1.4.1.2. Authorize all nuclear weapons movements outside a restricted area. **(T-0).** Nuclear weapons will not be moved outside a restricted area during hours of darkness or in severe weather conditions unless necessary to meet mission requirements. Wing Commanders will make this determination.

1.4.2. **Maintenance/Munitions Group Commanders.** In addition to the applicable responsibilities found in AFI 21-2XX series, Group commanders will:

1.4.2.1. Inform applicable MAJCOM if unit does not meet MCL requirements. **(T-2).**

1.4.2.2. Validate unit requests to exceed timelines established in paragraph 4.1.2.5. for nuclear weapons maintenance. **(T-1)**. If request is valid, forward request with justification and scheduled completion dates to the applicable MAJCOM.

1.4.2.3. Validate unit requests to extend LLC expiration dates or to perform LLC exchanges more than 6 months in advance of due date. **(T-1)**. If request is valid, forward request documenting circumstances requiring maintenance to be performed outside of normal windows and length of any requested extension to the applicable MAJCOM.

1.4.2.4. Validate unit requests to delay nuclear weapon UR/DR repair actions outside timelines established in paragraph 4.1.2.6. **(T-1)**. If request is valid, forward request with justification and scheduled completion dates to the applicable MAJCOM.

1.4.2.5. As necessary, appoint job qualification standard (JQS) qualified TSgts to intervene when a rejectable component or weapon is encountered or to evaluate any unknown or unusual weapon or major component condition and to determine whether to continue operations based on careful review of the facts and circumstances. (T-3)

1.4.2.6. Ensure Quality Assurance (QA) attends maintenance scheduling meetings. **(T-1)**. This will allow QA the opportunity to schedule/perform required evaluations from AFI 21-200, *Munitions and Missile Maintenance Management*.

**1.4.3. Munitions Accountable Systems Officer (MASO).** A single individual who oversees all aspects of the daily accountability and custody of the nuclear weapons stockpile. The MASO executes the accountable officer and custodian responsibilities identified in AFI 21-203, *Nuclear Accountability Procedures* and T.O. 11N-100-4, *Custody, Accountability, and Control of Nuclear Weapons and Nuclear Material*. In addition to the applicable responsibilities found in AFI 21-2XX series, MASO's will:

1.4.3.1. Initiate an AF Form 504, *Weapons Custody Transfer Document*, to document initial and subsequent custody transfers as outlined in AFI 21-203, *Nuclear Accountability Procedures*. **(T-1)**.

1.4.3.2. Account for assigned TYPE trainers in Combat Ammunition System (CAS) IAW AFI 20-110, *Nuclear Weapons Related Materiel (NWRM) Management* and AFI 21-201, *Conventional Munitions Maintenance Management*. **(T-1)**.

**1.4.4. Operations Officer/Maintenance Superintendent (OO/MX SUPT).** Overall responsible for the management of weapons/munitions activities. Responsibilities focus on the safe, secure, and efficient use of resources, while maintaining the highest degree of weapons/munitions capability, and reliability in accordance with all governing standards. The ultimate goal is maintaining a combat readiness capability commensurate with mission tasking. In addition to the applicable responsibilities found in AFI 21-2XX series, OO/MX SUPT will:

1.4.4.1. Appoint, in writing, instructors to establish, implement, and sustain the nuclear weapons training program (NWTP) outlined in Chapter 3 of this instruction. **(T-1)**. Interview all newly appointed NWTP instructors and ensure trainers meet all qualifications. **(T-1)**. Document interviews in Training Business Area (TBA) as journal entries.

1.4.4.2. Appoint, in writing, nuclear weapons certifying officials for nuclear weapons maintenance, mate/demate, handling, and final assembly tasks IAW Chapter 3. **(T-1)**. Interview newly appointed certifying officials prior to them performing certifications and ensure they meet all qualifications. **(T-1)**. Document interviews in TBA as journal entries.

1.4.4.3. Ensure MAJCOM standardized training outlines are used for training certifiable tasks, component packaging, H1616/H1700 and chaff operations. **(T-1)**.

1.4.4.4. Enforce the use of Integrated Maintenance Data System (IMDS) for management of inspection intervals, maintenance and inspection history, condition/status, and work performed on all weapons system equipment and support equipment. **(T-1)**. For nuclear weapons, systems, and components use IMDS to direct maintenance and handling by documenting serial number in the Work Center Event narrative or discrepancy. **(T-1)**. The use of support general Work Unit Codes (WUC), as required, is authorized for weapon specific handling and maintenance. Ensure source documentation (e.g., NOSS, SAAM setup messages, time change item schedules, etc.) is used to create IMDS work orders. **(T-1)**. Do not input T.O. 11N-20-11 line numbers into IMDS. **(T-0)**.

1.4.4.5. Ensure personnel comply with custody/accountability procedures identified in AFI 21-203, *Nuclear Accountability Procedures* and use source documents to validate maintenance requirements. **(T-0)**.

1.4.4.6. Ensure unit leadership understands and personnel are educated on OPLANS and contingency plans. **(T-2)**.

1.4.4.7. Ensure the condition of storage/maintenance facilities and stockpiles are inspected at least annually. **(T-1)**. This inspection includes a walkthrough of each storage/maintenance location to assess condition of facilities. Assess stockpiles IAW with chapter 4.

1.4.4.7.1. Ensure there are no environmental or defective facility conditions that could lead to weapon or equipment damage if not corrected. (e.g., loose structure that could fall on or against weapons or equipment, excessive moisture, electrical wiring defects/degradation that could introduce an electrical hazard, etc.). **(T-1)**. Ensure adequacy of lighting and proper housekeeping of the facility, IAW AFMAN 91-201, *Explosives Safety Standards*. **(T-1)**.

1.4.4.8. Ensure all TYPE 3 trainers not on the weapons maintenance custody account are controlled, inspected, maintained, and repaired IAW an agreement between MUNS/MXS and owning activity. **(T-2)**.

1.4.4.9. Ensure all TYPE 3 A/B/C trainers are inspected IAW applicable -1 manuals after receipt and before shipment and applicable Inspection Record Card (IRC) entries are made. **(T-0)**. Report any deficiencies found during inspections IAW T.O. 11N-5-1, *Unsatisfactory Reports*. **(T-0)**.

1.4.4.10. Periodically observe maintenance tasks. Every effort should be made to observe tasks on different teams and shifts. **(T-2)**.

1.4.4.11. Review and submit requests to the Group Commander to extend LLC expiration dates, perform LLC exchanges more than 6 months in advance of due date, exceed timelines established in paragraph 4.1.2.5. for nuclear weapons maintenance and to exceed timelines established in paragraph 4.1.2.6. for nuclear weapon UR/DR repair actions. **(T-1)**.

1.4.4.12. Appoint sufficient JQS qualified MSgts or above to intervene when a rejectable component or weapon is encountered or to evaluate any unknown or unusual weapon or major component condition and to determine whether to continue operations based on careful review of the facts and circumstances. If necessary, qualified TSgts may be appointed by the Group Commander. **(T-3)**.

1.4.5. **Flight Commander/Flight Chief.** The Flight Commander/Flight Chief is responsible to Maintenance Supervision for the leadership, supervision, and training of all assigned personnel. In addition to the applicable responsibilities found in AFI 21-2XX series, Flight Commanders/Flight Chiefs will:

1.4.5.1. Review the Location Inventory Listing (LIL) and LLC forecasts for assigned weapons systems, if applicable: **(T-1)**.

1.4.5.1.1. Submit requests to extend LLC expiration dates to the OO/MX SUPT. **(T-1)**. Requests must contain detailed explanations of why the operation cannot be performed and an estimate of when conditions preventing maintenance will be resolved.

1.4.5.1.2. Submit requests to perform LLC exchanges more than 6 months in advance of due date to the OO/MX SUPT. **(T-1)**. Requests must contain detailed explanation of why the operation should be performed outside of normal maintenance windows and provide expected completion date. Do not submit requests when the AFNWC provides guidance directing maintenance that exceeds the 6 month requirement.

1.4.5.2. Submit requests to the OO/MX SUPT to exceed timelines established in paragraph 4.1.2.5 for nuclear weapon maintenance. **(T-1)**. Requests must contain detailed explanation of why the maintenance cannot be performed within established maintenance timelines.

1.4.5.3. Submit requests to the OO/MX SUPT to exceed timelines established in paragraph 4.1.2.6 for nuclear weapon UR/DR repair actions. **(T-1)**. Requests must contain detailed explanation of why the repair actions cannot be performed within the normal maintenance timelines.

1.4.5.4. Inform leadership of any significant nuclear weapons related issue negatively impacting mission requirements. **(T-2)**. Issues include conditions resulting in non-operational weapons/systems, rejectable parts/components, MCL/manning shortfalls, or an inability to meet mission requirements requiring a UR/DR, mishap report, or maintenance assist requests.

1.4.5.5. Observe maintenance tasks periodically to ensure quality of work performed by different teams and on different shifts. **(T-2)**.

1.4.6. **Section/Element Commander/NCOIC.** Responsible for the daily supervision of all maintenance personnel performing nuclear weapons/systems maintenance as well as training of assigned personnel. In addition to the applicable responsibilities found in AFI 21-2XX series, section/element commander/NCOIC will:

1.4.6.1. Ensure oldest LLCs are installed first by the maintenance section. **(T-1)**. Ensure H1616 and H1700 containers are shipped prior to their expiration date. **(T-0)**.

1.4.6.2. Verify accuracy of scheduled and unscheduled maintenance actions and applicable serial numbers on all work orders prior to initiation of the work. **(T-0)**. Ensure all actions are accomplished and reported as required. **(T-0)**.

1.4.6.2.1. Corrections to the Job Control Number, Serial Number, Identification Number, Work Center, Location, Discrepancy, or Work Center Event narrative blocks are not authorized and the work order will be reaccomplished prior to issuing. Documentation errors committed during work accomplishment may be corrected on the work order.

1.4.6.3. Provide direction to maintenance personnel, enforce maintenance standards, and decertify individuals for substandard performance. Ensures decertification actions are documented on the AF IMT 2435, *Load Training and Certification Document*, and if necessary the AF Form 623A *On-the-Job Training Record Continuation Sheet*, (or equivalent). **(T-1)**.

1.4.6.4. Ensure maintenance teams validate contents of each storage structure, bay, cell, or WS3 with Munitions Control prior to closing for all assets (war reserve (WR), Trainers, etc.) that were removed or secured. **(T-1)**. Ensure nuclear accountability and reporting section (NARS) is notified when movements change the Defense Integration and Management of Nuclear Data Services (DIAMONDS) Storage Location and Planning Report and notify Munitions Control when TYPE Trainer movements change storage location in CAS. **(T-0)**.

1.4.6.5. Ensure applicable maintenance-related nuclear reports are submitted, IAW AFI 21-203, *Nuclear Accountability Procedures*, upon completion of the maintenance (e.g., work orders, inspection record card (IRC), custody transfer documents, maintenance activity reports (MAR), status change reports (SCR), weapons information reports (WIR), URs, etc). **(T-0)**.

1.4.6.6. Ensure availability of current publications to meet work center needs. **(T-1)**. This includes DIAMONDS publications. Develop and implement a process to inform applicable work-center technicians, of policy and technical data changes/revisions. **(T-1)**.

1.4.6.7. Ensure repairs or modifications are not made to weapons unless authorized by UR/DR or technical procedures. **(T-0)**. Ensure repairs or modifications are not made to weapon support equipment unless authorized by approved technical procedures. **(T-1)**.

1.4.6.8. Ensure personnel maintain shelf life items (lubricants, paint, etc.) IAW T.O. 11N-35-51A, *General Instructions Applicable to Nuclear Weapons (Supplement)*, T.O. 42B-1-1, *Quality Control of Fuels and Lubricants*, and AFI 23-101, *Materiel Management*. **(T-0)**.

1.4.6.9. Ensure Common Strategic Rotary Launcher (CSRL) gravity weapon suspension kits are packaged, maintained, and controlled in storage containers. (T-2).

1.4.6.10. Ensure maintenance activities listed in AFI 21-200, *Munitions and Missile Maintenance Management*, are scheduled in the quarterly rolling forecast and weekly schedule. (T-1).

1.4.6.11. Ensure all personnel are certified prior to performing nuclear weapons maintenance, mate/demate, handling, and final assembly tasks. (T-0).

1.4.6.12. Ensure team briefings are given before the start of any weapons operation IAW AFI 91-101, *Air Force Nuclear Weapons Surety Program*, AFMAN 91-201, *Explosives Safety Standards*, and T.O. 11N- 45-51 Series technical data, as required. (T-0).

1.4.6.13. Perform proficiency checks as required. (T-2).

1.4.6.14. Ensure Bay Chiefs (BC) are able to meet all requirements listed in paragraph 1.4.7. (T-1).

1.4.6.15. Ensure reentry system/reentry vehicle (RS/RV) nuclear weapons configuration records are uploaded into AFNWC/NIBF SharePoint IAW chapter 4. (T-2).

1.4.6.16. Ensure a SNCO or officer certifies nuclear weapons configuration records by signing and visually verifying the serial numbers and configuration of the RS, pylon and launcher that reflect the association of warheads and component serial numbers. (T-2).

1.4.7. **Bay Chief.** The BC reports directly to the NCOIC of weapons maintenance and is responsible for all nuclear weapons/systems maintenance operations. The BC may supervise multiple maintenance teams/operations simultaneously. The bay chief ensures safe, secure, and reliable nuclear weapons/systems maintenance and must be knowledgeable of the assigned maintenance tasks. BC will be fully JQS qualified on tasks identified in the MCL in which they supervise. They are normally graduated team chiefs in the grade of TSgt and they are considered technical experts. BC may touch, pick-up, hold, manipulate and inspect weapon components, weapon system components, equipment, tools, etc. when assessing/validating condition/status or otherwise providing technical guidance. The BC does not have to be physically present at all times during maintenance activities to comply with the following guidance. BCs will:

1.4.7.1. Participate in developing and executing the quarterly rolling forecast and weekly schedule. (T-2).

1.4.7.2. Manage the maintenance production effort by assigning personnel to meet maintenance schedules. (T-2).

1.4.7.3. Ensure maintenance areas are prepared for the day's or shift's maintenance tasks prior to introducing nuclear weapons or commencing with maintenance activities. (T-2). Do this by ensuring the availability/serviceability of required expendables, technical orders, tool kits, Test Measurement and Diagnostic Equipment (TMDE), test and handling equipment.

1.4.7.4. Ensure personnel are certified and current on proficiency checks prior to assigning them to perform nuclear weapons maintenance, weapons mate/demate, weapons handling or final assembly tests. (T-0).

1.4.7.5. Recommend sub-standard performers to the Section/Element NCOIC for decertification and remedial training. **(T-1)**.

1.4.7.6. Monitor maintenance activities and the safety of nuclear weapons/systems operations. **(T-0)**.

1.4.7.7. Ensure all required documents/reports are submitted upon completion of maintenance tasks (e.g., work orders, nuclear weapon configuration records, inspection record card (IRC), custody transfer documents, maintenance activity reports (MAR), status change reports (SCR), weapons information reports (WIR), URs, etc...). **(T-0)**.

1.4.7.8. Coordinate with the munitions control for AGE, Vehicles, CE support, etc. required to support nuclear weapons/systems maintenance. **(T-1)**.

1.4.7.9. Ensure serviceable replacement components, Group X kits, or Time Compliance Technical Order (TCTO) kits are on hand, inventoried, and inspected to ensure serviceable assets are available for the maintenance task. **(T-1)**.

1.4.7.10. Ensure Sole Vouching Authorities (SVA) are identified for all exclusion areas under their purview. **(T-0)**.

1.4.7.11. Provide technical guidance to maintenance personnel during nuclear weapons/systems fault isolation and troubleshooting as needed. **(T-2)**.

1.4.7.12. Conduct proficiency checks IAW Chapter 3 of this AFI. **(T-2)**.

1.4.7.13. Perform In-Process Inspections (IPI) as required. **(T-3)**.

1.4.7.14. Ensure test set failure/troubleshooting data is entered in the Air Force Nuclear Munitions Command and Control (NMC2) SharePoint Environment. **(T-2)**.

1.4.7.15. Verify RV, RS or multiple carriage launch gear nuclear weapons configuration records. **(T-2)**.

1.4.8. **Team Chief (TC)**. Directly responsible for producing safe, secure, and reliable nuclear weapons maintenance activities. Additionally, qualified TCs may perform IPIs for tasks which they are not involved. TCs will:

1.4.8.1. Be JQS qualified and TC certified on tasks identified in the MCL. **(T-0)**.

1.4.8.2. Provide direction to team members (TM) and enforce compliance with No-Lone Zone and Two-Person Concept requirements. **(T-0)**.

1.4.8.3. Stop maintenance tasks upon encountering an abnormal condition outside the scope of technical orders or identifying a defect requiring rejection of a weapon or associated component. **(T-1)**. Up-channel the condition to appropriate level of leadership for resolution before continuing the maintenance task.

1.4.8.4. Verify source documents prior to performing nuclear weapons maintenance, mate/demate, weapons handling, or final assembly tests to validate the proper operation is being performed on the correct end item. **(T-1)**.

1.4.8.4.1. For weapon receipt/verification visually verify weapon serial number with the DD Form 1348-1A, *Issue Release/Receipt Document*. **(T-0)**.

- 1.4.8.4.2. For maintenance actions, visually verify the weapon serial number matches the source document and work order prior to beginning the operation. **(T-1)**. Notify Munitions Control prior to starting and upon completion of scheduled and unscheduled explosive operations. **(T-1)**.
- 1.4.8.5. Review all applicable technical data prior to the start of a nuclear weapons operation and ensure changes effecting the current operation are briefed to all team/crew personnel, as applicable. **(T-1)**.
- 1.4.8.5.1. Technical Order (TO) users will not use a DIAMONDS TOs if its status is marked “transitional” or is not authorized for use in DIAMONDS. **(T-1)**. Contact the unit Technical Order Distribution Office (TODO) to have the TO accepted and printed if the updated TO is needed.
- 1.4.8.6. Submit all required documents/reports upon completion of the maintenance task (e.g., work orders, nuclear weapons configuration records, IRC, custody transfer documents, MAR, SCR, WIR, URs, etc.). **(T-0)**.
- 1.4.8.6.1. Report weapon status changes to Munitions Control as they occur. **(T-1)**.
- 1.4.8.6.2. Forward nuclear weapon configuration records reflecting the association of warhead/bomb serial numbers to the RS, pylon, or launcher to the MASO and copies to Munitions Control and maintenance section. **(T-2)**.
- 1.4.8.7. Use verbal demand response for all weapons tasks and ensure TMs complete actions only as directed. **(T-1)**.
- 1.4.8.8. Comply with technical order procedures, safety, and security requirements and enforce WSSRs. **(T-0)**.
- 1.4.8.9. Ensure IPIs are performed at required steps within technical order procedures. **(T-3)**.
- 1.4.8.10. Ensure line numbers are updated with munitions control. Verify prior to commencing maintenance, and update changes as soon as practical as they occur, and verify for accuracy upon completion of the operation. **(T-0)**.
- 1.4.8.11. Ensure test set failure/troubleshooting data is entered in the NMC2 SharePoint Environment. **(T-1)**.
- 1.4.8.12. Ensure nuclear certified software and equipment is used, as required. **(T-1)**.
- 1.4.8.13. Verify all tools, test, and handling equipment, spares and expendables are available and serviceable prior to beginning any nuclear weapons operation. **(T-1)**.
- 1.4.8.14. Ensure prior to use inspections are completed on hoist, vehicles, and related Aerospace Ground Equipment (AGE). **(T-1)**.
- 1.4.8.15. Complete RS/RV and multiple carriage launch gear nuclear weapons configuration records to reflect the association of component serial numbers as required. **(T-2)**.
- 1.4.8.16. Ensure Munitions Control is notified when TYPE Trainer movements change location in CAS. **(T-1)**.

## Chapter 2

### MANAGEMENT OF NUCLEAR WEAPONS, NUCLEAR COMPONENTS, AND SPARES

#### 2.1. Management of Nuclear Weapons.

2.1.1. Broad guidance on nuclear weapon stockpile quantities is provided by various documents (e.g. New START, START I, Presidential Decision Directives, Nuclear Posture Review, etc.). The DoD and DoE prepare, coordinate, and deliver the Nuclear Weapons Stockpile Memorandum (NWSM), which contains the Nuclear Weapons Stockpile Plan (NWSP), to the President. The President then signs a NWSP which directs quantities and types of nuclear weapons in the active and inactive stockpile. The President, through the SECDEF and Chairman of the Joint Chiefs of Staff, entrusts the stockpile to various Services for employment as requested/directed by combatant commanders (e.g. USSTRATCOM, EUCOM), based on their missions and use in execution of war plans.

2.1.2. AFNWC/NCL is the Service Logistics Agent (SLA) for all nuclear weapons assigned to the Air Force. They ensure stockpile quantities align with the NWSM, and are available to meet mission requirements, logistics plans, and other stockpile management requirements using the following methods: directing inspections and maintenance of nuclear weapons and/or components within the scope of approved technical procedures; scheduling weapon movements through the NOSS to ensure all weapons are at the proper location in adequate quantities; determining the best storage locations for active and inactive reserve weapons; and directing charge code changes through either the NOSS or other means (e.g., SLT/SFT Warning Orders/Material Transfer Order (MTO)). **Note:** AFNWC/NCL will request all MTO from DTRA using the NOSS module or MTO request module in DIAMONDS.

2.1.3. AFNWC/NCL provides DTRA Long- and Short-Range Stockpile Management Plans necessary to achieve end-of-year actions required to meet NWSM requirements.

2.1.4. AFNWC/NCL, in coordination with DTRA SLA, is responsible for maintenance management of retired weapons stored at the AFMC MUNS.

#### 2.2. Management of Nuclear Components.

2.2.1. The AFNWC/NCL will develop the Annual Fiscal Year LLC Forecast for the Air Force. The AFNWC/NCL will coordinate with the MAJCOMs and provide forecasts to DTRA NLT 1 April. Once approved, this forecast becomes the Fiscal Year LLC support schedule for the AF, and subsequent Time Change Item Schedules will reflect its contents. Proposed changes to the annual schedule will be coordinated IAW paragraph 2.2.1.1.

2.2.1.1. Replacement LLCs are force shipped to Air Force units having custody of weapons to allow maintenance actions to be accomplished prior to LLC expiration dates. Units may complete LLC exchanges up to six months prior to expiration date within limitations of scheduled LLC replacement support. MAJCOMs may request alternate support schedules from the AFNWC/NCL. Changes to the annual schedule must be submitted NLT than 90 days prior to date required. MAJCOMs will review schedules quarterly and provide AFNWC/NCL any required changes; negative input is required. The requests may represent one-time requirements (i.e., early support of items to align

system due dates, or to allow units to deconflict maintenance schedules), or may be ongoing projections to optimize unit maintenance scheduling and workload leveling.

2.2.1.2. Requests for early support in excess of times specified in T.O. 11N-100-2, *Supply Management of Limited Life Components*, require waiver by DTRA. MAJCOMs forward waiver requests to the AFNWC/NCL. Requirements for timely return of expired LLCs in TO 11N-100-2, *Supply Management of Limited Life Components*, apply regardless of requests for early support or alternate support schedules.

### **2.3. Management of Containers and Bolsters.**

2.3.1. Containers and bolsters are used to support storage, maintenance, and logistics movement of weapons and components. In addition, WR containers and bolsters are used to support storage and movement of TYPE trainers.

2.3.2. Containers and bolsters are accounted for IAW procedures in AFI 21-203, *Nuclear Accountability Procedures*, and reported IAW 11N-100-4, *Custody, Accountability, and Control of Nuclear Weapons and Nuclear Materiel*.

### **2.4. Management of Nuclear Training and Test Items.**

2.4.1. Nuclear Bomb Dummy Units (BDUs) and TYPE Trainers will be managed using procedures in AFI 21-201, *Conventional Munitions Maintenance Management*. In addition, TYPE trainers containing SS material must be reported IAW T.O. 11N-100-3150, *Joint Reporting Structure, Nuclear Weapons Reports*, chapter 4.

2.4.2. Items supporting operational/developmental testing programs (e.g., Joint Test Assemblies (JTAs), Compatibility Test Units (CTUs), Radar Test Units (RTUs), etc.) are managed and accounted for IAW procedures in AFI 21-203, *Nuclear Accountability Procedures* and in some cases reported IAW 11N-100-3150, *Joint Reporting Structure, Nuclear Weapons Reports*, on a QAST Status Reports (QSR). These items are force-shipped to units on an as-needed basis.

2.4.2.1. Maintenance and handling procedures for JTAs are provided in the weapons specific -1 manual. These procedures may be utilized for Developmental Joint Test Assemblies (DJTA). When procedures in the -1 manual are not adequate, Special Procedures (SP) will be developed and provided to field units, as applicable. Minor differences for DJTAs, such as markings and configuration changes may be addressed in the Test Plan and not require an SP.

2.4.2.2. Air Force units supporting and/or conducting nuclear weapons test and evaluation will ensure compliance of non-nuclear assurance program IAW T.O. 11N-T569-2, *T569 Non-Nuclear Verification Tester with Non-Nuclear Assurance Program Field Procedures*.

2.4.3. SFT selections made within the Air Force will be selected and managed by the AFNWC/NCL in consultation with the applicable MAJCOM. SLT selections are made by NNSA. The AFNWC/NCL will provide selection candidates to NNSA as required. Selection of candidates is formalized by inclusion in the NNSA New Material Stockpile Evaluation Schedule (NMSES). The NMSES is the source document to authorize charge code changes for QART weapons, these actions will be directed by the AFNWC/NCL.

## **2.5. Management of Retrofit Kits.**

2.5.1. AFNWC/NCL determines retrofit kit requirements. Kits are normally forced-shipped to units based on quantities of items that the unit possesses requiring the retrofit. AFNWC/NCL works with the applicable organizations to determine kit distribution. Charge code changes may be directed to manage retrofit selections. Kits are maintained and accounted for IAW the procedures in AFI 21-203, *Nuclear Accountability Procedures*. Retrofits will be scheduled, monitored and reported by the unit Plans and Scheduling function.

## **2.6. Management of Funds.**

2.6.1. DoE manages funding for First Destination Transportation of nuclear weapons, components and Base Spares to or from DoE facilities. Second Destination Transportation (SDT) funding for nuclear weapons and components and other items transported by Prime Nuclear Airlift Force (PNAF) missions or NNSA's Office of Secure Transportation are forecasted by the AFNWC/NCL. MAJCOMs provide projections of movement requirements to the AFNWC/NCL as requested. AFNWC/NCL, in turn, develops funding requirements and forwards them to HQ AFMC/LSO.

2.6.2. The AFNWC/NCL funds procurement and transportation for Military Spares and DoE designed Air Force test and handling equipment. These items are requisitioned IAW T.O. 11N-100-1, *Supply Management of Nuclear Weapons Material*, are free issue, and are shipped without charge to the units. The AFNWC/NCL provides reimbursement to DoE.

## **2.7. Management of Nuclear Weapons, Nuclear Components, Air Force owned DoE-designed Special Equipment and Base or Military Spares.**

2.7.1. DoE and the AFNWC/NCL manage all items unique to the Air Force nuclear weapons program, by their application or initial design. Materiel required for support of the Air Force nuclear weapons programs fall into three categories: Base Spares, Military Spares, and DoE-Designed Special Equipment (see definitions for specific examples).

2.7.2. DoE funds and furnishes Base Spare items to the Air Force for maintaining war reserve weapons and equipment. Do not use Base Spare items for other purposes unless authorized by AFNWC/NCL through the applicable MAJCOM or UR. Do not use Military Spare items to maintain war reserve weapons and equipment.

2.7.3. AFNWC/NCL funds and furnishes Military Spare items to the Air Force for maintaining DoE-designed and Air Force owned TYPE 3 trainers and Special Equipment.

**2.8. War Reserve Materiel (WRM).** Nuclear ordnance items are excluded from war reserve materiel procedures in AFI 25-101, *War Reserve Materiel Program Guidance and Procedures*.

**2.9. Working Capital Fund.** All Military Spares and Special Equipment items are considered investment items and excluded from the working capital fund regardless of expendability, recoverability, and reparability category code.

**2.10. Equipment Allowances and Authorizations for Special Equipment Controlled Items.** Unless otherwise directed in this instruction or AFI 21-203, *Nuclear Accountability Procedures* all nuclear ordnance special equipment controlled items listed in the nuclear weapons system allowance standards 439, 733, 803, 804, 805, 810 and 822 are controlled mission equipment. The allowance standards are managed by 585 CBSS/GBNA in the Air Force

Equipment Management System (AFEMS/C001) and provide the basis to authorize, acquire, and account for essential support equipment. The equipment management function will manage allowance and authorizations in Standard Base Supply System and AFEMS IAW AFI 23-101, *Air Force Materiel Management*.

## Chapter 3

### NUCLEAR WEAPONS TRAINING, QUALIFICATION, AND CERTIFICATION PROGRAMS

**3.1. Nuclear Weapons Training Program (NWTP).** OO/MX SUPT is responsible for establishing, implementing, and sustaining an effective NWTP. The NWTP ensures highly qualified supervisors and technicians are readily available to sustain the maintenance requirements identified in the MCL. A NWTP provides core knowledge on assigned weapons systems and associated maintenance policies via initial/recurring nuclear weapons academic training program. NWTP instructors ensure the development of standardized training outlines used for qualification and certification, utilizing MAJCOM approved training outlines. They ensure individuals are JQS qualified prior to certification. 2M0 ICBM missile maintenance training completed in accordance with AFI 21-202 Vol 2, *Missile Maintenance Management*, complies with this requirement.

3.1.1. The OO/MX SUPT appoints instructors to establish, implement, and sustain the NWTP. Appointed individuals will be qualified and certified (as applicable) on all tasks they train. NWTP instructors/trainers are subject to trainer proficiency evaluations (TPE) identified in AFI 21-200, *Munitions and Missile Maintenance Management*, Chapter 8. If a NWTP instructor/trainer fails or is overdue their semiannual TPE, the individual is restricted from performing unsupervised training.

3.1.2. NWTP training outlines will contain as a minimum:

- 3.1.2.1. Training title.
- 3.1.2.2. Student instructional material.
- 3.1.2.3. Training resources.
- 3.1.2.4. Instructional method.
- 3.1.2.5. Instructional guidance.

3.1.3. For assistance in writing training outlines, contact the local logistics training flight. Refer to AFMAN 36-2234, *Instructional Systems Development*. The OO/MX SUPT is the final approval authority for unit produced training outlines. Initial and recurring training outlines may be combined.

**3.2. Nuclear Weapons Academics.** All 21M/2M0/2WX personnel assigned nuclear weapons duties (example: TMs, TCs, BCs, instructors, evaluators and personnel appointed to intervene during maintenance) are required to complete initial and recurring weapons academic training, OO/MX SUPT will determine if any other positions require training. 2M0 ICBM Missile Maintenance training complies with this requirement.

3.2.1. Initial weapons academic training must be completed before a member can be considered fully qualified or certified.

3.2.2. Recurring weapons academics training will be administered annually not later than the end of the month in which initial training was conducted. Overdue academics training does not automatically decertify individuals from performing certified task, but should be

accomplished as soon as possible. Academics training may be included as part of training and recertification for failed technical operations.

3.2.3. Individuals must complete a test with a minimum score of 80 percent. A test score of less than 80 percent requires retraining and retesting with a different test.

3.2.4. Document initial and recurring weapons academic training in IMDS.

3.2.5. Weapons academics course control documents will be tailored to unit mission/contingency needs and, as a minimum, cover the following items:

3.2.5.1. Applicable nuclear weapons/system capabilities, periodic maintenance requirements, accountability, inventory, and reporting requirements.

3.2.5.2. Nuclear weapons systems fault isolation, troubleshooting, and emergency procedures.

3.2.5.3. Authorized maintenance procedures and security requirements in bays, structures/cells, protective aircraft shelters and WS3 vaults.

3.2.5.4. Aircraft/ICBM generation requirements/timelines, if applicable.

3.2.5.5. Logistics movement requirements (PNAF, Safeguards Transporter (SGT), DoE contracted aviation).

3.2.5.6. Higher headquarters inspection requirements.

3.2.5.7. Overview of applicable AFIs, WSSRs, weapons system technical orders, and local operating procedures.

3.2.5.8. Missile/explosive safety, nuclear surety, NWRM, Intrinsic Radiation, and Personnel Reliability Program (PRP) training may be combined with weapons academics training.

**3.3. Nuclear Weapons Qualification Program.** All 2M0/2WX unit personnel, regardless of duty position, who evaluate or perform certifiable nuclear weapons maintenance, weapons mate/demate, weapons handling, and final assembly tests must be JQS qualified.

3.3.1. Qualification training will be scheduled and conducted in dedicated facilities/training areas.

3.3.2. Trainers will use the CFETP Master Task List, standardized training outlines, and applicable technical orders to JQS qualify technicians on certifiable tasks.

3.3.3. Qualification will be documented in applicable CFETPs or TBA.

**3.4. Nuclear Weapons Certification Program.** The requirements in this publication supplement Quality Assurance guidance identified in AFI 21-200, *Munitions and Missile Maintenance Management*, as they apply to specific unit mission.

3.4.1. Certification, as used here, is a term that applies to nuclear weapons maintenance, mate/demate, handling, and final assembly test operations. The certification program is a requirement over and above the qualification and certification procedures contained in AFI 36-2201, *Air Force Training Program*, and AFI 36-2232, *Maintenance Training*, and takes precedence over all other publications in the area of nuclear weapons certification and evaluation.

3.4.1.1. The purpose of the certification program is threefold; it will ensure:

3.4.1.1.1. All certifications are conducted using nuclear weapons trainers.

3.4.1.1.2. Technicians performing nuclear weapons tasks understand and use proper technical data, maintenance procedures, and techniques.

3.4.1.1.3. Only certified technicians are permitted to perform nuclear weapons tasks (maintenance, mate/demate, handling, and final assembly checkout) on WR weapons.

3.4.2. Technicians must complete weapons academic training, applicable safety training, and be JQS task qualified prior to initial task certification.

3.4.3. Certification is limited to those items on which the technician is qualified.

### **3.5. Certifying Officials. (For tasks identified in [paragraph 3.8](#)).**

3.5.1. The 2WX7X and 2M07X QA are nuclear weapons certifying officials by virtue of position and need not be appointed. If necessary, the OO/MX SUPT may appoint, in writing, additional technically qualified certifying officials for the following tasks:

3.5.1.1. 2M052 for RS mate/demate and weapons handling tasks.

3.5.1.2. 2M07X for select mate/demate tasks, and weapons handling tasks.

3.5.1.3. 2WX71 for weapons handling tasks.

3.5.1.4. 2W271 for weapons maintenance, mate/demate, handling, and Reentry System Test Set (RSTS) / Safety Enhanced Reentry Vehicle Field Test Set (SFTS) / Reentry Field Support Equipment (RFSE) checkout tasks.

3.5.2. Personnel assigned Certifying Official responsibilities as defined in this AFI will be JQS qualified on the specific nuclear weapons, weapons systems, nuclear reporting, CDS, and Permissive Action Link (PAL) procedures as they apply to the task being evaluated. The individual must be capable of accurately observing job performance and identifying deviation from established standards.

3.5.3. Prior to performing certifications, the QA superintendent, Chief Inspector, MX/SUPT, or Flight Commander/Flight Chief will ensure Certifying Officials are JQS qualified on the task to be evaluated and have a current Evaluator Proficiency Evaluation (EPE) while performing a personnel evaluation (PE). All certifying officials must receive a semiannual EPE on a PE. If a certifying official is overdue the semiannual personnel EPE, the individual is restricted from performing certifications until another EPE is completed. QA maintains initial and current EPE documentation for all certifying officials.

3.5.4. Certifying Officials will not certify themselves.

3.5.5. Certifications will only be accomplished while observing actual task performance. Certifying Officials will not be part of the task being performed.

3.5.6. Certify technicians to perform or direct nuclear weapons maintenance, mate/demate, and final assembly checkout tasks as TC, TM, Work Cage (WC), Diving Board (DB), or Top Side (TS). Technicians certified in the TC position may perform as TMs. Technicians must perform the entire operation to include all documentation required for the task.

3.5.7. Certify technicians to perform transfer and transport tasks. All personnel certified on transfer and transport tasks must be able to demonstrate proficiency in all tasks areas that individual is qualified to perform. This includes use and application of all associated technical data.

3.5.8. Certify weapons maintenance tasks by weapon type and task performed (e.g., B61 General Maintenance (GM), B61 LLCE, etc.).

3.5.9. Separate certification is not required for nose and tail removals, LLC removal, Parachute (PC) removal, weapon demate from launch gear and equipment, demate RV, RV disassembly, demate aft shroud, or RS demate from MGS, provided the individual is certified on the applicable installation, mate, or assembly procedure and is appropriately JQS qualified.

3.5.10. CDS recodes, activation, and Strike Enable Plug (SEP) removal or installation do not require certification. Individuals need be JQS qualified only.

3.5.11. H1616, H1700 and 9-gallon drum operations do not require certification. Individuals need be JQS qualified only.

3.5.12. PAL/CMS TMs do not require certification; individuals need be JQS qualified and the training must be documented in the CFETP or TBA. PAL TMs are authorized to open and close access doors, connect/disconnect PAL/CMS cables and adapters, and perform visual monitors provided these items are included in PAL/CMS training.

3.5.13. Personnel involved in a one-time handling and movement of non-assigned weapons such as PNAF contingency, DoE SAFE HAVENs, etc., must be transfer and/or transport certified and qualified to operate required equipment (tow vehicle, forklift, etc.) needed to support the mission. Technicians do not require JQS qualification on non-assigned weapons. This is the only exception to normal nuclear weapons certification and JQS qualification requirements. Personnel involved in a one-time handling and movement of non-assigned weapons must have current technical data available and they must review and understand the procedures prior to operation.

### **3.6. Certification Requirements.**

3.6.1. Weapons maintenance, mate/demate, handling, and final assembly checkout task certifications will be performed using the following guidelines:

3.6.1.1. Certifications may involve any procedures that are authorized to be performed by that certification IAW paragraph 3.8. of this instruction. Certifying officials should vary what is demonstrated from certification to certification and limit "standard certifications" as much as possible to prevent technicians from being "trained for the certification."

3.6.1.2. Abbreviated operations for the purposes of recertifying personnel are not authorized. Additionally, multiple TC certifications must be performed as separate, complete start-to-finish operations (i.e. one TC will not disassemble the weapon and a second TC reassemble it).

3.6.1.3. All certifications will include a sufficient number of exercise injects in the form of defect analysis and written situational scenarios to provide the certifying official an accurate assessment of the scope and completeness of training and the crew's proficiency

during actual task performance. Certifying officials will avoid an excessive number of injects during the evaluation. The number of inject scenarios per certification will be coordinated through OO/MX SUPT and spelled out in the Maintenance Standardization & Evaluation Program.

3.6.1.3.1. Inject scenarios will exercise the team's ability to emergency situations, detect and properly evaluate defects, and their in-depth knowledge of all technical data procedures applicable to that certification.

3.6.1.3.2. Each GM and LLCE TC certification will involve at least one inject scenario driving the initiation of a UR against the weapon to verify the crew's ability to generate accurate reports.

3.6.1.4. A certification is considered a normal evaluation in regards to all the evaluation rules provided in AFI 21-200, *Munitions and Missile Maintenance Management*, with the exception that certifications will not be counted against QA's required PE totals in the QA database. All certifications will be scored and documented as "Non-Rated" tasks regardless of whether or not it was a pass or fail certification. Follow established Group routing procedures for certification reports.

3.6.1.4.1. Certifications may be rated "fail" even if established Acceptable Quality Levels (AQL) are not exceeded, based on the Certifying Officials assessment of technical proficiency. Certification attempts that are not successful will be treated as training operations and documented as a non-rated evaluation. The evaluation will not be scored against established inspection and evaluation requirements.

3.6.1.4.2. A separate PE will be scored on certified personnel who are on a crew with an individual undergoing a certification. The PE may be captured on the same report as the initial certification provided the QA database allows for individual pass/fail/non-rated ratings. In this case, the overall report will be indicated as pass/fail and the individuals undergoing the initial certification will have a rating of non-rated. In addition, if the certified personnel commit an error, series of errors, or did not detect an error committed by others that they were in a position to have detected, they themselves may be decertified using the guidance in this chapter.

3.6.1.4.3. Decertification rules provided in this chapter will apply when a certified TM commits errors while undergoing a TC upgrade certification. As a result of failing the TC upgrade certification, the technician will also be decertified as a TM based on their committed error(s).

3.6.1.5. If decertified on either transfer or transport, subsequent recertification will occur on the specific operation the individual was performing when decertified.

### **3.7. Certification Documentation.**

3.7.1. Record certifications and proficiency checks on AF IMT 2435, *Load Training and Certification Document*. Because of the critical nature of the certification, and to avoid conflicting certification data, the AF IMT 2435 is to be used as a stand-alone document to validate current certification and proficiency status of tasks identified in paragraph 3.8. and is not meant to be used for historical purposes. Although documentation of JQS qualification is required prior to certification, a discrepancy with JQS qualifications and certification dates

does not invalidate certifications. The certifying official's signature on the AF IMT 2435 is the formal act of certification. Automated systems may be used to monitor certifications and recurring proficiency checks. Automated systems cannot be used to verify/validate certifications. Keep AF IMT 2435 in the individual's work center for easy access by supervisors, certifying officials, and dispatchers. No alterations to entries are authorized except Block 2. Use Figure 3.1 and Figure 3.2 as a guide.

3.7.2. Complete the AF IMT 2435 in ink or type-written except when use of pencil is indicated below:

3.7.2.1. Blocks 1-4, self-explanatory (Block 2 in pencil if desired).

3.7.2.2. Blocks 5-6, not applicable.

3.7.2.3. Block 7; enter weapon type and task as listed in paragraph 3.8 or as directed by MAJCOM. Enter "TC", "TM", "TS", "WC" or "DB" for appropriate team position.

3.7.2.4. Blocks 8-11, self-explanatory.

3.7.2.5. Block 12; enter the information from block 7 plus the current year. Enter a "C" for certified, a "P" for proficiency checks, a "D" for decertification, or an "X" (in pencil) for proficiency check due date, under the corresponding month, year, and task.

3.7.2.6. Transcribe AF IMT 2435 by copying the applicable information from Blocks 1 through 8 and Block 12 of the old form to the new form. Enter "Transcribed" in Block 11 of the new form. Flight Chief or above enters a statement on the new form attesting to the accuracy of the transcribed entries (see figure 3.1) then signs his/her name, enters rank and dates the entry. Destroy original AF IMT 2435.

3.7.2.6.1. Carry forward the last proficiency check or certification date (if no proficiency checks have been performed since certification) accomplished for each certified task.

3.7.2.6.2. Due to decertification then subsequent recertification, if the recertification date of any prerequisite task (i.e., B61 GM, 4 Dec 13) is after the certification date(s) for any subsequent tasks (i.e., B61 LLC, 12 Jul 13), enter the original GM certification date (5 Jul 13) in block 8 on the line as the task. Enter the recertification date on the line immediately below the original date. The word TRANSCRIBED will be placed in block 11 on the same line as the recertification date. In this case, proficiency checks do not need to be carried forward.

3.7.3. Section/Element NCOIC, Flight Chief, OO/MX SUPT or higher will decertify individuals for the following reasons:

3.7.3.1. Failure to perform required proficiency check.

3.7.3.2. Failure to demonstrate required technical proficiency. Demonstrating lack of technical proficiency to such a degree that the task being evaluated cannot be completed without direct supervisory intervention. This does not include abnormal conditions requiring supervisory assistance.

3.7.3.3. Failure to use the required technical data during weapons maintenance, mate/demate, handling, or final assembly checkout tasks (e.g., no book or checklist or wrong book or checklist).

3.7.3.4. Technicians failed to detect a safety or reliability deficiency in the weapon, component, or support equipment.

3.7.3.5. Upon upgrade certification to the TC position, decertify the individual from the TM position if certified in a TM position on the same task.

3.7.3.6. Committing procedural errors that, if not corrected, would likely result in an unreliable weapon, unsafe environment, or insecure environment. This includes violation of weapon system safety rules.

**Figure 3.1. Sample AF IMT 2435, Load Training and Certification Document (Front).**

LOAD TRAINING AND CERTIFICATION DOCUMENT					
1. NAME (Last, First, Middle Initial)	2. GRADE	3. AFSC	4. ORGANIZATION	5. AIRCRAFT	6. CREW NUMBER / POSITION
Doe, Jane A	E-4	2XX	705 MUNS	N/A	N/A
7. MUNITION/TASK/LOAD CONDITION	8. DATE CERTIFIED	9. DATE DECERTIFIED	10. REASON FOR DECERTIFICATION	11. SIGNATURE AND GRADE OF CERTIFYING OFFICIAL	
<b>Cert Examples</b>					
B83 GM TC	20140801			<i>Matt Smith</i> E-6	
Transfer	20140902			<i>Matt Smith</i> E-6	
<b>Decert Examples</b>					
B61 PC TC	20131113	20140131	No longer required	<i>John Brown</i> E-6	
Transport	20130902	20140101	Overdue proficiency	<i>John Brown</i> E-6	
<b>Upgrade Examples</b>					
W78 GM TM	20130304	20140201	Upgraded to TC	<i>Matt Smith</i> E-6	
TC	20140201			<i>Matt Smith</i> E-6	
W78 LLCB TM	20130306	20140205	Upgraded to TC	<i>Matt Smith</i> E-6	
TC	20140205			<i>John Brown</i> E-7	
<b>2M ICBM Example</b>					
Mate/Demate RS DB	20130405			<i>Shelly Green</i> E-6	
Transfer	20130403			<i>Shelly Green</i> E-6	
Transport	20130304	20130701	Overdue proficiency	<i>John Brown</i> E-7	
<b>Transcription Examples</b>					
B61 GM TC	20130705			TRANSCRIBED	
	20131204			TRANSCRIBED	
B61 LLCB TC	20130712			TRANSCRIBED	
			The above information was transcribed and verified as accurate.		
			Signed: <i>Matt Smith</i> SMSgt		
			Date: 2 Feb 14		



### 3.8. Certifiable Tasks.

#### 3.8.1. Weapons Maintenance.

3.8.1.1. General Maintenance (GM). This task includes receipt inspection, verification inspection, preparation for strike, preparation for storage, preparation for shipment, sealing warhead container, bomb nose and/or tail removal/installation and transferring items to/from maintenance stands, alternate storage containers or out-of-container storage configuration. It also includes movement by hand of weapon/RS and stacking/bolstering operations.

3.8.1.1.1. GM certification allows technicians to perform any authorized maintenance, other than parachute exchange, not entailing disassembly of the warhead (e.g., removal of a major bulkhead or pressure cover allowing access to internal components).

3.8.1.1.2. GM certification is required prior to certification on any other weapons maintenance task. When GM certification is a prerequisite for certification on any other task, it is specifically identified in the task description. GM or LGM certification is not required for any weapons handling task. When technicians upgrade from TM to TC position, GM or LGM, as applicable must be the first task upgraded.

3.8.1.1.3. Decertification on GM does not necessarily require decertification on any other task(s). However, the technician will not perform those tasks until recertified on GM. **Note:** TCs decertified on GM may not perform in a TM position on any other task on the same weapon system until recertified on GM.

3.8.1.2. Limited General Maintenance (LGM). This task is weapon type specific and authorizes personnel to perform any external maintenance required for GM certification except nose/tail removal or removal/installation of warhead to/from container.

3.8.1.3. LLC Exchange (LLCE). Certification includes, but is not limited to, removal/installation of all LLCs as defined in the applicable Technical Order (except those associated with Parachute Exchanges), leak tests and all disassembly not included in GM.

3.8.1.4. Parachute (PC) Exchange. Certification allows technicians to remove/install parachute.

3.8.1.5. RV Assemble. Certification allows the technician to assemble/disassemble a RV. Separate certifications are required for MK12A and MK21.

#### 3.8.2. Weapons Mate/Demate.

3.8.2.1. Mate/Demate RV. Certification allows the technician to install/remove the RS installation kit and mate/demate RV to or from the payload support. Certification on one RV type is required and JQS qualification on the others. RV mate certification on one system certifies the individual on all provided they are GM certified on each warhead.

3.8.2.2. Mate/Demate Payload. Certification allows the technician to mate/demate the payload to/from ALCM with payload GM certification and appropriate JQS qualifications.

3.8.2.3. Mate/Demate Pylon. Certification allows the technician to mate/demate the ALCM to/from the pylon with appropriate JQS qualifications.

3.8.2.4. Mate/Demate CSRL.

3.8.2.4.1. Mate/Demate Missile to CSRL. Certification allows the technician to mate/demate the ALCM to/from the CSRL with appropriate JQS qualifications.

3.8.2.4.2. Mate/Demate Gravity to CSRL. Certification allows the technician to mate/demate gravity weapons to/from the CSRL with appropriate weapon GM certification and JQS qualifications. (Mate/demate certification on one gravity type is required with JQS qualification on any others.)

3.8.2.5. Mate/Demate Rotary Launcher Assembly (RLA). Certification allows the technician to mate/demate gravity weapons to/from the RLA with appropriate weapon GM certification and JQS qualifications. (Mate/demate certification on one gravity type is required with JQS qualification on any others.)

3.8.2.6. Mate/Demate MHU-196/204.

3.8.2.7. Mate/Demate Launcher to/from Load Frame.

3.8.2.8. Mate/Demate Pylon to/from Load Frame.

3.8.2.9. Mate/Demate Aft Shroud. This certification allows the technician to install/remove the aft shroud on payload support, install/remove v-band clamp, install/remove in-flight disconnect cable, install/remove v-band clamp thermal covers, install/remove in-flight disconnect thermal cover, install/remove v-band pressure cartridges, install/remove thruster assembly thermal covers, install/remove shroud release shield, connect or disconnect shroud rocket motor in-flight disconnect. Certification on one system MK12A or MK21 certifies technicians on both.

3.8.2.10. Mate/Demate RS to/from Missile Guidance Set (MGS). Certification allows the technician to install/remove the RS to/from the MGS in the Launch Facility to include all electrical checkouts. 2M0X2 technicians will be JQS qualified and position certified in the following team positions: TM, diving board, and work cage.

3.8.2.10.1. Workcage position certification allows the technician to install/remove the RS.

3.8.2.10.2. TC and Diving Board position certification allows the technician to install/remove the RS and checkout electrical system.

3.8.3. **Weapons Handling.** Technicians are JQS qualified on each weapon type, trailer, lift vehicle, and tow vehicle type they are required to use or handle. Certifiable tasks include the following:

3.8.3.1. Transfer. Certification allows a technician to transfer weapons (excluding aircraft loading operations) to/from a forklift, jammer, vehicle, or trailer/SGT and install/remove tie-down devices within the limits of JQS qualifications. This certification also includes transfer of RS to/from maintenance stand. Transfer certified technicians with appropriate JQS qualifications may also perform visual monitor/safety checks, movement by hand of weapon/RS, stacking/bolstering, in/out of the WS3 and Weapons Maintenance Truck (WMT), RS into/out of pit (primary and alternate method), and RS

topside handling (certifications on one RS type is required and JQS qualification on the others).

3.8.3.1.1. Movement of a weapon by forklift/jammer is considered a transfer operation provided the weapon is not moved from one established exclusion area to another (e.g., forklifting a weapon off of a staging trailer and moving to a second trailer for tie-down on the Hot Cargo Pad, forklifting an H1388 out of a storage igloo and up onto a trailer, or lifting an Overland Palletized Unit Shipper (OPUS) overpack with a forklift and transferring it onto an H1703).

3.8.3.2. Transport. Certification allows a technician to perform pre- and post-tow procedures, visual monitor/safety checks, and operate a tow vehicle or forklift transporting nuclear weapons within the limits of JQS qualifications. Personnel must have a valid operator's permit and be JQS qualified on the tow vehicle or forklift checkout and operation, trailer checkout and pre-tow inspections, operating tow vehicle with trailer, and post tow inspection for each tow vehicle or trailer utilized. Formal certification is only required on first tow vehicle; JQS qualify individuals on all subsequent vehicles/trailers.

3.8.3.2.1. Transport certification does not authorize an individual to install/remove tiedown devices, however, transport certified personnel must be able to ensure the load is secure and safe to transport.

3.8.3.2.2. During transport certification, the operator must demonstrate an understanding of and ability to operate all levers, switches, gauges, etc. Operator must demonstrate proficiency in vehicle operation while towing a trailer. Units will develop a course to test the operator's ability to turn (right and left), stop in an emergency, and back a loaded trailer.

3.8.3.2.3. Certification is accomplished using the largest, fully loaded, transportable package (e.g., launcher, pylon, etc.) the operator is qualified to operate within the assigned work center. If an individual subsequently qualifies to operate a larger package, a new certification for that operation must be accomplished. If applicable, include CDS procedures as part of initial transport certification.

#### **3.8.4. Final Assembly Tests.**

3.8.4.1. RS Electrical Checkout. This certification allows a technician to perform electrical checkouts using the RSTS/SFTS or RFSE. RS Electrical Checkout certification is accomplished using both the RSTS and SFTS or RFSE. The RSTS/RSTC portion of the certification will be performed by observing one of the following: checkout of the arm/disarm device, electronic command signals programmer, targeting function, or chaff subsystem. The SFTS/RSTC portion of the certification will be performed by observing one of the following: fuze-set and verify or Pre-Arm D1/D2. Certification using one RS type constitutes certification for both if JQS qualifications are met.

### **3.9. Nuclear Weapons Proficiency Checks.**

3.9.1. Nuclear weapon proficiency checks will be accomplished at least quarterly for each certified task an individual is certified on.

3.9.2. A JQS qualified QA, BC, Critical Task Supervisor, Section/Element Supervisor, or Flight Chief will conduct proficiency checks.

3.9.3. Proficiency checks may be accomplished during maintenance on WR weapons, in conjunction with a PE or during a higher headquarters evaluation or inspection.

3.9.4. Proficiency checks will be performed on positions certified (e.g., TC, TM, diving board, work cage, etc.).

3.9.5. Proficiency checks must be accomplished prior to the end of the third month . For example, the last proficiency checks for B-61 LLC was accomplished in July 2014, the next proficiency check must be accomplished NLT the last day of October 2014.

3.9.6. Proficiency checks as it pertains to this publication are not synonymous with AFI 21-200, *Munitions and Missile Maintenance Management*, required personnel proficiency evaluations (PPEs). A proficiency check may be considered/evaluated as a PPE if the member is performing in the position certified.

## Chapter 4

### NUCLEAR WEAPONS MAINTENANCE AND HANDLING POLICIES

**4.1. General Policies.** The policies below are applicable to all maintenance personnel who maintain, mate/demate, handle, checkout, or store nuclear weapons or TYPE 3 trainers. If there is a conflict between the policies below and other directives notify the OPR of this publication for resolution.

#### 4.1.1. Maintenance Capability. (T-2).

4.1.1.1. All levels of supervision will continually monitor shift manning/scheduling, equipment requirements, and will effectively schedule additional duties, leave, training and work details to provide maximum capability and minimize work force degradation.

4.1.1.2. Train and certify sufficient personnel to meet mission requirements outlined in the MCL. Units are prohibited from performing WR maintenance when they are below their MCL minimums, Group commanders may waiver this requirement to meet mission needs. However, the Group commanders must notify the applicable MAJCOM; the notification must include the reason for falling below MCL and specific actions/compensatory measures that are in place to minimize the impact on maintenance. Also, include projected “get well” date and ensure applicable AFI 10-201, *Status of Resources and Training System*, reporting is accomplished.

4.1.1.3. LLCE and PC exchange certification is mandatory only if assigned weapons are within 3 months of required maintenance.

#### 4.1.2. Maintenance, Storage, and Configuration.

4.1.2.1. Keep nuclear weapons and warheads in fully assembled configurations except during maintenance or as otherwise directed by appropriate agencies or when allowed by Technical Guidance or disposition instructions. Submit requests to the applicable MAJCOM for deviations to storage configurations.

4.1.2.2. Store nuclear weapons only in approved structures and configurations. (T-0). Do not co-mingle nuclear and non-nuclear munitions/missiles (e.g., TYPE trainers/shapes, JTAs, Training Ferry Payloads (TFP), empty missiles/containers, CALCM/ALCM Test Instrumentation Kits (CATIK), etc.) in the same storage structure, cell, or WS3. Only as a last resort and with written MAJCOM approval may assets be co-mingled. All non-nuclear munitions/missiles will be identified using stanchions/cones, ropes, and placards to ensure there is a clear distinction between nuclear and non-nuclear munitions/missiles. (T-1). Placards must indicate “Trainer”, “Empty”, “JTA”, or “CATIK”, as applicable.

4.1.2.3. Non-operational weapons will be identified using placards marked “Non-Operational”. (T-1). Make identification readily visible and do not remove until the status is changed or immediately before logistics movement. If a storage structure or cell contains all non-operational weapons a single placard may be posted at the entrance indicating all weapons inside the storage structure or cell are non-operational. It is not necessary to open a vault or structure solely for the purpose of installing or removing a

non-operational placard. Establish an Awaiting Maintenance (AWM) action against the weapon to install or remove placard during next scheduled opening. **(T-2)**.

4.1.2.4. Training and/or JTA and WR operations may take place at the same time as long as physical separation exists between operations. **(T-2)**. Physical separation must include clear delineation between operations using stanchions/cones, ropes, and placards. Placards must indicate "Training" or "JTA Operations", as applicable. In USAFE, concurrent operations with training and/or JTA and WR weapons are not authorized in a Protective Aircraft Shelter (PAS). **(T-1)**.

4.1.2.5. Weapons maintenance will have sufficient priority to ensure requirements spelled out in T.O. 11N-100-2, *Supply Management of Limited-Life Components* are met. Nuclear weapons maintenance will be completed within 60 calendar days (CONUS) and 120 calendar days (OCONUS) from receipt of components. Request waivers IAW chapter 1 of this Instruction.

4.1.2.6. Nuclear weapons repair actions must be completed as soon as possible, not to exceed 30 duty days (CONUS) and 60 duty day (OCONUS) following UR and/or DR disposition and/or receipt of required replacement parts. Request waivers IAW chapter 1 of this Instruction.

4.1.2.7. Cannibalization or interchanging of nuclear weapon components is not authorized unless directed in a technical order, UR, or by the AFNWC/NCL.

4.1.2.8. ICBM units will maintain sufficient RS spares to support operational requirements. **(T-2)**. Spares will remain fully assembled and operational, except when a configuration change is required to meet mission requirements. Spare systems may be rotated into the missile field to enhance flexibility of the wing's maintenance schedule.

4.1.2.9. OCONUS units must make every attempt to store WR weapons in a Weapons Storage Vault (WSV) at the end of the duty day. **(T-3)**. If a weapon cannot be fully reassembled, or cannot be returned to the WSV for any reason, the Group commander may authorize temporary storage outside of the WSV as a last resort. Units will also notify USAFE/A10N and USAFE/A7SON immediately.

4.1.2.10. Personnel may perform any inspection, test, or minor maintenance operation not involving weapon disassembly, in storage structures, vaults, alert areas, or generation areas. Examples include fin replacement, access door panel removal, coding operations and opening containers for inventory. Request waivers to this paragraph IAW AFMAN 91-201, *Explosives Safety Standards*, and the applicable WSSRs.

4.1.2.11. Whenever a nuclear weapon is exposed during a maintenance technical operation, all visible warhead surfaces will be inspected for defects IAW the applicable technical manuals. **(T-0)**. Reevaluate all defects to ensure previously acceptable defects are not rejectable because of criteria changes. **(T-0)**. Defects previously accepted IAW UR/DR/ETAR responses do not require reevaluation.

4.1.2.12. Store and/or mark empty weapon storage containers/hand trucks IAW TO 11N-35-51, *General Instructions Applicable to Nuclear Weapons*. **(T-0)**.

4.1.2.13. Nuclear weapons storage locations and maintenance bays must contain a thermometer if the types of weapons stored are required to comply with weapon temperature stabilization. **(T-0)**. This includes weapons storage vaults and WMTs.

4.1.2.14. In nuclear weapons maintenance facilities, display a sign/placard indicating Two-Person Concept is required (e.g., “No-Lone Zone Two-Person Concept Mandatory”) at the entrance to the maintenance bay, when applicable. **(T-0)**. Signs are not required in storage facilities, PASs or for outside operations.

4.1.2.15. When WR weapon(s) are exposed in the maintenance bay or PAS and maintenance personnel are present, secure the personnel entry door from inside. **(T-0)**. Advance Entry Control System units are exempt from this requirement; however, the maintenance bay door must be closed. If not possible, a two-person team will control entry. SVA will approve all entry into exclusion areas. **(T-0)**.

4.1.2.16. There are no JNWPS periodic inspection requirements for nuclear weapons. However, ensure weapons are stored in a safe and reliable configuration and in accordance with applicable directives (i.e., properly grounded, chocked, immobilized). **(T-0)**. Ensure weapons have proper spacing, storage compatibility, and are within explosive and active material limits. **(T-0)**.

4.1.2.17. If defects are discovered on weapons, components or equipment during walk-throughs, ensure defects are evaluated using applicable technical publication, technical order or instruction and ensure appropriate corrective actions are taken. **(T-0)**.

#### 4.1.3. **Receipt/Verification Inspections.**

4.1.3.1. Maintenance personnel perform verification inspections on weapons and components IAW applicable 11N series TOs as soon as practical after receipt to verify the identity, quantity, and serial numbers with data shown on the shipping document or DIAMONDS data. Open shipping containers for this verification; however, do not disassemble warhead sections, RVs, or bombs. **(T-0)**. Where weapon disassembly would be required, verification requirements can be satisfied by comparing visible information on the weapon with corresponding data on the shipping document or DIAMONDS data, and weapon history records accompanying the shipment.

4.1.3.2. During receipt of H1616 or H1700 it is not required to open containers for component serial numbers verification. Verify component serial numbers during unpacking before use. Both NARS and maintenance personnel will use serial numbers and reservoir fill dates on the shipping documentation, DIAMONDS data, and exterior tags on containers to report receipt. If a discrepancy is found between the shipping documentation, DIAMONDS data, and the container, contact the MAJCOM immediately and submit UR IAW T.O. 11N-5-1, Unsatisfactory Reports. Obtain component part numbers from the item TO. For DIAMONDS database purposes, if part number suffix is unknown use part number plus -XX (Example: 123456-XX). For special instructions for shipments between Military First Destinations (MFD) and overseas locations, see TO 11N-100-3150, *Joint Reporting Structure; Nuclear Weapons Reports*.

4.1.3.3. H1616 and H1700 container serial numbers, DOT expiration dates, and content condition will be updated in the NMC2 SharePoint Environment as changes occur.

NARS personnel will use expiration dates to ensure assets are not shipped in overdue containers beyond the military first destination.

4.1.3.4. Do not open packaged MC4519 assemblies upon receipt. Item is to be opened only by the end user immediately prior to use, as directed by applicable TO procedures.

4.1.3.5. NARS personnel will perform inspections of spare parts. If spare parts are determined to be unserviceable, report IAW T.O. 11N-5-1, *Unsatisfactory Reports*.

#### 4.1.4. Defects and Deficiencies.

4.1.4.1. Stop operations upon the discovery of a defect that causes rejection of a weapon or major component, or upon encountering any unknown or unusual weapon or major component condition. **(T-1)**. The TC will inform the BC of the situation, who will ensure the Nuclear Maintenance Element/Section NCOIC, Flight Chief, and the OO/MX SUPT are notified of the condition. A supervisor appointed IAW paragraph 1.4.4.12. will make a management decision whether to continue operations based on careful review of the facts and circumstances. This approval to continue does not relieve the unit of any reporting requirements (UR/Dull Sword). Complete the operation if the weapon is safe and no damage will occur. If the decision is made to not continue the operation, contact the applicable MAJCOM who will coordinate with the AFNWC/NCL to resolve the situation. Direct contact between MAJCOMs or units and other agencies (e.g., Defense Threat Reduction Agency (DTRA) or Sandia National Laboratories (SNL)) for any weapons related technical resolution is prohibited unless directed by the AFNWC/NCL.

4.1.4.1.1. On site DoE representatives may determine continuation of operation (e.g., PAL operation, defect acceptance) when authorized procedures are not available in governing TO. However, unit personnel must report the defect(s) according to TO 11N-5-1, *Unsatisfactory Reports*, and/or AFMAN 91-221, *Weapons Safety Investigations and Reports*, as applicable. **(T-0)**.

4.1.4.1.2. Individuals appointed IAW paragraph 1.4.4.12. are permitted to intervene when a rejectable component or weapon is encountered or to evaluate any unknown or unusual weapon or major component condition. It allows them to determine if it is safe to continue an operation after rejection of a component or weapon. Also, it allows them to physically assess (i.e., touch, hold, and manipulate) and inspect weapons, components, the weapon system, equipment, tools, etc. when assessing/validating condition/status or otherwise providing assistance.

4.1.4.2. When technical procedures call for components/parts to be rejected at lowest level available in spares, weapons will be placed in non-operational status if the component/part cannot be replaced within Nuclear Reporting (NUREP) timelines. **(T-0)**. Weapons will also be placed in non-operational status if involved in an accident or incident and the condition is unknown (e.g., lightning strike, fire, loss of custody, etc.). **(T-0)**.

4.1.4.3. Non-operational Tools, Test, and Handling Equipment (TTHE) must be returned to operational status as soon as possible, not to exceed 30 duty days following UR, DR, Dull Sword, Engineering Technical Assistance Request (ETAR), and/or receipt of required replacement parts. **(T-1)**.

#### 4.1.5. Deficiency Reporting. (T-0).

4.1.5.1. Deficiencies associated with nuclear weapons, nuclear weapon-related items, associated equipment/software or technical orders/publications must be reported.

4.1.5.2. When assistance is required and the problem does not fit into one of the below categories use procedures in T.O. 00-25-107, *Maintenance Assistance*. Use requests from T.O. 00-25-107 for problems with maintenance procedures or production that are beyond the capability of the maintaining command. Maintenance assistance may take the form of emergency maintenance support, technical assistance, or a combination of both.

4.1.5.3. Use procedures in T.O. 11N-5-1, *Unsatisfactory Reports*, to report a deficiency on DoE-designed nuclear weapons or related components, DoE-designed equipment/software, a JNWPS technical order discrepancy/deficiency, or when DoD-designed items require evaluation based upon their interface with DoE-designed items. Nuclear weapons placed in non-operational status will only be returned to operational status when officially directed by AFNWC/NCL or when directed via an assigned DTRA UR number.

4.1.5.4. Use procedures in AFMAN 91-221, *Weapons Safety Investigations and Reports*, to report a safety related accident, incident or deficiency (Broken Arrow, Bent Spear or Dull Sword) on items covered in the USAF Master Nuclear Certification List web site or T.O. 21M-LGM30F-12-1, *Minuteman Nuclear Surety Procedures*. Examples include but are not limited to general-purpose vehicles, ICBM related equipment, nuclear certified aircraft software, two-person concept violations, etc.

4.1.5.5. Use procedures in T.O. 00-35D-54, *USAF Deficiency Reporting and Investigating System*, to report deficiencies on DoD-designed items.

4.1.5.6. In certain instances, it may be necessary to submit multiple reports on one deficiency. For example:

4.1.5.6.1. Submit reports IAW T.O. 11N-5-1, *Unsatisfactory Reports*, and AFMAN 91-221, *Weapons Safety Investigations and Reports*, for:

4.1.5.6.2. A weapon involved in an accident or incident (lightning, vehicle accident, loss of custody, etc).

4.1.5.6.3. Stray voltage from a motor generator.

4.1.5.7. Submit reports IAW AFMAN 91-221, *Weapons Safety Investigations and Reports*, and T.O. 00-35D-54, *USAF Deficiency Reporting and Investigating System*, for:

4.1.5.7.1. A nuclear certified vehicle still under warranty with burnt wire insulation.

4.1.5.7.2. Chipped ablative material.

4.1.5.8. Submit reports IAW T.O. 11N-5-1, *Unsatisfactory Reports*, and T.O. 00-35D-54, *USAF Deficiency Reporting and Investigating System*, for:

4.1.5.8.1. Rejected warhead and RS components due to deluge dump.

4.1.5.8.2. Warhead/weapon damage due to hoist failure.

4.1.5.8.3. Steering fails on a newly manufactured/certified forklift causing vehicle and weapon damage.

#### 4.1.6. Maintenance Tasks.

4.1.6.1. Personnel will not perform WR operations until they complete weapons academic training, applicable safety training, and nuclear weapons certification requirements IAW Chapter 3. **(T-0)**.

4.1.6.2. Nuclear weapons operations will be performed by 2M0XX/2WXXX personnel. 2M0X2s perform RS mate/demate and weapons handling tasks. 2M0X1s perform select mate/demate tasks and weapons handling tasks. 2WXXX perform weapons handling tasks. 2W2XX perform weapons maintenance, mate/demate, and RSTS/SFTS/RFSE checkout tasks. 21MX, 2M0X1 and 2WXXX personnel may perform Permissive Action Link/Code Management System operations if they possess the proper clearances and are JQS qualified.

4.1.6.2.1. In circumstances where there are insufficient 2M0XX or 2WXXX personnel available to perform the required nuclear weapons operations the applicable MAJCOM will designate AFSCs to augment assigned 2M0XX or 2WXXX personnel, however, there must be core 2W/2M personnel assigned and available to manage and oversee the nuclear operations. In addition to AFSC requirements all training, security clearance, PRP requirements, and certification requirements are applicable.

4.1.6.3. A certified TC will direct all certified weapons maintenance, weapons mate/demate, and final assembly test operations. **(T-0)**. TCs may not direct multiple operations simultaneously. **(T-0)**. MAJCOMs or units may require a TC to direct weapons handling tasks performed with WR weapons.

4.1.6.4. TCs will give team briefings, using verbal demand-response techniques, before starting operations involving a WR nuclear weapon or warhead. The briefing must include, as a minimum: Description of the task, designation of personnel assigned to the task, nuclear surety IAW AFI 91-101, *Air Force Nuclear Weapons Surety Program*, necessary safety, emergency, and intrinsic radiation procedures, and the requirement of the Two-Person Concept.

4.1.6.5. When a TC is communicating technical order procedures to technicians without physical access to TOs during nuclear weapons maintenance, mate/demate, final assembly checkout, and handling tasks, a verbal demand-response technique must be used. **(T-1)**. The technique consists of reading the step to be performed, along with all notes, cautions and warnings to the technicians performing the work. The performing technicians will acknowledge understanding, perform the step, and then verbally verify completion to the person reading the steps. The person reading the steps will then check off the steps. If technicians are using technical data and checking off steps as they perform them (such as cleaning person on LLCE operations), a TC must ensure all steps are completed prior to weapon/component reassembly. **Note:** The above referenced operations often require the use of general procedures contained in both Operations and Maintenance and Methods and Procedures technical orders (e.g., 11N-35-51, 1-1A-8, 00-

25-234, etc.). These technical orders do not require verbal demand-response or checking off of steps.

4.1.6.6. If an operation is halted the TC will mark the last step accomplished. **(T-1)**. Resume the operation only after reviewing the checklist or technical order in order to determine the operation restart point.

4.1.6.7. ICBM Critical Task Supervisors are required to oversee all RS mate/demate or transfer operations involving WR. **(T-2)**. Critical task supervisors are not required to oversee transport operations.

#### 4.1.7. **Weapon Movements.**

4.1.7.1. Cover nuclear weapons, TYPE 3 trainers, JTA, compatibility test units (CTU), and flight test units (FTU) during all movements (EXCEPTION: Containerized weapons, RSs, and Cruise Missiles do not require covers). **(T-1)**. BDUs do not require covers except when simulating WR weapons. JTA movements outside controlled areas must have appropriate level of security dependent upon security requirements for each JTA, CTU and FTU type. **(T-0)**.

4.1.7.2. US custody of nuclear weapons must be maintained during all aspects of nuclear weapons storage, handling and logistics movements. **(T-0)**.

4.1.7.3. All on-base nuclear weapons movements outside the restricted area must have a member serving as a technical and safety advisor. **(T-1)**. The convoy technical and safety advisor will be an NCO that is JQS qualified and fully knowledgeable of tiedown, transportation, handling, CDS, custody transfer, and emergency procedures as applicable. For ICBM RS convoys, the certified PT driver can serve as the technical and safety advisor.

4.1.7.4. Ensure compliance with the movement procedures identified in DoD S-5210.41-M\_AFMAN 31-108, Vol 1, Vol 2, and Vol 3, *Nuclear Weapons Security Manuals*.

#### 4.1.8. **Certifying Nuclear Weapons, Nuclear Warheads, and Components Mated to RS or Multiple Carriage Launch Gear. (T-2).**

4.1.8.1. Certifying RS and multiple carriage launch gear configurations.

4.1.8.1.1. When building RS, pylon and launcher prepare a nuclear weapons configuration record (previously known as buildup sheet) to reflect the association of warhead and component serial numbers to RS, air launched missiles, and the missiles or bombs with the pylon or launcher. The maintenance TC responsible for final assembly must prepare and sign the nuclear weapon configuration record, and a SNCO or officer must visually verify the serial numbers and configuration and certify doing so by signing the nuclear weapon configuration record. Both TC and certifying individual must initial beside any changes to the record. This certified record becomes the source document for tracking the location of weapons and components during storage, alert, and aircraft generation.

4.1.8.1.2. Exceptions to visual verification: it is not necessary to disassemble components for the sole purpose of obtaining component data if it is available on previous configuration record.

4.1.8.2. When building a RV prepare a configuration record to reflect the association of component serial numbers to RV. The TC responsible for assembly must prepare and sign the configuration record and a SNCO or officer must certify the configuration record by signing and visually verifying the serial numbers and configuration of the RV. Both TC and SNCO or officer must initial beside any changes to the record.

4.1.8.3. Nuclear weapon configuration records for launchers and pylons will be created and verified for both WR and non-WR packages. Clearly mark nuclear weapon configuration records for non-WR packages as “NOT WR”.

4.1.8.3.1. Use the nuclear weapon configuration record as the source document to establish the configuration of the RS, pylon, or launcher.

4.1.8.4. Forward the original certified nuclear weapon configuration record to the MASO. Upload RS/RV nuclear weapon configuration records to AFNWC/NIBF SharePoint.

<https://cs.eis.af.mil/afnuclearmunitions/AFMC/PICFUSION/NWRM%20Related%20Documents/Forms/AllItems.aspx?RootFolder=%2fafnuclearmunitions%2fAFMC%2fPICFUSION%2fNWRM%20Related%20Documents%2fPIC%20Supporting%20Documentation%2fGlobal%20Strike%20Buildup&FolderCTID=&View=%7b47D08A47%2dF09A%2d4BD8%2dB13D%2dF12985EA1A88%7d>

4.1.8.5. Units may elect to report in-hand/on-hand changes to the MASO based on RS, launcher, and pylon serial numbers only; however, if they do so, the MASO must maintain the certified nuclear weapon configuration record showing the configuration of the RS or launch gear at the time of the report for as long as they retain the SCR.

4.1.8.6. Swap of a single missile on a pylon or launcher, or a single bomb on a launcher or loaded combat aircraft.

4.1.8.6.1. Prepare an updated certified nuclear weapon configuration record.

4.1.8.6.2. Forward the original of the updated nuclear weapon configuration record to the MASO.

4.1.8.7. During build-up/recycle maintenance, for systems returning to operational status, if the previous configuration record is missing information, disassemble the component to the point where the information can be obtained. Reject the component if unserviceable. EXCEPTION: Electric explosive device, if information is illegible, not available or requires removal notify conventional munitions inspector for serviceability validation.

#### 4.1.9. Trainer Use and Maintenance.

4.1.9.1. Use TYPE 3 A/C trainers for maintenance and Explosive Ordnance Disposal (EOD) training only. **(T-1)**. Do not use these trainers for aircraft or ICBM load training, or logistical movement exercises and evaluations without AFNWC/NCL approval. Use TYPE 3E trainers, RS/RV trainers (UA/UE), TFPs, or BDUs for this purpose. Trainers must be controlled, stored, and secured according to their respective security classification. **(T-1)**.

4.1.9.1.1. Maintain nuclear weapon TYPE 3 A/C trainers to WR standards using procedures in T.O. 11N-35-51, *General Instructions Applicable to Nuclear Weapons*, and the applicable weapons manual. **(T-0)**. TYPE 3 A/C trainers used exclusively

for EOD training will be maintained in a WR configuration and may deviate from WR standards with UR approval. Inspect all other nuclear weapons trainers, TYPE 3E, load shape/trainers as specified in the applicable technical order, not to exceed 180-days. **(T-1)**. RS (UA/UE) load shape trainers are maintained IAW applicable 43D-series technical orders.

4.1.9.1.2. For those trainers not on the weapons maintenance custody account or installed in ALCM Interface Test Trainers (ITT), the OO/MX SUPT and owning agency will work out a periodic inspection and maintenance schedule to repair deficiencies in order to keep the trainers in WR configuration. Use IMDS to track inspection and maintenance of trainers.

4.1.9.2. Units may elect to track deficiencies/historical documentation for TYPE 3E load shape/trainers using AFTO Form 244, *Industrial/Support Equipment Record*, AFTO Form 95, *Significant Historical Data*, or IMDS, as appropriate. An IRC is not required on TYPE 3E or BDU load shape/trainers.

4.1.9.3. Prohibit installation of WR items, components, or materiel on TYPE 3/UA/UE trainers unless authorized by technical data or the AFNWC/NCL. (EXCEPTION: Reuse of expended or expired Group X items for training is acceptable). Never install training items, components, or materiel on WR items. **(T-0)**.

## 4.2. Waste Management.

4.2.1. Three basic types of tightly regulated materials can be generated during nuclear weapons maintenance activities. These generated materials may become wastes regulated either as Resource Conservation & Recovery Act (RCRA) hazardous waste, 91b Waste or Potentially Mixed Waste. Maintenance personnel will assure that all wastes are properly identified, segregated and containerized as the waste is generated and according to the type of waste being generated. **(T-0)**. Appropriate precautions to avoid co-mingling of different types shall be taken to minimize the generation of Potentially Mixed Waste. **(T-0)**.

4.2.2. RCRA regulated hazardous waste includes spent and/or expired hazardous materials that are available for use or used in the routine conduct of the maintenance activities and includes solvent soaked rags or wipes. RCRA Hazardous Waste, however, does not include materials that become contaminated by a radioactive source or demonstrate a radioactive property. RCRA wastes include items such as un-useable or spent solvents, lubricants and paints.

4.2.3. 91b Waste is generated when a system component is inherently and/or becomes contaminated solely by a radioactive source within the contiguous volume where a tritium reservoir resides without the introduction of a hazardous material. These wastes include items such as compression pads, un-greased O-rings, Kim wipes or Q-tips used to wipe internal components without the use of solvents, and expired weapon desiccant.

4.2.3.1. 91b waste areas for MK12A are: Inside of the associated aft section and inside surfaces of the H1223A/B aft bulkhead cover/ring.

4.2.3.2. 91b areas for the MK21 are: the enclosure formed by the inside of the Warhead Electrical System (WES) cap and aft end of the AFA and inside the WES cap.

4.2.4. Potentially Mixed Waste is generated when a 91b Waste is combined with a RCRA Hazardous Waste. An example is a Kim wipe, wiper or rag that becomes contaminated with spent hazardous material solvent once used to wipe internal components and surfaces of a radioactive source.

4.2.5. Collection and Identification. Local bioenvironmental section may survey and perform analysis on hazardous waste containers to determine what type of waste is generated. These surveys can be used to reduce the number of containers distributed to maintenance activities.

4.2.6. RCRA Hazardous Waste Management guidance is available through the Installation Environmental Flight. Base-wide instructions are also found in the installation Hazardous Waste Management Plan (HWMP), which outlines specific procedures for managing hazardous waste. Coordinate through the local environmental management flight for container turn-in or pick-up and disposal IAW AFI 32-7042, *Waste Management*. **(T-1)**.

4.2.7. Package 91b Waste in the smallest plastic bags consistent with the operation being performed and store in 30 to 55-gallon drums, label packages and drums "Potentially 91b Waste" and coordinate through local bioenvironmental channels for container pickup and disposal IAW AFI 40-201, *Managing Radioactive Materials in the US Air Force*. **(T-1)**. O-CONUS units will coordinate pick-up and disposal through MAJCOM.

4.2.8. Package Mixed Waste in the smallest plastic bags consistent with the operation being performed, store in 30 to 55-gallon drums, label packages and drums "Mixed Waste Potentially 91b" and coordinate through local bioenvironmental channels for container pickup and disposal IAW AFI 40-201, *Managing Radioactive Materials in the US Air Force*. **(T-1)**. O-CONUS units will coordinate pick-up and disposal through MAJCOM.

4.2.9. Do not store or co-mingle Hazardous Waste, Potentially 91b Waste or Mixed Waste in the same package or drum. **(T-0)**.

4.2.10. Low Level Radioactive Waste (LLRW) programs are driven by environmental regulatory compliance and are not a personnel safety issue. Radiation levels are extremely low. Waste generated during cleaning of tools used during maintenance is NOT a 91b Waste issue. It is not necessary to wear personnel protective or safety equipment while working around the gas transfer systems of a weapon within the parameters outlined in the applicable technical orders, unless otherwise directed (e.g. cleaning with solvents).

JUDITH A. FEDDER  
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## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

*References*

- AFI 10-201, *Status of Resources and Training System*, 19 Apr 2013
- AFI 20-110, *Nuclear Weapons Related Materiel Management*, 18 Feb 2011
- AFPD 21-2, *Munitions*, 17 Dec 2012
- AFI 21-200, *Munitions and Missile Maintenance Management*, 2 Jan 2014
- AFI 21-201, *Conventional Munitions Management*, 9 Apr 2014
- AFI 21-202 Vol 1, *Missile Maintenance Management*, 4 Nov 2009
- AFI 21-202 Vol 2, *Missile Maintenance Management*, 6 Nov 2009
- AFI 21-203, *Nuclear Accountability Procedures*, 23 Nov 2009
- AFI 21-205, *Command Disable Systems (S:FRD)*, 24 Oct 2007
- AFI 23-101, *Materiel Management*, 8 Aug 2013
- AFI 25-101, *War Reserve Materiel (WRM) Program Guidance and Procedures*, 2 May 2005
- AFI 32-7042, *Waste Management*, 15 April 2009
- AFI 36-2201, *Air Force Training Program*, 15 Sep 2010
- AFI 36-2232, *Maintenance Training*, 22 Feb 2006
- AFI 40-201, *Managing Radioactive Materials in the US Air Force*, 16 Mar 2011
- AFI 91-101, *Air Force Nuclear Weapon Surety Program*, 13 Oct 2010
- AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation and 91(B) Radioactive Material Safety Program*, 21 Sep 2010
- AFMAN 91-201, *Explosive Safety Standards*, 12 Jan 2011
- AFMAN 91-221, *Weapons Safety Investigations and Reports*, 8 Nov 2010
- DoD S-5210.41-M\_AFMAN 31-108, Vol 1, Vol 2, and Vol 3 *Nuclear Weapons Security Manuals*, 25 Apr 2013
- TO 00-20-1, *Aerospace Equipment Maintenance General Policy and Procedures*, 15 Jun 2013
- TO 00-35D-54, *USAF Deficiency Reporting and Investigation System*, 1 Nov 2011
- TO 11N-5-1, *Unsatisfactory Reports*, 27 Feb 2009
- TO 11N-20-11, *General Firefighting Guidance (C:RD)*, 19 Nov 2012
- TO 11N-35-51, *General Instructions Applicable to Nuclear Weapons*, 31 Oct 2013
- TO 11N-100-1, *Supply Management of Nuclear Weapons Materiel*, 15 Apr 2011
- TO 11N-100-2, *Supply Management of Limited Life Components*, 8 Jun 2011

TO 11N-100-4, *Custody, Accountability, and Control of Nuclear Weapons and Nuclear Materiel*, 31 Aug 2011

TO 11N-100-3150, *Joint Reporting Structure; Nuclear Weapons Reports (S:FRD)*, 9 Feb 2011

***Prescribed Forms***

None

***Adopted Forms***

AF Form 504, Weapons Custody Transfer Document

AF Form 623A, On-The-Job Training Record Continuation Sheet

AF Form 847, Recommendation for Change of Publication

AF Form 1764, Major Assembly/Component Status Change Report

AF IMT 2435, Load Training and Certification Document

AFTO Form 95, Significant Historical Data

AFTO Form 244, Industrial/Support Equipment Record

DD Form 1348-1A, Issue Release/Receipt Document

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFMC**—Air Force Materiel Command

**AFPD**—Air Force Policy Directive

**AFSC**—Air Force Safety Center or Air Force Specialty Code

**AFTO**—Air Force Technical Order

**AFNWC**—Air Force Nuclear Weapons Center

**ALCM**—Air Launched Cruise Missile

**BDU**—Bomb Dummy Unit

**CDS**—Command Disable System

**CONUS**—Continental United States

**CTU**—Compatibility Test Units

**DIAMONDS**—Defense Integration and Management of Nuclear Data Services

**DoE**—Department of Energy

**DTRA**—Defense Threat Reduction Agency

**EUCOM**—European Command

**FTU**—Flight Test Unit

**GM**—General Maintenance  
**ICBM**—Intercontinental Ballistic Missile  
**IPI**—In-Process Inspection  
**IRC**—Inspection Record Card  
**JCS**—Joint Chiefs of Staff  
**JQS**—Job Qualification Standard  
**JTA**—Joint Test Assembly  
**KCP**—Kansas City Plant  
**LGM**—Limited General Maintenance  
**LIL**—Location Inventory List  
**LLC**—Limited Life Component  
**LLCE**—Limited Life Component Exchange  
**MAJCOM**—Major Command  
**MAR**—Maintenance Activity Reports  
**MASO**—Munitions Accountable Systems Officer  
**MCL**—Maintenance Capability Letter  
**MTO**—Materiel Transfer Order  
**MUNS**—Munitions Squadron  
**NCO**—Noncommissioned Officer  
**NMC2**—Nuclear Munitions Command and Control  
**NNSA**—National Nuclear Security Administration  
**NOSS**—Nuclear Ordnance Shipping Schedule  
**NWRM**—Nuclear Weapons Related Materiel  
**OPUS**—Overland Palletized Unit Shipper  
**PAL**—Permissive Action Link  
**PC**—Parachute  
**PNAF**—Prime Nuclear Airlift Force  
**PRP**—Personnel Reliability Program  
**QA**—Quality Assurance  
**QAST**—Quality Assurance Service Test  
**QSR**—QAST Status Report  
**RFSE**—Reentry Field Support Equipment

**RS**—Reentry System  
**RSTC**—Re-entry System Test Console  
**RV**—Reentry Vehicle  
**SCR**—Status Change Report  
**SDT**—Second Destination Transportation  
**SFT**—Stockpile Flight Test  
**SGT**—Safeguards Transporter  
**SS**—Source and Special  
**TC**—Team Chief  
**TCTO**—Time Compliance Technical Order  
**TBA**—Training Business Area  
**TFP**—Training Ferry Payloads  
**TM**—Team Member  
**TO**—Technical Order  
**USAF**—United States Air Force  
**USAFE**—United States Air Forces in Europe  
**UR**—Unsatisfactory Report  
**WMT**—Weapons Maintenance Truck  
**WR**—War Reserve  
**WS3**—Weapon Storage and Security System  
**WSA**—Weapon Storage Area  
**WSV**—Weapons Storage Vault

### *Terms*

**Accountability**—The obligation imposed by law or lawful order or instruction on an officer or other person for keeping accurate, reliable and auditable record of property, documents, or funds. The person having this obligation may or may not have actual possession of the property, documents, or funds. Accountability is concerned primarily with records, while responsibility is concerned primarily with custody, care, and safekeeping.

**Active Stockpile Weapons or Warheads**—Weapons or warheads maintained in an operational status to support operational and logistical requirements. Includes both those weapons or warheads fielded and those on active reserve.

**Assembly**—An accounting term for nuclear weapons/warheads configured for integration onto delivery vehicles. Examples include ICBM warhead with fwd/aft sections mated (referred to as RV), W80s mated to missiles and gravity weapons.

**Base Spares**—Parts and components authorized in spare parts list (SPL) published by Sandia National Laboratories (SNL), funded for, procured, and owned by DoE and furnished to the DoD for use in maintaining and repairing War Reserve (WR) nuclear weapons and DoE-owned equipment supplied to DoD with the WR weapon. Parts remain the property of DoE regardless of custody.

**Certifying Official**—(see Nuclear Weapons Certifying Official).

**Controlled Area**—A security area adjacent to or encompassing limited or exclusion areas. Within this area uncontrolled movement does not permit access to a security interest (i.e., nuclear weapon). The controlled area is designed for the principal purpose of providing administrative control and safety, and a buffer area of security restrictions for limited or exclusion areas.

**Critical Task Supervisors**—Responsible for work performed by technicians they supervise in-shop or on-site during “critical” portions of a maintenance task in-progress or completed by a maintenance team.

**Custodian**—Individual appointed by the DoD activity commander under those conditions where the accountable officer does not exercise custodial control over assigned nuclear weapons, nuclear components, or LLCs.

**Custody**—The responsibility for the control of, transfer and movement of, and access to, weapons and components. Custody also includes maintaining accountability for weapons and their components.

**Custody Transfer**—Transferring custody of nuclear weapons during operational and logistics movements.

**Demate**—To remove air-launched missile (with or without warhead) or weapon from a pylon or launcher, to remove a RS from a MMIII Guidance Set.

**DoE-Designed Special Equipment Items**—Support equipment items designed by DoE used to support and maintain DoE-designed weapons trainers and equipment.

**Exclusion Area**—Any designated area immediately surrounding one or more nuclear weapon(s)/systems(s). Normally, the boundaries for the area are the walls, floor, and ceiling of a structure or are delineated by a permanent or temporary barrier. In the absence of positive preventive measures, access to the exclusion area constitutes access to the nuclear weapon(s)/system(s).

**Handling**—Physically maneuvering weapons either directly or indirectly by people (i.e., sliding, lifting, hoisting, over short distances using manpower, tugs, cranes, forklifts or hoists).

**H-Gear**—Specially designed devices intended for use in assembling, disassembling, handling, transporting or containing weapons or weapons materials. Special equipment items are designated with an "H" designation in their nomenclature.

**In-Hand**—An accounting term to report weapons that are in physical possession of an operational unit designated to employ the weapon (see 11N-100-3150 for more detail).

**In-Process Inspection (IPI)**—An IPI is defined as an additional supervisory inspection or verification step at a critical point in the installation, assembly or re-assembly of a system, subsystem or component.

**Inactive Stockpile Weapons**—Weapons or Warheads retained in a non-operational status for augmentation or replacement of weapons or warheads in the active stockpile.

**Installed**—A term applicable to nuclear components/subsystems and their presence/ installation in/on a nuclear weapon/warhead/device. Examples included limited-life components, parachutes, etc.

**Joint Test Assembly**—A DoE developed configuration based on DoE-DoD requirements for use in a joint flight test program, comprised of a joint test subassembly and WR weapons components.

**Limited Life Component**—Any item listed in T.O. 11N-100-2 or so designated by DoE.

**Logistics Movement**—The transport of nuclear weapons by any appropriate noncombat delivery vehicle outside a permanent limited or exclusion area.

**Munitions Accountable Systems Officer (MASO)**—The individual having the guardianship and safekeeping of nuclear weapons, their components and of SS materials.

**Mate**—To place an air-launched missile (with or without warhead) or weapon on a pylon or launcher, to place a RS on a MMIII Guidance Set.

**Military Spares**—Parts and components authorized in SPL published by Sandia National Laboratories (SNL), funded for, procured, and owned by DoD, and required for support of DoE and DoD produced training weapons and all cable test (CT) disablement equipment (DE), test (T), and handling (H) equipment except those DoE-owned items supplied to the DoD with WR weapons.

**Non-nuclear munitions**—Training weapons, shapes, JTAs, TFPs, BDUs, empty missiles/containers, CATIKs, OMAs, etc.

**Non-operational**—A reportable item that is either defective to the extent that the assembly is rendered unsuitable for employment, is subject to a hold order that prohibits all operational use until a specified defect is remedied, or that contains any major component (including, but not limited to an LLC) that has exceeded its expiration date. Also referred to as Red.

**Nuclear Ordnance Shipping Schedule (NOSS)**—A Major Command (MAJCOM) monthly forecast of logistics movement of nuclear and nuclear-related cargo.

**Nuclear-Related Cargo**—Nuclear training and test weapons, non-nuclear components of nuclear weapons, limited life components, and equipment associated with the logistics management of nuclear weapons.

**Nuclear Weapon**—A complete assembly (i.e., implosion type, gun type, or thermonuclear type), in its intended ultimate configuration that, upon completion of the prescribed arming, fuzing, and firing sequence, is capable of producing the intended nuclear reaction and release of energy.

**Nuclear Weapons Certifying Official**—Individual appointed to certify personnel to perform nuclear weapons maintenance, weapons mate/demate, weapons handling, and final assembly tests.

**Nuclear Weapons Related Materiel (DoD)**—Classified or unclassified assemblies and subassemblies (containing no fissionable or fusionable material) identified by the Military Departments (MILDEPS) that comprise or could comprise a standardized war reserve nuclear

weapon (including equivalent training devices) as it would exist once separated/removed from its intended delivery vehicle.

**On-Hand**—An accounting term to report weapons that are in the physical custody of an accountable officer (see 11N-100-3150 for more detail).

**Operational**—The status of a weapon when ready to discharge its prime function. Also referred to as Yellow.

**Operational Movement**—The positioning of weapons to ensure the operational readiness of nuclear-capable strike forces. Operational movements include those related to immediate operational readiness such as: assumption of an alert posture; various categories of exercises involving removal of a weapon from its normal storage location, preparation for use, exercise loading, and return to storage; maintenance operations involving removal of a weapon from alert for repair, inspection, or return to storage; and those movements such as hurricane flyaways and other emergency evacuations, related to the safety and security of the nuclear force.

**Prime Nuclear Airlift Force (PNAF)**—The aircraft and aircrew that provide peacetime logistical airlift support for the movement of nuclear weapons and or nuclear components.

**Removed**—A term applicable to nuclear components/subsystems and their absence/ removal from a nuclear weapon/warhead/device. Examples included limited-life components, parachutes, etc.

**Safe Haven**—Temporary storage provided to DoE classified equipment transporters at DoD facilities in order to assure safety and security of nuclear material and or non-nuclear classified material during civil disturbances, natural disasters, or other conditions, which could affect the safety, or security of the DoE shipment. Also includes parking for commercial vehicles containing Class A or Class B explosives.

**Safeguards Transporter (SGT)**—A modified semi-trailer used for highway transit of special nuclear materiel including nuclear weapons. It includes armored, penetration sensing and deterrent materials. The DoE owns and operates all SGTs.

**Second Destination Transportation (SDT)**—A term used in transportation budgetary funding processes to identify required internal DoD movement of nuclear cargo.

**Sole Vouching Authority**—An individual responsible for verifying a person's need to enter a exclusion area prior to granting them access.

**Source Documents**—Documents used to schedule maintenance, validate requirements, verify accountability and/or custody procedures. Examples include; but are not limited to; AF Form 1764 or equivalent reflecting association of warhead/bomb serial numbers to the RS, pylon, or launcher; LIL; MTO; time change item schedule; messages; direction from the SLA; special procedures; retrofit orders; etc.

**Support Equipment**—All equipment required to perform the support function, except that which is an integral part of the mission equipment. It does not include any of the equipment required to perform mission operation functions. Support equipment consists of: tools; test equipment; automatic test equipment (ATE) (when the ATE is a support function); organizational, field, and depot support equipment; and related computer programs and software.

**War Reserve**—Nuclear weapons and nuclear weapons material intended for employment in the event of a war.