



# Department of Defense **DIRECTIVE**

**NUMBER 3150.02**

April 24, 2013

Incorporating Change 5, July 15, 2022

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USD(A&S)

SUBJECT: DoD Nuclear Weapons Surety Program

References: See Enclosure 1

1. PURPOSE. This directive:

a. Reissues DoD Directive (DoDD) 3150.2 (Reference (a)) to update established policy and assign responsibilities for DoD Nuclear Weapons Surety for the oversight of safety, security, and control of U.S. nuclear weapons and nuclear weapon systems in DoD custody.

b. Assigns responsibility for the nuclear weapons technical inspection (NWTI) system.

2. APPLICABILITY. This directive applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this directive as the "DoD Components").

3. POLICY. It is DoD policy that:

a. The President, as Commander in Chief of the Armed Forces, is the sole authority for the employment of U.S. nuclear weapons.

b. Nuclear weapon systems require special consideration because of their political and military importance, their destructive power, and the potential consequences of an accident or unauthorized act. Assured nuclear weapons and nuclear weapon systems safety, security, and control remain of paramount importance. Nuclear command and control (NC2) safety and security also remain of paramount importance as stated in DoDD S-5210.81 (Reference (b)).

c. Standards, plans, procedures, and other positive measures will be developed and maintained to ensure the DoD can accomplish its nuclear mission in a safe, secure, and reliable manner. Four DoD nuclear weapon system surety standards provide positive measures to:

(1) Prevent nuclear weapons involved in accidents or incidents, or jettisoned weapons, from producing a nuclear yield.

(2) Prevent **deliberate** pre-arming, arming, launching, or releasing of nuclear weapons, except upon execution of emergency war orders or when directed by competent authority.

(3) Prevent **inadvertent** pre-arming, arming, launching, or releasing of nuclear weapons in all normal and credible abnormal environments.

(4) Ensure adequate security of nuclear weapons, as governed by DoDD 5210.41 (Reference (c)).

d. Nuclear weapon system safety, security, and control are interrelated. Decisions concerning one will not be made without consideration of the effect of those decisions on others.

e. Safety rules and technical and operational procedures will be developed and approved for each nuclear weapon and nuclear weapon system in the custody of DoD through a formal approval process.

f. Nuclear weapons and nuclear weapon systems will not be intentionally exposed to abnormal environments, and there will be no deviation from established procedures, except in an emergency.

g. Six months after the effective date of this issuance, personnel who are granted Department of Energy (DOE) Sigma 14 access are prohibited from being part of a two-person control team that may afford access to a nuclear weapon.

h. Protection for all nuclear weapon systems will incorporate policies, procedures, and equipment in a layered approach of physical security, information assurance, personnel actions, procedures, and nuclear weapon design features as determined through risk analysis.

i. Personnel involved in nuclear weapon operations will receive appropriate training and will be continually evaluated as required by DoD Instruction (DoDI) 5210.42 (Reference (d)).

j. Procedures, personnel, equipment, hardware, software, facilities, and organizations will be certified before conducting operations with nuclear weapons or nuclear weapon systems.

k. Nuclear weapon systems will be evaluated throughout their DoD life cycles for compliance with the four DoD nuclear weapon system surety standards through a formal study and review process in accordance with DoD Manual 3150.02 (Reference (e)).

l. Using the four DoD nuclear weapon system surety standards as the foundation, nuclear weapons systems will be designed or improved to the maximum extent practical with approved advanced safety and security technologies, as determined through risk analysis, consistent with operational feasibility.

m. Nuclear weapons systems will be maintained, transported, stored, and employed to incorporate maximum nuclear weapons surety, consistent with operational requirements.

4. RESPONSIBILITIES. See Enclosure 2.

5. RELEASABILITY. **Cleared for public release.** This directive is available on the Directives Division Website at <http://www.esd.whs.mil/DD/>.

6. SUMMARY OF CHANGE 5. This change updates references and organizational symbols to reflect the reorganization of the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics in accordance with DoDD 5135.02 (Reference (f)).

7. EFFECTIVE DATE. This directive is effective April 24, 2013.



Ashton B. Carter  
Deputy Secretary of Defense

Enclosures

1. References
2. Responsibilities

Glossary

ENCLOSURE 1

REFERENCES

- (a) DoD Directive 3150.2, “DoD Nuclear Weapon System Safety Program,” December 23, 1996 (hereby cancelled)
- (b) DoD Directive S-5210.81, “U.S. Nuclear Weapons Command and Control, Safety, and Security,” April 24, 2017
- (c) DoD Directive 5210.41, “Security Policy for Protecting Nuclear Weapons,” January 22, 2015, as amended
- (d) DoD Instruction 5210.42, “DoD Nuclear Weapons Personnel Reliability Assurance,” April 27, 2016, as amended
- (e) DoD Manual 3150.02, “DoD Nuclear Weapon System Safety Program Manual,” January 31, 2014, as amended
- (f) DoD Directive 5135.02, “Under Secretary of Defense for Acquisition and Sustainment (USD(A&S)),” July 15, 2020
- (g) DoD Directive 5134.08, “Assistant Secretary of Defense for Nuclear, Chemical and Biological Defense Programs (ASD(NCB)),” January 14, 2009, as amended
- (h) DoD Instruction 8500.01, “Cybersecurity,” March 14, 2014, as amended
- (i) Chairman of the Joint Chiefs of Staff Instruction 3263.05, “Nuclear Weapons Technical Inspections, current version
- (j) Office of the Chairman of the Joint Chiefs of Staff, “DoD Dictionary of Military and Associated Terms,” current edition
- (k) Joint Nuclear Weapons Publication System Technical Publication 4-1, “Glossary of Nuclear Weapons Materiel and Related Terms,” July 30, 2016

ENCLOSURE 2

RESPONSIBILITIES

1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT (USD(A&S)). The USD(A&S):

- a. Provides oversight and guidance for DoD nuclear weapons surety.
- b. Approves Military Department nuclear weapon system safety rules.

2. ASSISTANT SECRETARY OF DEFENSE FOR NUCLEAR, CHEMICAL, AND BIOLOGICAL DEFENSE PROGRAMS (ASD(NCB)). Under the authority, direction, and control of the USD(A&S), the ASD(NCB):

a. Is responsible to the Secretary of Defense for all matters associated with nuclear weapons surety pursuant to DoDD 5134.08 (Reference (g)), and monitors compliance with DoD nuclear weapons surety.

(1) Develops nuclear weapons safety policies, standards, and procedures.

(2) Develops nuclear weapons security policies, standards, and procedures for protecting nuclear weapons, nuclear weapon systems, and NC2.

(3) Develops nuclear weapons control policies, standards, and procedures for all nuclear weapons and nuclear weapon systems.

(4) Develops Nuclear Weapons Personnel Reliability Assurance Program (PRAP) policies, standards, and procedures. Monitors the effectiveness of PRAP to support nuclear weapons surety.

b. Provides assistance during the Military Department nuclear weapon system certification process.

c. Oversees development of NWTI policy. Provides safety topics of special interest to the Military Departments and the Chairman of the Joint Chiefs of Staff to be addressed during NWTIs, and monitors the effectiveness of NWTIs to assess unit compliance with the DoD Nuclear Weapons Surety Program.

d. Serves as proponent for and monitors compliance with this directive.

e. Notifies Secretaries of the Military Departments when DoD personnel have been granted access to DOE Sigma 14.

f. Serves as the OSD principal point of contact with the DoD Components, DOE, the Department of State, the joint DoD-DOE Nuclear Weapons Council (NWC), and other Government agencies in executing nuclear weapon surety responsibilities. Communication with the Combatant Commands will be through the Chairman of the Joint Chiefs of Staff.

g. Prepares and submits the Annual Joint Surety Report to the President.

3. DIRECTOR, DEFENSE THREAT REDUCTION AGENCY (DTRA). Under the authority, direction, and control of the USD(A&S), through the ASD(NCB), the Director, DTRA:

a. Provides technical advice and assistance to OSD, the Chairman of the Joint Chiefs of Staff, and the Secretaries of the Military Departments in the oversight of DoD nuclear weapons surety.

b. Supports the Military Departments and the Combatant Commands on nuclear weapons surety matters.

c. Develops, implements, and operates the DoD nuclear weapons surety training program.

d. Conducts Defense Nuclear Surety Inspection Oversight for the Chairman of the Joint Chiefs of Staff.

e. Attends meetings and provides scientific and technical advice and assistance to the joint DoD-DOE NWC.

4. DIRECTOR, NATIONAL SECURITY AGENCY/CHIEF, CENTRAL SECURITY SERVICES (DIRNSA/CHCSS). Under the authority, direction, and control of the Under Secretary of Defense for Intelligence, the DIRNSA/CHCSS provides information assurance products and services for those systems used to transmit, process, store, or display information related to the control and authorized use of nuclear weapons in accordance with DoD 8500.01 (Reference (h)).

5. SECRETARIES OF THE MILITARY DEPARTMENTS. The Secretaries of the Military Departments:

a. Ensure the surety of all nuclear weapons and nuclear weapon systems for which the Department has a DoD life-cycle management responsibility.

b. Develop detailed DoD technical and operational procedures that, with approved safety rules and other positive measures, govern all DoD nuclear weapon operations, transportation, storage, and maintenance through the complete stockpile-to-target sequence (STS).

c. Conduct nuclear weapon system safety studies, reviews, and safety assessments on U.S. nuclear weapons and allied systems using U.S. nuclear weapons to support the DoD Nuclear Weapon System Surety Program.

d. Conduct certifications of nuclear weapon systems, including DoD support equipment, facilities, and software that affect nuclear surety.

e. Implement PRAP regulations and directives to ensure that assigned personnel meet DoD PRAP policy requirements.

f. In the event of an incident, conduct a review of policies, practices, and procedures to ensure safe handling and control of nuclear weapons, as necessary.

g. Ensure NWTIs are conducted.

h. Notify ASD(NCB) of any unsatisfactory NWTI ratings within 24 hours of the formal critique or out-brief in accordance with Chairman of the Joint Chiefs of Staff Instruction 3263.05 series (Reference (i)). Provide ASD(NCB) with a sufficiently detailed description of deficiencies that caused the unsatisfactory condition.

i. Establish surety design and evaluation criteria for nuclear weapon systems.

j. Develop a system to track and enter assignment limitations on individuals who have been granted access to DOE Sigma 14.

6. CHAIRMAN OF THE JOINT CHIEFS OF STAFF. The Chairman of the Joint Chiefs of Staff:

a. Advises the Secretary of Defense on nuclear weapons surety matters.

b. Coordinates nuclear weapons surety matters with the DoD Components as appropriate.

c. Develops NWTI policy and monitor implementation of the inspection system.

d. Ensures ASD(NCB) is notified of any unsatisfactory NWTI ratings within 24 hours of the formal critique or out-brief in accordance with Reference (i). Provides ASD(NCB) with final NWTI reports.

7. COMBATANT COMMANDERS. Through the Chairman of the Joint Chiefs of Staff, the Combatant Commanders:

a. Ensure the safety and security of all nuclear weapons and nuclear weapon systems for which the Combatant Command has responsibility.

- b. Ensure that procedures, equipment, software, facilities, units, and organizations are certified before conducting nuclear weapon systems operations.
- c. Implement PRAP regulations and directives to ensure that assigned personnel meet DoD PRAP policy requirements in accordance with Reference (d).
- d. Provide assistance to the responsible Military Departments for the conduct of required safety studies, reviews, and inspections of U.S. and allied forces that will use U.S. nuclear weapons and nuclear weapon systems.
- e. Ensure all nuclear weapons and nuclear weapon systems for which the Combatant Commander has responsibility comply with Military Department nuclear weapon system safety rules.



GLOSSARY

PART I. ABBREVIATIONS AND ACRONYMS

|              |   |
|--------------|---|
| ASD(NCB)     | Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs |
| DIRNSA/CHCSS | Director, National Security Agency/Chief, Central Security Services                   |
| DoDD         | DoD directive   |
| DoDI         | DoD instruction   |
| DOE          | Department of Energy  |
| DTRA         | Defense Threat Reduction Agency   |
| MC           | military characteristics  |
| NC2          | nuclear command and control   |
| NWC          | Nuclear Weapons Council   |
| NWTI         | nuclear weapons technical inspection  |
| PRAP         | Personnel Reliability Assurance Program   |
| STS          | stockpile-to-target sequence  |
| USD(A&S)     | Under Secretary of Defense for Acquisition and Sustainment                            |

PART II. DEFINITIONS

Unless otherwise noted, these terms and their definitions are for the purpose of this directive.

abnormal environments. Environments as defined in a weapon's STS and military characteristics (MC) in which a nuclear weapon or a nuclear weapon system is not expected to retain full operational reliability.

access. Close physical proximity to a nuclear weapon in such a manner as to allow the opportunity to tamper with or damage a nuclear weapon.

arming. Readyng a nuclear weapon so that a fuzing signal will operate the firing system, includes operation or reversal of safing items.

certification. A determination by the applicable Service that procedures, personnel, equipment, software, facilities, and organizations are capable of safely performing assigned nuclear weapon functions and missions.

DOE Sigma 14. The category of sensitive information (including bypass scenarios) concerning the vulnerability of nuclear weapons to a deliberate unauthorized nuclear detonation.

emergency. An unexpected occurrence or set of circumstances in which personnel or equipment unavailability, due to accident, natural event, hostile act, or combat, may demand immediate action that may require extraordinary measures to protect, handle, service, secure, transport, jettison, or to employ nuclear weapons.

incident. An unexpected event that presents the potential for negative consequences that may be caused by accidental or intentional acts, acts of God, unfavorable environmental conditions, or other factors.

jettison. The intentional separation of an unarmed weapon from its delivery system or transport carrier in response to an emergency.

launching. Propulsion of a missile with a nuclear warhead into flight beyond the immediate area of the launching site. Specific definitions for each nuclear weapon or nuclear weapon system will be provided in the concept of operations, as appropriate.

life-cycle process. The breadth of activities applicable to a nuclear weapon throughout its lifetime, which includes development, testing, production, transportation, acceptance, storage, maintenance, upgrades, retirement, and dismantlement, as well as approved operations.

MC. A DoD document submitted to DOE that specifies performance requirements and physical characteristics for a nuclear warhead, bomb, or basic assembly to be compatible with a specific weapon system or systems.

normal environments. The expected logistical, storage, and operational environments defined in the STS document and the MCs that the weapon system is required to survive without degradation in operational reliability.

NC2. The exercise of authority and direction by the President, as Commander in Chief of the Armed Forces, through established command lines, over nuclear weapon operations of military forces; as chief executive over all government activities that support those operations; and as head of State over required multinational actions that support those operations.

nuclear weapon. Defined in the DoD Dictionary of Military and Associated Terms (Reference (j)).

nuclear weapons control. Control of nuclear weapons is composed of two distinct elements: use control and NC2. These two control elements establish the framework through which absolute control of nuclear weapons is maintained at all times.

nuclear weapons surety. Policies, procedures, controls, and actions that encompass safety, security, and control measures, which ensure there will be no nuclear weapon accidents, incidents, unauthorized detonation, or degradation of weapon effectiveness during its STS.

nuclear weapon system. A nuclear weapon and a means for delivering it to the target, with associated support equipment, facilities, procedures, personnel, and any vehicles peculiar to the system used for weapon transport.

nuclear yield. Defined in Joint Nuclear Weapons Publication System Technical Publication 4-1 (Reference (k)).

positive measures. The combination of procedural and administrative actions, physical safeguards, and design features expressly for the purpose of ensuring security, safety, and control of nuclear weapons and systems, including associated personnel.

pre-arming. Nuclear weapon system operations that configure a nuclear weapon so that arming, launching, or releasing will start the sequence necessary to produce a nuclear detonation.

prevent. To minimize the possibility of occurrence of an undesired event. It does not imply absolute assurance that the event will not occur.

security. Protection against loss of custody, theft, or diversion of a nuclear weapon system; protection against unauthorized access; or protection against unauthorized actions, vandalism, sabotage, and malevolent damage.

STS. Defined in Reference (k).

use control. The positive measures that allow the authorized use and prevent or delay unauthorized use of nuclear weapons, and is accomplished through a combination of weapon system design features, operational procedures, security, and system safety rules.