

**BY ORDER OF THE COMMANDER  
42D AIR BASE WING (AETC)**

**MAXWELL AFB INSTRUCTION 91-101**

**10 MAY 2023**



**Safety**

**NUCLEAR CERTIFIED EQUIPMENT**

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(Lt Col Ara Bartemes)

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This instruction implements AFD 91-1, *Nuclear Weapons and Systems Surety*. It defines responsibilities and establishes local procedures to identify and monitor Nuclear Certified Equipment (NCE) and establishes local procedures for reporting suspected NCE deficiencies (flagword) "DULL SWORD" to the Wing Safety office. Submit a DAF Form 847, *Recommendation for Change of Publication*, to the OPR to recommend changes to this publication. It applies to all military and civilian personnel in units that handle or maintain NCE. It does not apply to AFRC or ANG units. Submit requests for waivers through the chain of Command to the 42d Air Base Wing Safety Office. Compliance with the attachments in this publication is not mandatory. Subordinate units should not issue supplemented publications. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with the Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS).

**SUMMARY OF CHANGES**

This document has been revised with newly accurate references and administrative updates.

**1. General.** This instruction implements positive measures to prevent unauthorized activation of critical functions. Reporting malfunctions, failures, and abnormalities involving Nuclear Certified Equipment (NCE) in use at non-nuclear units is one aspect of the nuclear force effort. The DULL SWORD nuclear deficiency report provides a means of trend analysis to identify issues that could affect the safety and reliability of an NCE asset for use in nuclear operations. This instruction

serves to define responsibilities and establishes local procedures to identify and monitor NCE, as well as procedures for reporting suspected NCE deficiencies to the Wing Safety office for investigation and up-channel reporting as warranted. Furthermore, when a product quality deficiency report is submitted involving a nuclear certified asset, the unit will also complete a Maxwell AFB Form 385, *DULL SWORD Report Worksheet*. The 42d Air Base Wing Safety office will determine if the product quality deficiency also warrants DULL SWORD reporting.

## 2. Responsibilities:

### 2.1. Wing Weapons Safety Manager will:

- 2.1.1. Serve as the installation DULL SWORD program manager.
- 2.1.2. Provide training to unit NCE monitors and perform staff assistance visits as requested.
- 2.1.3. Verify unit NCE listings are validated semi-annually.
- 2.1.4. Conduct inspection of unit NCE program in conjunction with annual safety inspection.
- 2.1.5. Investigate and submit reportable NCE malfunctions, failures, and abnormalities to the Air Force Safety Center through the Air Force Safety Automated System (AFSAS).

### 2.2. Unit commanders with Nuclear Certified Equipment assigned will:

- 2.2.1. Appoint primary and alternate unit NCE monitors possessing at least a 5-skill level to serve as liaisons to the Wing Weapons Safety office. Personnel serving as Unit Weapons Safety Representatives may also be designated NCE monitors at the commanders' discretion.
- 2.2.2. Appointees will be replaced 30 days prior to separation, permanent change of station (PCS), or deployment in excess of 30 days.
- 2.2.3. Ensure appointees receive initial NCE monitor training from the Wing Weapons Safety office within 30 days of appointment.
- 2.2.4. Certify semi-annual unit NCE verification listing ([Attachment 2](#)).
- 2.2.5. Squadrons under the command of a group in which multiple squadrons have NCE assigned (i.e., MSG) may consolidate NCE into a single listing for certification by the Group Commander.

### 2.3. Unit Nuclear Certified Equipment Monitors will:

- 2.3.1. Identify all NCE assigned to their unit utilizing the Master Nuclear Certified Listing (MNCL). Listing is located at <https://wwwmil.nwc.kirtland.af.mil/MNCL/index.cfm>.
- 2.3.2. Compile unit NCE listing and submit to the owning commander for certification. Unit listings will be revalidated semiannually. A copy will be submitted to Wing Safety.
- 2.3.3. Report all NCE malfunctions, failures, and abnormalities meeting criteria outlined in [paragraph 3](#) to Wing Safety utilizing the Maxwell AFB Form 385.

**3. DULL SWORD Conditions:**

3.1. Refer to AFMAN 91-221, *Weapons Safety Investigations and Reports*, for complete criteria.

3.1.1. Malfunction, failure, or anomaly during operations or testing, potentially resulting in a safety or coded device to arm or be left in an unsafe condition (e.g., Safe and Arm devices).

3.1.2. Stability, steering or brake system problems that affect the safe steering, stopping, towing, or holding in park of a tow or transport vehicle (cargo, loading, or lifting). Do not include dents, flat tires, corrosion, or electrical malfunctions and failures resulting from fair wear and tear.

3.1.3. Defects or failures in vehicle structural members (including the pintle hooks and mounting structure, fifth wheels) that support the load or transmit the towing or braking force.

3.1.4. Inadequate restraint of loads attributed to trailer tie down points or tie down patterns.

3.1.5. Unsafe condition or improper operation of the hydraulic, mechanical, and structural components of lift vehicles (e.g., forklifts and K-loaders) resulting in unresponsive operation, uncontrolled raising or lowering, or improper cargo restraint.

3.1.6. Exceeding the rated load-capacity of any equipment/vehicle listed in the MNCL.

3.1.7. Damage, malfunction, failure, or anomaly involving test equipment listed in the MNCL.

3.1.8. Recognizable failure modes where specific diagnostic and corrective actions are outlined in current technical data, including fair wear and tear, are not reportable.

RYAN E. RICHARDSON, Colonel, USAF  
Commander

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

AFPD 91-1, *Nuclear Weapons and Systems Surety*, 24 October 2019

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

***Prescribed Form***

Maxwell AFB Form 385, *DULL SWORD Report Worksheet*

***Adopted Form***

DAF Form 847, *Recommendation for Change of Publication*.

***Abbreviation and Acronyms***

**AFSAS**—Air Force Safety Automated System

**MNCL**—Master Nuclear Certification List

**NCE**—Nuclear Certified Equipment

***Terms***

**DULL SWORD**—A nuclear deficiency report providing a means of trend analysis to identify issues that could affect the safety and reliability of a Nuclear Certified Equipment asset for use in nuclear operations.

Attachment 2

SAMPLE UNIT NUCLEAR CERTIFIED EQUIPMENT LISTING

Figure A2.1. Sample Unit Nuclear Certified Equipment Listing.

|  |                            |                              |             |             |              |             |             |     |
|--|----------------------------|------------------------------|-------------|-------------|--------------|-------------|-------------|-----|
| MEMORANDUM FOR 42 ABW/SEW  |                            |                              |             |             |              |             | (Date)      |     |
| FROM: (Owning Commander)   |                            |                              |             |             |              |             |             |     |
| SUBJECT: XX XXX Nuclear Certified Equipment (NCE) Listing  |                            |                              |             |             |              |             |             |     |
| <p>1. This certifies that the XX XXX/XXXX NCE listing semi-annual validation occurred on [DD MMM YY]. All equipment/items were referenced to the Master Nuclear Certification List (MNCL) located at <a href="https://wwwmil.nwc.kirtland.af.mil/MNCL/index.cfm">https://wwwmil.nwc.kirtland.af.mil/MNCL/index.cfm</a>. The MNCL is the sole authority for determining nuclear certification status.</p> <p>2. DISCLOSURE STATEMENT: This information is furnished upon the condition that it will not be released to another nation without the specific authority of the Department of the Air Force of the United States; it will be used for military purposes only; individual or corporate rights originating in the information, whether patented or not, will be respected; recipient will report promptly to the United States any known or suspected compromise; and the information will be provided substantially the same degree of the security afforded it by the Department of Defense of the United States.</p> |                            |                              |             |             |              |             |             |     |
| Weapons System   | Nomenclature               | Hardware Type                | Model #     | NII N       | Part #       | Cert Status | Last Update | Qty |
| NON SPECIALIZED  | ADAPTER ASSEMBLY, FORK     | MUNITIONS HANDLING EQUIPMENT | MHU - 101/E | 00-943-8306 | 65E35468 - 1 | 65E35468-1  | XX Apr XX   | X   |
| NON SPECIALIZED  | TRUCK, TRACTOR, 24,000 GVW | TRUCK TRACTOR                | 1750        | 10-022-8438 | NONE         | NUCLEAR     | XX Apr XX   | X   |
| <p>3. Types and quantities of NCE equipment have been coordinated with the users.</p> <p>4. Direct questions to the XXXXXX Flight NCE Monitor at [duty phone].</p>   |                            |                              |             |             |              |             |             |     |
| <p>JOHN Q. PETERSEN, Lt Col, USAF<br/>Commander</p>  |                            |                              |             |             |              |             |             |     |