

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

**AIR FORCE MANUAL 21-204**

**13 JANUARY 2023**

***Maintenance***

**NUCLEAR WEAPONS MAINTENANCE**



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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 Mission*. It provides nuclear weapons maintenance and handling guidance and procedures. It applies to all Air Force personnel who maintain and handle nuclear weapons, to include Air Force Reserve and Air National Guard of the United States. Units will contact applicable Major Command (MAJCOM) for interpretations of guidance contained in this publication. This publication applies to the Regular Air Force, the Air Force Reserves, and the Air Force National Guard. This publication does not apply to the United States Space Force. The authorities to waive wing/unit level requirements in this publication are identified with a Tier (**T-0, T-1, T-2, and T-3**) number following the compliance statement. See Air Force Instruction (DAFI) 90-160, *Publications and Forms Management* and DAF Manual (DAFMAN) 90-161, *Publishing Processes and Procedures* 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 alternately, to the publication OPR for non-tiered compliance items. MAJCOM-directed supplements to this publication must be routed to the Office of Primary Responsibility (OPR) of this publication for coordination prior to certification and approval. Units below MAJCOMs will not publish a supplement to this publication. Ensure all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed in accordance with the Air Force Records Disposition Schedule (RDS), which is located in the Air Force Records Information Management System (AFRIMS). Refer recommended changes and questions about this publication to the office of primary responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of

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### ***SUMMARY OF CHANGES***

This document has been revised and must be completely reviewed. Changes include (1) Clarification of the B61-12 and limited life component exchange (LLCE) component exchange, (2) Clarified Defense Integration and Management of Nuclear Data Services (DIAMONDS) TO procedures, (3) Aligned LLC support schedule suspense dates with technical order (TO) 11N-100-2, *Supply Management of Limited-Life Components (S/RD)*, (4) Updated Operations Officer duty title to Director of Operations, (5) Updated Maintenance Superintendent duty title to Senior Enlisted Leader, and (6) other administrative updates.

Units have 120-days from date of this revision to implement procedure updates.

<b>Chapter 1—GENERAL.</b>	<b>4</b>
1.1. Purpose and Guidance. ....	4
1.2. General.....	4
<b>Chapter 2—ROLES AND RESPONSIBILITIES.</b>	<b>5</b>
2.1. Major Commands. ....	5
2.2. Unit Responsibilities.....	9
<b>Chapter 3—MANAGEMENT OF NUCLEAR WEAPONS, NUCLEAR COMPONENTS,                     AND SPARES</b>	<b>16</b>
3.1. Management of Nuclear Weapons.....	16
3.2. Management of Nuclear Components. ....	16
3.3. Management of Containers and Bolsters. ....	17
3.4. Management of Nuclear Training and Test Items. ....	17
3.5. Management of Retrofit Kits. ....	17
3.6. Management of Funds. ....	18
3.7. Management of AF-owned DOE-designed Special Equipment and Base or Military Spares.....	18
3.8. War Reserve Materiel. ....	18
3.9. Working Capital Fund. ....	18
3.10. Equipment Authorizations for Special Equipment Controlled Items. ....	18

<b>Chapter 4—NUCLEAR WEAPONS TRAINING, QUALIFICATION, AND CERTIFICATION PROGRAMS</b>	<b>20</b>
4.1. Nuclear Weapons Training Program. ....	20
4.2. Nuclear Weapons Academics. ....	20
4.3. Nuclear Weapons Qualification Program. ....	21
4.4. Nuclear Weapons Certification Program. ....	21
4.5. Certifying Officials. ....	22
4.6. Certification Requirements. ....	23
4.7. Certification Documentation.....	25
4.8. Certifiable Tasks. ....	25
4.9. Nuclear Weapons Proficiency Checks. ....	28
<b>Chapter 5—NUCLEAR WEAPONS MAINTENANCE AND HANDLING</b>	<b>29</b>
5.1. General.....	29
5.2. Waste Management.....	36
<b>Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION.</b>	<b>39</b>

## Chapter 1

### GENERAL.

#### 1.1. Purpose and Guidance.

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

1.1.2. Guidance. Nuclear Weapons Related Materiel (NWRM) procedures are located in AFI 20-110, *Nuclear Weapons-Related Materiel Management*. General munitions maintenance responsibilities are located in AFMAN 21-200, *Munitions and Missile Maintenance Management*. Theater Integrated Combat Munitions System (TICMS) managed NWRM procedures are located in DAFMAN 21-201, *Munitions Management*. Missile maintenance guidance is located in AFMAN 21-202, *Missile Maintenance Management*. Nuclear accountability guidance is located in AFMAN 21-203, *Nuclear Accountability Procedures*. Command disablement procedures are located in AFI 21-205-S, *Command Disable System (CDS)*.

#### 1.2. General.

1.2.1. 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 requisite considerations during the maintenance, storage, handling and logistics movement, and operational employment of nuclear weapons.

1.2.1.1. Personnel directly involved in nuclear weapons operations are expected to perform at the highest possible level of adherence to standards, attention to detail and maintenance discipline. Any other performance level is unacceptable and must result in immediate disqualification from duties.

1.2.1.2. Leaders in the nuclear weapons enterprise, from front line maintenance team chiefs to commanders, must hold those charged with nuclear weapons duties accountable to this expectation.

## Chapter 2

### ROLES AND RESPONSIBILITIES.

#### 2.1. Major Commands.

##### 2.1.1. General.

2.1.1.1. 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.

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

2.1.1.3. Validate Limited Life Component (LLC) expiration date extension requests, and requests to exceed timelines or change LLC support schedules as established in paragraphs 3.2.2, 3.2.3, or 5.1.2.6 of this AFMAN. Ensure requests contain a detailed description of circumstances and planned completion dates. If requests are valid, forward to Air Force Global Strike Command, Directorate of Logistics and Engineering, Nuclear Stockpile Division (AFGSC/A4Z).

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

2.1.1.5. Identify unit maintenance capabilities in maintenance capability letters. Maintenance capability letters identify all weapons maintenance capabilities in support of daily operations, contingencies and/or reconstitution taskings. MAJCOMs may identify minimum team requirements on the maintenance capability letter if operational plans do not adequately describe them.

2.1.1.6. Ensure units use training outlines for all certifiable tasks, component packaging, shroud installation/removal, and chaff operations.

2.1.1.7. Host Technical Interchange Meetings and Senior Munitions Manager's Conference as required. Attendance determined by hosting MAJCOM but at a minimum includes the Career Field Manager, MAJCOM Functional Manager, and applicable squadron commanders, directors of operations, and senior enlisted leaders.

2.1.1.8. Requests First Generation Training through AFGSC/A4Z as required to support training requirements. MAJCOMs determine the appropriate level of participation and determine appropriate funding based on requests to support.

##### 2.1.2. Air Force Global Strike Command.

2.1.2.1. AFGSC Munitions Division (AFGSC/A4W) is the MAJCOM OPR for developing nuclear weapons maintenance and sustainment guidance.

2.1.2.1.1. Provide Subject Matter Expert: in Maintenance & Logistics (M&L) to provide lifecycle resource requirements for performing operations and support expertise for nuclear weapons Project Officer Group (POG) meetings. The M&L subgroup shall provide periodic status reports to the POG membership on logistics

activities and maintenance support. These activities will be based on warhead system life-cycle sustainment or life-extension activities.

2.1.2.1.2. Concur/Non-concur on Unsatisfactory Reports (UR) requesting technical data changes submitted by subordinate units prior to submission to the Air Force Service Center.

2.1.2.1.3. Serve as OPR for nuclear weapons maintenance and logistics enterprise participation in the Senior Munitions Manager's Conference.

2.1.2.2. AFGSC/A4Z, in addition to applicable responsibilities found in AFI 21-2XX series and AFMAN 21-2XX series, will:

2.1.2.2.1. Serve as Service Logistics Agent for USAF-assigned nuclear weapons.

2.1.2.2.2. Represent the USAF as a member of the Nuclear Reports Management Group.

2.1.2.2.3. Coordinate with appropriate agencies to ensure weapons stockpile quantities align with the Nuclear Weapons Stockpile Plan, and are available to meet operational mission requirements, logistics plans, and other stockpile management requirements. Direct charge code changes through either the USAF DIAMONDS MTI Module or other means (e.g., Stockpile Lab Test/Stockpile Flight Test Warning Orders or Military Transfer Orders). Direct weapon movement scheduling through the USAF DIAMONDS Module. Note: AFGSC/A4Z will request Materiel Transfer Orders from Defense Threat Reduction Agency (DTRA) using the Movement Tracking Item module in DIAMONDS.

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

2.1.2.2.5. Manage Stockpile Flight Test selections and provide Stockpile Lab Test candidates to National Nuclear Security Administration (NNSA) as required to support New Materials and Stockpile Evaluation Schedules.

2.1.2.2.6. Approve or disapprove fiscal year LLC support schedule and any changes. Provide USAF requirements to Defense Threat Reduction Agency (DTRA).

2.1.2.2.7. Determine retrofit kit requirements.

2.1.2.2.8. Fund procurement and transportation for Military Spares and DOE-designed, USAF-owned TYPE 3 trainers and special equipment. New TYPE trainers and special equipment are funded as part of the parent weapon development program.

2.1.2.2.9. Serve as the focal point for Nuclear Ordnance Controlled Material support by providing units with assistance and coordinating with DTRA and NNSA to resolve nuclear management, technical, and sustainment issues.

2.1.2.2.10. Provide supply support (spares), DOE-special designed test and handling equipment, and training devices.

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

2.1.2.2.11.1. Prepare/develop funding requests and program objective memorandum submissions for procurement of parts for fielded trainers, trainers undergoing refurbishment, and unique nuclear support and test equipment. Trainer repair and refurbishment is funded through Nuclear Weapons Center Common CAM Group, Air Force Materiel Command (AFMC) and executed via “Strategic Partnership Project” contracts through NNSA.

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

2.1.2.2.11.3. Ensure TYPE 3 trainers managed by AFGSC/A4Z are inspected, maintained, and repaired. AFGSC/A4Z may exempt obsolete or excess trainers from continued maintenance and inspection. Reference [paragraph 5.1.9](#) of this AFMAN for further trainer maintenance requirements.

2.1.2.2.12. Serve as focal point for Use Control equipment including Code Management System development, procurement and support.

2.1.2.2.12.1. Provide DoD repair activity for Use Control equipment.

2.1.2.2.12.2. Serve as the Use Control Logistics working group chair for the Project Officers Group.

2.1.2.2.13. Serve as USAF UR Service Center for management and coordination of URs for nuclear weapons, associated special equipment, and Joint Nuclear Weapons Publication System (JNWPS).

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

2.1.2.2.13.2. Coordinate on UR, Deficiency Reports (DR), or Engineering Technical Assistance Request (ETAR) repair action delay requests and return as necessary to the unit and MAJCOM.

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

2.1.2.2.15. Publish monthly Time Change Item Schedule. This schedule identifies LLC/support kits for delivery to each unit.

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

2.1.2.2.17. Serve as USAF Executive Agent and Technical Order Management Agency for distribution and content management of change proposals affecting JNWPS documents. Provide Technical Content Managers for all JNWPS Technical Orders (TO). All JNWPS change proposals affecting USAF policy must be coordinated with

- Headquarters Air Force, Logistics, Engineering and Force Protection, Directorate of Logistics, Nuclear Weapons, Missiles and Munitions Division (AF/A4LW).
- 2.1.2.2.18. Approve or disapprove unit requests to extend LLC expiration dates; forward approved requests to DTRA for action by NNSA.
- 2.1.2.2.19. Approve/disapprove weapons maintenance delay requests and return as necessary to the unit and MAJCOM.
- 2.1.2.2.20. Serve as Maintenance and Logistics subgroup chair for Weapon Project Officer Group.
- 2.1.2.2.21. Continuously track the kind, count, condition and location of all nuclear weapons in USAF custody and will determine the best storage locations for active, inactive, and retired weapons.
- 2.1.2.2.22. Publish Quarterly Quality Assurance Reliability Testing Memorandum. This memorandum identifies Stockpile Laboratory Test/Stockpile Flight Test selections and weapon exchange requirements.
- 2.1.2.2.23. Serves as the USAF lead agent for DIAMONDS management and nuclear accountability.
- 2.1.3. Air Force Materiel Command. Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration (AFMC/A4/10) is the OPR for AFMC nuclear support guidance.
- 2.1.3.1. Air Force Nuclear Weapons Center (AFNWC). In addition to the responsibilities identified in AFI 21-2XX series and AFMAN 21-2XX series, AFNWC oversees USAF nuclear weapon stockpile stewardship, including USAF requirements, program planning, system development, stockpile life extension and sustainment programs. AFNWC provides support for reentry systems (RS), gravity weapons, warheads, cruise missiles, and the weapons storage and security system (WS3). AFNWC serves as primary point of contact on matters pertaining to weapon systems development and sustainment.
- 2.1.3.2. AFNWC Intercontinental Ballistic Missile (ICBM) System Program Office and Missile Sustainment Division (AFNWC/NCM), Nuclear Capabilities Directorate (Cruise Missile Program Office) will:
- 2.1.3.2.1. Provide status on nuclear related issues in-work or requiring resolution to include sustainability of current programs in use by the field to AFNWC, AFMC and applicable MAJCOM. **(T-1)**
- 2.1.3.2.2. Provide disposition instructions to AFGSC/A4Z for DoD-designed items requiring evaluation based upon their interface with DOE-designed items. Disposition instructions will be included with the UR, DR, or ETAR response. **(T-1)**
- 2.1.3.2.3. Provide AFGSC with engineering support for JNWPS procedures requiring verification and validation where service designed items interface with DOE-designed items. **(T-1)**
- 2.1.4. United States Air Forces in Europe (USAFE). Directorate of Operations, Strategic Deterrence, and Nuclear Integration (USAFE/A10) is the MAJCOM OPR for developing nuclear weapons maintenance and sustainment guidance and will concur/non-Concur on URs



submitted by subordinate units requesting technical data changes prior to submission to the Air Force Service Center.

## 2.2. Unit Responsibilities.

2.2.1. Wing Commanders. In addition to the applicable responsibilities found in AFI 21-2XX series and AFMAN 21-2XX series, wing commanders will:

2.2.1.1. Provide storage and security for nuclear weapons and nuclear components, per DoD S-5210.41-M\_AFMAN 31-108, Volumes 1-3, (U) *Nuclear Weapon Security Manual*. (T-0)

2.2.1.2. Authorize all operational nuclear weapons movements outside a limited area. (T-1)

2.2.1.3. In accordance with TO 11N-100-4, *Custody, Accountability, and Control of Nuclear Weapons and Nuclear Materiel* provide for the control and custodial responsibility of all assigned nuclear weapons. (T-0)

2.2.2. Maintenance/Munitions Group Commanders. In addition to applicable responsibilities found in AFI 21-2XX series and AFMAN 21-2XX series, maintenance/munitions Group commanders will:

2.2.2.1. Inform applicable MAJCOM if units do not meet maintenance capability letter requirements. (T-1) Notifications will include reason for failing to meet maintenance capability letter, actions or compensatory measures that are in place to minimize the impact on maintenance and a projected “get well” date. (T-1)

2.2.2.2. Validate unit requests to extend LLC expiration dates, and to exceed timelines or change LLC support schedules established in paragraphs 3.2.2 or 3.2.3 of this AFMAN. (T-1) If requests are valid, forward to parent MAJCOM with detailed justification. (T-1)

2.2.2.3. Validate unit requests to delay nuclear weapon repair actions directed via UR or Discrepancy Report outside timelines established in paragraph 5.1.2.6 of this AFMAN. (T-1) Forward request with justification and scheduled completion dates to the applicable MAJCOM. (T-1)

2.2.3. Director of Operations/Senior Enlisted Leader (DO/SEL). Responsible for the safe, secure, and efficient use of resources, while maintaining the highest degree of capability, and reliability in accordance with governing standards. The ultimate goal is maintaining a combat readiness capability commensurate with mission taskings. In addition to applicable responsibilities found in AFI 21-2XX series and AFMAN 21-2XX series, DO/SEL will:

2.2.3.1. Interview and appoint in writing nuclear weapons certifying officials for mate/demate, nuclear weapons maintenance, and handling tasks per Chapter 4 of this AFMAN. (T-1)

2.2.3.2. Enforce use of Integrated Maintenance Data System (IMDS) for management of inspection intervals, maintenance and inspection history, condition/status, and work performed on weapons system equipment and support equipment. (T-1) For nuclear weapons and components, use IMDS to direct maintenance and handling by documenting serial numbers in the Work Center Event narrative or discrepancy section. (T-1) Use of support general Work Unit Codes, as required, is authorized for weapon specific handling

and maintenance sections. Ensure source documentation (e.g., USAF Nuclear Ordnance Shipping Schedule, Special Assignment Airlift Mission setup messages, Time Change Item Schedules) is used to create IMDS work orders. **(T-1)** Do not input firefighting line numbers into IMDS. **(T-0)**

2.2.3.3. Ensure condition of storage/maintenance facilities and stockpiles are inspected at least annually. **(T-1)** This inspection includes a walkthrough of each storage and maintenance location to assess condition of facilities. Assess stockpiles according to [paragraph 5.1.2.15](#) of this AFMAN.

2.2.3.3.1. 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). **(T-1)** Ensure adequacy of lighting and proper housekeeping of the facility, per DESR6055.09\_AFMAN91-201, *Explosive Safety Standards*. **(T-1)**

2.2.3.4. Ensure all TYPE 3 trainers not on the weapons maintenance custody account are controlled, inspected, maintained, and repaired per agreement between munitions squadron /maintenance squadron and owning activity. **(T-2)**

2.2.3.5. Ensure all TYPE 3 A/B/C trainers are inspected in accordance with applicable -1 manuals after receipt and before shipment and applicable inspection record card entries are made in accordance with JNWPS TO. **(T-0)** Report deficiencies found during inspections per TO 11N-5-1, *Unsatisfactory Reports*. **(T-0)**

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

2.2.3.7. Review and submit requests to the Group Commander to extend LLC expiration dates, and to exceed timelines or change LLC support schedules established in paragraphs [3.2.2](#), [3.2.3](#), or [5.1.2.6](#) of this AFMAN. **(T-1)**

2.2.3.8. Appoint a Job Qualification Standard (JQS) qualified bay chief or above to intervene when a rejectable component or weapon is encountered, to evaluate any unknown or unusual weapon or major component condition, and to determine whether it is safe to continue operations. Individuals are authorized to physically assess (i.e., touch, hold, and manipulate) and inspect weapons, components, the weapon system, equipment, tools, etcetera, when assessing/validating condition/status or otherwise providing assistance.

**(T-3)**

2.2.4. Flight Commander/Flight Chief. The flight commander/flight chief is responsible to maintenance supervision for the broad management, oversight, leadership, and performance of all assigned personnel. In addition to the applicable responsibilities found in AFI 21-2XX series and AFMAN 21-2XX series, flight commanders/flight chiefs will:

2.2.4.1. Appoint, in writing, instructors to establish, implement, and sustain the nuclear weapons training program outlined in [Chapter 4](#) of this AFMAN. **(T-2)**

2.2.4.2. Review the Location Inventory Listing and LLC forecasts for assigned weapons systems. **(T-1)** If necessary based on this review:

- 2.2.4.2.1. Submit requests to extend LLC expiration dates to the DO/SEL. **(T-1)** Requests contain detailed explanations of why the operation cannot be performed and an estimate of when conditions preventing maintenance will be resolved.
- 2.2.4.2.2. Submit requests to DO/SEL to exceed timelines established in [paragraph 5.1.2.6](#) of this AFMAN for nuclear weapon UR, DR, or ETAR repair actions. **(T-1)** Requests contain detailed explanation of why the repair actions cannot be performed within normal maintenance timelines.
- 2.2.4.3. Inform leadership of significant nuclear weapons related issues negatively impacting mission requirements. **(T-3)** Issues may include conditions resulting in nonoperational weapons/systems, rejectable parts/components, maintenance capability letter/manning shortfalls, or inability to meet mission requirements requiring an UR, DR, or ETAR, mishap report, or maintenance assist request.
- 2.2.4.4. Observe maintenance tasks periodically to ensure quality of work performed by different teams and on different shifts. **(T-3)**
- 2.2.5. Section/Element Commander/Non-Commissioned Officer in Charge (NCOIC). Responsible for leadership, supervision, discipline, training, and effective utilization of assigned personnel in meeting mission requirements. In addition to applicable responsibilities found in AFI 21-2XX series and AFMAN 21-2XX series, section/element commander/NCOIC will:
- 2.2.5.1. Verify accuracy of scheduled and unscheduled maintenance actions and applicable serial numbers on all work orders against the signed schedule prior to initiation of work. **(T-1)**
- 2.2.5.1.1. Corrections to the Serial Number, Identification Number, Location, Discrepancy, or Work Center Event narrative blocks are not authorized; work order will be re-accomplished prior to issuing. **(T-1)**
- 2.2.5.1.2. Documentation errors committed while filling out the work order will be corrected on the document without accomplishing a new work order. **(T-1)**
- 2.2.5.2. Ensure all reportable maintenance actions are reported per TO 11N-100-3150, *Joint Reporting Structure; Nuclear Weapons Reports (S/FRD)*. **(T-0)**
- 2.2.5.3. Provide direction to maintenance personnel, enforce maintenance standards, and decertify individuals for substandard performance. **(T-1)**
- 2.2.5.4. Ensure decertification actions are documented in the Nuclear Maintenance Certification Record within the Nuclear Maintenance Certification Tool (NMCT) and, if necessary, AF IMT 623A, *On-the-Job Training Record Continuation Sheet*, or equivalent. **(T-1)**
- 2.2.5.5. Ensure maintenance teams validate contents of each storage structure, bay, cell, or WS3 with Munitions Control prior to closing for all assets (war reserve, trainers) that were added or removed. **(T-1)** The Director of Operations or Senior Enlisted Leader may postpone completion of final inventories/documents (to no later than the end of the shift) to facilitate rapid generations during periods of advanced readiness and related exercises. However, all applicable movement notifications will be made to Munitions Control via

radio, land line, or equivalent to ensure continuous accuracy of visual aids pending receipt of final inventories. **(T-1)**

2.2.5.6. Ensure Nuclear Accountability and Reporting Section is notified when movements change the DIAMONDS Storage Location and Planning Report. **(T-1)**

2.2.5.7. Ensure Munitions Control is notified when TYPE trainer movements change storage location in TICMS. **(T-1)**

2.2.5.8. Ensure applicable documentation and reporting is submitted upon completion of maintenance tasks (e.g., work orders, inspection record card, custody transfer documents, weapons information reports, URs). **(T-1)**

2.2.5.9. Ensure availability of current publications to meet work center needs. **(T-1)** Technicians will not use a JNWPS publication if its status is marked “transitional” or is not authorized for use in Electronic Technical Information Management System. **(T-1)**

2.2.5.10. Develop and implement a process to inform applicable work center technicians, of policy and technical data changes/revisions. **(T-1)**

2.2.5.11. Ensure repairs or modifications are not made to weapons unless authorized by UR, DR, or ETAR or JNWPS technical procedures. **(T-0)** Ensure repairs or modifications are not made to weapon support equipment unless authorized by UR, DR, or ETAR or approved technical procedures. **(T-0)**

2.2.5.12. Ensure personnel maintain shelf life items (e.g., lubricants, paint) per TO 11N-35-51A, *General Instructions Applicable to Nuclear Weapons (Supplement)*, TO 42B-1-1, *Quality Control of Fuels*, and DAFI 23-101, *Materiel Management*. **(T-0)**

2.2.5.13. Ensure maintenance activities listed in AFMAN 21-200 are scheduled in the long term maintenance forecast, quarterly rolling forecast and weekly schedule. **(T-1)**

2.2.5.14. Ensure personnel are certified prior to performing nuclear weapons maintenance, mate/demate, and handling tasks, per DoDM 3150.02, *Nuclear Weapon System Safety Program*. **(T-0)**

2.2.5.15. Ensure team briefings are given before the start of any weapons operation per DAFI 91-101, *Air Force Nuclear Weapons Surety Program*; DESR6055.09\_AFMAN91-201, and TO 11N-45-51, *Transportation of Nuclear Weapons Materiel* series technical data, as required. **(T-0)**

2.2.5.16. Perform proficiency checks as required. **(T-2)**

2.2.5.17. Ensure RS/reentry vehicle (RV) nuclear weapons configuration records are uploaded into RS/RV Configuration Management SharePoint in accordance with **Chapter 5** of this AFMAN. **(T-2)**

2.2.5.18. Ensure a Senior Non-commissioned Officer (SNCO) or above 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)**

2.2.5.19. Notify AFGSC/A4Z when problems are identified with the DIAMONDS system. **(T-1)** However, if problems arise during non-duty hours and Nuclear Reporting is

impacted, units will contact DTRA/DIAMONDS Support Center (DSC) directly for resolution. **(T-1)** After direct contact with DSC, inform AFGSC/A4Z of the problem and resolution actions recommended by DSC. **(T-1)**

2.2.6. Bay Chief. Bay Chief reports directly to the weapons maintenance NCOIC and is responsible for all nuclear weapons/systems maintenance operations. The Bay Chief is directly responsible for enforcing maintenance discipline and ensuring technicians complete tasks at expected performance levels. The Bay Chief 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. Bay Chief is required to be fully JQS-qualified on tasks identified in the maintenance capability letter which they supervise. **(T-1)** Bay Chiefs may touch, pick-up, hold, manipulate and inspect weapon components, weapon system components, equipment, tools, e.g., when assessing/validating condition/status or otherwise providing technical guidance. The Bay Chief does not have to be physically present at all times during maintenance activities to comply with the following guidance. Bay Chiefs will:

2.2.6.1. Verify accuracy of scheduled and unscheduled maintenance actions and applicable serial numbers on all work orders against the signed schedule or signed AF Form 2407, *Weekly/Daily Flying Schedule Coordination* prior to initiation of the work. **(T-1)**

2.2.6.2. Ensure maintenance actions are accomplished and reported per TO 11N-100-3150. **(T-0)**

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

2.2.6.4. Ensure maintenance areas are prepared for the days' or shifts' maintenance tasks prior to introducing nuclear weapons or commencing with maintenance activities. **(T-2)**

2.2.6.5. Ensure personnel are certified on nuclear weapons tasks being performed. **(T-0)** Ensure personnel are current on proficiency checks prior to assigning them to nuclear weapons maintenance, weapons mate or demate, and weapons handling tasks using the Nuclear Maintenance Certification Record within the NMCT. **(T-1)**

2.2.6.6. Remove sub-standard performers from tasks and recommend them to the Section/Element NCOIC for decertification. **(T-3)**

2.2.6.7. Monitor maintenance activities and the safety of nuclear weapons/systems operations. **(T-1)** Notify Nuclear Maintenance Element/Section NCOIC, Flight Chief, and DO/SEL when team determines weapons and major components are nonoperational. **(T-1)**

2.2.6.8. Ensure required documents/reports are submitted upon completion of maintenance tasks (e.g., work order, nuclear weapon configuration record, inspection record card, custody transfer documents, weapons information reports, URs). **(T-1)**

2.2.6.9. Coordinate with Munitions Control for aerospace ground equipment, vehicles, and Civil Engineering support required to support nuclear weapons and systems maintenance. **(T-1)**

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

2.2.6.11. Ensure Sole Vouching Authorities are identified for all exclusion areas under their purview. **(T-1)**

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

2.2.6.13. Conduct proficiency checks in accordance with **Chapter 4** of this AFMAN. **(T-2)**

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

2.2.7. Team Chief (TC). Provides direction to team members (TMs) and is directly responsible for producing safe, secure, and reliable nuclear weapons maintenance activities. Additionally, qualified Team Chiefs may perform IPIs for tasks which they are not involved. Team Chiefs will:

2.2.7.1. Be JQS and Team Chief certified on nuclear weapons tasks being performed. **(T-1)**

2.2.7.2. Enforce compliance with No-Lone Zone and Two-Person Concept requirements per DoDM 3150.02. **(T-0)**

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

2.2.7.4. Prior to performing nuclear operations, visually verify the weapon, component, and other applicable serial numbers match work orders. **(T-1)**

2.2.7.5. For weapon or component verification inspections, visually verify the item's identification data is as described on the shipping documents. **(T-1)**

2.2.7.6. Notify Munitions Control prior to starting and upon completion of scheduled and unscheduled explosive operations. **(T-1)**

2.2.7.7. Submit required documents and reports upon completion of the maintenance task (e.g., work orders, nuclear weapons configuration record, inspection record card, custody transfer documents, weapons information reports, URs). **(T-1)**

2.2.7.7.1. Report unexpected changes in the operational status of weapons to Munitions Control. **(T-1)** This is not required when performing 900-series alterations.

2.2.7.7.2. Forward nuclear weapon configuration records reflecting association of warhead and, or bomb serial numbers to RV, RS, pylon, or launcher to the Munitions Accountable Systems Officer (MASO). **(T-2)**

2.2.7.8. Use verbal demand response for all certified weapons maintenance, mate and demate and handling tasks and ensure Team Members complete actions only as directed. **(T-1)**

2.2.7.9. Comply with TO procedures, safety, and security requirements and enforce weapon system safety rules, per DoDM 3150.02. **(T-0)**

2.2.7.10. Ensure IPIs are performed at required steps within TO procedures. **(T-3)**

2.2.7.11. Ensure line numbers are updated with Munitions Control in accordance with AFMAN 21-200. **(T-1)**

2.2.7.12. Ensure only nuclear certified software and equipment is used, per DoDM 3150.02. **(T-0)**

2.2.7.13. Verify all tools, test, and handling equipment, spares and expendables are available and serviceable prior to beginning any nuclear weapons operation. **(T-1)**

2.2.7.14. Ensure prior-to-use inspections are completed on hoist, vehicles, and related aerospace ground equipment. **(T-1)**

2.2.7.15. Complete RS, RV, pylon and launcher nuclear weapons configuration records to reflect association of component serial numbers as required. **(T-2)**

2.2.7.16. Ensure Munitions Control is notified when TYPE trainer movements change location in TICMS. **(T-1)**



## Chapter 3

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

#### 3.1. Management of Nuclear Weapons.

3.1.1. Various documents (e.g., New Strategic Arms Reduction Treaty, Presidential Decision Directives, Nuclear Posture Review) provide broad guidance on nuclear weapon stockpile quantities. DoD and DOE will prepare, coordinate, and deliver the Nuclear Weapons Stockpile Memorandum, which contains the Nuclear Weapons Stockpile Plan, to the President. The President then signs a Nuclear Weapons Stockpile Plan which directs quantities and types of nuclear weapons in the active and inactive stockpile. The President, through the Secretary of Defense and Chairman of the Joint Chiefs of Staff, entrusts the stockpile to various Services for employment as requested and directed by combatant commanders (e.g., US Strategic Command, US European Command), based on their missions and use in executing the war plans.

3.1.2. Units will maintain sufficient spare Reentry Systems, Air Launched Cruise Missile (ALCM) launcher and pylons to support operational requirements. **(T-1)** These systems are in addition to operational plan commitments. Spare systems may be rotated into missile field to enhance flexibility of wing's maintenance schedule.

3.1.3. AFGSC/A4Z provides logistics spare warheads and bombs to units in excess of operational requirement quantities. Logistics spare warheads and bombs may be in various stages of assembly and LLCs do not need to be installed. Wings may mate operational and fully assembled logistics spare warheads and bombs to launch gear to enhance flexibility of wings' operational and generation capability.

3.1.4. AFGSC/A4Z, in coordination with DTRA, is responsible for maintenance management of retired weapons in USAF custody.

#### 3.2. Management of Nuclear Components.

3.2.1. Units will develop their proposed fiscal year LLC support schedule using standardized template available from AFGSC/A4Z, and forward to parent MAJCOM A4W (or equivalent) for approval no later than 15 January. **(T-1)** This support schedule will be validated against source documents to include all weapon expirations contained in the fiscal year proposal. **(T-1)** MAJCOMs will validate and forward proposed fiscal year LLC support schedules to AFGSC/A4Z no later than 1 February. AFGSC/A4Z will coordinate with MAJCOMs as necessary to adjudicate support schedules, and forward the consolidated USAF LLC support requirement proposal to DTRA no later than 1 March. Once approved by DTRA, the fiscal year LLC support schedule becomes final. Subsequent change requests are submitted and approved in accordance with paragraphs [3.2.2](#) or [3.2.3](#) of this AFMAN.

3.2.2. Replacement LLCs are force-shipped to USAF units (as scheduled in approved fiscal year support schedule) having custody of weapons to allow maintenance actions to be accomplished prior to LLC expiration dates. Units may complete LLC exchanges any time after LLC support arrives. Units, through parent MAJCOMs, may request changes to the fiscal year LLC support schedule from AFGSC/A4Z. Change requests should be submitted as early as practicable, but no later than 90 calendar days prior to needed delivery month. Changes are



sequentially numbered, and submitted using the standardized template with proposed changes highlighted.

3.2.3. Requests for LLC support, based on any reason other than expiration date, requires approval by DTRA (unless approved within fiscal year LLC support schedule outlined in [paragraph 3.2.1](#) of this AFMAN). Units, through parent MAJCOM, forward requests to AFGSC/A4Z. (T-1) Requirements for timely return of expired LLCs detailed in TO 11N-100-2, *Supply Management of Limited Life Components*, still apply.

3.2.4. AFGSC/A4Z may stage LLCs at operational bases to meet readiness timelines.

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

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

3.3.2. Containers and bolsters are accounted for per AFMAN 21-203 and reported in accordance with TO 11N-100-1, *Supply Management of Nuclear Weapons Materiel*.

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

3.4.1. Nuclear Bomb Dummy Units and TYPE trainers are managed per DAFMAN 21-201. In addition, TYPE trainers containing special nuclear material are reported per TO 11N-100-3150.

3.4.2. Items supporting operational and developmental testing programs (e.g., Joint Test Assemblies, Compatibility Test Units, Radar Test Units) are managed and accounted for per AFMAN 21-203 and in some cases reported per TO 11N-100-3150 on Quality Assurance Service Test Status reports. These items are force-shipped to units on an as-needed basis.

3.4.2.1. Maintenance and handling procedures for Joint Test Assemblies are in weapons specific -1 manual. These procedures may be utilized for Developmental Joint Test Assemblies. When procedures in the -1 manual are not adequate, Special Procedures are developed and provided to field units, as applicable. Minor differences for Developmental Joint Test Assemblies, such as markings and configuration changes may be addressed in the Test Plan and do not require any Special Procedures.

3.4.2.2. USAF units supporting and/or conducting nuclear weapons test and evaluation will ensure compliance of non-nuclear assurance program per TO 11N-T569-2, *T569 Non Nuclear Verification Tester with Non-Nuclear Assurance Program Field Procedures*.

(T-0)

3.4.3. Stockpile Flight Test selections made within the USAF are selected and managed by the Service Logistics Agent in consultation with applicable MAJCOM. Stockpile Lab Test selections are made by NNSA. AFGSC/A4Z will provide selection candidates to NNSA, as required. Selection of candidates is formalized by inclusion in the NNSA New Material Stockpile Evaluation Schedule. The NNSA New Material Stockpile Evaluation Schedule is the source document to authorize charge code changes for Quality Assurance and Reliability Testing weapons, these actions will be directed by AFGSC/A4Z.

**3.5. Management of Retrofit Kits.** AFGSC/A4Z determines retrofit kit requirements. Kits are normally forced-shipped to units based on quantities of items that the unit possesses requiring the

retrofit. AFGSC/A4Z 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 per AFMAN 21-203. Retrofits are scheduled, monitored and reported by the unit Plans, Scheduling, and Documentation function.

### **3.6. Management of Funds.**

3.6.1. DOE manages funding for First Destination Transportation of nuclear weapons, components and Base Spares to or from DOE facilities. AFGSC/A4Z manages activities using Transportation Accountability Code (F8SW related to shipments of weapons, components, and other nuclear support items). MAJCOMs provide projections of movement requirements to AFGSC/A4Z as requested. AFGSC/A4Z, in turn, develops funding requirements and forwards to AFMC/Logistics Support Office.

3.6.2. The Service Logistics Agent funds procurement and transportation for Military Spares and DOE-designed USAF test and handling equipment. These items are requisitioned per TO 11N-100-1, *Supply Management of Nuclear Weapons Material*, are free issue, and are shipped without charge to the units. AFGSC/A4Z provides reimbursement to DOE.

### **3.7. Management of AF-owned DOE-designed Special Equipment and Base or Military Spares.**

3.7.1. DOE and AFGSC/A4Z manage all items unique to the USAF nuclear weapons program, by their application or initial design. Materiel required for support of the USAF nuclear weapons programs fall into three categories: Base Spares, Military Spares, and DOE-designed Special Equipment (see definitions for specific examples).

3.7.2. DOE funds and furnishes Base Spare items to the USAF for maintaining war reserve weapons and equipment. Do not use Base Spare items for other purposes without AFGSC/A4Z authorization through the applicable MAJCOM or URs. Do not use Military Spare items to maintain war reserve weapons and DOE-owned equipment.

3.7.3. AFGSC/A4Z funds and furnishes Military Spare items with the exception of commercially available military spares to the AF for maintaining DOE-designed and USAF-owned TYPE 3 trainers and Special Equipment.

**3.8. War Reserve Materiel.** AFI 25-101, *War Reserve Materiel (WRM)* excludes nuclear ordnance items from war reserve materiel procedures.

**3.9. Working Capital Fund.** Consider all Military Spares and Special Equipment items investment items and exclude them from the working capital fund regardless of expendability, recoverability, and reparability category code.

**3.10. Equipment Authorizations for Special Equipment Controlled Items.** Unless this manual or AFMAN 21-203 directs otherwise, all nuclear ordnance special equipment controlled items in the nuclear weapons system authorization platforms 439, 803, 804, 805, 810 and 822 are controlled mission equipment. The 440th Supply Chain Operations Squadron (SCOS/GWT) manages equipment authorizations in the Defense Property Accountability System (DPAS) Force Systems Management module which provides the basis to authorize and acquire essential support equipment that is centrally procured and managed as identified by DAFI 23-101 and AFMAN 23-122, *Materiel Management Procedures*. The DPAS Property Accountability module is the Accountable Property Systems of Record for all equipment requiring accountability as established

by DAFI 23-101 and 23-122. The base Logistics Readiness Squadron equipment accountability element assists with requests to establish equipment authorizations and establish equipment asset accountability records in DPAS.

## Chapter 4

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

#### 4.1. Nuclear Weapons Training Program.

4.1.1. DO/SEL is responsible for establishing, implementing, and sustaining an effective nuclear weapons training program. The nuclear weapons training program ensures highly qualified supervisors and technicians are certified to perform maintenance requirements identified in the maintenance capability letter. A nuclear weapons training program provides core knowledge on assigned weapons systems and associated maintenance policies via initial/recurring nuclear weapons academic training program. Nuclear weapons training program instructors ensure the development of standardized training outlines used for qualification and certification. They ensure individuals are JQS-qualified prior to certification. 2M0 (Missile and Space Systems Maintenance) ICBM missile maintenance training completed in accordance with AFMAN 21-202, complies with this requirement.

4.1.2. The Flight Chief/Flight CC appoints instructors to establish, implement, and sustain the nuclear weapons training program. Appointed instructors will be qualified and team chief certified (as applicable) on all tasks they train. **(T-1)** Nuclear weapons training program instructors/trainers are subject to Proficiency Evaluations (PEs) in this role, while instructing/training. If a nuclear weapons training program instructor/trainer fails their annual PE as a trainer, the individual is restricted from performing unsupervised training. An overdue PE does not impact an instructor's ability to perform training. Quality Assurance will take immediate action to schedule and complete required PE as soon as possible. **(T-1)**

4.1.3. Nuclear weapons training program will contain as a minimum:

4.1.3.1. Training title. **(T-2)**

4.1.3.2. Student instructional material. **(T-2)**

4.1.3.3. Training resources. **(T-2)**

4.1.3.4. Instructional method. **(T-2)**

4.1.3.5. Instructional guidance. **(T-2)**

4.1.4. For assistance in writing training outlines, contact the local logistics training flight or refer to Department of the Air Force Handbook (DAFH) 36-2675, *Information for Designers of Instructional Systems*. DO/SEL is final approval authority for unit produced training outlines. Initial and recurring training outlines may be combined.

#### 4.2. Nuclear Weapons Academics.

4.2.1. Air Force Specialty Code (AFSC) 21A/M/2M0/2WX personnel assigned nuclear weapons duties are required to complete initial/recurring weapons academic training. DO/SEL will determine if other positions require training. Note: ICBM Missile Maintenance training completed per AFMAN 21-202 complies with this requirement.

4.2.2. Initial weapons academic training will be completed before a member can be considered fully qualified. **(T-1)**

4.2.3. Recurring weapons academics training will be administered annually no later than end of the month in which initial training was conducted. **(T-1)** Overdue academics training does not automatically decertify individuals from performing certified task, but should be accomplished as soon as possible.

4.2.4. Individuals must complete a test with a minimum score of 80 percent. **(T-1)** A test score of less than 80 percent requires retraining and retesting with a different test.

4.2.5. Document initial and recurring weapons academic training in IMDS or equivalent. **(T-1)**

4.2.6. Weapons academics course control documents will be tailored to unit mission/contingency needs. **(T-1)** At a minimum academics will cover the following items:

4.2.6.1. Applicable nuclear weapons/system capabilities, periodic maintenance requirements, accountability, inventory, and reporting requirements. **(T-2)**

4.2.6.2. Nuclear weapons systems fault isolation, troubleshooting, and emergency procedures. **(T-2)**

4.2.6.3. Authorized maintenance procedures and security requirements in bays, structures/cells, protective aircraft shelters, and WS3 vaults. **(T-2)**

4.2.6.4. Aircraft/ICBM generation requirements/timelines, if applicable. **(T-2)**

4.2.6.5. Logistics movement requirements (Prime Nuclear Airlift Force, Safeguards Transporter, DOE-contracted aviation). **(T-2)**

4.2.6.6. Higher headquarters inspection requirements. **(T-2)**

4.2.6.7. Overview of applicable AFIs, AFMANS, weapon system safety rules, weapons system TOs, and local operating procedures. **(T-2)**

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

#### **4.3. Nuclear Weapons Qualification Program.**

4.3.1. All unit personnel, regardless of duty position, who evaluate or perform nuclear weapons maintenance, weapons mate/demate, weapons handling, Permissive Action Link/Code Management System, or any required testing, must be JQS-qualified. **(T-1)**

4.3.2. Schedule and conduct qualification training in dedicated facilities, or training areas isolated from war reserve operations. **(T-1)**

4.3.3. Trainers will use the Career Field Education and Training Plan (CFETP) Master Task List, standardized training outlines, and applicable TOs to JQS qualify technicians on certifiable tasks. **(T-1)**

4.3.4. Qualification will be documented in applicable CFETPs, Training Business Area or other authorized document/system. **(T-1)**

#### **4.4. Nuclear Weapons Certification Program.**

4.4.1. The requirements in this publication supplement Quality Assurance guidance identified in AFMAN 21-200, as they apply to specific unit mission.

4.4.2. Certification, as used here, is a term that applies to nuclear weapons maintenance, mate/demate and handling operations. The certification program is a requirement over and above the qualification and certification procedures contained in DAFI 36-2670, *Total Force Development*, and AFI 36-2650, *Maintenance Training*, and takes precedence over other publications in the area of nuclear weapons certification and evaluation.

4.4.2.1. The purpose of the certification program is threefold:

4.4.2.1.1. All certifications are conducted using nuclear weapons trainers.

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

4.4.2.1.3. Only certified technicians are permitted to perform nuclear weapons tasks (maintenance, mate/demate and handling) on war reserve weapons.

4.4.3. Technicians must complete weapons academic training, applicable safety training, and be JQS task qualified prior to task certification. **(T-1)**

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

**4.5. Certifying Officials.** For tasks identified in [paragraph 4.8](#) of this AFMAN:

4.5.1. Select 7-skill level Quality Assurance evaluators are nuclear weapons certifying officials by virtue of their position and need not be separately appointed. If necessary, DO/SEL may appoint in writing additional technically qualified certifying officials for the following tasks:

4.5.1.1. AFSC 2M072 for RS mate/demate and weapons handling tasks. **(T-3)**

4.5.1.2. AFSC 2M07X and AFSC 2WX71 for select mate/demate tasks, and weapons handling tasks.

4.5.1.3. AFSC 2W271 for weapons maintenance, mate/demate, and weapons handling tasks.

4.5.2. Personnel assigned Certifying Official responsibilities as defined in this AFMAN will be JQS-qualified on the specific nuclear weapons, weapons systems, nuclear reporting, Command Disable System, and Permissive Action Link/Code Management System procedures as they apply to the task being evaluated. **(T-1)** The individual must be capable of accurately observing job performance and identifying deviation from established standards. **(T-1)**

4.5.3. Prior to performing certifications, the Quality Assurance superintendent, Chief Inspector, SEL, 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 PE. **(T-1)** All certifying officials must receive a semiannual EPE on a PE. **(T-1)** If a certifying official is overdue the semiannual EPE, the individual is restricted from performing certifications until the EPE is completed. Quality Assurance will maintain initial and current EPE documentation for all certifying officials. **(T-1)**

4.5.4. Certifying Officials will not certify themselves. **(T-1)**

4.5.5. Certifications will only be accomplished while observing actual task performance.

**(T-1)** Certifying officials will not be part of the task being performed. **(T-1)**

4.5.6. Certify technicians to perform or direct nuclear weapons maintenance, mate/demate, and transfer tasks as Team Chief (TC), Team Member (TM), Work Cage, Diving Board, or Top Side. **(T-1)** Technicians certified in the Team Chief position may perform as Team Members. Technicians must perform the entire operation to include all documentation required for the task. **(T-1)**

4.5.7. Certify technicians to perform transport tasks. **(T-1)** All personnel certified on transport tasks must be able to demonstrate the use and application of all associated technical data.

**(T-1)**

4.5.8. Certify weapons maintenance tasks by weapon type and task performed (e.g., B61 General Maintenance (GM), B61 LLC Exchange). **(T-1)**

4.5.9. Separate certification is not required for nose and tail removals, LLC removal, Parachute removal, weapon demate from launch gear and equipment, demate RV, RV disassembly, or RS demate from Missile Guidance Set, provided the individual is certified on the applicable installation, mate, or assembly procedure and is appropriately JQS-qualified.

4.5.10. Performance of Command Disable System and Permissive Action Link operations, and Strike Enable Plug removal or installation do not require certification. Individuals require JQS qualification only. Additionally, activation of Command Disable System may be performed by trained personnel as specified in unit plans or TO 11N-45-51.

4.5.11. Permissive Action Link teams do not require certification. Individuals are required to be JQS-qualified. Permissive Action Link training must be documented in the CFETP, Training Business Area, or other authorized document/system. **(T-1)** Permissive Action Link teams are authorized to open and close access doors, connect/disconnect Permissive Action Link cables and adapters, and perform visual monitors provided these items are included in the Permissive Action Link training and qualification program.

4.5.12. Personnel involved in handling and movement of non-assigned weapons during a Prime Nuclear Airlift Force divert, DOE SAFE HAVENS, or similar contingency, must be transfer and/or transport certified and qualified to operate required equipment (i.e., tow vehicle, forklift) needed to support the mission. **(T-1)** 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 handling and movement of non-assigned weapons must have current technical data available and they must review and understand the procedures prior to operation. **(T-1)**

#### **4.6. Certification Requirements.**

4.6.1. Weapons maintenance, mate/demate and handling certifications will be performed using the following guidelines:

4.6.1.1. Certifications may involve any procedures that are authorized to be performed by that certification in accordance with [paragraph 4.8](#) of this AFMAN. Certifying officials should vary what is demonstrated from certification to certification and limit “standardized certifications” as much as possible to prevent technicians from being “trained for the certification.”

4.6.1.2. Abbreviated operations for the purpose of recertifying personnel is not authorized. **(T-1)** Additionally, multiple Team Chief certifications must be performed as separate,

complete start-to-finish operations (i.e., one Team Chief will not disassemble the weapon and a second Team Chief reassemble it). **(T-1)**

4.6.1.3. 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 scope and completeness of training and the crew's proficiency during actual task performance. **(T-1)** Certifying officials will avoid an excessive number of injects during the evaluation. **(T-2)** Number of inject scenarios per certification will be coordinated through DO/SEL and spelled out in the Maintenance Standardization & Evaluation Program. **(T-1)**

4.6.1.3.1. Inject scenarios will exercise the team's ability to manage or respond to emergency situations, detect and properly evaluate defects, and their in-depth knowledge of all technical data procedures applicable to that certification. **(T-1)**

4.6.1.3.2. Each GM and LLC Exchange Team Chief certification will involve at least one inject scenario driving initiation of a UR against the weapon to verify crew's ability to generate accurate reports. **(T-1)**

4.6.1.3.3. If technicians are qualified on parachute exchange, it must be included as part of the performance of the initial general maintenance certification. **(T-1)** If technician is qualified on parachute exchange after the initial certification, recertification is required. **(T-1)** In this instance, the certifying official may perform an abbreviated certification of only this portion of the task.

4.6.1.4. A certification is considered a normal evaluation in regard to the evaluation rules provided in AFMAN 21-200, with the exception certifications will not be counted against Quality Assurance's required PE totals in the Quality Assurance database. **(T-1)** 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. **(T-1)**

4.6.1.4.1. Certifications may be rated "fail" even if established Acceptable Quality Levels are not exceeded, based on the Certifying Officials' subjective assessment of technical proficiency.

4.6.1.4.2. A separate Proficiency Evaluation will be scored on certified personnel who are on a crew with an individual undergoing a certification. **(T-1)** The PE may be captured on the same report as the initial certification provided the Quality Assurance 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. **(T-1)** 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 may be decertified using guidance in this chapter.

4.6.1.4.3. Decertification rules provided in this chapter apply when a certified Team Member commits errors while undergoing a Team Chief upgrade certification. When an individual fails Team Chief upgrade certification, the technician will also be decertified as a Team Member based on their committed error. **(T-1)**



4.6.1.5. If decertified on either transfer or transport, subsequent recertification will occur on the specific operation the individual was performing when decertified. **(T-1)**

#### **4.7. Certification Documentation.**

4.7.1. Record certifications and proficiency checks on the Nuclear Munitions Certification Record within the NMCT. **(T-1)** Because of the critical nature of the certification and to avoid conflicting certification data, Nuclear Maintenance Certification Record, is to be used as a stand-alone document to validate current certification and proficiency checks of tasks identified in [paragraph 4.8](#) of this AFMAN. Although documentation of JQS qualification is required prior to certification, a discrepancy with JQS qualifications and certification dates do not invalidate certifications. Certifying officials' name and rank on the Nuclear Munitions Certification Record is the formal act of certification. No alterations to entries are authorized. **(T-1)** Note: Select the "?" icon within NMCT for access to the users guide. This guide will provide comprehensive instruction for navigation and use of the certification tool.

4.7.1.1. Gaining units may transcribe certified tasks documented on Nuclear Maintenance Certification Records from the losing unit, provided the member was certified on the same weapon system mod (i.e., Mod 3/4/12) and JQS qualified on all task requirements.

4.7.1.2. Unit will perform a proficiency check prior to transcription. **(T-1)**

4.7.2. Section/Element NCOIC, or higher will decertify individuals for the following reasons:

4.7.2.1. Failure to perform required proficiency check. **(T-1)**

4.7.2.2. Failure to demonstrate required technical proficiency. **(T-1)** Demonstrating lack of technical proficiency to such a degree that task being evaluated cannot be completed without direct supervisory intervention. This does not include abnormal conditions requiring supervisory assistance.

4.7.2.3. Failure to use required technical data during weapons maintenance, mate/demate or handling tasks (e.g., no book or checklist or wrong book or checklist). **(T-1)**

4.7.2.4. Failure to detect a safety or reliability deficiency in the weapon, component, or support equipment. **(T-1)**

4.7.2.5. Upon upgrade certification to Team Chief position, decertify the individual from the Team Member position if certified in a Team Member position on the same task. **(T-1)**

4.7.2.6. Committing procedural errors that, if not corrected, would likely result in an unreliable weapon, unsafe environment, or insecure environment. **(T-1)** This includes violation of weapon system safety rules.

4.7.2.7. Failure of the individual to meet unit leadership's expectations of performance. **(T-1)**

#### **4.8. Certifiable Tasks.**

4.8.1. Weapons Maintenance. Specific certifiable tasks include:

4.8.1.1. General Maintenance (GM). This task includes receipt inspection, verification inspection, preparation for strike, preparation for storage, preparation for shipment, sealing warhead container, bomb nose, tail, parachute 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.

4.8.1.1.1. GM certification allows technicians to perform authorized maintenance, including parachute exchange when applicable, not entailing disassembly of the warhead (e.g., removal of a major bulkhead or pressure cover allowing access to internal components). Exception: GM certification for the B61-12 allows technicians to perform removal, installation and packaging of the Electronic Assembly #2 (EA2).

4.8.1.1.2. GM certification is required prior to certification on other weapons maintenance tasks. When GM certification is a prerequisite for certification on another task, it is specifically identified in the task description. GM or Limited GM certification is not required for weapons handling tasks. When technicians upgrade from Team Member to Team Chief, the first task upgraded must be GM or Limited GM, as applicable. **(T-1)**

4.8.1.1.3. Decertification on GM does not necessarily require decertification on other task(s). However, the technician will not perform those tasks until recertified on GM. **(T-1)** Note: Team Chiefs decertified on GM may not perform in a Team Member position on any other task on the same weapon system until recertified on GM.

4.8.1.2. Limited General Maintenance. 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.

4.8.1.3. LLC Exchange. Certification includes, but is not limited to, removal/installation of all LLCs as defined in the applicable TO (except for W78, MK-12A Neutron Generators, and B61-12 EA2 replacement), leak tests and all disassembly not included in GM. Packaging and unpackaging of LLCs, Neutron Generators, and RTGs is an integral part of the task and will only be performed by LLC certified individuals. **(T-1)** Exception: Personnel performing EA2 Packaging and unpackaging only require GM certification.

4.8.1.4. RV Assemble. Certification allows the technician to assemble/disassemble a RV, and for the MK12A only, to install and remove Neutron Generators. Separate certifications are required for MK12A and MK21. Neutron Generators packaging and un-packaging is an integral part of the MK12A task and will only be performed by certified individuals. **(T-1)**

4.8.2. Weapons Mate/Demate. Specific certifiable tasks include:

4.8.2.1. Mate/Demate RV to Payload Support. Certification allows 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.

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

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

4.8.2.4. Mate/Demate ALCM to Common Strategic Rotary Launcher (CSRL). Certification allows technician to mate/demate ALCM to/from the CSRL with appropriate JQS qualifications.

4.8.2.5. Mate/Demate Bomb to Rotary Launcher Assembly. Certification allows technician to mate/demate gravity weapons to/from the rotary launcher assembly with appropriate weapon GM certification and JQS qualifications. Note: Mate/Demate certification on one gravity type is required with JQS qualification on any others.

4.8.2.6. Mate/Demate Adapter to MHU-196/204.

4.8.2.7. Mate/Demate Launcher to Load Frame.

4.8.2.8. Mate/Demate Pylon to Load Frame.

4.8.2.9. Mate/Demate RS to Missile Guidance Set. Certification allows technician to install/remove RS to/from Missile Guidance Set in the Launch Facility to include all electrical checkouts. AFSC 2M0X2 technicians will be JQS-qualified and hold position certification in the following team positions: Top Side, Diving Board, and Work Cage. (T-1)

4.8.2.9.1. Work Cage position certification allows the technician to install/remove the RS.

4.8.2.9.2. Team Chief and Diving Board position certification allows technician to install/remove RS and checkout electrical system.

4.8.3. 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:

4.8.3.1. Transfer. Certification allows technician to transfer weapons (excluding aircraft loading operations) to/from a forklift, jammer, vehicle, or trailer/Safeguards transporter and install/remove tie-down devices within 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 Secure Transportable Maintenance System, 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).

4.8.3.1.1. 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 storage igloo and onto a trailer, or lifting an Overland Palletized Unit Shipper over-pack with a forklift and transferring it onto an H1703).

4.8.3.2. 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 permit and be JQS-qualified on 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. **(T-1)** Formal certification is required on first tow vehicle; JQS qualify individuals on subsequent vehicles/trailers.

4.8.3.2.1. Transport certification does not authorize individual to install/remove tiedown devices; however, transport certified personnel must be able to ensure the load is secure and safe to transport. **(T-1)**

4.8.3.2.2. During transport certification, operator must demonstrate a thorough understanding of, and ability to operate all levers, switches, and gauges. **(T-1)** Operator must also demonstrate proficiency in vehicle operation while towing a trailer. **(T-1)** 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. **(T-1)**

4.8.3.2.3. Certification is accomplished using the largest, transportable package. The package is not required to be fully loaded, but will be configured at a minimum to ensure the driver can demonstrate proficiency at ensuring an expected load is safe for transport and properly secured. **(T-1)** If an individual subsequently qualifies to operate a larger package a new certification for that operation must be accomplished. **(T-1)** For example, an individual completes initial certification on the MHU-141M trailer and subsequently upgrades to operate the 40-foot tractor trailer. This individual requires a new certification before conducting nuclear weapons transportation.

#### **4.9. Nuclear Weapons Proficiency Checks.**

4.9.1. Nuclear weapon proficiency checks are accomplished at least quarterly for each task an individual is certified on. **(T-1)** MAJCOMs may reduce proficiency checks for handling tasks to semiannually without further coordination.

4.9.2. A JQS-qualified Quality Assurance, Bay Chief, Critical Task Supervisor, Section/Element Supervisor, or Flight Chief will conduct proficiency checks. **(T-1)**

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

4.9.4. Proficiency checks will be performed on individuals in the position that they are certified in (e.g., Team Chief, Team Member, Diving Board, Work Cage). **(T-1)**

4.9.5. A JQS-qualified Quality Assurance, Bay Chief, Critical Task Supervisor, Section/Element or Flight Chief must ensure proficiency checks are accomplished prior to end of third month. **(T-1)** For example, last proficiency check for B-61 LLC was accomplished in July, the next proficiency check must be accomplished no later than the last day of October.

4.9.6. Proficiency checks, as it pertains to this publication, are not synonymous with AFMAN 21-200 required PEs. A proficiency check may be considered/evaluated as a PE if the member is performing in the position certified.

## Chapter 5

### NUCLEAR WEAPONS MAINTENANCE AND HANDLING

**5.1. General.** The guidance of this chapter is applicable to maintenance personnel who maintain, mate/demate, handle, or store nuclear weapons or TYPE 3 trainers. If there is any conflict between the guidance below and other directives, notify the OPR of this publication for resolution.

#### 5.1.1. Maintenance Capability.

5.1.1.1. 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. **(T-3)**

5.1.1.2. Train and certify sufficient personnel to meet unit mission requirements for each capability outlined in the maintenance capability letter. **(T-1)** Ensure applicable AFI 10-201, *Force Readiness Reporting*, reporting is completed as required if the unit fails to meet minimum mission requirements. **(T-1)**

#### 5.1.2. Maintenance, Storage, and Configuration.

5.1.2.1. 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 applicable MAJCOM for deviations to storage configurations.

5.1.2.2. Store nuclear weapons in approved structures/configurations per DoDM 3150.02. **(T-0)** Do not co-mingle nuclear and non-nuclear munitions/missiles (e.g., TYPE trainers/shapes, Joint Test Assemblies, Tactical Ferry Payloads, empty missile containers, warhead containers, Air Launched Cruise Missile (ALCM) Test Instrumentation Kits (ATIK) in the same storage structure, cell, or WS3. **(T-1)** Only as a last resort and with written MAJCOM approval may assets be co-mingled. Personnel will ensure all non-nuclear munitions/missiles are identified using stanchions/cones, ropes, and placards to ensure there is a clear distinction between nuclear and non-nuclear munitions/missiles.

**(T-1)** Placards indicate trainer, empty, Joint Test Assemblies, or ATIK, as applicable.

5.1.2.3. Personnel will ensure non-operational weapons are identified using placards marked NON-OPERATIONAL. **(T-1)** Make identification readily visible and do not remove until the status is changed or 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. Personnel must establish an Awaiting Maintenance action against the weapon to install or remove placard during next scheduled opening. **(T-1)** Exception: Weapons do not require placards while undergoing maintenance. Weapons placed in non-operational status solely for an alteration 900-series configuration are not required to be placarded.

5.1.2.4. Training and/or Joint Test Assemblies and war reserve operations may take place at the same time as long as physical separation exists between operations. Physical separation must include clear delineation between operations using stanchions/cones,

ropes, and placards. **(T-1)** Placards must indicate TRAINING or Joint Test Assemblies OPERATIONS, as applicable. **(T-1)**

5.1.2.5. Weapons maintenance will have sufficient priority to ensure objectives in TO 11N-100-2 are met. **(T-1)**

5.1.2.6. Nuclear weapons repair actions must be completed as soon as possible, not to exceed 30 duty days Continental United States (CONUS) and 60 duty days Outside Continental United States (OCONUS) following UR, DR, or ETAR disposition and/or receipt of required replacement parts. **(T-1)** Request waivers per [Chapter 2](#) of this AFMAN.

5.1.2.7. Cannibalization or interchanging of nuclear weapon components is not authorized unless directed in a TO, UR, or when directed by AFGSC/A4Z. **(T-1)**

5.1.2.8. OCONUS units must make every attempt to store war reserve weapons in a Weapons Storage Vault at the end of the duty day. **(T-3)** If a weapon cannot be fully reassembled, or cannot be returned to Weapons Storage Vault for any reason, group commander may authorize temporary storage outside of the Weapons Storage Vault as a last resort. **(T-3)** Units will also notify USAFE/A10N immediately. **(T-2)**

5.1.2.9. Personnel may perform any inspection, test, or minor maintenance operation not involving warhead 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 per DESR6055.09\_AFMAN91-201, and applicable Weapon System Safety Rules.

5.1.2.10. Inspect all exposed visible surfaces of nuclear weapons during a maintenance technical operation in accordance with applicable technical manuals. **(T-1)**

5.1.2.11. In accordance with DoDM S-5210.41, *Nuclear Weapons Security Manual*, visual confirmation that nuclear weapon and nuclear weapon component storage containers are empty is required prior to removal from the limited area. **(T-0)** All empty nuclear weapon and nuclear weapon component storage containers will be closed and marked as empty in accordance with applicable technical data. **(T-1)** Units will ensure In-Process-Inspections are directed to validate and document the empty status at the appropriate point during final closure of containers. **(T-1)**

5.1.2.12. Nuclear weapons storage locations and maintenance bays must contain a thermometer if types of weapons stored are required to comply with weapon temperature stabilization; refer to TO 11N-35-51, *General Instructions Applicable to Nuclear Weapons* and the weapon -1 manual. **(T-0)** This includes weapons storage vaults and Secure Transportable Maintenance Systems.

5.1.2.13. In nuclear weapons maintenance facilities, display a sign/placard indicating Two-Person Concept is required (i.e., No-Lone Zone Two-Person Concept Mandatory) at the maintenance bay entrance, when applicable. **(T-1)** Signs are not required in storage facilities, Protective Aircraft Shelter (PAS) or for outdoors operations.

5.1.2.14. When war reserve weapon(s) are exposed in the maintenance bay or PAS and maintenance personnel are present, secure personnel entry door from inside. **(T-0)** If not possible, a two-person team will be posted at, and control entry at the door that cannot be

secured. **(T-0)** The sole vouching authority will approve all entry into exclusion areas, per DoDM S-5210.41. **(T-0)** Advance Entry Control System doors are not required to be pinned from the inside.

5.1.2.15. 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, and immobilized). **(T-1)** Ensure weapons have proper spacing, storage compatibility, and are within explosive and active material limits, in accordance with applicable directives. **(T-0)** If defects are discovered on weapons, components or equipment during walk-throughs, ensure defects are evaluated using applicable technical publication, TO or instruction and ensure appropriate corrective actions are taken. **(T-0)**

#### 5.1.3. Verification Inspections.

5.1.3.1. Maintenance personnel perform verification inspections on weapons and components in accordance with 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. 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.

5.1.3.2. During receipt of H1616, H1700, 9-Gallon drums or equivalent component containers, units are not required to open containers for component serial number verification. Verify component serial numbers during unpacking before use. Both Nuclear Accountability and Reporting Section and maintenance personnel 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 container, contact MAJCOM immediately and submit UR per TO 11N-5-1. Obtain component part numbers from item TO.

5.1.3.3. H1616 and H1700 container serial numbers and Department of Transportation expiration dates will be updated in DIAMONDS as changes occur. **(T-1)** Nuclear Accountability and Reporting Section will use expiration dates to ensure assets are not shipped in overdue containers beyond the military first destination. **(T-1)**

5.1.3.4. Do not open packaged MC4519 assemblies upon receipt. **(T-1)** Item is to be opened only by the end user immediately prior to use, as directed by applicable TO procedures.

#### 5.1.4. Defects and Deficiencies.

5.1.4.1. Evaluate all defects discovered during inspections. **(T-1)**

5.1.4.1.1. When rejectable defects are found, review inspection record card to determine if defect has been previously accepted. **(T-1)**

5.1.4.1.2. If accepted conditions (defect dimensions/description) remain the same, no further action is required.

5.1.4.1.3. If accepted conditions have worsened (e.g., defect dimensions have increased) accept or reject in accordance with current technical guidance and report as necessary.

5.1.4.2. Stop operations upon discovery of a defect that causes rejection of a weapon or major component, or upon encountering an unknown or unusual weapon or major component condition. **(T-1)**

5.1.4.2.1. Team chief will inform the bay chief of the situation and ensure a supervisor appointed per [paragraph 2.2.3.8](#) of this AFMAN makes a management decision whether to continue operations based on careful review of the facts and circumstances before proceeding. **(T-1)**

5.1.4.2.2. Complete the operation if the weapon is safe and no further damage will occur. **(T-1)**

5.1.4.2.3. If the decision is made to not continue the operation, contact applicable MAJCOM who will coordinate with AFGSC/A4Z to resolve the situation. **(T-2)**

5.1.4.3. Direct contact between MAJCOMs or units and other agencies (e.g., DTRA or Sandia National Laboratories for weapons-related technical resolution is prohibited unless directed by AFGSC/A4Z. **(T-1)**

5.1.4.4. On site DOE representatives may determine serviceability of components, whether it is safe to continue operations, and provide technical procedures not outlined in technical data during oversight of DoD operations. However, unit personnel must still complete Unsatisfactory Reports per TO 11N-5-1 and/or deficiency reports per AFMAN 91-221, *Weapons Safety Investigations and Reports*, as applicable. **(T-0)**

5.1.4.5. 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 timelines. **(T-1)** Weapons will also be placed in non-operational status if involved in an accident/incident and condition is unknown (e.g., lightning strike, fire, loss of custody). **(T-1)**

5.1.4.6. Personnel must return non-operational tools, test, and handling equipment to operational status as soon as possible not to exceed 30 duty days following UR, Deficiency Report (DR), Dull Sword, Engineering Technical Assistance Request (ETAR), and/or receipt of required replacement parts. **(T-1)**

#### 5.1.5. Deficiency Reporting.

5.1.5.1. Report deficiencies associated with nuclear weapons, nuclear weapon-related items, associated equipment/software or TOs/publications. **(T-1)**

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

5.1.5.3. Use procedures in TO 11N-5-1 to report a deficiency on DOE-designed nuclear weapons or related components, DOE-designed equipment/software, a JNWPS TO



discrepancy/deficiency, or when DOE-designed items require evaluation based upon their interface with DoD-designed items. Nuclear weapons placed in non-operational status are only returned to operational status when officially directed by AFGSC/A4Z or when directed via an assigned DTRA UR number. Add reference to related DR/ETAR by specific control number to action taken block of all URs as applicable.

5.1.5.4. Use procedures in AFMAN 91-221 to report a safety related accident, incident or deficiency (Broken Arrow, Bent Spear, Empty Quiver, or Dull Sword) on items covered in the USAF Master Nuclear Certification List website or TO 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.

5.1.5.5. Use procedures in TO 00-35D-54, *USAF Deficiency Reporting, Investigation and Resolution*, to report deficiencies on DoD-designed items.

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

5.1.5.6.1. Submit reports per TO 11N-5-1 and AFMAN 91-221 for:

5.1.5.6.1.1. A weapon involved in an accident or incident (e.g., lightning, vehicle accident, loss of custody).

5.1.5.6.1.2. Stray voltage from a motor generator.

5.1.5.6.2. Submit reports per AFMAN 91-221 and TO 00-35D-54 for:

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

5.1.5.6.2.2. Chipped ablative material.

5.1.5.6.3. Submit reports per TO 11N-5-1 and TO 00-35D-54 for:

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

5.1.5.6.3.2. Warhead/weapon damage due to hoist failure.

5.1.5.6.3.3. Steering fails on a newly manufactured or certified forklift causing vehicle and weapon damage.

5.1.5.6.3.4. Rejected B61 All Up Round (AUR) Tail Kit Assembly (TKA).

#### 5.1.6. Maintenance Tasks.

5.1.6.1. Personnel will not perform war reserve operations until they complete weapons academic training, applicable safety training, and nuclear weapons certification requirements per **Chapter 4** of this AFMAN and DoDM 3150.02. **(T-0)**

5.1.6.2. Nuclear weapons operations will only be performed by 2M0XX/2WXXX personnel. **(T-1)** 2M0X2s perform RS mate/demate and weapons handling tasks. 2M0X1 and 2WXXX personnel perform select mate/demate tasks and weapons handling tasks. 2W2XX personnel perform weapons maintenance and mate/demate tasks. 21MX, 2M0X1 and 2WXXX personnel may perform Permissive Action Link and Command Disable

System operations. OCONUS 1C3XX may perform select Permissive Action Link operations.

5.1.6.2.1. In circumstances where there are insufficient 2M0XX or 2WXXX personnel available to perform the required nuclear weapons operations, the applicable MAJCOM will designate Air Force Specialty Codes to augment assigned 2M0XX or 2WXXX personnel; however, there must be core 2W/2M personnel assigned and available to manage and oversee nuclear operations. **(T-2)**

5.1.6.2.2. In addition to Air Force Specialty Code requirements, all training, security clearance, Personnel Reliability Program requirements, and certification requirements are applicable. **(T-1)**

5.1.6.3. Certified Team Chiefs will direct all weapons maintenance and weapons mate/demate operations. **(T-1)** A Team Chief will not direct multiple operations simultaneously. **(T-1)** MAJCOMs or units may require a Team Chief to direct weapons handling tasks performed with war reserve weapons.

5.1.6.4. Personnel will conduct a pre-task/safety briefing before starting operations involving a war reserve nuclear weapon or warhead. **(T-1)** The briefing must include, as a minimum: description of the task, designation of personnel assigned to the task, nuclear surety per DAFI 91-101, necessary safety, emergency, and intrinsic radiation procedures, and the requirements of the Two-Person Concept. **(T-1)**

5.1.6.5. When a Team Chief is communicating TO procedures to technicians without physical access to TOs during nuclear weapons maintenance, mate/demate, 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. **(T-1)** The person reading the steps will then check off the steps. **(T-1)** If technicians are using technical data and checking off steps as they perform them (such as cleaning person during LLC Exchange operations), a Team Chief must ensure all steps are completed prior to weapon/component reassembly. **(T-1)** Note: The above referenced operations often require the use of general procedures contained in both operations and maintenance and methods and procedures TOs (e.g., TOs 11N-35-51, TO 1-1A-8, *Engineering Manual Series, Aircraft and Missile Repair*, TO 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance, and Test of Electrical Equipment*. These TOs do not require verbal demand-response or checking off of steps.

5.1.6.6. If an operation is halted, the Team Chief will mark the last step accomplished.

**(T-1)** Resume operation only after reviewing the checklist or TO in order to determine the operation restart point. **(T-1)**

5.1.6.7. ICBM critical task supervisors will oversee all RS mate/demate or transfer operations involving war reserve. **(T-2)** Critical task supervisors are not required to oversee transport operations.

5.1.7. Weapon Movements.

5.1.7.1. Nuclear weapons, TYPE 3 trainers, Joint Test Assemblies, Compatibility Test Units, and flight test units will be covered during all movements. **(T-1)** Exception: Containerized weapons, reentry systems, and cruise missiles do not require covers. Movements outside controlled areas must have appropriate level of security dependent upon security requirements for each Joint Test Assemblies, Compatibility Test Units and flight test unit type. **(T-1)**

5.1.7.2. US custody of nuclear weapons must be maintained during all aspects of nuclear weapons storage, handling and logistics movements per DoDM 3150.02. **(T-0)**

5.1.7.3. 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 must be an NCO that is JQS-qualified and fully knowledgeable of tiedown, transportation, handling, Command Disable System, custody transfer, and emergency procedures, as applicable. **(T-1)** For ICBM RS convoys, the certified payload transporter driver serves as the technical and safety advisor.

5.1.7.4. Personnel will comply with the movement security procedures identified in DoDM S-5210.41. **(T-0)**

#### 5.1.8. Certifying Nuclear Weapons, Nuclear Warheads, and Components Mated to RS or Multiple Carriage Launch Gear.

5.1.8.1. Nuclear weapon configuration records will be created and verified for both war reserve and non-war reserve RVs, RSs, and multiple carriage launch gear configurations. **(T-1)** Clearly mark nuclear weapon configuration records for non-war reserve packages as "NOT WR". **(T-1)**

5.1.8.1.1. Use the nuclear weapon configuration record as the source document to establish the configuration of the RV, RS, pylon, or launcher. **(T-1)**

5.1.8.1.2. When assembling a RV, RS, pylon, or launcher, prepare a nuclear weapons configuration record to reflect the association of warhead, missile, bomb, and component serial numbers, as applicable, to the RV, and/or overall system. **(T-1)** The maintenance Team Chief responsible for final assembly must prepare and sign the nuclear weapon configuration record. **(T-1)** A SNCO or above must also visually verify the serial numbers and certify the configuration record by signature. **(T-1)** When recording NWRM serial numbers, ensure leading alpha character, special characters, zeroes, e.g., are also recorded. **(T-1)**

5.1.8.1.3. It is not necessary to disassemble components for the sole purpose of obtaining component data if it is available on previous configuration record.

5.1.8.2. Forward the original, certified nuclear weapon configuration record to the MASO. Upload RS and RV configuration records to the RS/RV Configuration Management SharePoint.

5.1.8.3. Prepare and certify an updated configuration record when any item listed is exchanged and forward to the MASO.

#### 5.1.9. Trainer Use and Maintenance.

5.1.9.1. Units will use TYPE 3 A/B/C trainers for maintenance and Explosive Ordnance Disposal training only. **(T-1)** Do not use these trainers for aircraft or ICBM load training, logistical movement exercises and evaluations, or other purposes without AFGSC/A4Z approval. **(T-1)** Use TYPE 3, TYPE 3E trainers, RS/RV trainers, Tactical Ferry Payloads, or Bomb Dummy Units for this purpose. Trainers must be controlled, stored, and secured according to their respective security classification. **(T-1)**

5.1.9.1.1. Maintain nuclear weapon TYPE 3 A/B/C trainers to war reserve standards in accordance with applicable weapons manual and TO 11N-35-51. **(T-1)** TYPE 3 A/B/C trainers used exclusively for Explosive Ordnance Disposal training will be maintained in war reserve configuration and may deviate from war reserve standards with UR approval. RS (UE) load shape trainers are maintained per applicable 43D-series TOs.

5.1.9.1.2. Inspect TYPE 3E, load shape/trainers as specified in the applicable TO.

**(T-2)** When specific weapon trainer/component criteria is not available, use equivalent war reserve criteria for inspection. However, rejection criteria established for war reserve does not render weapon trainers, or components unserviceable. The owning activity may continue to use the weapon trainer if fit, form, or function is not affected and personnel safety, further equipment damage, or structural integrity is not questioned. Submission of an Unsatisfactory Report for evaluation of deficiencies is required per TO 11N-5-1.

5.1.9.1.3. For trainers not on weapons maintenance custody account or installed in ALCM Interface Test Trainers, DO/SEL and owning agency will develop a periodic inspection/maintenance schedule to repair deficiencies in order to keep trainers in war reserve configuration. **(T-1)**

5.1.9.2. Units may elect to track deficiencies/historical documentation for TYPE 3E load shape/trainers using Air Force Technical Order (AFTO) Form 244, *Industrial/Support Equipment Record*, AFTO Form 95, *Significant Historical Data*, or IMDS, as appropriate. An inspection record card is not required on TYPE 3E or Bomb Dummy Units load shapes/trainers.

5.1.9.3. Prohibit installation of war reserve items, components, or materiel on TYPE 3 trainers unless authorized by technical data or AFGSC/A4Z. **(T-0)** Exception: Reuse of expended or expired Group X items for training is acceptable.

## **5.2. Waste Management.**

5.2.1. Three basic types of federally regulated materials can be generated during nuclear weapons maintenance activities. These generated materials may become waste regulated either as Resource Conservation & Recovery Act hazardous waste, 91(b) 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)**

5.2.2. Resource Conservation & Recovery Act regulated hazardous waste includes spent and/or expired hazardous materials that are available for use or used in routine conduct of maintenance activities and includes solvent soaked rags or wipes. Resource Conservation &

Recovery Act Hazardous Waste, however, does not include materials that become contaminated by a radioactive source or demonstrate a radioactive property. Resource Conservation & Recovery Act waste includes items such as cadmium, un-useable or spent solvents, lubricants and paints.

5.2.3. 91(b) Waste is generated when a system component is inherently and/or becomes potentially 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.

5.2.3.1. 91(b) Waste areas for MK12A are inside of associated aft section and inside surfaces of the H1223A/B aft bulkhead cover/ring.

5.2.3.2. 91(b) Waste areas for MK21 are the enclosure formed by the inside of the Warhead Electrical System cap and aft end of the Arming and Fuzing Assembly and inside the Warhead Electrical System cap.

5.2.4. Potentially Mixed Waste is generated when a 91(b) Waste is combined with a Resource Conservation & Recovery Act 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.

5.2.5. Resource Conservation & Recovery Act Hazardous Waste Management guidance is available through Installation Environmental Flight. Base-wide instructions are also found in the installation Hazardous Waste Management Plan, which outlines specific procedures for managing hazardous waste. Coordinate through the local environmental management flight for container turn-in or pick-up and disposal per AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*.

5.2.6. Units will package 91(b) Waste in bags consistent with the operation being performed and store in drums, label packages and drums "Potentially 91(b) Waste" and coordinate through local bioenvironmental channels for container pickup and disposal per AFMAN 40-201, *Radioactive Materials (RAM) Management*. **(T-1)** OCONUS units coordinate pick-up and disposal through MAJCOM.

5.2.7. Units will package Mixed Waste in bags consistent with operation being performed, store in drums, label packages and drums "Mixed Waste Potentially 91(b)" and coordinate through local bioenvironmental channels for container pickup and disposal per AFMAN 40-201. **(T-1)** OCONUS units coordinate pick-up and disposal through MAJCOM.

5.2.8. Units will not store or co-mingle Hazardous Waste, potentially 91(b) Waste or Mixed Waste in the same package or drum. **(T-0)**

5.2.9. 91(b) waste 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 91(b) 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 TOs, unless otherwise directed (e.g., cleaning with solvents).

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**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION.*****References***

DESR6055.09\_AFMAN91-201, *Explosive Safety Standards*, 28 May 2020

DoDM 3150.02, *DoD Nuclear Weapon System Safety Program Manual*, 31 January 2014

DoDM S-5210.41, *Nuclear Weapons Security Manual*, 4 May 2022

DoD S-5210.41-M\_AFMAN 31-108, Volumes 1-3, (U) *Nuclear Weapon Security Manual*

DAFH 36-2675, *Information for Designers of Instructional Systems*, 15 April 2022

DAFI 36-2670, *Total Force Development*, 25 June 2020

DAFI 23-101, *Materiel Management*, 22 October 2020

DAFI 90-160, *Publications and Forms Management*, 14 April 2022

DAFI 91-101, *Air Force Nuclear Weapons Surety Program*, 26 March 2020

DAFMAN 21-201, *Munitions Management*, 3 May 2022

DAFMAN 90-161, *Publishing Processes and Procedures*, 15 April 2022

AFPD 21-2, *Munitions*, 6 October 2020

AFPD 13-5, *Air Force Nuclear Mission*, 17 July 2018

AFI 10-201, *Force Readiness Reporting*, 22 December 2020

AFI 20-110, *Nuclear Weapons-Related Materiel Management*, 4 June 2018

AFMAN 21-202, *Missile Maintenance Management*, 29 August 2019

AFMAN 21-203, *Nuclear Accountability Procedures*, 29 September 2021

AFI 21-205-S, *Command Disable Systems (CDS)*, 21 May 2019

AFI 25-101, *War Reserve Materiel (WRM)*, 27 August 2019

AFI 33-322, *Records Management and Information Governance Program*, 28 July 2021

AFI 36-2650, *Maintenance Training*, 22 June 2022

AFMAN 21-200, *Munitions and Missile Maintenance Management*, 9 August 2018

AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, 4 February 2020

AFMAN 40-201, *Radioactive Materials (RAM) Management*, 29 March 2019

AFMAN 91-221, *Weapons Safety Investigations and Reports*, 26 March 2020

TO 00-25-107, *Maintenance Assistance*

TO 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance and Test of Electrical Equip (ATOS)*

TO 00-35D-54, *USAF Deficiency Reporting, Investigation and Resolution*

TO 1-1A-8, *Engineering Manual Series, Aircraft and Missile Repair*

TO 11N-5-1, *Unsatisfactory Reports*

TO 11N-35-51, *General Instructions Applicable to Nuclear Weapons*

TO 11N-35-51A, *General Instructions Applicable to Nuclear Weapons (Supplement)*

TO 11N-45-51, *Transportation of Nuclear Weapons Materiel*

TO 11N-100-1, *Supply Management of Nuclear Weapons Materiel*

TO 11N-100-2, *Supply Management of Limited Life Components (S/RD)*

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

TO 11N-100-3150, *Joint Reporting Structure; Nuclear Weapons Reports (S/FRD)*

TO 11N-T569-2, *T569 Non-Nuclear Verification Tester with Non-Nuclear Assurance Program Field Procedures*

TO 21M-LGM30F-12-1, *Minuteman Nuclear Surety Procedures*

TO 42B-1-1, *Quality Control of Fuels*

### ***Prescribed Forms***

None

### ***Adopted Forms***

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

AF Form 1764, *Major Assembly/Component Status Change Report*

AF Form 2407, *Weekly/Daily Flying Schedule Coordination*

AFTO Form 95, *Significant Historical Data*

AFTO Form 244, *Industrial/Support Equipment Record*

DAF Form 847, *Recommendation for Change of Publication*

### ***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFMC**—Air Force Materiel Command

**AFPD**—Air Force Policy Directive

**AFSC**—Air Force Specialty Code

**AFTO**—Air Force Technical Order

**AFNWC**—Air Force Nuclear Weapons Center

**ALCM**—Air Launched Cruise Missile

**ATIK**—Air Launched Cruise Missile (ALCM) Test Instrumentation Kits



**AUR**—All Up Round

**CALCM**—Conventional Air Launched Cruise Missile

**CATIK**—CALCM/ALCM Test Instrumentation Kits

**CFETP**—Career Field Education and Training Plan

**CONUS**—Continental United States

**CSRL**—Common Strategic Rotary Launcher

**DAFMAN**—Department of Air Force Manual

**DAFH**—Department of Air Force Handbook

**DB**—Diving Board

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

**DO**—Director of Operations

**DOE**—Department of Energy

**DPAS**—Defense Property Accountability System

**DR**—Deficiency Report

**DTRA**—Defense Threat Reduction Agency

**EA2**—Electronic Assembly #2

**EPE**—Evaluator Proficiency Evaluation

**ETAR**—Engineering Technical Assistance Request

**GM**—General Maintenance

**ICBM**—Intercontinental Ballistic Missile

**IMDS**—Integrated Maintenance Data System

**IPI**—In-Process Inspection

**JQS**—Job Qualification Standard

**JNWPS**—Joint Nuclear Weapons Publication System

**LLC**—Limited Life Component

**MAJCOM**—Major Command

**MASO**—Munitions Accountable Systems Officer

**NCO**—Noncommissioned Officer

**NCOIC**—Non-Commissioned Officer in Charge

**NMCT**—Nuclear Maintenance Certification Tool

**NNSA**—National Nuclear Security Administration

**OCONUS**—Outside Continental United States

**OPR**—Office of Primary Responsibility

**PAS**—Protective Aircraft Shelter

**PE**—Proficiency Evaluation

**RS**—Reentry System

**RV**—Reentry Vehicle

**SEL**—Senior Enlisted Leader

**SNCO**—Senior Non-commissioned Officer

**TC**—Team Chief

**TICMS**—Theater Integrated Combat Munitions System

**TKA**—Tail Kit Assembly

**TM**—Team Member

**TS**—Top Side

**TO**—Technical Order

**USAF**—United States Air Force

**USAFE**—United States Air Forces in Europe

**WC**—Work cage

**WR**—War Reserve

**WS3**—Weapon Storage and Security System

### *Office Symbols*

**AF/A4L**—Directorate of Logistics

**AF A4LW**—Headquarters Air Force, Logistics, Engineering, and Force Protection, Directorate of Logistics, Nuclear Weapons, Missiles, and Munitions Division

**AFGSC/A4W**—Air Force Global Strike Command Munitions Division

**AFGSC/A4Z**—Air Force Global Strike Command, Directorate of Logistics and Engineering, Nuclear Stockpile Division

**AFMC/A4/10**—Directorate of Logistics, Civil Engineering, Force Protection, and Nuclear Integration

**AFNWC**—Air Force Nuclear Weapons Center

**AFNWC/NCM**—Air Force Nuclear Weapons Center Intercontinental Ballistic Missile System Program Office and Missile Sustainment Division

**SCOS/GWT**—440th Supply Chain Operations Squadron

**USAFE/A10**—Directorate of Operations, Strategic Deterrence, and Nuclear Integrations

### *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 FOWARD and AFT sections mated (referred to as RV) and W80s mated to missiles and gravity weapons.

**Base Spares**—Parts and components authorized in spare parts list published by Sandia National Laboratories, funded for, procured, and owned by DOE and furnished to the DoD for use in maintaining/repairing war reserve nuclear weapons and DOE-owned equipment supplied to DoD with the war reserve 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.

**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 Minuteman III 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 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).

**In-Process Inspection (IPI)**—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 (e.g., limited-life components, parachutes).

**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 war reserve weapons components.

**Limited Life Component**—Any item listed in TO 11N-100-2 or so designated by DOE.

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

**Logistics Spare Warheads/Bombs**—Those warheads/bombs provided to a unit by the Service Logistics Agent which are excess to the units' operational requirement quantities. These logistics spare warheads/bombs are provided to facilitate workflow and sustain the operational status of the deployed stockpile.

**Munitions Accountable Systems Officer**—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 Minute Man III Guidance Set.

**Military Spares**—Parts and components authorized in spare parts list published by Sandia National Laboratories, funded for, procured, and owned by DoD, and required for support of DOE and DoD produced training weapons and all cable test disablement equipment, test, and handling equipment except those DOE-owned items supplied to the DoD with war reserve weapons.

**Non-nuclear Munitions**—Training weapons, shapes, Joint Test Assemblies, Tactical Ferry Payloads, Bomb Dummy Units, 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 that has exceeded its expiration date (including, but not limited to an LLC). Also referred to as Red.

**Nuclear Ordnance Shipping Schedule**—A 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, LLCs, 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 and weapons handling task.

**Nuclear Weapons Related Materiel (DoD)**—Classified or unclassified assemblies and subassemblies (containing no fissionable or fusionable material) identified by Military Departments 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.

**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.

**Project Officer Group**—A cognizant group of Military Service, DOE, and other appropriate Military Services or DOE representatives that has “cradle-to-grave” responsibilities of assigned weapons.

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

**Reliable**—The capability of performing its intended function at required levels, for a specified interval, under stated conditions.

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

**Second Destination Transportation**—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 an 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, *Major Assembly/Component Status Change Report* or equivalent reflecting association of warhead/bomb serial numbers to the RS, pylon, or launcher, Location Inventory List, Materiel Transfer Order, Time Change Item Schedule, messages, direction from the Service Logistics Agent, 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 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/depot support equipment, and related computer programs and software.

**Technical Interchange Meeting**—The purpose of the Technical Interchange Meeting is to educate and update munitions stakeholders on weapons programs, processes and changes to operations plans.

**Type 3**—A maintenance trainer configured to provide loading, handling, and limited maintenance training to unit personnel.

**War Reserve**—Nuclear weapons and nuclear weapons material transferred to the custody of the Department of Defense and intended for employment in the event of war.