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SECRETARY OF THE AIR FORCE**



**AIR FORCE INSTRUCTION 91-101**

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Supplement**

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Supplement**

**21 NOVEMBER 2006**

**Safety**

**AIR FORCE NUCLEAR WEAPONS  
SURETY PROGRAM**

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This instruction implements AFI 91-1, *Nuclear Weapons and System Surety*. It outlines general responsibilities for the Air Force Nuclear Weapons Surety Program and defines implementing requirements. It does not apply to the Air Force Reserve and Air National Guard. Send major command (MAJCOM) supplements to HQ AFSC/SEP, 9700 G Avenue SE, Kirtland AFB NM 87117-5670, for coordination and approval before publication. **Attachment 1** contains references, abbreviations, acronyms, and terms used in this instruction. Unless noted otherwise, AF/SE is the waiver authority for provisions in AFI 91-101. For purposes of this instruction, the term MAJCOM includes FOAs and DRUs.

**(USAFE) AFI 91-101, 19 December 2005, is supplemented as follows:** This supplement applies to all United States Air Forces in Europe (USAFE) units. It does not apply to Air Force Reserve Command (AFRC) and Air National Guard (ANG) units. When supplemented, send supplement copies for approval to the USAFE Safety Directorate, Weapons Safety Division (HQ USAFE/SEW), Unit 3050 Box 165, APO AE 09094-0165. Ensure that any local instructions or supplements are created in accordance with AFI 33-360 Volume 1, *Air Force Content Management Program-Publications*. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 37-123, *Management of Records* and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at: <https://afrims.amc.af.mil>.

**(RAMSTEIN) AFI 91-101\_USAFESUP1, 28 August 2006, is supplemented as follows:** This supplement applies to all 38 Combat Support Wing units. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-322, Volume 4 Management of Records and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at: <https://webrims.amc.af.mil>. Ensure that any local instructions or supplements are created in accordance with AFI 33-360 Volume 1, *Air Force Content Management Program-Publications*.

**SUMMARY OF CHANGES**

This change incorporates interim change (IC) 2005-1, which provides new guidance regarding the application of nuclear surety/safety policy/procedures to MUNSS/MUNS locations within the HQ USAFE MAJCOM. It provides these locations with the latitude needed to effectively accomplish nuclear surety/safety duties. A bar ( | ) indicates a revision from the previous edition.

**(USAFE) This document includes the Interim Change (IC) 2006-1, 31 August 2006.** Paragraphs **2.3.1.3.1. (Added)** and **2.3.1.3.7. (Added)** have been revised. Revisions are indicated by a vertical bar ( | ) in the left margin.

**(RAMSTEIN)**

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## Chapter 1

### PROGRAM INFORMATION

**1.1. Goal.** The goal of the Air Force Nuclear Weapons Surety Program is to incorporate maximum nuclear surety, consistent with operational requirements, from weapon system development to retirement from the inventory.

**1.2. Safety Standards.** The Air Force Nuclear Weapons Surety Program ensures personnel design and operate nuclear weapons and nuclear weapon systems to satisfy the safety standards in Department of Defense (DoD) Directive 3150.2, DoD Nuclear Weapon System Safety Program, December 23, 1996. The DoD safety standards are:

1.2.1. There shall be positive measures to prevent nuclear weapons involved in accidents or incidents, or jettisoned weapons, from producing a nuclear yield.

1.2.2. There shall be positive measures to prevent DELIBERATE prearming, arming, launching, or releasing of nuclear weapons, except upon execution of emergency war orders or when directed by competent authority.

1.2.3. There shall be positive measures to prevent INADVERTENT prearming, arming, launching, or releasing of nuclear weapons in all normal and credible abnormal environments.

1.2.4. There shall be positive measures to ensure adequate security of nuclear weapons, pursuant to DoD Directive 5210.41, *Security Policy for Protecting Nuclear Weapons*, September 23, 1988.

**1.3. Commanders' Emphasis.** Commanders at all levels are responsible for the success of the Air Force Nuclear Weapons Surety Program. Commanders must emphasize that safety, security, control, and effectiveness of nuclear weapons are important to the United States. The following is not an all inclusive list of restrictions dealing with nuclear weapons. Commanders should review the Weapon System Safety Rules (WSSR) for their specific weapon system(s).

**1.3. (USAFE) Commanders Emphasis.** The weapon system safety rules applicable to USAFE are provided in AFI 91-112, *Safety Rules for US/NATO Strike Fighters*, and AFI 91-115, *Safety Rules for Nuclear Logistics Transport by the Prime Nuclear Airlift Force*.

1.3.1. Do not use nuclear weapons to troubleshoot faults, that is, to confirm a fault exists, to aid in fault isolation, or to verify fault correction. AFI 91-107, *Design, Evaluation, Troubleshooting, and Maintenance Criteria for Nuclear Weapon Systems*, contains specific guidance.

1.3.2. During exercises, do not wear complete chemical ensembles when handling war reserve nuclear weapons. Remove the gas mask (to aid in identification) and cumbersome gloves (to ensure weapons are not inadvertently damaged).

1.3.3. Storing nuclear weapons in one facility and conventional munitions in another facility within the same weapons storage area (WSA) is not considered simultaneous presence and does not require MAJCOM approval. Do not store nuclear weapons and conventional munitions together, except:

1.3.3.1. As part of flightline or hardened aircraft shelter operations conducted according to nuclear weapon system safety rules.

1.3.3.2. The MAJCOM Director of Logistics (or equivalent) may approve the storage of nuclear and conventional munitions within a WSA facility to facilitate the warehousing of these materials. AFMAN 91-201, *Explosive Safety Standards*, and Technical Order (TO) 11N-20-7, *Nuclear Safety Criteria*, contain specific guidance. Reference AFMAN 91-201 for storage requirements of nuclear weapon components within a weapons storage and security system (WS3) vault.

1.3.4. Implement local procedures to:

1.3.4.1. Prohibit direct overflight of WSAs, weapon movements, nuclear loaded aircraft, and aircraft shelters with nuclear weapons inside and not secured in a locked WS3 vault within that airspace controlled by the base.

1.3.4.2. Ensure aircraft with forward firing ordnance are not parked pointed toward Prime Nuclear Airlift Force (PNAF) flightline operations.

1.3.4.2. **(RAMSTEIN)** MUNSS(Munitions Support Squadron) units will establish written joint US / Host Nation guidance to ensure aircraft with forward firing ordnance are not parked pointed toward and are limited to the maximum extent possible from sweeping across Prime Nuclear Aircraft Flightline operations.

1.3.4.3. Ensure aircraft with forward firing ordnance are limited, to the maximum extent possible, from sweeping across PNAF flightline operations.

1.3.4.4. Prohibit direct overflight of PNAF aircraft during ground operations within that airspace controlled by the base

1.3.4.4. **(RAMSTEIN)** MUNSS units will establish written joint US / Host Nation guidance creating direct over flight prevention for Prime Nuclear Aircraft Flightline operations.

**1.4. Records Disposition.** Ensure all records created by this instruction are maintained and disposed of IAW AFMAN 37-139, *Records Disposition Schedule*.

## Chapter 2

### RESPONSIBILITIES

#### **2.1. Assistant Secretary for Acquisition (SAF/AQ). Acting for SAF/AQ, SAF/AQS:**

- 2.1.1. Issues policy and sets goals and priorities for nuclear surety technology.
- 2.1.2. Ensures technical support for the Nuclear Weapon System Safety Group (NWSSG).
- 2.1.3. Ensures program management directives specify program compliance with nuclear safety design certification requirements.
- 2.1.4. Serves, along with Air Force Materiel Command (AFMC), as the Air Force focal point for the technical aspects of nuclear surety. In conjunction with AFMC:
  - 2.1.4.1. Evaluates the nuclear safety effects of all designs, manufacturing processes and practices, or modifications of nuclear weapon systems or components for which SAF/AQ or AFMC has program management responsibilities.
  - 2.1.4.2. Provides analytical, consultant, and technical services to support the requirements of AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation Safety Program*.
  - 2.1.4.3. Publishes data on weapons maintenance, shipping, and storage configurations in the appropriate 11N-series TOs and explosive ordnance disposal (EOD) procedures in the 60N-series TOs.
  - 2.1.4.4. Reviews nuclear mishap reports pertaining to material or technical data deficiencies; takes corrective action, when appropriate; and provides reports and summaries as required by AFI 91-204, *Safety Investigations and Reports*.
  - 2.1.4.5. Assists Major Commands (MAJCOMs) to determine if the design of a nuclear weapon system modification could affect nuclear surety.

#### **2.2. Headquarters United States Air Force (HQ USAF):**

- 2.2.1. Air Force Chief of Safety (HQ USAF/SE) oversees the Air Force Nuclear Weapons Surety Program.
  - 2.2.1.1. Establishes program requirements.
  - 2.2.1.2. Publishes instructions and guidance on the various portions of the program.
  - 2.2.1.3. Maintains liaison for nuclear surety matters with organizations outside the Air Force.
  - 2.2.1.4. Advises SAF/AQ of required nuclear surety technology.
  - 2.2.1.5. Administers the nuclear surety inspection program.
- 2.2.2. Deputy Chief of Staff/Plans and Operations (HQ USAF/XO) is the single point of contact to the Joint Staff.
- 2.2.3. Deputy Chief of Staff/Installations and Logistics (HQ USAF/IL) is the single point of contact for nuclear weapon and nuclear weapon system logistic matters.

- 2.2.3.1. The Civil Engineer (HQ USAF/ILE) is the single point of contact for nuclear weapon explosive ordnance disposal matters.
- 2.2.4. Deputy Chief of Staff/Personnel (HQ USAF/DP) and HQ USAF/SE provide coordinated policy and procedures for the Nuclear Weapons Personnel Reliability Program (PRP).
- 2.2.5. The Surgeon General (HQ USAF/SG) and HQ USAF/SE issue coordinated policy and guidance on radiological health matters.
- 2.2.6. Air Force Chief of Security Forces (HQ USAF/XOF):
  - 2.2.6.1. Develops and publishes instructions and guidance for the physical security of nuclear weapons and nuclear weapon systems.
  - 2.2.6.2. Provides classification guidance and publishes standards for controlling defense nuclear information.
  - 2.2.6.3. Evaluates nuclear weapon system designs for their impact on nuclear security.

### 2.3. Major Commands (MAJCOM):

- 2.3.1. Establish a nuclear surety program and provide guidance to subordinate units.
- 2.3.1. (USAFE) The Nuclear Surety Program Steering Council (NSPSC), Nuclear College, and Nuclear Surety Staff Assistance Visit (SAV) and Functional Expert Visit (FEV) programs are components of the overall command nuclear surety program. Further:
  - 2.3.1.1. (Added-USAFE) NSPSC is a senior level forum established at the major command (MAJCOM)-level providing management oversight of and direction for the overall nuclear surety program throughout the command. NSPSC meets quarterly and is designed to provide a single focus for command issues to ensure nuclear surety and enhance capability.
    - 2.3.1.1.1. (Added-USAFE) The NSPSC reviews issues relating to: nuclear operations; maintenance; command and control (C2); command, control, communications, computer, and intelligence (C4I); logistics (to include host nation support); safety; security; training; finance; policy, personnel; and quality-of-life issues.
    - 2.3.1.1.2. (Added-USAFE) The NSPSC is chaired by the Vice Commander (USAFE/CV). Members are the directors of all HQ USAFE directorates. Wing, group and squadron leadership are invited as attendees, but are not mandatory.
  - 2.3.1.2. (Added-USAFE) Nuclear Surety (NS) SAV is a MAJCOM program providing each commander of a nuclear-capable unit with an evaluation of their unit's nuclear surety readiness. The objective is two-fold: determine if higher head-quarters guidance is clear and unambiguous, and to determine if the unit is properly applying sound guidance by observing how the unit conducts day-to-day operations and administers their own nuclear surety program. The program is administered according to USAFEI 91-125 , *Nuclear Surety Staff Assistance Visit (NS SAV) and Functional Expert Visit (FEV) Program Management*.
  - 2.3.1.3. (Added-USAFE) The USAFE Nuclear College is a training initiative designed to raise the level of Nuclear Weapons training and awareness throughout the command. The Nuclear College curriculum is divided into seven in-residence courses and two Computer Based Training (CBT) courses. Each course is specifically tailored for individuals in different levels of the

Nuclear Surety arena. Course details are listed below. Personnel eligible/required to attend courses will schedule training through their respective Munitions support Squadron (MUNSS) training noncommissioned Officer in Charge (NCOIC) or Main Operating Base (MOB) training function. All in-residence courses will be held at Ramstein AB, GE. HQ USAFE will fund mandatory attendees. Attendees will have a minimum of 6 months retainability prior to class start date. If retainability is not met, the unit must request a waiver from Directorate of Logistics - Munitions Division (HQ USAFE/A4W) through the respective Group Commander (CC). All courses are required for initial training only, with the exception of Nuclear Surety, which is recurring. An example chart is provided at **Table 2.1. (Added)** to give commanders a snap-shot of courses available and attendance requirements.



**Table 2.1. (Added-USAFE) Training Course Overview.**

	<b>IN RESIDENCE COURSES</b>								<b>COMPUTER BASED INSTRUCTION</b>	
	S L N C	Nuclear Manager	MUNSS Surety5	MOB Surety	P R P	E T	Load Monitor	Diamonds Account	SFCustody /Security	Surety MUNSS /MOB1
All MUNSS Personnel			M							M
21 M CGO4		M				O	O	O		M
MUNSS CC		M	M		O	O	O	O	O	M
SF OPSO4		M				O			M	M
SF OPS Supt4		M				O			M	M
CP OIC4		M				O				M
CP Supt4		M				O				M
Base/ MUNSS PRP Mon					M					
PRP Med6					M					
Surety Instructor		O		M		O				M
MASO4		M				O		M		M
NOCM NCOIC								M		M
Load Monitor			M				M			M
MUNSS Custody			M			O			M	M
MOB SF4									M	M
MOB Weapon Safety		O7		M						
EET Chief4		D				M				

	IN RESIDENCE COURSES								COMPUTER BASED INSTRUCTION	
	S L N C	Nuclear Manager	MUNSS Surety5	MOB Surety	P R P	E E T	Load Monitor	Diamonds Account	SFCustody /Security	Surety MUNSS /MOB1
EET Member2, 4		D				M				
Senior Load Monitor		M					M			M
Senior 2W2		M				O				M
All MUNSS Officers3		D	M			O				M
MXG, MSG, and MMG Commander 's at nuclear- capable units	M									
M = Mandatory (Ideally within 3 months of arrival), D = Desired, O = Optional										
<b>NOTES:</b> 1. MUNSS/MOB Personnel will complete the MUNSS version of the recurring surety CBT every 15 months for recurring training, and MOB personnel will complete the MOB version every 15 months for recurring training. MUNSS/MOB differences are included in the CBT. 2. EET Members defined as "Core Members" by the EET Chief will attend the EET course. 3. Other MUNSS officers not identified as mandatory to attend the Nuclear Manager's Course may attend the course on a space available basis. 4. Only personnel assigned nuclear surety duties in these categories must attend the identified training. MUNSS/MOB differences are included in the CBT. 5. This course must be completed before performing surety duties. - Optional for non-PRP positions. 6. This category includes medical PRP monitors and Competent Medical Authorities as well as Independent Duty Medical Technician (IDMT). 7. The MOB Safety Office is only required to send a Primary and Alternate.										

2.3.1.3.1. **(Added-USAFE)** Nuclear Managers Course (9 days). This course is designed to provide extensive hands on and practical exercises to all officers and Senior Noncommissioned Officer (SNCO) nuclear surety leaders. The following MUNSS positions must attend: CCs, 21M officers, 31P officers, 2WX SNCOs, 3PX SNCOs, Command Post (CP) Flight Commanders (CC) and Superintendents. The following MOB positions must attend: Munitions Flight CCs, CP OICs/Superintendents, SF OPS OIC's/Superintendents and Wing Weap-

ons Safety Managers. All other MUNSS/MOB officers and SNCOs with a nuclear surety mission may request training through HQ USAFE/A4W. Required training will be accomplished within 6 months of duty assignment. If training requirement isn't met, unit must request a waiver from HQ USAFE/A4W through their respective Group CC.

2.3.1.3.2. **(Added-USAFE)** Nuclear Surety Training (2 days). This course has two distinct training modules, one for MUNSS and one for MOBs. A course description for each is listed below:

2.3.1.3.2.1. **(Added-USAFE)** All MUNSS personnel assigned to PRP positions will attend initial Nuclear Surety training at the Nuclear College. This course will provide a fundamental understanding of Department of Defense (DoD), Air Force (AF), and European Command (EUCOM)/Supreme Headquarters Allied Powers Europe (SHAPE) guidance governing Nuclear Surety and how it is applicable to MUNSS operations. Additionally, students will explore the Personnel Reliability Program, Use Control, Nuclear Certified Equipment, Weapons Storage and Security system (WS3), and security concepts. Training will also focus on Access Control, Contingency Operations and Weapons Maintenance and Loading. Unit and Command Level Oversight perspectives are presented and evaluated, as well as the MUNSS specific Chain of Command. Units must provide a local conditions briefing.

2.3.1.3.2.2. **(Added-USAFE)** MOB Nuclear Surety Instructors will be trained by the Nuclear College to provide initial and recurring Nuclear Surety training for their unit personnel. This course will provide a fundamental understanding of DoD, AF, and EUCOM/SHAPE guidance governing Nuclear Surety. Additionally, students will explore the Personnel Reliability Program, Use Control, Nuclear Certified Equipment, WS3, and security concepts. Training will also focus on Access Control, Contingency Operations and Weapons Maintenance and Loading. Unit and Command Level Oversight perspectives are presented and evaluated. Once trained, these individuals will return to their respective units and train required personnel using the Nuclear College curriculum. The base Weapons Safety office is the focal point for Nuclear College course material. The base Weapons Safety office will also maintain a list of qualified instructors (those who completed in-residence MOB surety training).

2.3.1.3.3. **(Added-USAFE)** Personnel Reliability Program (PRP) Monitor Course (3 days). This course is designed to provide a fundamental understanding of DoD and AF guidance governing PRP. The course will have an emphasis on case studies, teamwork, and projects. There will be a Personnel/Medical break-away to focus on functional specific PRP topics. The class will also explore best practices with PRP and review current command issues. All main base and Military Treatment Facilities (MTF) PRP monitors with authorized PRP positions, MUNSS Independent Duty Medical Technicians (IDMT) and MUNSS PRP monitors will attend this course. Certifying Officials and CMAs are encouraged to attend.

2.3.1.3.4. **(Added-USAFE)** Exercise Evaluation Team (EET) (2 days). This course is designed to provide training and guidance to establish an effective EET program. Students will spend two days in-residence analyzing the implementation of Department of Defense, Air Force, and Allied Command European guidance. Students will explore best practices in evaluating Nuclear Surety Operations. Students will review exercise scheduling and requirements. Additionally, projects are performed to enhance exercise building skills, deficiency tracking

and follow-up. EET Team chiefs will attend this course. Other intended attendees are the core EET cadre. It is not necessary for all EET members to attend the course.

2.3.1.3.5. **(Added-USAFE)** Load Monitor Course (2 days). This course is designed to provide training and guidance to establish an effective Load Monitor program. Students spend two days in residence understanding Department of Defense, Air Force, and Allied Command Europe guidance. Students will also analyze practices in terms of custody concepts, aircraft certification, and support equipment, technical data. The second part of the course is an emphasis on Host Nations / MUNSS relationships, Aircraft generation procedures, loading certification program, personnel, and aircraft certification documentation. The Unit and Command Level Oversight perspective will be reviewed and discussed. All Load monitors will attend this course.

2.3.1.3.6. **(Added-USAFE)** Defense Integration and Management of Nuclear Data Services (DIAMONDS) / Accountability Course (3 days). This course will train students on the proper operation of the DIAMONDS system. This automated system links Air Force Nuclear Units directly to the Defense Threat Reduction Agency (DTRA) and the Nuclear Weapons Directorate. Proper operation of the DIAMONDS system is essential to proper status reporting of Nuclear Weapons Status. This training will be provided by DTRA. One additional day of training is dedicated to teaching Air Force specific principles of accounting to Munitions Accountable Systems Officers and their Noncommissioned Officers (NCO). All Munitions Accountable Systems Officer (MASO) and Nuclear Ordnance Commodity Management (NOCM) monitors, as well as selected maintenance Team Chiefs will attend this course.

2.3.1.3.7. **(Added-USAFE)** Senior Leaders Nuclear Course (SLNC) (1 day). Senior leaders will spend one day (approx 9 hours) in residence learning all facets of the overall nuclear surety mission. Material to be covered will include Chain of Command, DoD, EUCOM and Air Force guidance. Additionally, Personnel Reliability Program, Weapons Storage and Security System, Nuclear Security Concepts and Contingency Operations will be explored. The course is designed to prepare senior leaders (Squadron, Group and Wing Commanders) by introducing them to the basic concepts and programs that support the United States (U.S.) nuclear surety program.

2.3.1.3.8. **(Added-USAFE) Weapon Storage Vault (WSV) Maintenance and Inspection:** The Weapons Storage and Security System (WS3) advanced maintenance and troubleshooting course outlines procedures for component replacement, unique maintenance, and repair of the WS3 system. It incorporates both vault maintenance and communication maintenance elements. A core element of trained personnel will be maintained at each WS3 operating location.

2.3.1.3.9. **(Added-USAFE)** Computer Based Training (CBT) programs include:

2.3.1.3.9.1. **(Added-USAFE)** Recurring Nuclear Surety (MUNSS)/(MOB). This CBT program is designed to sustain and enhance knowledge in DoD, AF and EUCOM/SHAPE guidance governing Nuclear Surety and how it is applicable to MUNSS/MOB operations. This CBT program will be provided to all units by HQ USAFE/A4W.

2.3.1.3.9.2. **(Added-USAFE)** Security Forces Custody. This CBT program introduces security and custody personnel assigned at a MUNSS or MOB to DoD, AF and EUCOM/SHAPE guidance. This CBT will be accomplished prior to duty position certification.

- 2.3.2. Ensure compliance with pertinent directives and TOs.
- 2.3.3. Establish a program to ensure personnel are trained and certified on the following functional tasks:
  - 2.3.3.1. Nuclear weapons handling, storage, and maintenance.
  - 2.3.3.2. Loading and unloading of weapons.
  - 2.3.3.3. Mate and demate of weapons.
  - 2.3.3.4. EOD nuclear procedures: render-safe, continuation, and component recovery tasks.
  - 2.3.3.5. Security procedures.
  - 2.3.3.6. Custody procedures.
  - 2.3.3.7. Operational control.
  - 2.3.3.8. Weapon convoys.
- 2.3.4. Ensure individuals assigned to nuclear safety positions are trained and hold a rank or grade commensurate with their duties.
- 2.3.5. Ensure subordinate unit civil engineering staffs:
  - 2.3.5.1. Develop a Disaster Preparedness Operations Plan to include addressing nuclear accidents/ incidents IAW AFI 32-4001, *Disaster Preparedness Planning and Operations*.
  - 2.3.5.2. Civil engineer personnel will assist Disaster Control Group members in the development of checklists, and advise on training and equipping personnel to response to nuclear accidents and incidents.
  - 2.3.5.3. Perform timely inspections, tests, and maintenance on facilities and equipment used with nuclear weapons.
  - 2.3.5.4. Coordinate plans for building or modifying nuclear weapon facilities.
- 2.3.6. The MAJCOM Chief of Security Forces will ensure unit security instructions and guidance comply with nuclear surety requirements.
- 2.3.7. Send data on proposed changes to nuclear weapon systems and noncombat delivery vehicles to AFMC or the appropriate program executive office/designated acquisition commander/single manager.
- 2.3.8. Conduct Nuclear Surety Inspections (NSI) of nuclear-capable units in accordance with AFI 90-201, *Inspector General Activities*.
- 2.3.9. Support the NWSSG in accordance with AFI 91-102.
- 2.3.10. Identify a single point of contact for all nuclear issues.

## **2.4. MAJCOM Weapons Safety Office:**

- 2.4.1. Is the MAJCOM office of primary responsibility (OPR) for nuclear surety matters.
- 2.4.1. **(USAFE)** The Weapons Safety Division (HQ USAFE/SEW), Unit 3050, Box 165, APO AE 09094-0165, DSN 314-480-6801, is the MAJCOM Weapons Safety Office for USAFE.

2.4.2. Develops criteria for wing nuclear surety councils.

2.4.3. Advises the MAJCOM staff on nuclear surety issues.

2.4.4. Publishes directives and supplements outlining MAJCOM-unique nuclear surety requirements.

2.4.5. Provides MAJCOM inspection teams with appropriate instructions and guidance.

2.4.6. Reviews plans submitted for storage of conventional and nuclear weapons within the same facility.

2.4.7. Ensures full-time weapon safety officers and weapon safety managers (WSMs) are trained on MAJCOM-unique items and nuclear surety program management within 90 days of assuming their positions.

2.4.7. **(USAFE)** HQ USAFE/SEW provides training on MAJCOM-unique items and nuclear-surety program management with either in-residence or exportable training.

2.4.7. **(RAMSTEIN)** MUNSS Unit Safety Representatives (USR) will attend the MAJCOM unique weapons safety training within 90 days of appointment or as soon as possible if course is not offered within that timeframe.

2.4.8. Ensure host and tenant unit(s) relationships are established and reflected in a host-tenant agreement(s). The host-tenant agreement(s) will be developed in accordance with AFI 25-201, *Support Agreement Procedures*. Host-tenant agreements will specify the support required to implement an effective nuclear surety program. Submit in writing, those areas where mutual agreement cannot be reached to the appropriate MAJCOM(s) for resolution. As a minimum, the agreement must include the following areas:

2.4.8.1. Nuclear surety program management.

2.4.8.2. Inspections (e.g., nuclear surety, annual, spot, etc.)

2.4.8.3. PRP.

2.4.8.4. Review of local procedures in support of nuclear weapon system safety rules.

2.4.8.5. Mishap investigations, boards, and reporting responsibilities.

2.4.8.6. Major accident response procedures.

2.4.9. Deleted.

2.4.10. **(Added-USAFE)** HQ USAFE/SEW approves USAFE or wing supplements to nuclear surety-related directive Air Force 91-100 series publications. Complete and forward these documents through official channels.

2.4.11. **(Added-USAFE)** HQ USAFE/SEW coordinates on all locally developed work cards, checklists, job guides and page supplements impacting nuclear surety that are derived from Air Force technical orders. Complete and forward these documents according to TO 00-5-1, *Air Force Technical Order System*, and as supplemented. **NOTE:** For Critical C2 Systems or locally developed work cards for Technical Order 11N-50-1003-1, *Weapons Storage and Security System*, submitted by communications-electronics maintenance work centers, coordinate all locally developed work cards, checklists, job guides and page supplements with USAFE/SEW prior to signature by the Chief of Maintenance/Communications Flight Commander.”

2.4.12. **(Added-USAFE)** HQ USAFE/SEW schedules newly assigned weapons safety managers (WSM) to attend the Air Education and Training Command (AETC), Weapons Safety (Course L3AZR2W071), and the MAJCOM WSM training. HQ USAFE/SEW arranges attendance at the AETC Weapon Safety course, enroute whenever possible, when provided notification of individuals relocating to USAFE to perform WSM duties.

**2.5. Numbered Air Force (NAF) Weapons Safety Managers (WSM):**

2.5.1. Advise the NAF Director of Safety and staff on nuclear surety issues.

2.5.2. If delegated by the MAJCOM, assume WSM training responsibilities and conduct it in conjunction with assistance visits.

2.5.3. Visit subordinate units as needed.

2.5.4. Assist the personnel staff on PRP issues.

2.5.5. Check the adequacy and completeness of nuclear mishap reports and the corrective actions for nuclear surety problems found during higher headquarters inspections or assistance visits.

2.5.6. Review all explosive site plans received from subordinate units, obtain NAF coordination and forward comments to MAJCOM/SEW.

2.5.7. Review plans submitted for new or modified weapon storage sites and notify MAJCOM/SEW.

**2.6. Installation Commanders:**

**2.6. (USAFE) Installation Commanders.** In USAFE, installation commanders also refer to host or parent wing commander. Parent wing commanders ensure wing-level nuclear surety support for the MUNSS.

2.6.1. Ensure WSMs are knowledgeable and qualified.

2.6.2. Ensure senior leadership emphasis on mishap prevention.

2.6.3. Ensure nuclear surety deficiencies are identified, investigated, corrected, and reported.

2.6.3. **(USAFE)** Ensure USAFE Nuclear Surety Program Steering Council (NSPSC) minutes are reviewed and distributed with the objective of distributing relevant nuclear surety information to affected functional areas within the wing.

2.6.4. Ensure plans and procedures support all tasked nuclear missions.

2.6.4. **(USAFE)** Develop and provide nuclear surety policy and guidance for the MUNSS as applicable.

2.6.4.1. **(Added-USAFE)** Provide nuclear surety policy and guidance to the MUNSS by supplementing the basic publication, this supplement and other applicable nuclear surety-related directive Air Force 91-100 series publications to meet nuclear surety program requirements for the MUNSS.

2.6.4.2. **(Added-USAFE)** Interim policy supplementing nuclear surety-related directive Air Force 91-100 series publications may be issued by formal memorandum with an expiration date from the wing commander to the MUNSS. After issuance to the MUNSS, replace interim policy within 120 days by official publication supplements. If the 120 days is exceeded, the interim pol-

icy remains in effect for an additional 60 days (for a total of 180 days). At the end of this period the interim policy is automatically rescinded and must be replaced by either a new policy letter from the wing commander or an official publication.

2.6.4.3. **(Added-USAFE)** Establish and identify to HQ USAFE/A4W, an office to administer wing and squadron-level required nuclear surety exercise events.

2.6.4.3. **(RAMSTEIN)** 38 MMG(Munitions Maintenance Group) will establish and identify to HQ USAFE/A4W an office to administer squadron level required nuclear surety exercises. A courtesy copy will be forwarded to 38 CSW/SEW.

2.6.5. Ensure plans and procedures support Safe Haven requirements.

2.6.6. Ensure nuclear surety plans and procedures are reviewed by affected agencies before implementation.

2.6.7. Organize a nuclear surety council as outlined below.

2.6.8. Ensure full-time WSMs are not assigned additional tasks which detract from their primary safety duties.

2.6.9. Perform PRP responsibilities.

2.6.10. Establish a nuclear accident/incident response organization in accordance with AFI 32-4001, *Disaster Preparedness Planning and Operations*.

2.6.11. Ensure the unit Chief of Security Forces, in conjunction with munitions and EOD personnel, reviews the plans for any movement of nuclear cargo, in accordance with AFI 21-204, *Nuclear Weapon Procedures*.

2.6.12. **(Added-USAFE)** Develop plans and procedures supporting aircraft carrying nuclear cargo requirements.

2.6.12. **(RAMSTEIN)** The MUNSS will develop plans and procedures supporting aircraft carrying nuclear cargo requirements.

2.6.12.1. **(Added-USAFE)** Designate On-Scene Coordinators (OSC) and ensure they receive training on responsibilities.

2.6.12.1. **(RAMSTEIN)** Designate in writing the On-Scene Coordinators and ensure they receive the appropriate training.

## **2.7. Installation Staff Officers:**

2.7.1. Wing/Group Commanders:

2.7.1.1. Enforce compliance with nuclear surety requirements.

2.7.1.2. Ensure the WSM reviews all plans, training, and programs that affect nuclear surety.

2.7.1.3. Perform PRP responsibilities.

2.7.1.4. Include applicable nuclear surety tropics in training directives and programs for assigned personnel.

2.7.2. Ensure Military Personnel Flight (MPF) staff provide guidance and monitor the PRP.



- 2.7.3. Ensure Public Affairs office screens and releases mishap information to the public.
- 2.7.4. Ensures medical treatment facility ensures medical and dental PRP requirements are followed in accordance with AFI 36-2104, *Nuclear Weapons Personnel Reliability Program*.
- 2.7.5. Civil Engineering staff:
  - 2.7.5.1. Ensure fire protection personnel are trained to fight fires involving nuclear weapons.
  - 2.7.5.2. Conduct timely inspections, maintenance, and repair of facilities and equipment used to secure and maintain nuclear weapons.
  - 2.7.5.3. Coordinate plans for building or modifying nuclear weapon facilities with the WSM, Chief of Security Forces, and the affected unit.
  - 2.7.5.4. Develop fire fighting checklists for all areas and locations where nuclear weapons or nuclear weapon systems are present.
  - 2.7.5.5. Ensure assigned or host base Disaster Preparedness personnel develop nuclear accident/incident response procedures and ensure Disaster Control Group and/or Initial Response Element training is accomplished.
  - 2.7.5.6. Ensure EOD personnel develop nuclear accident/incident response procedures and maintain certification on assigned weapon systems and weapon platforms.
- 2.7.6. Chief of Security Forces:
  - 2.7.6.1. Ensure applicable unit security policies, procedures, and directives comply with nuclear surety requirements, nuclear weapon system safety rules, support Safe Haven requirements, and diversions of nuclear-laden aircraft.
  - 2.7.6.2. Evaluates, in conjunction with munitions personnel, logistical plans for the movement of nuclear cargo during the overall review of plans for nuclear weapon sites.
  - 2.7.6.3. Supports PRP investigation requirements.
- 2.7.7. Transportation or contractor personnel will submit nuclear safety deficiency reports, when appropriate, on nuclear safety certified equipment which they service or maintain. Coordinate reports with the WSM prior to release.
- 2.7.8. Family support center personnel perform PRP responsibilities.

## **2.8. Unit/Squadron Commanders:**

- 2.8.1. Enforce nuclear surety program requirements.
- 2.8.2. Correct nuclear surety problems identified during Nuclear Surety Inspections (NSIs) and Staff Assistance Visits (SAVs).
- 2.8.3. Perform PRP responsibilities in accordance with AFI 36-2104.
- 2.8.4. **(Added-USAFE)** Ensure adequate means are developed within the unit to notify weapon safety managers of local nuclear safety-related deficiencies. Weapon safety managers are responsible for the investigation and reporting of nuclear safety-related deficiencies according to AFI 91-204, *Safety Investigations and Reports* and AFMAN 91-221, *Weapons Safety Investigations and Reports*, unless other agencies are specified in AFI 91-204 or AFMAN 91-221.

2.8.4. **(RAMSTEIN)** MUNSS commander will develop procedures to ensure they are notified of any nuclear surety/safety related deficiencies in their squadron.

2.8.5. **(Added-RAMSTEIN)** Appoint a minimum of two unit safety representatives; one 21M officer meeting the MASO appointment requirements of AFI 21-204 and one 2WX NCO with at least one year MUNSS experience. Individuals must have a minimum of 1 year (projected) remaining on station at the time of initial appointment and must be trained within 30 days of appointment.

**NOTE:** In exceptional circumstances, the 38 MMG/CC may waive these background and minimum time-on-station requirements on a case-by-case basis.

## **2.9. Supervisors:**

- 2.9.1. Ensure personnel are properly training and certified.
- 2.9.2. Include nuclear surety as part of each pretask briefing.
- 2.9.3. Emphasize reporting of all nuclear deficiencies.
- 2.9.4. Inform personnel of all changes to the nuclear surety program.
- 2.9.5. Perform PRP responsibilities.

## **2.10. Individuals:**

- 2.10.1. Inform supervisors if they are not qualified to perform a particular task.
- 2.10.2. Report nuclear safety hazards/deficiencies or security problems to supervisors.
- 2.10.3. Comply with the Two-Person concept.
- 2.10.4. Identify unreliable personnel to their supervisors.
- 2.10.5. Report information which could affect their own ability or reliability to perform a task due to medical or other problems.

## **2.11. Wing Weapon Safety Managers:**

2.11.1. Perform annual nuclear surety inspections of each wing or base-level unit with a nuclear mission/capability.

2.11.1. **(USAFE)** Wing weapon safety office performs annual nuclear surety inspections on units and offices with nuclear surety missions at their wing and any MUNSS supported by the wing. Conduct annual nuclear surety inspections as follows:

2.11.1.1. **(Added-USAFE)** Goal of Inspection. Annual nuclear surety inspections should be in-depth enough to provide insight into unit strengths and recommended improvement areas to wing leadership. The goal of the inspection is to provide to wing leadership an understanding of the unit's management of resources against approved nuclear safety, security and reliability standards.

2.11.1.2. **(Added-USAFE)** Management of Inspection. Wing weapon safety office may conduct annual nuclear surety inspections during a single effort or may spread the inspection over the course of the year. It is recommended the annual nuclear surety inspection on any unit be com-

pleted during a single effort and provide a single report. However, when inspections are conducted over the course of the year, provide an inspection report following each inspection.

2.11.1.3. **(Added-USAFE)** Weapon safety managers can enlist support of technical and subject matter experts from within the wing or other units and locations to assist in the conduct of annual nuclear surety inspections.

2.11.1.4. **(Added-USAFE)** Inspection Briefings. In and out briefings will be provided to the unit. During the in-brief, provide the unit the opportunity to clearly understand the purpose of the inspection, the standards by which the inspection will be conducted and the intent to provide a formal inspection report to wing leadership. The out brief identifies, at a minimum, the unit strengths and recommended improvement areas.

2.11.1.5. **(Added-USAFE)** Inspection Reports. Reports generated from annual nuclear surety inspections will be from the Chief of Safety to the inspected units. While the format of the report is not strictly specified, it is a word picture identifying unit strengths and recommended improvement areas. A suggested report format is provided at **Attachment 5 (Added)** to this supplement. Copies of completed inspection checklists may be attachments to the inspection report. Release the report to the inspected unit within two weeks following the inspection. The report will direct the inspected unit to respond to "recommended improvement areas" within a reasonable time period defined by the wing. The report and the unit response to "recommended improvement areas" will be forwarded to wing leadership.

2.11.1.6. **(Added-USAFE)** Inspection Standards. Standards to which a unit is responsible are found in established nuclear surety directives and instructions. Units are encouraged to use HQ USAFE-developed Nuclear Surety Checklists based on these publications. The wing weapon safety office is responsible for ensuring the following areas are inspected as they apply to a unit's nuclear mission responsibilities.

2.11.1.6.1. **(Added-USAFE)** Nuclear Surety. Inspect the unit's compliance with AFI 91-101, *Air Force Nuclear Weapons Surety Program*, and as supplemented.

2.11.1.6.2. **(Added-USAFE)** Nuclear Certified Equipment. Inspect the unit's compliance with AFI 63-125, *Nuclear Certification Program* and AFI 91-103, *Air Force Nuclear Safety Certification Program*, and as supplemented.

2.11.1.6.3. **(Added-USAFE)** Tamper Control (Two-Person Concept). Inspect the unit's compliance with tamper control as described in AFI 91-104, *Nuclear Surety Tamper Control and Detection Programs*, and as supplemented.

2.11.1.6.4. **(Added-USAFE)** Tamper Detection. Inspect the unit's compliance with tamper detection as described in AFI 91-104, *Nuclear Surety Tamper Control and Detection Program* and as supplemented.

2.11.1.6.5. **(Added-USAFE)** Troubleshooting and Maintenance Criteria. Inspect the unit's compliance with AFI 91-107, *Design, Evaluation, Troubleshooting, and Maintenance Criteria for Nuclear Weapon Systems*, and as supplemented. Authorized maintenance tasks are listed in ELO-3, *German Air Force (GAF) and Italian Air Force (ITAF) PA-200 Aircraft Special Weapons System Requirements* and ELO-10, *Authorized Maintenance on Strike Loaded F-16 MLU Aircraft*.

- 2.11.1.6.6. **(Added-USAFE)** Intrinsic Radiation. Inspect the unit's compliance with AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation Safety Program*, and as supplemented.
- 2.11.1.6.7. **(Added-USAFE)** US/North Atlantic Treaty Organization (NATO) Strike Aircraft Safety Rules. Inspect the unit's compliance with AFI 91-112.
- 2.11.1.6.8. **(Added-USAFE)** Logistics Transport Safety Rules. Inspect the unit's compliance with AFI 91-115.
- 2.11.1.6.9. **(Added-USAFE)** Explosive Safety Pertaining to Nuclear Surety. Inspect the unit's compliance with AFMAN 91-201, *Explosive Safety Standards*, as it relates to nuclear surety.
- 2.11.1.6.10. **(Added-USAFE)** Nuclear Mishap and Deficiency Reporting. Inspect the unit's compliance with AFI 91-204 and AFMAN 91-221.
- 2.11.1.6.11. **(Added-USAFE)** Inspect the unit's compliance with other nuclear surety-related standards as determined applicable by the wing.
- 2.11.2. Ensure adequacy and completeness of corrective actions for nuclear surety problems found during WSM inspections, NSIs, and SAVs.
- 2.11.2. **(RAMSTEIN)** 2.11.3. Responsibility delegated to MUNSS USR.
- 2.11.3. Conduct and/or assist in nuclear safety reporting as prescribed in Chapter 12, AFI 91-204, *Safety Investigations and Reports*.
- 2.11.3. **(USAFE)** Wing weapon safety is the office of primary responsibility for nuclear safety reporting at the wing. Weapons safety office in coordination with the unit's nuclear weapons maintenance section determines if reportable conditions listed in AFI 91-204 and AFMAN 91-221 are also reportable according to TO 11N-5-1, *Unsatisfactory Reports*. Weapons safety is not the agency responsible for Unsatisfactory Reports according to guidance in TO 11N-5-1.
- 2.11.4. Review and disseminate information from nuclear mishap and deficiency reports.
- 2.11.5. Keep the commander, staff, and supervisors informed of issues and changes in the nuclear surety program.
- 2.11.6. Work with commanders, staff, supervisors, and support personnel to ensure the PRP is properly administered.
- 2.11.6. **(RAMSTEIN)** 2.11.10. Responsibility delegated to MUNSS USR.
- 2.11.7. Attend base-level PRP meetings.
- 2.11.8. Check aircraft, munitions, and missile maintenance activities to ensure only authorized or certified equipment and Air Force-approved TOs, checklists, or procedures are being used with nuclear weapons.
- 2.11.9. Participate in the preparation of Safe Haven and PNAF mission support plans.
- 2.11.10. Perform spot inspections of areas involved with nuclear surety.
- 2.11.10. **(USAFE)** Perform spot inspections of areas involved with nuclear surety according to AFI 91-202, *The US Air Force Mishap Prevention Program*, and as supplemented.

- 2.11.11. Approve all nuclear surety training lesson plans, if approval authority has been delegated from the MAJCOM, and periodically observe training sessions.
- 2.11.12. Advise the commander and staff on nuclear surety matters.
- 2.11.13. Review and coordinate site plans for new or modified nuclear facilities in accordance with AFMAN 91-201, *Explosives Safety Standards*.
- 2.11.14. Review all locally developed checklists, instructions, operating procedures, and plans that impact nuclear surety. For locally developed workcards, checklists, job guides and page supplements for nuclear munitions follow guidance in T.O. 00-5-1.
- 2.11.14. **(RAMSTEIN)** Responsibility delegated to MUNSS USR. Annual nuclear surety inspection of MUNSS units by wing weapon safety personnel will include validation of the USR's review of all locally developed checklists, instructions, operating procedures, and plans that impact nuclear surety.
- 2.11.15. **(Added-USAFE)** Ensure the senior officers performing OSC duties for nuclear airlift movement, are trained on their responsibilities and have completed nuclear surety training.
- 2.11.16. **(Added-USAFE)** Train unit safety representatives on their nuclear surety duties within 30 days of their assignment. This training should be tailored to fit the unit's role in the nuclear surety mission.
- 2.11.17. **(Added-USAFE)** Ensure that newly assigned weapons safety managers are identified to HQ USAFE/SEW for scheduling their attendance at the AETC, Weapons Safety (Course L3AZR2W071) and the MAJCOM unique training. Provide advance notification to HQ USAFE/SEW on individuals relocating to USAFE to perform weapon safety manager duties whenever possible.
- 2.11.18. **(Added-USAFE)** Manage and administer the nuclear surety council for the council chairman.

## 2.12. Unit Safety Representatives (USR):

- 2.12.1. Perform nuclear surety spot inspections. The frequency of these spot inspections will be determined by unit commander.
- 2.12.2. Ensure nuclear surety training is accomplished.
- 2.12.3. Coordinate with the WSM on all matters concerning nuclear surety.
- 2.12.4. Evaluate corrective actions for nuclear surety problems found during inspections, evaluations, and assistance visits.
- 2.12.5. Use nuclear surety crossfeed reports for unit mishap prevention.
- 2.12.6. Contact the WSM for training as soon as possible after being appointed a USR.
- 2.12.7. Ensure unit developed checklists, instructions, operating procedures, and plans that impact nuclear surety are coordinated through the WSM.
- 2.12.8. **(Added-RAMSTEIN)** The MUNSS Weapons Safety Office will be the office of primary responsibility for surety matters in the squadron. This office will advise the MUNSS Commander of risks in all matters pertaining to explosive safety and nuclear surety. This includes the administering of the USAFE/A4W provided test material and providing oversight to the unit training manager to ensure all personnel receive training.

- 2.12.8.1. **(Added-RAMSTEIN)** Local publications will receive an initial review by the MUNSS USR as part of routine publication process. Those local publications determined to be affecting nuclear surety will then be tracked in a database to ensure annual review is accomplished by a MUNSS USR. Publications determined not to be of surety impact need only be reviewed by USR upon re-write.
- 2.12.9. **(Added-RAMSTEIN)** Review and disseminate all information from nuclear mishap and deficiency reports.
- 2.12.10. **(Added-RAMSTEIN)** Keep the unit commander and staff informed of issues and changes in the surety program.
- 2.12.11. **(Added-RAMSTEIN)** Attend unit-level PRP meetings.
- 2.12.12. **(Added-RAMSTEIN)** Check aircraft and munitions maintenance activities to ensure only authorized or certified equipment and Air Force-approved TOs, checklists, or procedures are being used with nuclear weapons.
- 2.12.13. **(Added-RAMSTEIN)** Participate in the preparation of Safe Haven and PNAF mission support plans.
- 2.12.14. **(Added-RAMSTEIN)** Wing Weapons Safety Manager will assist Unit Safety Representatives in the development of a spot inspection program to include areas affecting both surety and explosive safety. The initial spot inspection program will be forwarded to the wing weapons safety office for review. 38 CSW/SEW will evaluate the completeness of MUNSS spot inspections during the annual inspection. Squadron Commanders will establish spot inspection policy to include minimum frequency of inspections. Spot inspection program will include the following categories as a minimum:
- a. Nuclear Weapons Loading
  - b. Logistics Movement
  - c. Weapons MX, Storage, and Operating Locations
  - d. Nuclear Certified Equipment (NCE)
  - e. Weapons System Maintenance
  - f. Lightning Protection System
  - g. Troubleshooting and MX on Strike Loaded Aircraft
  - h. Munitions Control Procedures
  - i. Commander's High Interest Items
- 2.12.15. **(Added-RAMSTEIN)** Advise the commander and staff on nuclear surety matters.
- 2.12.16. **(Added-RAMSTEIN)** Review and coordinate with the MOB for site plans issues for new or modified nuclear facilities in accordance with AFMAN 91-201, *Explosives Safety Standards*.
- 2.12.17. **(Added-RAMSTEIN)** Review all locally developed checklists, instructions, operating procedures, and plans that impact nuclear surety. For locally developed workcards, checklists, job guides and page supplements for nuclear munitions follow guidance in T.O. 00-5-1.

2.12.18. **(Added-RAMSTEIN)** MUNSS safety office will ensure that nuclear surety/ On-Scene Coordinator training is provided for senior officers performing On-Scene Coordinator duties for nuclear airlift movements. This is scheduled thru unit training monitor.

2.12.19. **(Added-RAMSTEIN)** MUNSS weapons safety representatives are responsible for mishap investigations and reporting of nuclear surety/safety related deficiencies per AFI 91-204, Safety Investigations and Reports and AFMAN 91-221, Weapons Safety Investigations and Reports. 38 CSW/SEW assigns reporting numbers. A copy of all nuclear surety/safety related deficiency (Dull Sword) reports will be forwarded to 38 CSW/SE prior to their release; upon wing review, the unit will then release the reports through appropriate AF messaging systems. In the interest of surety, all other flagword reports will be immediately released by the USR to meet the AFMAN 91-221 time requirements. The USR's are still responsible to notify the 38 CSW/CC/CV/SE of the situation within 45 minutes of the event and to ensure that the 38CSW/SE is included in the address portion of the report.

2.12.19.1. **(Added-RAMSTEIN)** When events occur that may warrant a Dull Sword notify 38 CSW/SE telephonically followed by an email no later than 72 hours from when the event occurred.

2.12.19.2. **(Added-RAMSTEIN)** Contact 38 CSW/SEW for the next available sequential report number when needed.

2.12.19.3. **(Added-RAMSTEIN)** Follow-up action is required by the unit to ensure wing receives the Dull Sword report.

2.12.19.4. **(Added-RAMSTEIN)** Ensure appropriate security level computer system is used with appropriate classification markings (i.e. Send unclassified reports password-protected over NiPR-net and classified reports over SiPRnet).

2.12.19.5. **(Added-RAMSTEIN)** Dull Sword reports are not warranted whenever other reporting mechanisms are in place such as submitting an AF Form AFTO 22 for changes to technical orders when seeking additional guidance or clarification. Ensure the use of Material Deficiency Report (MDR) and the Product Quality Deficiency Report (PQDR) outlined in T.O. 00-35D-54 for deficiency reporting. These reports will be sent through maintenance channels.

2.12.19.6. **(Added-RAMSTEIN)** Ensure MUNSS commander approves the report before releasing to the wing.

**2.13. Air Force Materiel Command (AFMC).** HQ AFMC is the Air Force focal point for the technical aspects of nuclear surety. In addition to the MAJCOM responsibilities listed above, AFMC:

2.13.1. Compiles a technology base and supports development of nuclear safety design and evaluation criteria for publication in AFI 91-107.

2.13.2. Evaluates the nuclear safety effects of all designs, manufacturing processes and practices, or modification of nuclear weapon systems or components for which AFMC has program management responsibility. This includes compliance with AFI 91-102, *Safety Studies, Operational Safety Reviews, and Safety Rules* and AFI 91-103, *Air Force Nuclear Safety Certification Program*.

2.13.3. Provides consultant and technical services to support the requirements of AFI 91-108.

2.13.4. Publishes data on weapons configurations in the appropriate 11N-series TOs and EOD procedures in the 60-series TOs.

2.13.5. Reviews nuclear mishap reports pertaining to materiel or technical data deficiencies; takes corrective action, when appropriate; and provides reports and summaries as required by AFI 91-204. Provides the single point of contact within the Air Force for the management and coordination of nuclear weapon and associated equipment material defects and deficiency procedures as specified in T.O. 11N-5-1, *Unsatisfactory Reports*.

2.13.6. Verifies Air Logistic Centers have procedures to identify nuclear safety-certified modifications and replacements.

2.13.7. Establishes an engineering liaison office with United States Air Forces in Europe (USAFE).

2.13.7. (USAFE) The Air Force Materiel Command, Engineering Liaison Office, is Operating Location-Engineering Liaison Office (OL-EL/ELO), Unit 8745, APO AE 09094-8745.

2.13.7.1. (Added-USAFE) OL-EL/ELO provides nuclear certification oversight and technical direction for all non-US manufactured nuclear weapons systems and nuclear certified support equipment according to ACO Directive 80-76, *NATO Nuclear Certification*.

2.13.7.2. (Added-USAFE) For host-owned U.S.-manufactured nuclear weapons systems and nuclear certified support equipment, OL-EL/ELO serves as a liaison between the owning host nation and DOD/Department of Energy (DOE).

2.13.7.3. (Added-USAFE) As required, OL-EL/ELO reviews or develops technical data for non-U.S. North Atlantic Treaty Organization (NATO) nuclear weapon systems and support equipment. OL-EL/ELO publishes guidance as listed in USAFEI 25-301, *Engineering Liaison Office (ELO) Publications* for non-U.S. NATO nuclear weapons systems and nuclear certified support equipment.

2.13.7.4. (Added-USAFE) OL-EL/ELO evaluates nuclear safety impact for DULL SWORDS submitted on non-U.S. NATO systems/support equipment.

2.13.7.5. (Added-USAFE) OL-EL/ELO manages the European Joint Flight Test Program.

2.13.7.6. (Added-USAFE) OL-EL/ELO participates in USAFE staff assistance visits and functional expert visits.

2.13.7.7. (Added-USAFE) OL-EL/ELO chairs the PA-200 Project Officer's Group and F-16 Mid-Life Update (MLU) Trilateral Working Group.

2.13.7.8. (Added-USAFE) OL-EL/ELO serves as the Technical Publication Manager for unclassified nuclear Technical Orders for the host nations.

## **2.14. United States Air Forces in Europe (USAFE):**

2.14.1. In addition to the MAJCOM responsibilities listed above, USAFE:

2.14.1.1. Assists allied personnel in the USAFE area of responsibility with setting up nuclear surety programs for ally-operated systems.

2.14.1.2. Verifies allied personnel comply with the nuclear weapon system safety rules for ally-operated systems.

2.14.1.3. Verifies allied personnel accomplish time-compliance technical orders (TCTOs) that apply to their nuclear support equipment and notifies the TCTO-issuing agency and HQ AFSC/SEW when TCTOs do not apply.



2.14.1.4. Verifies, through the Air Force custodial unit, that allied combat delivery vehicles meet approved standards for nuclear loading and delivery.

2.14.1.5. Verifies units report and investigate nuclear mishaps involving ally-operated systems.

2.14.2. With the AFMC Engineering Liaison Office:

2.14.2.1. Provides support for nuclear surety programs for ally-operated systems.

2.14.2.2. Provides pertinent nuclear weapon system safety rules to allied nations.

2.14.3. Ensures the design of ally-operated systems meet Air Force nuclear safety design criteria when allied nations have engineering responsibility.

2.14.4. Evaluates efforts for which USAFE has engineering responsibility; including support equipment, hardware, software, firmware, and procedures; against AFI 91-102, AFI 91-103, and AFI 91-107 requirements.

2.14.5. Due to the unique mission and geographic separation between MUNS/MUNSS and their parent wing(s), HQ USAFE MUNS/MUNSS and their parent wing(s) are permitted to assign responsibilities outlined in paragraphs 2.11. and 2.12. of this publication to wing managers or unit safety representatives as is necessary to best meet nuclear surety and safety requirements. Assignment of responsibilities will be outlined in writing ensuring all requirements are being performed, and procedures do not prevent commanders at any level from performing their program responsibilities.

**2.15. Air Education and Training Command (AETC).** HQ AETC does not have a direct nuclear mission, but its training role is important to the Air Force Nuclear Weapons Surety Program's success. In addition to the applicable MAJCOM responsibilities listed above, AETC must:

2.15.1. Meet those training requirements directed by higher authority or requested by other MAJCOMs.

2.15.2. Establish a nuclear surety program tailored to AETC's unique role.

2.15.3. Include nuclear surety as an integral part of all training involving nuclear weapons, nuclear weapon systems, or critical components and in courses in which a significant percentage of the students will perform PRP-related duties.

2.15.4. Develop inspection standards and inspect the nuclear surety training program, as appropriate, during NAF SAVs.

## **2.16. Training:**

2.16.1. Commanders and supervisors at all levels must ensure individuals receive initial nuclear surety training and annual nuclear surety refresher training before they work with nuclear weapons, nuclear weapon systems, or certified critical components; perform nuclear-related duties; or control entry into no-lone zones. At a minimum these individuals must receive initial training prior to performing duties and annual refresher training thereafter, not later than the end of the month in which the initial training was conducted. The MAJCOM will determine the appropriate level for approval of lesson plans used to conduct nuclear surety training. Individuals must complete a closed-book test with a minimum score of at least 80 percent. A test score of less than 80 percent requires retraining and retesting, with a different test, before that person may perform nuclear-related duties. Document annual nuclear surety training. Initial and annual training will include the following:

- 2.16.1.1. Importance of, and need for, a US nuclear capability.
- 2.16.1.2. Nuclear mishap prevention responsibilities of those personnel who work with nuclear weapons and components.
- 2.16.1.3. Possible adverse impact on US nuclear capability in the event of a serious nuclear mishap.
- 2.16.1.4. Security requirements.
- 2.16.1.5. Two-Person Concept and associated requirements and procedures.
- 2.16.1.6. PRP requirements.
- 2.16.1.7. Mishap and hazard reporting.
- 2.16.2. Additional topics commensurate with the unit's nuclear duties will also be trained (i.e., Safe Haven procedures, sealing of nuclear components, local situations that increase the risk of nuclear mishaps, nuclear weapon system safety rules, etc.).
- 2.16.3. Ensure nuclear surety training is provided to all PRP certifying officials.
- 2.16.4. **(Added-USAFE)** Personnel who have a permanent change of station (PCS) from one USAFE nuclear-capable unit where they have been performing surety-related duties to a MUNSS; have been previously Nuclear Surety certified/trained using USAFE course materials; and Nuclear Surety training is current or has expired not longer than 3-months prior to arrival must pass the CBT successfully at their new unit before performing duties and do not have to attend the MUNSS Surety in-resident course. If their training has been expired for 3-months or more, the individual must attend the initial MUNSS Nuclear Surety Course.
- 2.16.5. **(Added-USAFE)** Individuals are overdue if they have not completed nuclear surety refresher training by the end of the 15th month from the month in which the initial training was conducted. Individuals overdue nuclear surety training (or Emergency Action (EA) or Communication Security (COMSEC) Two Person Control (TPC) Team personnel who go overdue their training requirements) for any reason will not perform as part of a Two-Person Concept Team or perform duties on nuclear weapons or in support of nuclear weapons. Units will implement positive measures to ensure individuals do not perform these duties until nuclear surety refresher training is accomplished (or EA and COMSEC TPC Team personnel re-accomplish their training requirements).

## **2.17. Nuclear Surety Council:**

- 2.17.1. As a minimum, the council must:
  - 2.17.1.1. Be chaired by the wing/group commander or the vice wing/group commander.
  - 2.17.1.1. **(USAFE)** Frequency of council meetings is at least quarterly. The council can be combined with other safety councils such as the Installation Occupational Safety and Health Council.
  - 2.17.1.2. Include all members who are PRP certifying officials and the Base PRP Monitor.
  - 2.17.1.2. **(USAFE)** Attendance by council members is the responsibility of the council chairman and not the council administration. The council chairman may require other wing personnel to attend the council beyond that prescribed by the basic paragraph. Include MUNSS commanders as council members whenever feasible.

2.17.1.2. **(RAMSTEIN)** Nuclear Surety Council (NSC) Chairman requires the following agencies to attend the NSC meeting quarterly: all Personnel Reliability Program (PRP) certifying officials, 38 MMG, MUNSS/SEW, MUNSS Custody Flight representative, MUNSS Maintenance Flight representative, MUNSS Command Post representative. 52FW/SEW, 31 FW/SEW, 52 FW and 31FW PRP monitors will be extended an invitation to attend the meeting. All required attendees that are unable to attend the NSC may send a designated representative.

2.17.1.3. Include, as advisors, functional experts who support the nuclear surety program.

2.17.1.3. **(USAFE)** Advisors and functional experts are available from the wing or other organizations, e.g., fire department, explosive ordnance disposal, operations, Air Force Office of Special Investigations (AFOSI), maintenance, operations, and other offices with a responsibility for nuclear surety missions. Participation of advisors and functional experts is at the discretion of the council chairman.

2.17.1.4. Develop and implement a unit nuclear surety program.

2.17.2. As requested, the host or tenant units will provide attendees at unit nuclear surety councils.

2.17.3. **(Added-USAFE)** Wing weapon safety office administers the nuclear surety council for the council chairman. Provide adequate notice of scheduled council meetings to all members and attendees. The notice will include the scheduled date, time, location and agenda.

2.17.3. **(RAMSTEIN)** 38 CSW Weapons Safety office will administer the Nuclear Surety Council for the wing commander. This will be done in a combination of in-residence attendance (38 CSW conference room) and voice tele-conferencing. The administration sections at each location will be responsible for ensuring connections and equipment availability. 38 MMG will assist 38 CSW/SEW in gathering information from the MUNSS units.

2.17.4. **(Added-USAFE)** Council Topics. Suggested topics for the council include:

2.17.4. **(RAMSTEIN)** The NSC will follow suggested topics as outlined in AFI 91-101\_USAFESUP1, paragraph **2.17.4. (Added)** Meeting minutes will be completed in the form of an official memorandum and released from 38 CSW/SEW to the MUNSS units. MUNSS weapons safety offices will retain the meeting minutes for a minimum of four quarters in their continuity books.

2.17.4.1. **(Added-USAFE)** Unit nuclear mishap or deficiency reports since the last council meeting and status of open unit mishap or deficiency reports. Briefing pertinent mishap or deficiency reports from units with a similar mission is encouraged.

2.17.4.2. **(Added-USAFE)** Locally determined open action items affecting nuclear surety to include MUNSS issues requiring action by the parent wing to resolve.

2.17.4.3. **(Added-USAFE)** Results of higher headquarters-conducted Defense Nuclear Surety Inspection (DNSI), Nuclear Surety Inspections (NSI), and Nuclear Surety Staff Assistance Visit (NSSAV) for the wing and for the wing's subordinate units with nuclear missions. Briefing pertinent results from DNSIs, NSI, and NSSAVs from units with similar missions is encouraged.

2.17.4.4. **(Added-USAFE)** Review publications and release of new or revised directives, instructions, regulations or manuals affecting nuclear surety at the unit.

2.17.4.4. **(RAMSTEIN)** The USR will provide the WSM a summary of quarterly local surety publication reviews to include quantity, type and impact for inclusion in NSC presentation. The

summary will not be included in the NSC slides, but attached to the minutes due to the high volume of the publications review.

2.17.4.5. **(Added-USAFE)** Review of local nuclear surety exercise status to include schedule, results and corrective actions.

2.17.4.6. **(Added-USAFE)** Other topics at the discretion of the council chairman.

2.17.5. **(Added-USAFE)** Council meeting minutes. The council chairman provides a formal memorandum of the minutes to all members and attendees. Weapons safety office maintains the minutes from the last four council meetings. The nuclear surety council minutes and the minutes of other safety councils may be combined. At a minimum, the minutes include a synopsis of topics addressed during the council meeting.

2.17.6. **(Added-USAFE)** The wing determines the need for nuclear surety councils at the supported MUNSSs. The wing develops the criteria for conduct of the MUNSS nuclear surety council if established as a requirement.

2.17.7. **(Added-USAFE)** When nuclear surety issues cannot be resolved at the wing, the council chairman may forward issues to HQ USAFE/A4W for presentation to the USAFE Nuclear Surety Program Steering Council (NSPSC).

**2.18. Nuclear Surety Awards.** Use the awards program to recognize deserving individuals and provide incentive for integrating nuclear surety practices into daily activities. Nomination procedures and selection criteria for nuclear surety awards are found in AFI 36-2833, *Safety Awards*.

**2.18. (USAFE)** Submit nominations according to AFI 36-2833, *Safety Awards*, and USAFE Supplement 1.

**2.19. (Added-RAMSTEIN)** All MUNSS units will maintain a program management book. Tabs containing extensive information may be sub-located to another binder or maintained on electronic media. As a minimum, the program management book will contain the following tabs:

2.19.1. **(Added-RAMSTEIN)** Table of Contents.

2.19.2. **(Added-RAMSTEIN)** Tab 1: Commander's Appointment Letter.

2.19.3. **(Added-RAMSTEIN)** Tab 2: USAFE/CC, 38 CSW/CC, 38 CSW/SE, and unit Commander's Safety Policy Letters, if published and available.

2.19.4. **(Added-RAMSTEIN)** Tab 3: AFI 91-101\_USAFESUP1\_38 COMBAT SUPPORT WING SUP1.

2.19.5. **(Added-RAMSTEIN)** Tab 4: Listing of locally developed publications and operating instructions that address weapons safety, nuclear surety, and/or nuclear certified equipment topics. MUNSS safety offices will maintain this listing for their respective squadrons.

2.19.6. **(Added-RAMSTEIN)** Tab 5: Weapon Safety Officer (WSO) and Weapon Safety NCO Training Certificates (AF Form 1098, Special Task Certification and Recurring Training.

2.19.7. **(Added-RAMSTEIN)** Tab 6: 38 CSW/SE or MUNSS/CC spot inspection policy letter and spot inspection log. Log should contain all the information in AFI 91-202\_USAFESUP1, paragraph 3.7.1. Retain a record of all completed inspections for a minimum of 1 year.

2.19.8. **(Added-RAMSTEIN)** Tab 7: Most recent 38 CSW Annual Explosive Safety and Nuclear Surety Inspection (NSI) Report.

2.19.9. **(Added-RAMSTEIN)** Tab 8: Weapons safety and nuclear surety crossfeed information (if applicable).

2.19.10. **(Added-RAMSTEIN)** Tab 9: Explosive Safety Lesson Plan/Nuclear Surety Local Conditions Brief.

2.19.11. **(Added-RAMSTEIN)** Tab 10: Electromagnetic Radiation (EMR) Survey.

2.19.11.1. **(Added-RAMSTEIN)** As a minimum, the EMR program binder will contain:

2.19.11.2. **(Added-RAMSTEIN)** The Air Force Safety Center EMR calculation spreadsheet showing safe separation distances for each emitter antenna affecting MUNSS munitions operations and established convoy routes.

2.19.11.3. **(Added-RAMSTEIN)** Photographs of each emitter antenna type along designated convoy routes and in the vault storage areas.

2.19.11.4. **(Added-RAMSTEIN)** Map(s) showing portions of the installation where emitter antennas are located.

2.19.11.5. **(Added-RAMSTEIN)** Documentation of the most recent annual EMR survey conducted on the installation. This documentation should be coordinated through the squadron commander.

**NOTE:** Documentation should be coordinated through the squadron commander.

2.19.11.6. **(Added-RAMSTEIN)** Appropriate document(s) identifying responsible host nation agency for EMR issues.

2.19.11.7. **(Added-RAMSTEIN)** Data on emitter distances for MUNSS and host nation-owned handheld and vehicle-mounted mobile radios.

2.19.11.8. **(Added-RAMSTEIN)** All EMR and electro-explosive devices (EED) messages, related Special Interest Items (SII), High Interest Items (HII), Commander Interest Items (CII), and policy letters deemed necessary by the Weapons Safety Office to effectively manage the MUNSS explosive environment.

2.19.12. **(Added-RAMSTEIN)** Tab 11: AF Form 2047, Explosive Facility License.

2.19.13. **(Added-RAMSTEIN)** Tab 12: NSC Meeting Minutes for past 4 quarters.

2.19.14. **(Added-RAMSTEIN)** Tab 13: Most recent USAFE Inspector General NSI Report (if applicable).

**NOTE:** DD Form 2861, replaced Opt Form 21, may be used to identify location if not maintained here.

2.19.15. **(Added-RAMSTEIN)** Tab 14: Most recent USAFE Staff Assistant Visit report (if applicable).

**NOTE:** DD Form 2861, replaced Opt Form 21, may be used to identify location if not maintained here.

2.19.16. **(Added-RAMSTEIN)** Tab 15: Most recent MUNSS Assistance Visit Report (if applicable).

**NOTE:** DD Form 2861, replaced Opt Form 21, may be used to identify location if not maintained here.

2.19.17. **(Added-RAMSTEIN)** Tab 16: Joint Operating Instruction for MUNSS (if applicable).

**NOTE:** DD Form 2861, replaced Opt Form 21, may be used to identify location if not maintained here.

2.19.18. **(Added-RAMSTEIN)** Tab 17: INRAD program documentation to include the following:

2.19.18.1. **(Added-RAMSTEIN)** Appointment letter

2.19.18.2. **(Added-RAMSTEIN)** Annual Review

MAURICE L. McFANN, JR, Major General, USAF  
Chief of Safety

**(USAFE)**

ERIC R. BRENKERT, Lieutenant Colonel, USAF  
Director of Safety

**(RAMSTEIN)**

EARL D. MATTHEWS, Colonel, USAF  
Commander

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

DoDD 5210.41, *Security Policy for Protecting Nuclear Weapons*  
AFPD 91-1, *Nuclear Weapons and Systems Surety*  
AFMAN 91-201, *Explosive Safety Standards*  
AFI 21-204, *Nuclear Weapon Procedures*  
AFI 25-201, *Support Agreement Procedures*  
AFI 32-4001, *Disaster Preparedness Planning and Operations*  
AFI 36-2104, *Nuclear Weapons Personnel Reliability Program*  
AFI 36-2833, *Safety Awards*  
AFI 37-139, *Records Disposition Schedule*  
AFI 90-201, *Inspector General Activities*  
AFI 91-102, *Nuclear Weapon System Safety Studies, Operational Safety Reviews, and Safety Rules*  
AFI 91-103, *Air Force Nuclear Safety Certification Program*  
AFI 91-107, *Design, Evaluation, Troubleshooting, and Maintenance Criteria for Nuclear Weapon Systems*  
AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation Safety Program*  
AFI 91-204, *Safety Investigations and Reports*  
T.O. 11N-5-1, *Unsatisfactory Reports*  
T.O. 11N-20-7, *Nuclear Safety Criteria*

***Abbreviations and Acronyms***

**AETC**—Air Education and Training Command  
**AFMC**—Air Force Materiel Command  
**AFSC**—Air Force Safety Center  
**AFSC/SEP**—Air Force Safety Center, Policy, Plans, and Programs Division  
**AFSC/SEW**—Air Force Safety Center, Weapons, Space, and Nuclear Safety Division  
**DoD**—Department of Defense  
**DRU**—direct reporting unit  
**EOD**—explosive ordnance disposal  
**FOA**—forward operating agency

**HQ USAF/IL**—Headquarters US Air Force, Deputy Chief of Staff for Installations and Logistics

**HQ USAF/SE**—Headquarters US Air Force, Chief of Safety

**HQ USAF/SG**—Headquarters US Air Force, Surgeon General

**HQ USAF/XO**—Headquarters US Air Force, Deputy Chief of Staff, Plans and Operations

**HQ USAF/XOF**—Headquarters US Air Force, Chief of Security of Security Forces

**MAJCOM**—Major Command

**MPF**—Military Personnel Flight

**NAF**—Numbered Air Force

**NSAP**—Nuclear Surety Augmentation Program

**NSI**—nuclear surety inspection

**NWSSG**—Nuclear Weapon System Safety Group

**OPDD**—Operational Plan Data Document

**OPR**—office of primary responsibility

**PAL**—permissive action link

**PNAF**—Prime Nuclear Airlift Force

**PRP**—Personnel Reliability Program

**RSO**—Radiation Safety Officer

**RSP**—render safe procedure

**SAF/AQ**—Office of the Secretary of the Air Force, Office of the Assistant Secretary  
(Acquisition)

**SAF/AQS**—Office of the Secretary of the Air Force, Office of the Assistant Secretary (Acquisition),  
Director, Long-Range Power Projection

**SAV**—staff assistance visit

**TCTO**—Time Compliance Technical Order

**TNSA**—Technical Nuclear Safety Analysis

**TO**—technical order

**UL**—unauthorized launch

**USAFE**—US Air Forces in Europe

**WSA**—weapons storage area

**WSM**—weapons safety manager

**WS3**—weapons storage and security system



### *Terms*

**Abnormal Environment**—An environment outside the levels specified for the normal environment described in the stockpile-to-target document. In an abnormal environment, the nuclear weapon or nuclear weapon system is not expected to retain full operational reliability. (USAF)

**Accident**—An unexpected event involving destruction of, or serious damage to, nuclear weapons, nuclear weapon systems, or nuclear components that result in an actual or potential threat to national security or to life and property. (USAF)

**Accidental Motor Ignition** —The unplanned initiation of propulsive burning of a missile stage motor, including the post-boost vehicle, from causes other than the propagation of a launch sequence. (USAF)

**Air Force Nuclear Weapons Surety Program**—Air Force policies, procedures, and safeguards used to comply with DoD Nuclear Weapon System Safety Standards. (USAF)

**Aircraft Monitoring and Control**—Equipment installed in aircraft to permit monitoring and control of safing, arming, and fuzing functions of nuclear weapon systems. (JP 1-02)

**Ally-Operated Nuclear Weapon System**—A nuclear weapon system used by an allied nation with US nuclear weapons that are in US Air Force custody. (USAF)

**Arm/Disarm Device**—A mechanical or electromechanical device that provides a positive interruption of the firing circuit to prevent initiation of an explosive or pyrotechnic train before the device's commanded closure. (USAF)

**Arming**—Operations that configure a nuclear weapon or nuclear weapon system so application of a single signal will start the action required for obtaining a nuclear detonation. (DoD)

As applied to explosives, weapons, and ammunition, the changing from a safe condition to a state of readiness for initiation. (JP 1-02)

**As Low As Reasonably Achievable**—A major philosophy of current radiation protection practice which requires that every reasonable effort be made to keep radiation exposures as far below the dose limits as practical when technical, economic, and social factors are taken into account. (USAF)

**Authorization**—The critical function that prevents unauthorized use of a nuclear weapon system. This function is executed by the weapon system operator's transmission of secure codes (released by National Command Authority direction) to the nuclear weapon system's authorization device or devices to allow prearming, arming, or launching of a nuclear weapon. (USAF)

**Automata**—Electronic machines, control devices, etc., capable of performing logical, computational, or repetitive routines designed to operate automatically in response to a predetermined set of instructions. (USAF)

**Certification**—A determination by appropriate government agencies that a nuclear weapon system is safe for use with nuclear weapons; that the nuclear weapons are compatible with the nuclear weapon system; and whether any operational restrictions will be placed on the nuclear weapon system to ensure safety and compatibility. This determination is required before the nuclear weapon system achieves operational status. (USAF)

The process through which all nuclear weapon-related requirements pertaining to the broad areas of safety, compatibility, and unit readiness are accomplished. (DoD)

**Certification Effort (Software and Firmware)**—The means for verifying that a component (hardware or software) complies with AFI 91-107. (USAF)

**Certified Critical Component**—A critical component that has successfully completed operational certification according to approved technical order procedures. (USAF)

**Code Component**—Any device, assembly material, software, or information so designated by the National Security Agency. (USAF)

**Cognizant Agent**—A clandestine agent, with authorized access to a classified system, who conducts or supports an attack against the system. Also, a person whose normal duties afford the knowledge and opportunity to tamper with certified critical components, codes, or the nuclear command and control system of a nuclear weapon system. (USAF)

**Combat Delivery Vehicle**—A vehicle, with its installed equipment and components, used to deliver a nuclear weapon to a target. (USAF)

**Command Disable**—A feature which allows manual activation of the nonviolent disablement of critical weapon components. The command disable system may be internal or external to the weapon. (USAF)

**Contribute To**—This term is applied when an unauthorized launch (UL) study team determines a component would play an important part in an UL scenario but could not alone cause a launch. (USAF)

**Credible Abnormal Environment**—An abnormal environment that has a plausible and reasonable probability of occurrence under a given set of circumstances. (USAF)

**Credible Threat or Scenario**—A threat or scenario, fitting the assumptions and ground rules in AFI 91-106, *Unauthorized Launch and Launch Action Studies*, that a federal agency responsible for establishing policy with regard to the type vulnerability identified in the threat or scenario (i.e., National Security Agency when addressing code components) has determined to be credible. (USAF)

**Critical**—A term describing a function, circuit, or activity that directly controls the authorizing, prearming, arming, or launching or releasing of a nuclear weapon, or the targeting of a ground-launched nuclear weapon system. (USAF)

**Critical Component**—A component of a nuclear weapon system that if bypassed, activated, or tampered with could result in or contribute to deliberate or inadvertent authorizing, prearming, arming, or launch of a combat delivery vehicle carrying a nuclear weapon, or the targeting of a nuclear weapon to other than its planned target. HQ AFSC/SEW designates critical components. (USAF)

**Critical Fault**—Any nuclear weapon system malfunction that results in inadvertent application of control signals or power to the bomb, warhead, or missile propulsion system; degradation in the integrity of prearm, launch, or release primary safety features; unintentional issuance of critical function command signals; or inability to determine weapon system safe status. (USAF)

**Current Limited**—Monitor or test currents limited so that the maximum current which can be delivered to a nuclear weapon for monitoring or testing purposes will be less than required to operate the most sensitive component in the arming and fuzing sequence. (USAF)

**Custody**—The responsibility for the control of, transfer and movement of, and access to nuclear weapons and components. Custody also includes the maintenance of accountability for nuclear weapons and components. (DoD)

**Design Decertification**—Action by proper authority to remove a system or component from design certification. (USAF)

**Direct Support EOD Unit**—Units directly supporting nuclear weapon storage areas or a consolidated support base storing these systems, or an AMC primary divert-location. Unit personnel are assigned in PRP positions and are trained to perform all necessary EOD actions from site stabilization to site recovery.

**Dynamic Load**—An external force or combination of forces (i.e., g-loads, vibration loads, shock loads, and centrifugal loads) that result in acceleration of an object. (USAF)

**Electrical Isolation**—Separation of electrical circuits, signals, or data by physical isolation or the use of any property (i.e., time, phase, amplitude, or frequency) that distinguishes one electrical signal from all others to preclude ambiguity, interference, or altered information. (USAF)

**Electro-explosive Device** —An explosive or pyrotechnic component that initiates an explosive, burning, electrical, or mechanical train and is activated by the application of electrical energy. (JP 1-02)

**Electromagnetic Compatibility**—The ability of systems, equipment, and devices that utilize the electromagnetic spectrum to operate in their intended operational environments without suffering unacceptable degradation or causing unintentional degradation because of electromagnetic radiation or response. It involves the application of sound electromagnetic spectrum management; system, equipment, and device design configuration that ensures interference-free operation; and clear concepts and doctrines that maximize operational effectiveness. See also electromagnetic spectrum; electronic warfare; spectrum management. (JP 1-02)

**Electromagnetic Interference**—Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of electronics and electrical equipment. It can be induced intentionally, as in some forms of electronic warfare, or unintentionally, as a result of spurious emissions and responses, intermodulation products, and the like. (JP 1-02)

**Electromagnetic Pulse**—The electromagnetic radiation from a nuclear explosion caused by Compton-recoil electrons and photoelectrons from photons scattered in the materials of the nuclear device or in the surrounding medium. The resulting electric and magnetic fields may couple with electrical and electronic systems to produce damaging current and voltage surges. May also be caused by nonnuclear means. (JP 1-02)

**Electromagnetic Radiation**—Radiation made up of oscillating electric and magnetic fields and propagated with the speed of light. Includes gamma radiation, X-rays, ultraviolet, visible, and infrared radiation, and radar and radio waves. (JP 1-02)

**Emergency**—An unexpected occurrence or set of unexpected circumstances in which personnel or equipment unavailability due to accident, natural event, or combat, may demand immediate action that may require extraordinary measures to protect, handle, service, transport, or employ a nuclear weapon. (DoD)

**Engineering Review**—A review of the nuclear safety engineering evaluation and program documentation by an Air Force engineering agency independent of the organization performing the engineering evaluation. (USAF)

**Explosive Ordnance Disposal Procedures**—Those particular courses or modes of action taken by EOD personnel for access to, diagnosis, rendering safe, recovery, and final disposal of explosive ordnance or any hazardous material associated with an EOD incident. (JP 1-02)

**Access Procedures**—Those actions taken to locate exactly and to gain access to unexploded explosive ordnance. (DoD)

**Diagnostic Procedures**—Those actions taken to identify and evaluate unexploded explosive ordnance. (DoD)

**Render-Safe Procedures**—The portion of the EOD procedures involving the application of special EOD methods and tools to provide for the interruption of functions or separation of essential components of unexploded explosive ordnance to prevent an unacceptable detonation. (DoD)

**Recovery Procedures**—Those actions taken to recover unexploded explosive ordnance. (DoD)

**Final Disposal Procedures**—The final disposal of explosive ordnance that may include demolition or burning in place, removal to a disposal area, or other appropriate means. (DoD)

**Facility Lifting and Suspension Systems**—Equipment (i.e., a hoist, crane, or suspended load frame) installed in a facility and used to lift or support nuclear weapons. (USAF)

**Fail-Safe**—A characteristic of a fuze system, or part thereof, designed to result in a dud round when one or more safety features malfunction. A design feature of a nuclear weapon system or component that ensures a critical function or weapon damage will not occur because of a failure in the system or component. (USAF)

**Firmware**—Combination or executable computer programs and data (software) stored in any form of read-only memory that will be unalterable during program execution. (USAF)

**First-Level Interface Software**—Software that controls the critical functions of a nuclear weapon system. (USAF)

**Hardware**—Generic term dealing with physical items as distinguished from its capability or function such as tools, implements, instruments, devices, sets, fittings, trimmings, assemblies, subassemblies, components, and parts. The term is often used in regard to the stage of development, as in the passage of a device or component from the design stage into the hardware stage as the finished object. (JP 1-02)

In data automation, the physical equipment or devices forming computer and peripheral components. See also “Software”. (JP 1-02)

**Hardware**—A dedicated discrete electrical circuit. (USAF)

**Inadvertent Programmed Launch**—The inadvertent entry into terminal countdown or launch countdown and the resultant launch of a missile to a predetermined target. (USAF)

**Incident**—An unexpected event, not constituting an accident, that involves a nuclear weapon, nuclear weapon system, or nuclear component and results in:

An increase in the risk of nuclear or high-explosion or radioactive contamination. (USAF)

Errors committed in the assembly, testing, loading, or transporting of equipment, or the malfunctioning of equipment and material that may lead to unintentional operation of any part of the weapon arming and firing sequence. (USAF)

Significant damage to nuclear weapons or nuclear components caused by any natural occurrence, unfavorable environment, or other conditions. (USAF)

**Independent Verification and Validation**—The analysis and test of computer software by an organization that is separate from the development contractor or organization. (USAF)

**Indirect Supporting EOD Unit**—Units that are not defined as Direct Supporting Units. Unit personnel maintain technical data and are trained to perform those actions necessary to stabilize an incident site. Unit personnel can perform an initial evaluation of the accident or incident, and perform emergency render safe procedures.

**Informational Storage Media**—Documents, tapes, disks, cards, plugs, memories, and other devices used to store information. (USAF)

**Intrinsic Radiation**—Ionizing radiation emitted through the weapon surface or directly from exposed components of nuclear weapons. (USAF)

**Ionizing Radiation**—Electromagnetic or particulate radiation capable of causing ionization in its passage through matter. Alpha, beta, gamma, X-rays, and neutrons are examples of ionizing radiation. (USAF)

**Jettison**—The selective release of stores from an aircraft other than for normal attack. (JP 1-02)

**Launch**—The transition from static repose to dynamic flight of a missile. (JP 1-02)

**Launch Action Study**—An analysis of a specific weapon system component to determine the actions necessary to cause the component to contribute to an unauthorized launch. (USAF)

**Launch Action Threat**—A description of how an individual component can be tampered with to achieve a specific unauthorized result. (USAF)

**Launch Activation Path**—The path by which information and energy flow to effect a missile launch. (USAF)

**Launch Control Point**—The control center from which system operators control, monitor, and launch a ground-launched missile. (USAF)

**Launch Point**—The geographical area or facility from which a ground-launched missile is launched. (USAF)

**Military Characteristics**—Those characteristics of equipment upon which depends its ability to perform desired military functions. Military characteristics include physical and operational characteristics but not technical characteristics. (JP 1-02)

**Modifications**—Physical or functional configuration changes to equipment or software. (USAF)

**Monitor Current**—A limited current introduced into a nuclear weapon to determine the functional state of selected components. (USAF)

**Multiplexed System**—A signal transmission system in which two or more signals share one transmission path. (USAF)

**No-Lone Zone**—An area where the Two-Person Concept must be enforced because it contains a nuclear weapon, nuclear weapon system, or certified critical component. (USAF)

**Noncombat Delivery Vehicle**—Any vehicle, other than combat vehicles, used to move nuclear weapons. (USAF)

**Nonsensitive Task**—Any Nuclear Safety Cross-Check Analysis (NSCCA) activity in which no opportunity exists for an individual to affect the outcome of the NSCCA, or where a subsequent review or analysis exists that would reveal any act of omission or commission affecting the NSCCA outcome. (USAF)

**Nonspecialized Equipment**—Equipment used with nuclear weapons but not specifically designed for that purpose. (USAF)

**Normal Environment**—The expected logistical and operational environments defined in the stockpile-to-target sequence document that the nuclear weapon system is required to survive without degrading operational reliability. (USAF)

**Nuclear Cargo**—A nuclear weapon or nuclear component (except limited life components) prepared for nuclear logistics movement. (USAF)

**Nuclear Command and Control System**—Hardware, software, and firmware components required for proper authorization-to-launch sequence. (USAF)

**Nuclear Component**—Weapon component composed of fissionable or fusible materials that contribute substantially to nuclear energy released during detonation. (USAF)

**Nuclear Consent Function**—A function implemented by a deliberate act that provides two-person control over the release system unlock and nuclear weapon prearm functions. (USAF)

**Nuclear Cross-Check Identified Software**—Includes all first-level interface software and certain second-level interface software identified by HQ AFSC/SEW (the Nuclear Weapon System Safety Group may recommend software) as cross-check identified software. (USAF)

**Nuclear Logistic Movement**—The transport of nuclear weapons in connection with supply or maintenance operations. Under certain specified conditions, combat aircraft may be used for such movements. (JP 1-02)

**Nuclear Operating Command**—The major command responsible for operating, maintaining, and providing security for the nuclear weapon system. (USAF)

**Nuclear Safety-Certified Procedures**—Procedures approved for use with nuclear weapons, nuclear safety-certified equipment, or nuclear weapon systems and published in Air Force technical orders or technical publications. (USAF)

**Nuclear Safety Certified Software**—Software that has received nuclear safety design certification by HQ AFSC/SEW. (USAF)

**Nuclear Safety Criteria**—Design and evaluation criteria for ensuring nuclear safety is a basic system engineering and procedural requirement in nuclear weapon and logistics systems. (USAF)

**Nuclear Safety Cross-Check Analysis**—An analysis by an organization that is independent of the software developer to ensure critical software does not contain improper design, programming, fabrication, or application that could contribute to:

Unauthorized or inadvertent authorization, prearming, arming, or launching or releasing of a nuclear weapon or nuclear weapon system. (USAF)

Premature or unsafe operation of a nuclear weapon system. (USAF)

Delivery of a nuclear weapon outside the specified boundary of the planned target. (USAF)

Unauthorized, improper, or erroneous display of status or classified information that could degrade nuclear surety. (USAF)

Improper handling of classified cryptographic codes, invalid verification, or the retrieval of such codes by unauthorized persons in a manner that could degrade nuclear surety. (USAF)

**Nuclear Safety Design Certification**—A determination by HQ AFSC/SEW that all applicable nuclear safety criteria for a given hardware or software design have been met and the design is authorized for use with nuclear weapons. Also referred to as "nuclear safety certification" or "design certification." (USAF)

**Nuclear Safety Discrepancy Report**—A discrepancy report that references the program material or output in which the discrepancy was detected and provides a detailed description of the problem with reference to the nuclear safety objective violated. (USAF)

**Nuclear Surety Impact Statement**—A description and evaluation of the potential nuclear surety impact a proposed modification or test program may have on an assembled weapon system or its subsystems. (USAF)

**Nuclear Weapon**—A complete assembly (i.e., implosion type, gun type, or thermonuclear type) in its intended ultimate configuration which, upon completion of the prescribed arming, fusing, and firing sequence, is capable of producing the intended nuclear reaction and release of energy. (JP 1-02)

**Nuclear Weapon System**—A combat delivery vehicle with its nuclear weapon or weapons and associated support equipment, noncombat delivery vehicles, facilities, and services. (USAF)

**Nuclear Weapon System Safety Group**—The NWSSG is composed of representatives from applicable Air Force major commands, Combatant Commands, Air Force Security Forces Center, Department of Energy, and Defense Threat Reduction Agency and is chaired by an appointee from HQ AFSC/SEW. It conducts all nuclear weapon system safety studies and operational safety reviews to evaluate Air Force nuclear weapon systems and ensure the DoD Nuclear Weapon System Safety Standards are met in weapon system design and operations. (USAF)

**Nuclear Weapon System Safety Rules**—Secretary of Defense-approved procedural safeguards governing all operations with nuclear weapons or nuclear weapon systems. (USAF)

**Nuclear Weapons Surety**—Materiel, personnel, and procedures which contribute to the security, safety, and reliability of nuclear weapons and to the assurance that there will be no nuclear weapon accidents, incidents, unauthorized weapon detonations, or degradation in performance at the target. (DoD)

**Operational Certification**—The process of verifying a system or critical component is functioning as design certified and all credible threats and scenarios are mitigated. (USAF)

**Operational Decertification**—Action by proper authority to remove a system or component from operational use. (USAF)

**Operational Plan Data Document**—A document that describes normal nuclear weapon system operations in the stockpile-to-target sequence during peacetime and periods of increased tension. The OPDD serves as a source document for the nuclear weapon system safety rules. (USAF)

**Opportunity** The time and physical proximity needed to tamper with or damage a nuclear weapon, nuclear weapon system, or certified critical component. (USAF)

**Permissive Action Link**—A family of devices and subsystems designed to reduce the possibility of obtaining nuclear detonation from a nuclear warhead without the use (insertion) of a controlled numerical code. (DoD)

**Personal Dosimeter**—A device used to monitor the ionizing radiation exposure of an individual. (USAF)

**Physical Isolation**—The physical separation of wiring, parts, modules, assemblies, and similar items to preclude physical contact or interaction so as to prevent common malfunctions and activation of critical functions in all environments. (USAF)

**Positive Measure**—A design feature, procedure, safety rule, or accident prevention or mitigation measure that works to reduce the likelihood, severity, or consequence of an accidental or deliberate threat involving a nuclear weapon or nuclear weapon system. An example of a specific positive measure would be a permissive action link designed to prohibit the arming of the weapon, except when properly authorized. An example of a general positive measure would be the presence of a certified firefighting capability at an operational air base. (USAF)

**Prearm Command Signal**—A signal to the weapon that the personnel controlling the weapon want it to function and produce a nuclear detonation. (USAF)

**Prearming**—Operations that configure a nuclear weapon system so that arming, firing, launching, or releasing will start the sequence necessary to produce a nuclear detonation. (DoD)

**Prime Nuclear Airlift Force**—Those aircrews, aircraft, and other functions provided for peacetime support of logistical airlift of nuclear weapons and nuclear components. (USAF)

**Radiation Safety Officer**—The functional title assigned to an individual designated by the commander to manage a radiation safety program and provide advice on the hazards associated with radiation and the effectiveness of measures to control these hazards. The following functional titles are not intended to denote either a commissioned status or a job classification within the Air Force:

**Base RSO**—A person designated by the installation commander to conduct the base-wide radiation safety program and assist the unit RSO in maintaining a comprehensive radiation safety program. This individual will usually be the base bioenvironmental engineer or health physicist, if assigned, but may be a senior bioenvironmental engineering technician. (USAF)

**Unit RSO**—A person designated by the unit commander to act as the single focal point for unit radiation safety matters and coordinate radiation protection activities with the base RSO. Each operational unit that maintains or stores nuclear weapons must have a unit RSO. (USAF)

**Radioactive Material**—Any material or combination of materials that spontaneously emit alpha, beta, gamma, X-ray, or neutron radiation. (USAF)

**Release**—In air armament, release is the intentional separation of a free-fall aircraft store from its suspension equipment for purposes of employment of the store. (JP 1-02)

Separation of a missile from a carrier aircraft with the intended result being programmed flight to target. (USAF)

**Reliability**—The ability of a system and system parts to perform their mission without failure, degradation, or demand on the support system. (USAF)

**Reversion**—The process or event of returning to the original state, phase, or condition. (USAF)



**Safe and Arm Device**—A device that provides electrical and mechanical interruption of the firing circuits or mechanical interruption between the initiator and the subsequent explosive or pyrotechnic train. (USAF)

**Safe Haven**—Designated areas to which noncombatants of the US Government's responsibility, and commercial vehicles and materiel, may be evacuated during a domestic or other valid emergency. (JP 1-02)

Temporary storage provided Department of Energy classified shipment transporters at Department of Defense facilities in order to ensure safety and security of nuclear material and nonnuclear classified material. Also includes parking for commercial vehicles containing Class A or Class B explosives. (JP 1-02)

**Scrolling**—In a multifunction control and display system, the replacement of the active nuclear weapon system function with a nonnuclear function. (USAF)

**Second-Level Interface Software**—Software that may interact with first-level interface software but does not control any critical functions of a nuclear weapon system. (USAF)

**Security (Internal)**—Design features internal to the nuclear weapon system or nuclear weapon that prevent unauthorized use (i.e., use control). (USAF)

**Security (Physical)**—The part of security concerned with physical measures designed to safeguard personnel; to prevent unauthorized access to equipment, installations, material and documents; and to safeguard them against espionage, sabotage, damage, and theft. (DoD)

**Sensitive Task**—Nuclear Safety Cross-Check Analysis activity in which an individual could cause or allow unauthorized programming to be introduced into a nuclear weapon system. (USAF)

**Significant Nuclear Yield**—The energy released through nuclear fission or fusion that is equivalent to or greater than the energy released by detonation of four pounds of TNT. (USAF)

**Software**—A set of computer programs, procedures, and associated documentation concerned with the operation of a data processing system; e.g., compilers, library routines, manuals, and circuit diagrams. (JP 1-02)

**Software Advisory Group**—A forum of interested parties to discuss the software nuclear safety design certification effort and provide a consensus of resolutions on nuclear safety concerns. (USAF)

**Specialized Equipment**—Equipment designed specifically for use with nuclear weapons. (USAF)

**Split-Handling**—A stringent procedure used to maintain a launch function separation that was intentionally designed into two or more different critical components. This procedure prevents a single individual or Two-Person Concept team from having access to the entire launch function. (USAF)

**Split-Knowledge**—The separation of information contained in the complete certified critical component so an individual or Two-Person Concept team is denied knowledge of the total information. (USAF)

**Static Load**—A load imposed during normal operations (in normal environments) in a static state. (USAF)

**Stockpile-to-Target Sequence**—The order of events involved in removing a nuclear weapon from storage and assembling, testing, transporting, and delivering it on the target. (JP 1-02)

A document that defines the logistical and employment concepts and related physical environments involved in the delivery of a nuclear weapon from the stockpile to the target. It may also define the logistical flow involved in moving nuclear weapons to and from the stockpile for quality assurance testing, modification and retrofit, and the recycling of limited life components. (JP 1-02)

**Stores Management System**—The portion of the aircraft system that provides weapon control, release, and monitor functions. (USAF)

**Support Equipment**—Includes all equipment required to perform the support function, except that which is an integral part of the mission equipment. It does not include any of the equipment required to perform mission operation functions. Support equipment should be interpreted as tools; test equipment; automatic test equipment (when used in a support function); organizational, field, and depot support equipment; and related computer programs and software. (USAF)

**Tamper**—To knowingly perform an incorrect act or unauthorized procedure involving a nuclear weapon, nuclear weapon system, or certified critical component. (USAF)

**Tamper Detection Indicators**—A sealing method that provides evidence in the event a critical component has been tampered with or inadvertently activated. (USAF)

**Targeting**—Operations that involve identifying specific target sets, transferring target data to a guidance computer, and following the programmed flight path to the specified target. (USAF)

**Technical Nuclear Safety Analysis**—An independent technical analysis of a nuclear weapon system and its associated operational procedures. The TNSA provides the Nuclear Weapon System Safety Group with an independent opinion as to whether the weapon system's design safety and security features, in conjunction with its operational procedures, satisfy the DoD Nuclear Weapon System Safety Standards. (USAF)

**Third-Party Agent**—Any individual who does not meet the criteria of a cognizant agent. (USAF)

**Time-Division Multiplexing**—The transmission of information from several signal channels through one communication system with different channel samples staggered in time to form a composite pulse train. (USAF)

**Two-Person Concept**—Designed to ensure that a lone individual is denied access to nuclear weapons, nuclear weapon systems or critical components, never allowing the opportunity for tampering, damage or an unauthorized act to go undetected. The Two-Person concept requires the presence at all times of at least two authorized persons, each certified under the Personnel Reliability Program (PRP), knowledgeable in the task to be performed, familiar with applicable safety and security requirements and each capable of promptly detecting an incorrect act or improper procedure with respect to the task to be performed. Both members must have completed annual nuclear surety and PRP training. **NOTE:** Also known as Two-Person Rule. (JP 1-02)

**Unauthorized Launch**—A deliberate unauthorized act that causes any movement (resulting from the direct impulse of a propulsion subsystem) of a nuclear weapon mated to a missile. The UL categories are:

**Type 0 Launch**—Ignition of a propulsive stage or engine that results in missile movement but without the missile exiting the launch platform due to physical restraints. (USAF)

**Type 1 Launch**—Ignition of a propulsive stage or engine that results in missile launch from the launch platform but with an inactive guidance system. (USAF)

**Type 2 Launch**—Missile launch with an active guidance system that results in powered flight to a preprogrammed target but without a nuclear yield. (USAF)

**Type 3 Launch**—Missile launch with an active guidance system that results in powered flight to a preprogrammed target with a nuclear yield. (USAF)

**Unauthorized Launch Report**—A documented analysis of a nuclear weapon system's susceptibility to unauthorized launch. (USAF)

**Unauthorized Launch Scenario**—A complete account of how an unauthorized launch can be achieved by using specific launch action threats. The scenario may include one or more launch action threats. It will describe the procedures the agent needs to follow; the tools needed for each step of the procedure; and the normal operating conditions that must be overcome. (USAF)

**Unique Signal**—A digital or analog signal that operates only one specific and corresponding critical function by allowing the receiver to discriminate this signal from all other signals in the nuclear weapon system and from those signals that may be generated accidentally or applied from outside the nuclear weapon system. (USAF)

**Use Control**—The control of unauthorized use or detonation of a nuclear weapon. Includes passive and active protection, and disablement systems.

**Volatile Memory**—A storage medium that loses information when power is removed from the system. (USAF)

**Weapons Safety Manager**—An individual who manages a base, wing, or equivalent safety program consisting of explosives safety, missile safety, nuclear surety, or any combination of these. (USAF)

**Attachment 1 (USAFE)****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFI 33-360 Volume 1, Air Force Content Management Program - Publications  
AFI 36-2833\_USAFE Supplement 1, Safety Awards  
AFMAN 37-123, Management of Records  
AFI63-125, *Nuclear Certification Program*  
AFI 91-103, *Air Force Nuclear Safety Design Certification Program*  
AFI 91-104, *Nuclear Surety Tamper Control and Detection Program*  
AFI 91-107, *Design, Evaluation, Troubleshooting and Maintenance Criteria for Nuclear Weapon Systems*  
AFI 91-108, *Air Force Nuclear Weapons Intrinsic Radiation Safety Program*  
AFI 91-112, *Safety Rules for US/NATO Strike Fighters*  
AFI 91-115, *Safety Rules for Nuclear Logistics Transport by the Prime Nuclear Airlift Force*  
AFMAN 91-201, *Explosives Safety Standards*  
AFI 91-202, *The US Air Force Mishap Prevention Program*  
AFI 91-204, *Safety Investigations and Reports*  
AFMAN 91-221, *Weapons Safety Investigations and Reports*  
TO 00-5-1, *Air Force Technical Order System*  
TO 11N-50-1003-1, *Weapons Storage and Security System*  
USAFEI 25-301, *Engineering Liaison Office (ELO) Publications (FOUO)*  
USAFEI 91-125, *Nuclear Surety Staff Assistance Visit (NS SAV) and Functional Expert Visit (FEV) Program Management*.  
ACO DIR 80-76, *NATO Nuclear Certification*  
ELO-3, *GAF and ITAF PA-200 Aircraft Special Weapons System Requirements*  
ELO-10, *Authorized Maintenance on Strike Loaded F-16 MLU Aircraft*

***Abbreviations and Acronyms***

**AF**—Air Force  
**C2**—Command and Control  
**CC**—Commander  
**CBT**—Computer Based Training  
**DNSI**—Defense Nuclear Surety Inspection

**CGO**—Company Grade Officer  
**CMA**—Competent Medical Authority  
**COMSEC**—Communications Security  
**CP**—Command Post  
**DIAMONDS**—Defense Integration and Management of Nuclear Data Services  
**DTRA**—Defense Threat Reduction Agency  
**EA**—Emergency Action  
**EET**—Exercise Evaluation Team  
**EL**—Engineering Liaison  
**ELO**—Engineering Liaison Office  
**EUCOM**—European Command  
**FEV**—Functional Expert Visit  
**IDMT**—Independent Duty Medical Technician  
**MASO**—Munitions Accountable Systems Officer  
**MMG**—Munitions Maintenance Group  
**MOB**—Main Operating Base  
**MSG**—Mission Support Group  
**MUNSS**—Munitions Support Squadron  
**MXG**—Maintenance Group  
**NATO**—North Atlantic Treaty Organization  
**NCOIC**—Noncommissioned Officer in Charge  
**NOCM**—Nuclear Ordnance Commodity Management  
**NSPSC**—Nuclear Surety Program Steering Council  
**NSSAV**—Nuclear Surety Staff Assistance Visit  
**OIC**—Officer in Charge  
**OL**—Operating Location  
**OPS**—Operations  
**OSC**—On-Scene Coordinator  
**SF**—Security Forces  
**SHAPE**—Supreme Headquarters Allied Powers Europe  
**SLNC**—Senior Leaders Nuclear Course  
**SNCO**—Senior Noncommissioned Officer

**TPC**—Two Person Control

**U.S.**—United States

**Attachment 2****NUCLEAR SURETY AUGMENTATION PROGRAM**

**A2.1. Purpose and Scope.** HQ AFSC/SEW provides assistance to the MAJCOM/SE on request. AFSC personnel may augment MAJCOM inspections, staff assistance efforts, or special interest evaluations relating to nuclear surety at any level within the command.

**A2.2. Coordination.** The MAJCOM safety office will forward requests to HQ AFSC/SEW. Include a proposed schedule and locations to be visited. HQ AFSC/SEW will respond with the level of support that can be provided and proposed team composition. The MAJCOM is responsible for making any other required notifications.

**Attachment 3****ENTIRE TEXT OF IC 2000-1****SUMMARY OF REVISIONS**

This change deletes paragraph **2.4.9.**, and clarifies the review requirements in paragraph **2.11.14.**

2.4.9. Delete

2.11.14. Review all locally developed checklists, instructions, operating procedures, and plans that impact nuclear surety. For locally developed workcards, checklists, job guides and page supplements for nuclear munitions follow guidance in T.O. 00-5-1.



**Attachment 4****IC 2005-1 TO AFI 91-101,  
AIR FORCE NUCLEAR WEAPONS SURETY PROGRAM**

19 DECEMBER 2005

**SUMMARY OF REVISIONS**

This change incorporates interim change (IC) 2005-1, which provides new guidance regarding the application of nuclear surety/safety policy/procedures to MUNSS/MUNS locations within the HQ USAF MAJCOM. It provides these locations with the latitude needed to effectively accomplish nuclear surety/safety duties. A bar ( | ) indicates a revision from the previous edition.

**2.14.5.** Due to the unique mission and geographic separation between MUNS/MUNSS and their parent wing(s), HQ USAF MUNS/MUNSS and their parent wing(s) are permitted to assign responsibilities outlined in paragraphs **2.11.** and **2.12.** of this publication to wing managers or unit safety representatives as is necessary to best meet nuclear surety and safety requirements. Assignment of responsibilities will be outlined in writing ensuring all requirements are being performed, and procedures do not prevent commanders at any level from performing their program responsibilities.

MAURICE L. McFANN, JR., Major General, USAF  
Chief of Safety

## SUGGESTED ANNUAL NUCLEAR SURETY INSPECTION REPORT FORMAT

**NOTES:**

1. Use official letterhead for report.
2. Classify and mark according to applicable classification security guides.

**MEMORANDUM FOR (Inspected Unit's Organization/Office Symbol)**  
**FROM: (Chief of Safety's Organization/Office Symbol)**  
**SUBJECT: Annual Nuclear Surety Inspection Report on (Inspected Unit's Organization/Office Symbol)**

1. The (Inspected Unit's Organization/Office Symbol) received an annual nuclear surety inspection on (inclusive dates) under the provisions of AFI 91-101, *Air Force Nuclear Surety Program*, and the USAFE Supplement 1. Chief of Safety's Organization, Office Symbol conducted the inspection with assistance from members of Organization, Office Symbol. Checklists used to conduct the inspection are provided below at Attachments 1 through 12 (or as applicable). The following provides the outcome of the inspection.

a. Nuclear Surety: (Identify specific unit strengths and recommended improvement areas).  
(Paragraphs "b" through "k" or as applicable.)

b. Nuclear Mishap and Deficiency Reporting. (Identify specific unit strengths and recommended improvement areas).

2. Request your organization respond via formal memorandum with actions taken or intended on the recommended improvements areas within two weeks of receipt of this report.

3. If further information is required, please contact this office at DSN XXX-XXXX.

JOHN Q. SMITH, Lt Col, USAF  
Chief of Safety

12 Attachments:

1. HQ USAFE Nuclear Surety Inspection Checklist, *Air Force Nuclear Surety Program*  
(Attachments 2 through 11, or as applicable.)

12. HQ USAFE Nuclear Surety Inspection Checklist, *Nuclear Mishap and Deficiency Reporting*