

Directive Number and Title: DOE O452.1B, Nuclear Explosive and Weapon Surety Program

Originating Office: NA-121

Review Team Members: Robert Newton (GC-53), Charles Robinson (EH-6, Departmental Representative to the DNFSB), Chuck Westfall (NA-121)

Background

DOE O 452.1 is the only Departmental Directive to address surety (safety, security and use control) for nuclear explosive/weapon operations and does not duplicate any other DOE Order requirements. DOE O 452.1A was published to meet Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-1. This Order applies to all Departmental Elements and to the national laboratories and contractors performing work for the Department on nuclear explosives and weapons as provided by law (10CFR830, Nuclear Safety Management) and/or contract, and as implemented by the appropriate contracting officer.

DOE O 452.1B, was published August 8, 2001, less than six months ago, and revised DOE O 452.1A by incorporating necessary revisions identified during the biennial directives review process, formal Departmental Review and Comment (REVCOM), Field Management Council (FMC) review, and incorporating new information and implementing corrective actions related to DNFSB Recommendation 98-2, Safety Management at the Pantex Plant.

Overview of Requirements

The order's purpose is to:

- A. To establish requirements and responsibilities for the DOE Nuclear Explosive and Weapon Surety (NEWS) Program to ensure adequate safety, security, and control of nuclear explosives and nuclear weapons.
- B. To maintain a formal, comprehensive, and systematic NEWS Program to protect the public and worker health and safety and the environment while supporting national defense requirements.
- C. To establish nuclear explosive surety standards, nuclear weapon design surety requirements, and appraisal requirements for the NEWS Program.
- D. To address requirements and responsibilities for planned nuclear explosive operations. Responses to unplanned events (e.g., Accident Response Group activities) are addressed in the 5530-series Orders and DOE O 151.1A, Comprehensive Emergency Management System, dated 11-01-00.

Accomplished. NNSA Operations Office Managers are responsible to the Assistant Deputy Administrator for Military Application and Stockpile Operations (NNSA) to identify which contracts this order applies to and ensure those contracts are modified to incorporate both the order and attached CRD within 6 months after order publication.

The CRD sets forth requirements to be applied to all major facilities management contractors that manage, oversee, conduct, or support DOE NEWS program activities.

Analysis

In 1993, the Defense Nuclear Facilities Safety Board (DNFSB) expressed its concern that the level of safety assurance at those facilities that assemble, disassemble and test nuclear weapons is at least as rigorous as that required at other defense nuclear facilities and that it can be measured to compare with the level of safety assurance provided to the public and site workers by commercial nuclear material processing facilities. In response to the Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 93-1, the Department agreed to (1) Review its Nuclear Safety Orders and Directives to determine applicability to those facilities and sites; (2) provide a clear explanation of the attributes of the Department's Nuclear Safety Orders and Nuclear Explosive Safety Orders and how they are applied by identifying those critical safety elements of operations and how those elements are addressed by each order and directive; (3) identify the areas of inconsistency or discontinuity between the sets of Nuclear Safety Orders and Nuclear Explosive Safety Orders, if any; (4) where appropriate, identify areas where the orders and directives can and should be strengthened, and (5) expedite its Order Compliance Review at the Pantex Plant. In response to the DNFSB, DOE O 452.1A was published January 17, 1997 as a new series order in accordance with DOE Directives System Management guidance and replaced DOE O 5610.11 which did not have a contractor requirements document. It was revised and replaced on August 8, 2001 with DOE O 452.1B.

Do we still need to apply the order to contractors? Yes, the order was revised under the Directives Management Review process and received FMC approval. Contractors are responsible for compliance with the requirements and for flowing down the requirements for the CRD to subcontracts at any tier to the extent necessary.

If so, are there attentive less bureaucratic approaches? No. Nuclear explosive operations require special safety consideration because of the potential high consequences of an accident or unauthorized act. A formal, comprehensive safety program must be maintained and evaluated.

Are there any other useful changes to the contractor requirements document? No. The Order and CRD were issued less than six month ago and went through the Directives Management Review process and received FMC approval that required a review by contracts (MA-5) and two separate reviews by the office of the General Counsel.

Summary Recommendations

No comments were received from the affected offices and no changes are suggested at this time to DOE Order 452.1B

Minority Views None

Originating Office Comments

No comment by NA-121.