

## **ERRATA SHEET**

This Errata Sheet transmits the following minor change to DOE O 452.6, *Nuclear Weapons Surety Interface with the Department of Defense*, dated 10-19-06. An incorrect reference to paragraph 4d(6) was cited in paragraphs 4c(2)(a)1 and 4d(2)(c). The correct reference paragraph is “4c(3)(f).”

The correct reference paragraph is reflected in this Order.

This Errata Sheet must remain with DOE O 452.6.

**SUBJECT: NUCLEAR WEAPON SURETY INTERFACE WITH THE  
DEPARTMENT OF DEFENSE**

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1. **OBJECTIVES.**

- a. To establish Department of Energy (DOE) and National Nuclear Security Administration (NNSA) requirements and responsibilities for addressing joint nuclear weapon and nuclear weapon system surety activities in conjunction with the Department of Defense (DoD).
- b. To establish and implement a systematic process to ensure that nuclear weapon surety is adequately addressed throughout all phases of each nuclear weapon's life cycle.
- c. To provide support to the DoD during the development, staffing, and implementation of safety rules that govern all nuclear weapon system operations throughout the stockpile-to-target sequence.

2. **CANCELLATION.** DOE O 5610.13, *Joint Department of Energy/Department of Defense Nuclear Weapon System Safety, Security, and Control Activities*, dated 10-10-90. Cancellation of a directive does not, by itself, modify or otherwise affect any contractual obligation to comply with the directive. Contractor requirements documents (CRDs) that have been incorporated into or attached to a contract remain in effect until the contract is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.

3. **APPLICABILITY.**

- a. **DOE/NNSA Elements.** Except for exclusions in paragraph 3c, this Order applies to all DOE/NNSA elements involved in the Nuclear Explosive and Weapon Surety (NEWS) Program (see Attachment 1).

The Administrator of NNSA will assure that NNSA employees and contractors comply with their respective responsibilities under this directive. Nothing in this Order will be construed to interfere with the NNSA Administrator's authority under section 3212(d) of Public Law. (P.L.) 106-65 to establish Administration-specific policies, unless disapproved by the Secretary.

- b. **DOE/NNSA Contractors.** Except for the exclusions in paragraph 3c, the CRD (Attachment 2) sets forth requirements of this Order to be applied to contracts that include the CRD. The CRD must be included in contracts that include NEWS in their areas of responsibility.
- c. **Exclusions.** All DOE elements except those listed in Attachment 1.

4. REQUIREMENTS.

NNSA in conjunction with DoD has an obligation to protect public health, safety, and the environment from potential adverse consequences of nuclear weapon operations. To ensure dual-Agency judgment and responsibility, nuclear weapon system safety, security, and use control (surety) will be evaluated continually throughout the entirety of each nuclear weapon system's life cycle.

Nuclear weapon system surety will include a combination of administrative controls (e.g., personnel security) and design measures (e.g., physical security, use control) sufficient to prevent deliberate unauthorized nuclear detonation and to minimize the possibility of deliberate unauthorized acts that could lead to nuclear detonation.

Nuclear weapon system safety will include design features, safety rules, procedures, accident prevention/mitigation measures, or other controls used collectively or individually to reduce the likelihood, severity, or consequences of an accident.

a. Issue Resolution. Issues resulting from joint NNSA/DoD nuclear weapon surety activities will be resolved using the following procedures as applicable:

- (1) coordination between the appropriate NNSA and DoD staff levels;
- (2) issue submission with appropriate recommendations to the NNSA Administrator for final internal NNSA disposition; and
- (3) referral to the Nuclear Weapons Council Standing and Safety Committee (NWCSSC) and/or Nuclear Weapons Council (NWC) for action.

b. Procedures for Participation in DoD Nuclear Weapon System Safety Group (NWSSG) Activities.

(1) General.

- (a) In accordance with DoD Directive 3150.2, *DoD Nuclear Weapon System Safety Program*, the Secretary of each military department ensures the safety and security of all nuclear weapons and nuclear weapon systems for which the military department has a DoD life-cycle management responsibility.
- (b) In discharging this responsibility, each department Secretary establishes and convenes an NWSSG to conduct safety studies and operational safety reviews of each nuclear weapon system.
- (c) NWSSG membership includes a chair selected by the convening military department and military and civilian professionals from the military department concerned, the United States Strategic Command (USSTRATCOM), the Defense Threat Reduction Agency (DTRA), and DOE/NNSA.

(2) Guidelines for DOE/NNSA Participation in NWSSGs.

- (a) DOE/NNSA, through the NNSA designated weapon design laboratory, will provide nuclear surety data concerning the specific nuclear weapon to be addressed by the NWSSG.
- (b) The NNSA Office of Nuclear Weapon Surety and Counterterrorism will select an NNSA member whose primary responsibility will be participation in NWSSG activities.
- (c) The NNSA NWSSG member will be qualified by education or appropriate experience to identify, analyze, and understand the information necessary to conduct a proper evaluation of nuclear weapon systems employed by DoD.
- (d) NWSSG members must—
  - 1 understand design and development aspects of nuclear weapon system safety and be able to provide technical knowledge of the warhead;
  - 2 not have current or have had prior responsibility for the design, development, production, or testing of the specific weapon or weapon system being evaluated;
  - 3 not have responsibility for advocacy of special interests of NNSA or any other Agency or for defending the specific nuclear weapon or weapon system being evaluated; and
  - 4 make objective and independent judgments regarding the nuclear surety of the nuclear weapon system being evaluated.
- (e) NWSSGs may require participation of technical advisors (typically one from each of the weapon design laboratories) during the conduct of evaluations. These advisors will be qualified by education and experience to support the NNSA member's technical responsibilities stated above, and to serve as a liaison to other laboratory resources as needed.

- c. Procedures for Review of and Concurrence in DoD Nuclear Weapon System Safety Rules. Interim approval of proposed safety rules may be requested when circumstances dictate approval in a limited timeframe that does not permit completion of the formal coordination process and will be effective for a maximum of 6 months and does not negate the requirement for final approval. Interim approval permits acceptance of custody, routine peacetime storage, maintenance, training, inspection, transportation, and deployment activities but

does not permit nuclear weapons to be used in exercises or operations except in response to a valid nuclear release order.

(1) General.

- (a) The procedures for DoD preparation, coordination, approval (both interim and final), and implementation of DoD nuclear weapon system safety rules and coordination with the DOE are detailed in DoD Directive 3150.2-M.
- (b) When circumstances dictate that the Secretary of Defense grant interim approval of proposed safety rules within a limited timeframe that does not permit NNSA completion of its formal coordination process, the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs [ATSD(NCB)] may request that NNSA provide interim concurrence in the rules subject to later completion of formal processing within NNSA and final NNSA concurrence.
- (c) Procedures for NNSA review and evaluation of proposed safety rules in support of interim and final approval by the Secretary of Defense are specified below.

(2) Procedures for Interim/Final Approval.

- (a) The Deputy Administrator for Defense Programs will—
  - 1 take appropriate action in accordance with paragraph 4c(3)(f) below, if there are unresolved surety issues, and/or
  - 2 provide NNSA concurrence in granting interim/final approval to ATSD(NCB), if all surety issues relating to the safety rules package have been resolved.
- (b) The Assistant Deputy Administrator for Military Application and Stockpile Operations will—
  - 1 task, through the Office of Nuclear Weapon Surety and Counterterrorism, the appropriate weapon/design laboratories to assist in the conduct of reviews and analyses and in the development of NNSA comments and recommendations,
  - 2 coordinate any revisions with ATSD(NCB), and

- 3 forward the safety rules package to the Deputy Administrator for Defense Programs with a recommendation for concurrence or non-concurrence within 30 days of receipt.
  - (c) The Office of Nuclear Weapon Surety and Counterterrorism will—
    - 1 conduct analysis and review the safety rules package based on—
      - a the military service concept of operations,
      - b design surety features of the nuclear weapon and nuclear weapon system,
      - c proposed safety rules,
      - d NWSSG findings and recommendations,
      - e the military service subsequent actions on NWSSG findings and recommendations, and
      - f laboratory positions, and
    - 2 provide comments and recommendations to the Assistant Deputy Administrator for Military Application and Stockpile Operations within 14 days of receipt.
- (3) Procedures for Proposed Administrative Change to Safety Rules. An administrative change is a non-substantive change to the safety rules.
  - (a) A non-substantive change may be—
    - 1 changes in nomenclature,
    - 2 editorial changes to bring particular rules into agreement with approved rules of a later date,
    - 3 deletion of weapons and delivery vehicles no longer in the inventory, and
    - 4 other changes not adversely affecting nuclear surety.
  - (b) The following cannot be considered administrative changes:
    - 1 change to established surety policy;

- 2 change needed to address a revision to the operational concept upon which the safety rules are based;
    - 3 change needed to address a modification, addition, or deletion of any nuclear surety feature of a weapon or weapon system covered by the safety rules;
    - 4 relaxation of specific restrictions as set forth in the safety rules;
    - 5 change contrary to an outstanding, unresolved NWSSG recommendation; and
    - 6 change in the intent of an existing safety rule.
  - (c) The Assistant Deputy Administrator for Military Application and Stockpile Operations determines whether a proposed change is not substantive and should be processed administratively or whether formal processing is required.
  - (d) The Office of Nuclear Weapon Surety and Counterterrorism in coordination with the appropriate laboratories will provide input on the NNSA position regarding a proposed administrative change.
  - (e) For an administrative change, the Assistant Deputy Administrator for Military Application and Stockpile Operations will provide NNSA concurrence to the ATSD(NCB).
  - (f) If, after attempting to resolve issues with the DoD, it is NNSA's position that there are unresolved surety issues and that proposed changes are more than administrative, an action memorandum detailing the issues and why NNSA cannot concur will be submitted to the NNSA Administrator for concurrence and transmission to ATSD(NCB).
- d. NNSA Field Review is an option that is coordinated through DoD as part of the dual-Agency agreement to protect public health and safety and the environment. A field review for new or stockpiled nuclear weapon systems has the following purposes, procedures, and scope:
- (1) Purpose is limited to—
    - (a) identifying surety concerns when significant changes are made to system hardware or procedures;
    - (b) addressing the adequacy of proposed DoD safety rules or security and control procedures;

- (c) identifying any required changes to proposed DoD safety rules prior to NNSA final concurrence; and
- (d) developing the NNSA position on unresolved surety issues between NNSA and DoD.

(2) Procedure.

- (a) The need for NNSA field review will be clearly identified and forwarded through management channels to the Assistant Deputy Administrator for Military Application and Stockpile Operations for action.
- (b) Based on review of a proposal, the Assistant Deputy Administrator for Military Application and Stockpile Operations will contact the DoD ATSD(NCB) to resolve any issues that have been identified or to coordinate the conduct of a field review.
- (c) Should the DoD not concur with NNSA on the need for a field review, the Assistant Deputy Administrator for Military Application and Stockpile Operations will take appropriate action as outlined in paragraph 4c(3)(f) above.

(3) Scope. The field review will—

- (a) where possible, be conducted in a realistic operational environment;
- (b) include briefings at the appropriate levels of the military service having primary responsibility for the system/activity being reviewed; and
- (c) include discussions and demonstrations by NNSA/DoD elements participating in the stockpile-to-target sequence to determine—
  - 1 adequacy of the nuclear weapon system safety rules or security and control procedures,
  - 2 conformance with the DoD-approved concept of operations,
  - 3 understanding of the implementation of the safety rules or security and control procedures at the operational level, and
  - 4 solutions to unresolved surety issues.



- (4) Reports. At the conclusion of the field review, a report will be prepared and signed by all field review team members. The report will contain—
  - (a) an overview of review purpose, background, and scope (need not be technical or an engineering source document);
  - (b) an executive summary listing the review results, issues, and conclusions and a summary of findings, recommendations, minority opinions, and comments on limitations that affected the conduct of the review;
  - (c) specific findings and recommendations; and
  - (d) minority opinions if agreement has not been reached by the field review team through discussion and deliberation. (NOTE: Minority opinions will be signed by each member who supports the minority opinion.)
- (5) Field Review Report Disposition. The final report will be submitted through the Assistant Deputy Administrator for Military Application and Stockpile Operations and the Deputy Administrator for Defense Programs to the NNSA Administrator with copies to all members.

## 5. RESPONSIBILITIES.

### a. NNSA Administrator.

- (1) Responsible for the surety of all nuclear weapon operations conducted by and for NNSA.
- (2) Serves as a member of the Joint Nuclear Weapons Council as defined in Title 10, United States Code, section 179.
- (3) Exercises dual-Agency responsibility with DoD for the safety, security, and use control of nuclear weapons in DoD custody in accordance with the Memorandum of Understanding between DoD and NNSA on Objectives and Responsibilities for Joint Nuclear Weapons Activities and the Joint Policy Statement on Nuclear Weapon Surety.

### b. NNSA Deputy Administrator for Defense Programs.

- (1) Develops and promulgates Departmental procedures regarding joint NNSA/DoD nuclear weapon and nuclear weapon system surety activities.
- (2) Reviews and concurs or does not concur on DoD proposed nuclear weapon system safety rules.

- c. NNSA Principal Assistant Deputy Administrator for Operations serves as the vice chairman of the NWCSSC.
- d. NNSA Associate Administrator for Defense Nuclear Security coordinates the NNSA safeguards and security program policy with the DoD and other Federal agencies.
- e. NNSA Assistant Deputy Administrator for Military Application and Stockpile Operations.
  - (1) Provides overall direction for implementation and the compliance of requirements contained in this Order.
  - (2) Serves as NNSA representative to the NWCSSC.
  - (3) Designates NNSA Headquarters representatives to serve on project officer groups (POGs) and respective subcommittees.
  - (4) Designates the NNSA representative to the NATO Joint Theater Surety Management Group.
  - (5) Ensures timely response to military service-approved NWSSG recommendations that require NNSA action or support.
  - (6) Designates the NNSA liaison to the Joint Advisory Committee on Nuclear Weapon Surety.
  - (7) Approves administrative changes to nuclear weapon system safety rules.
  - (8) For field reviews—
    - (a) Coordinates the need for and conduct of a review with the ATSD(NCB).
    - (b) Notifies the NNSA Office of Nuclear Weapon Surety and Counterterrorism of the review requirements.
    - (c) Appoints a field review chairperson.
    - (d) Provides direction and guidance for the conduct of the review.
- f. NNSA Office of Nuclear Weapon Surety and Counterterrorism.
  - (1) Manages NNSA's program for participation in DoD NWSSGs
  - (2) Ensures that the requirements specified in this Order are being implemented properly.

- (3) Serves as point of contact to the military services and their NWSSGs concerning the military services' nuclear weapon system safety studies and operational safety reviews.
- (4) Provides the NNSA voting member for NWSSGs.
- (5) Coordinates with the weapon design laboratories to—
  - (a) provide a technical advisor to assist the NNSA's NWSSG member;
  - (b) provide the NWSSGs with technical support, documentation, and briefings; and
  - (c) provide other surety functions as required.
- (6) Reviews all DoD nuclear weapon system safety rules for action and submits appropriate recommendations to the Assistant Deputy Administrator for Military Application and Stockpile Operations within 14 days of receipt.
- (7) Monitors the actions of the military services in responding to the findings and recommendations of the NWSSGs and makes appropriate recommendations.
- (8) As required, appoints observers to the NWCSSC.
- (9) For field review—
  - (a) under direction from the Assistant Deputy Administrator for Military Application and Stockpile Operations, assigns members to the field review team;
  - (b) coordinates with the weapon/design laboratories to provide support for the field review.

6. DEFINITIONS.

- a. National Nuclear Security Administration (NNSA) Field Review. An NNSA-initiated review of DoD nuclear weapon and/or nuclear weapon system activities/operations to satisfy the dual-Agency responsibility to protect public health and safety and the environment.
- b. Dual-Agency/Joint Responsibilities. As required by the 1983 DOE/DoD Memorandum of Understanding, sharing with DoD the responsibility for identifying and resolving health and safety problems connected with nuclear weapons; continuing responsibility to participate with the DoD in consideration of

health and safety problems for nuclear weapons in DoD custody; and working with DoD to ensure that nuclear weapon and delivery systems can be operated in a safe and secure manner.

- c. Nuclear Weapon System Safety Group (NWSSG). A formal military review group with NNSA membership that ensures compliance of a nuclear weapon system with the four DoD Nuclear Weapon System Safety Standards as defined in DoD Directive 3150.2, *DoD Nuclear Weapon System Safety Program*.
- d. Positive Measures. Design features, safety rules, procedures, or other controls used individually or collectively to provide nuclear explosive surety and positive measures that ensure a safe response in applicable operations (e.g., strong-link switches, other safety devices, and administrative procedures and controls).
- e. Project Officer Group (POG). The organizational structure within which project officers coordinate nuclear weapons and weapon systems development. It is the primary point of contact between DOE and DoD for the stockpile life of the weapon and weapon system.
- f. Stockpile-to-Target Sequence (STS). A document that defines the logistical and employment concepts and related physical and nuclear environments, including vulnerability criteria, 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 component.
- g. Weapon Design Laboratories. Lawrence Livermore National Laboratory, Los Alamos National Laboratory, and Sandia National Laboratories.

7. REFERENCES.

- a. National Security Presidential Directive-28, *Nuclear Weapons Command and Control (U)*, dated 6-24-03 (Secret), which provides the basis for the attainment and maintenance of a nuclear command and control system under the authority and direction of the President.
- b. *Joint Policy Statement on Nuclear Weapon Surety*, dated 6-27-91, signed by the Secretaries of Defense and Energy.
- c. *Memorandum of Understanding between the Department of Defense and Department of Energy on Objectives and Responsibilities for Joint Nuclear Weapon Activities*, dated 1-17-83, which supplements previous agreements delineating DoD and NNSA objectives, responsibilities, and measures to improve stockpile planning and acquisition and ensuring high-level attention to nuclear weapon safety, security, and control.

- d. DOE O 452.1C, *Nuclear Explosive and Weapon Surety Program*, dated 9-20-05, which establishes NNSA objectives, standards, criteria, authorities, and responsibilities for the Nuclear Explosive and Weapon Surety Program.
  - e. DoD Directive 3150.2, *DoD Nuclear Weapon System Safety Program*, dated 12-23-96, which describes the DoD Nuclear Weapon System Safety Program and specifies requirements and responsibilities for DoD personnel.
  - f. DoD Directive 3150.2-M, *DoD Nuclear Weapon System Safety Program Manual*, dated 12-23-96, which prescribes procedures for implementation of the DoD Nuclear Weapon System Safety Program.
8. NECESSITY FINDING STATEMENT. In compliance with the statutory requirements in P.L. 104-201, Sec. 3174, Orders relating to the execution of environmental restoration, waste management, or technology development activities at a defense nuclear facility under the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq), may be imposed by the Secretary at the defense nuclear facility only if the Secretary finds that the Order is necessary for the protection of human health and the environment or safety or the fulfillment of current legal requirements.
9. CONTACT. Office of Nuclear Weapon Surety and Counterterrorism, 202-586-0377.

BY ORDER OF THE SECRETARY OF ENERGY:



CLAY SELL  
Deputy Secretary

**DEPARTMENTAL ELEMENTS TO WHICH  
DOE O 452.6 IS APPLICABLE**

Office of the Secretary  
Departmental Representative to the Defense Nuclear Facilities Safety Board  
National Nuclear Security Administration  
Office of Chief Financial Officer  
Office of the Chief Information Officer  
Office of Congressional and Intergovernmental Affairs  
Office of Health, Safety and Security  
Office of General Counsel  
Office of Human Capital Management  
Office of the Inspector General  
Office of Management  
Office of Public Affairs  
Secretary of Energy Advisory Board

CANCELLED

**CONTRACTOR REQUIREMENTS DOCUMENT  
DOE O 452.6, NUCLEAR WEAPON SAFETY, SECURITY, AND CONTROL  
INTERFACE WITH THE DEPARTMENT OF DEFENSE**

Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this Contractor Requirements Document (CRD) and flowing down CRD requirements to subcontractors at any tier to the extent necessary to ensure contractor compliance.

Nuclear Weapons Complex and National Nuclear Security Administration (NNSA) contractors that conduct Department of Energy (DOE) Nuclear Explosive and Weapon Surety (NEWS) Program activities must meet the following requirements.

1. Contractors will provide personnel to support members of NNSA military nuclear weapon system safety groups, military project officer groups, and NNSA field reviews to ensure that hazards associated with military operations are identified, mitigated, and controlled to prevent accidental or unauthorized nuclear weapon detonations.
2. For nuclear weapons delivered to the Department of Defense (DoD), ensure that positive measures are—
  - a. consistent with DoD operational requirements, and
  - b. continually assessed against existing and emerging threats and technological opportunities for improvement.
3. Contractors operating national laboratories with design responsibilities will—
  - a. ensure that use control design features allow timely authorized use of a nuclear weapon while precluding or delaying unauthorized nuclear detonation;
  - b. conduct research and development on a broad range of safety and control methods and devices to improve the surety of nuclear weapons and nuclear weapon systems significantly; and
  - c. evaluate the criticality safety of a nuclear weapon in both normal and abnormal environments to document the intrinsic safety of the design.