

**[DNFSB LETTERHEAD]**

February 3, 1995

The Honorable Charles B. Curtis  
Under Secretary of Energy  
Washington, D.C. 20585

Dear Under Secretary Curtis:

The Defense Nuclear Facilities Safety Board (Board) has reviewed the proposed revision to the Department of Energy (DOE) Order 4700.1, *Project Management System*, which would have a major effect on health and safety responsibilities within DOE. The Board considers that this revision does not provide a project management framework within which it can be assured that health and safety requirements are incorporated into the design, construction, operation, and decommissioning phases of the project life cycle.

Specifically, the Board notes the following major deficiencies with the proposed revision of DOE Order 4700.1:

- a. There is a noticeable absence of a technically sound systems engineering process specified in the overall systems management approach. The draft Order focuses more on budget and schedule responsibility than on sound systematic technical management activities that ensure appropriate design and the protection of health and safety.
- b. The draft Order does not define a management structure without accountability or achieving project performance requirements, including those project requirements that assure protection of health and safety throughout the project's life cycle. The roles and responsibilities of the Secretarial Offices, field elements, and contractor organizations regarding project management performance are not clear.
- c. The draft Order does not explicitly state acceptance criteria and performance requirements, including safety-related requirements, for project management. In several instances, in the draft Order, specific direction is relegated to nonmandatory Program Management Guides to be developed later. Therefore, the draft Order does not promote a standardized DOE-wide process for project development and system management where criteria for various reviews and transitions between life cycle phases can be consistently applied and evaluated. This lack of consistency will further challenge DOE's ability to integrate these activities between sites, let alone at a site.
- d. The draft Order does not make use of standards developed elsewhere within DOE and in the industry that have become accepted and expected business practices. For example, the Tank Waste Remediation System Systems Engineering Standard developed at the DOE's Hanford Site, which is based on industry standards including MIL-STD 499B, *Systems Engineering* (now EIA-IS 632), has not been included in the draft Order. Standards such as these should be incorporated in the revision to DOE Order 4700.1.
- e. The draft Order does not explicitly incorporate the requirements of the DOE Implementation Plans for Board Recommendations 92-4 and 93-4. Specifically:
  - o Contract Technical Management issues are not addressed as required by the Implementation Plan for Recommendation 93-4.
  - o Industry standards such as Department of Defense systems engineering and design review standards are not addressed as required by the Implementation Plan for Recommendation 92-4.

Given these significant deficiencies, the Board requests that DOE submit a report within 60 days pursuant to 42 U.S.C. 2286b(d) explaining how the above comments will be addressed prior to the issuance of the revised DOE Order 4700.1. Mr. Andrew Stadnik of our staff is available to help you in this regard.

Sincerely,

***John T. Conway***

Chairman

c: The Honorable Archer L. Durham  
The Honorable Thomas P. Grumbly  
The Honorable Victor H. Reis  
Mr. Donald W. Pearman