

**U.S. Department of Energy**  
**Washington, D.C.**

**ORDER**

DOE 5610.13

10-10-90

**SUBJECT: JOINT DEPARTMENT OF ENERGY/DEPARTMENT OF DEFENSE NUCLEAR WEAPON SYSTEM SAFETY , SECURITY, AND CONTROL ACTIVITIES**

1. **PURPOSE.** To establish Department of Energy (DOE) policy, procedures, authorities, and responsibilities for addressing joint nuclear weapon and nuclear weapon system safety, security, and control activities in conjunction with the Department of Defense (DOD).
2. **SCOPE.** The provisions of this Order apply to DOE Headquarters and field elements and its contractors and subcontractors that conduct nuclear weapon and nuclear weapon system safety, security, and control activities in support of the nuclear weapons program, as provided by law and/or contract and as implemented by the appropriate contracting officer.
3. **APPLICABILITY.** Requirements set forth in this Order apply to all joint DOE/DOD nuclear weapon and nuclear weapon system safety, security, and control activities from initial design through the retirement phase of each nuclear weapon system.
4. **REFERENCES.**
  - a. DOE 5610.10. NUCLEAR EXPLOSIVE AND WEAPON SAFETY PROGRAM, of 10-10-90, which establishes the DOE policy, authorities, and responsibilities for nuclear explosive and weapons safety.
  - b. "Memorandum of Understanding Between DOE and DOD on the Objectives and Responsibilities for Joint Nuclear Weapon Activities," of 1-17-83, which supplements previous agreements delineating DOE and DOD objectives, responsibilities, and measures to improve stockpile planning and acquisition; and ensuring high-level attention to nuclear weapon safety, security, and control.
  - c. DOD Directive 3150.2, "Safety Studies and Reviews of Nuclear Weapon Systems," of 2-8-84, which provides the policy, responsibilities, and procedures for applying safety standards to nuclear weapons and weapon systems, for developing and processing nuclear weapon system safety rules, and conducting safety studies and operational safety reviews of nuclear weapon systems.
  - d. National Security Decision Directive Number 2.

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Office of Defense Programs

e. National Security Decision Directive Number 309.

5. DEFINITIONS.

- a. DOE Field Review (Field Review). A DOE-initiated review of DOD nuclear weapon and/or nuclear weapon system activities/operations to satisfy the DOE'S dual-agency responsibility to protect public health, safety, and the environment.
- b. Weapons Design Laboratories. Those laboratories; i.e., Sandia National Laboratories, Lawrence Livermore National Laboratory, and Los Alamos National Laboratory, which conduct nuclear weapon research, design, and development activities under the auspices of the Department of Energy.

6. POLICY. DOE shall establish and maintain inter- and intra-Departmental procedures for addressing and conducting joint DOE/DOD nuclear weapon and nuclear weapon system safety, security, and control activities to assure that these areas are adequately addressed from the initial conceptual design through the retirement phase of each weapon system.

7. OBJECTIVE. To establish and implement systematic procedures to assure nuclear weapon and nuclear weapon system safety, security, and control are adequately addressed throughout all phases for each nuclear weapon system. specifically:

- a. Phase I. Weapon Concept;
- b. Phase II, Program Feasibility;
- c. Phase IIa. Advanced Development;
- d. Phase III. Development and Engineering;
- e. Phase IV. Production Engineering;
- f. Phase V. First Production;
- g. Phase VI, Quantity Production; and
- h. Phase VII, Retirement.

This effort shall include, but not be limited to, the DOE'S participation in the development, staffing, and implementation of safety rules that shall govern all nuclear weapon system operations throughout the stockpile-to-target sequence.

8. RESPONSIBILITIES.

- a. Secretary of Energy (S-1) is responsible for rendering final Departmental decisions on nuclear weapon and nuclear weapon system safety, security, and control issues.

- b. Assistant Secretary for Defense Programs (DP-1) is responsible for:
- (1) Developing and promulgating Departmental policy regarding joint DOE/DOD nuclear weapon and nuclear weapon system safety, security, and control activities.
  - (2) Serving as the Department's representative to the Nuclear Weapons Council (NWC).
  - (3) Providing DOE concurrence in new or revised DOD safety rules.
- c. Deputy Assistant Secretary for Military Application (DP-20) is responsible for:
- (1) Providing overall direction for policy implementation and the compliance of requirements contained in this Order.
  - (2) Serving as the DOE member to the Nuclear Weapons Council Standing Committee (NWCSC).
  - (3) Chairing, and designating DOE members, to the Nuclear Weapons Council Weapons-Safety Committee (NWCWSC).
  - (4) Monitoring and appraising the DOE Operations Offices conduct of joint DOE/DOD nuclear weapon and nuclear weapon system safety, security, and control activities, as provided for in this Order.
  - (5) Designating DOE Headquarters representatives to serve on Project Officer Groups and respective safety subcommittees.
  - (6) Coordinating and approving the results of nuclear weapon and nuclear weapon system safety, security, and control activities that are conducted by DOE Elements, its contractors and subcontractors, prior to the release of such results to the Department of Defense.
  - (7) Assuring timely response to Military Service approved Nuclear Weapon Safety Study Group (NWSSG) recommendations that require Department of Energy action or support.
  - (8) Coordinating requirements for obtaining DOE concurrence in DOD safety rules.
  - (9) Preparing and forwarding to DP-1 the recommended DOE position on any *new* or revised DOD safety rules for concurrence action.

(10) Providing direction and guidance for conducting DOE Field Reviews

d. Manager, Albuquerque Operations Office (AL) is responsible for:

- (1) Managing, under DP-20 direction, the DOE's program for participation in the DOD Safety Studies and Reviews of Nuclear Weapon Systems.
- (2) Serving as the point of contact to the military services and their Nuclear Weapons System Safety Groups (NWSSGs) concerning matters relating to the military services' safety studies and operational safety reviews.
- (3) Providing a representative to serve as a member of each of the military services' NWSSGs.
- (4) As required, tasking the weapons/design laboratories to:
  - (a) Provide a technical advisor to assist the DOE's NWSSG members.
  - (b) Provide the NWSSGs with technical support, documentation, and briefings.
  - (c) Provide other safety, security, and control-related functions, as required.
- (5) Reviewing all DOD safety rules packages forwarded from Headquarters (DP-20) for action and submitting appropriate recommendations on the rules packages to DP-20,
- (6) Monitoring the actions of the military services in responding to the findings and recommendations of the NWSSGs and making appropriate recommendations for DOE action to DP-20.
- (7) As tasked by DP-20, appointing DOE/AL members to the NWC Weapon Safety Committee.
- (8) Designating DOE/AL representatives to the Project Officer Groups and respective safety subcommittees for each weapon system.

e. Managers, Nevada and San Francisco Operations Offices are responsible for providing support to joint DOE/DOD Nuclear Weapon System Safety, Security, and Control Activities.

9. PROCEDURES FOR DOE OVERSIGHT THROUGHOUT ALL NUCLEAR WEAPON PROGRAM PHASES.
- a. General. A DOE representative shall be designated by DP-20 to oversee and concur in all activities throughout each of the Nuclear Weapon Program phases to assure adequate attention is given to safety, security, and control considerations.
- b. Oversight Activities.
- (1) A DOE employee shall participate in all nuclear weapon program activities that have or could have an effect on nuclear weapon or nuclear weapon system safety, security, or control. This individual will normally be designated by the Manager, AL; however, in some cases, and after coordination with the Manager, AL, DP-20 will designate this individual or additional individuals to assure all relative activities are properly monitored.
- (2) Manager, AL, shall designate an individual to participate in all Project Officer Groups and respective safety subcommittees with their primary responsibility being to assure that all safety, security, and control issues are fully considered and adequately resolved.
- (3) Issues resulting from joint DOE/DOD nuclear weapon and nuclear weapon system safety, security, and control activities shall be resolved by the following procedures as applicable:
- (a) Coordination between appropriate level DOE and DOD staff members.
- (b) Referral to the NWCNSC and/or to the NWC for recommended action.
- (c) Submission, with appropriate recommendations, to the Secretary for final disposition.
10. PROCEDURES FOR REVIEW OF AND CONCURRENCE IN DOD NUCLEAR WEAPON SYSTEM SAFETY RULES.
- a. General. The procedures for DOD development, processing, approval (both interim and final) and promulgation of DOD nuclear weapon system safety rules, including coordination with DOE, are detailed in DOD Directive 3150.2. When operational requirements dictate early approval of safety rules by the Secretary of Defense *in* a period that does not permit sufficient time for DOE to complete its formal coordination process, the Assistant to the Secretary of Defense (Atomic Energy) [ATSD(AE)] will request that DOE provide interim concurrence in the rules subject to

later completion of formal processing within DOE and final DOE concurrence. The procedures for DOE review and evaluation of proposed safety rules in support of interim and final approval by the Secretary of Defense are specified below.

b. Procedures for Interim/Final Approval.

(1) DP-1 shall :

- (a) In the event there are no unresolved safety issues relating to the safety rules package, provide DOE concurrence in granting interim/final approval to DOD, ATSD(AE).
- (b) In the event there are unresolved safety issues in the rules package, take appropriate action in accordance with paragraph 9b(3) above.

(2) DP-20 shall :

- (a) Forward the safety rules package to the Manager, AL, for review and recommendations.
- (b) Conduct a review of the safety rules package based on: 1 the concept of operations; 2 the design safety features of The nuclear weapon system; 3 the proposed safety rules; 4 the NWSSG safety study/review recommendations; and 5 AL recommendations.
- (c) In the event there are no unresolved safety issues relating to the safety rules package, forward the package to DP-1 with a recommendation for concurrence within 30 days, when possible, of receipt of the rules package.
- (d) If pending final approval, and it is deemed necessary, coordinate and conduct a field review of the proposed safety rules.
- (e) In the event that the safety rules package review (or the field review, if conducted) reveals the need for revising the proposed safety rules, coordinate the revision with ATSD(AE).
- (f) In the event that, following formal efforts in conjunction with the ATSD(AE), unresolved safety issues remain, submit the rules package with appropriate recommendations to DP-1 for resolution.
- (g) Provide a copy of all pertinent correspondence regarding the safety rules package to the Manager, AL.

(3) The Manager, AL, shall:

- (a) Upon receipt of the proposed safety rules package from DP-20, conduct an analysis and review of: 1 the proposed safety rules; 2 NWSSG findings and recommendations; and 3 the military services' subsequent actions on any NISSGs findings and/or recommendations.
- (b) Based on the results of paragraph 10b(3) (a) above, provide comments and recommendations to DP-20 in a timely manner to meet the suspense date.
- (c) When a field review is directed by DP-20, provide assistance in conducting the review.
- (d) Task the appropriate weapon/design laboratories to assist in the conduct of the reviews and analyses and in the development of DOE comments and recommendations.

c. Procedures for Administrative Change. DP-20 shall:

- (1) Determine, in each instance, whether the proposed change is nonsubstantive in nature and should be processed administratively or whether formal processing action is required. In making this determination, an administrative change shall be measured against the following:
  - (a) A nonsubstantive change may be one of the following:
    - 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.
    - 4 Other changes not involving nuclear safety.
  - (b) A proposed administrative change shall satisfy the following parameters:
    - 1 There is no change in established safety policy.
    - 2 There is no change to the operational concept upon which the safety rules are based.

3 There is no change to any of the nuclear safety features (either by modification, addition, or removal) in either the weapon(s) or delivery vehicle.

4 There are no changes to specific restrictions as set forth in the rules.

5 There are no outstanding unresolved recommendations that would degrade nuclear explosive safety.

(2) Obtain AL position (in coordination with the appropriate laboratories) regarding the proposed administrative change.

(3) If determined to be an administrative change, provide DOE concurrence in the change to the ATSD(AE).

(4) In the event that it is DOE's position that there are unresolved safety issues and, therefore, does not constitute an administrative change, an action memorandum detailing the issues shall be submitted to DP-1 for resolution.

(5) Provide a copy of all pertinent correspondence to the Manager, AL.

11. PROCEDURES FOR PARTICIPATION IN DEPARTMENT OF DEFENSE NUCLEAR WEAPON SYSTEM SAFETY GROUP ACTIVITIES.

a. General. In accordance with paragraph 4c above, the Secretary of each military department ensures the safety of all nuclear weapon systems for which that service has operational, custodial, or developmental responsibility. In discharging this responsibility, each department Secretary establishes and convenes a NWSSG to conduct safety studies and operational safety reviews of each nuclear weapon system. The NWSSG membership includes an appointed Chairperson from the military service, representatives of the military service(s) concerned, the Defense Nuclear Agency, and DOE.

b. Guidelines for DOE Participation in NWSSGs.

(1) DOE, through the DOE designated weapon/design laboratory, shall provide safety, security, and control-related data on the specific nuclear weapon to be addressed by the NWSSG.

(2) The Manager, AL, shall appoint a DOE member whose primary responsibility shall be participation in the activities of the NWSSG.

(3) The DOE members of NWSSGs shall not have current or have had prior responsibility for the design, development, or production of the specific weapon or weapon system being evaluated.

- (4) The DOE NWSSG member shall be qualified by education and experience to identify, analyze, and understand the information necessary to conduct a proper evaluation of nuclear weapon systems employed by DOD. The task of the DOE NWSSG member is to make unbiased and independent judgments regarding the nuclear safety of the nuclear weapon system under consideration. The DOE NWSSG member shall not have responsibility for advocacy of special interests of DOE or any other agency.
12. SAFETY STANDARDS. In evaluating the nuclear safety, security, and control of nuclear weapon systems through participation in studies and reviews conducted by the DOD NWSSGs, the DOE member shall employ the OOO Nuclear Weapon System Safety Standards contained in OOO Directive 3150.2
13. DOE FIELD REVIEW.
- a. General. The requirement for a DOE field review of a new or stockpiled nuclear weapon system shall be conveyed to OOO when the Department of Energy believes such action is necessary to fulfill its obligation for dual-agency judgment to protect public health, safety, and the environment. Field reviews shall be employed to address the adequacy of proposed safety rules and to identify required changes, if any, in the rules prior to DOE final concurrence and final approval by the Secretary of Defense. The field review process may also be used to develop the DOE position on unresolved safety issues between DOE and OOO or to identify safety concerns when significant changes are made to system hardware or procedures.
- b. Procedures for Conducting a DOE Field Review.
- (1) The need for conducting a DOE field review shall be clearly identified by appropriate DOE staff and forwarded through management channels to DP-20 for action.
- (2) Based on a review of the issue(s), DP-20 shall take action to coordinate the conduct of a field review, or to resolve the issue by other methods, with OOO, ATSD(AE).
- (3) Should DOD nonconcur with DOE in the need for a field review, DP-20 shall take appropriate action as outlined in paragraph 9b(3) above.
- c. Field Review Scope. The DOE field review shall:
- (1) Be conducted in an as realistic operational environment as possible.
- (2) Include briefings at the appropriate level of the military service having primary responsibility for the system/activity being reviewed.

- (3) Include discussions and demonstrations by elements participating in the stockpile-to-target sequence to determine:
  - (a) The adequacy of the nuclear weapon system safety rules.
  - (b) Conformance with the approved concept of operations.
  - (c) An understanding of the implementation of the safety rules at the operational level.
  - (d) Solutions to unresolved safety issues.
- d. Field Review Responsibilities.
  - (1) DP-20 shall:
    - (a) Coordinate the need for and conduct of field review with DOD, [ATSD(AE)].
    - (b) Notify Manager, Albuquerque Operations Office, of the field review requirements.
    - (c) Appoint a field review chairman.
    - (d) Provide direction and guidance for the conduct of the field review.
  - (2) Manager, Albuquerque Operations Office, shall:
    - (a) As directed by DP-20, provide membership to the field review team.
    - (b) Task appropriate weapon/design laboratories to provide support to the field review.
  - (3) Managers, Nevada Operations and San Francisco Operations Offices, shall provide membership to the field review team, as directed by DP-20.
  - (4) Reports. At the conclusion of the field review, a report containing appropriate findings and recommendations shall be prepared and signed by all field review members. Minority opinions, if any, shall be included in the report. The final report shall be submitted through DP-20 to DP-1, and/or S-1 (if applicable), with copies to all members.

BY ORDER OF THE SECRETARY OF ENERGY:



JIM E. TARRO  
Director of Administration and  
Human Resource Management