Defense Nuclear Facilities Safety Board

Washington, DC 20004

Policy Statement

PS-6

Date: July 24, 2017

Subject

Policy Statement on Oversight of Design and Construction of Defense Nuclear Facilities.

Summary

This policy statement establishes the approach the Defense Nuclear Facilities Safety Board will take to review the design and construction of Department of Energy defense nuclear facilities.

Sean Sullivan
Chairman

I. Scope

This policy describes how the Board fulfills its statutory duty to review design and construction of Department of Energy (DOE) defense nuclear facilities.

II. Background

42 U.S.C. § 2286a(b)(4) states that the Board shall review the design of a new DOE defense nuclear facility before construction of such facility begins and shall recommend to the Secretary of Energy, within a reasonable time, such modifications of the design as the Board considers necessary to ensure adequate protection of public health and safety. During the construction of any such facility, the Board shall periodically review and monitor the construction and shall submit to the Secretary, within a reasonable time, such recommendations relating to the construction of that facility, as the Board considers necessary to ensure adequate protection of public health and safety. An action of the Board, or a failure to act, may not delay or prevent the Secretary from carrying out the construction of such a facility.

III. Definitions

Safety Item—any type of nuclear safety deficiency (i.e., Safety Observation, Safety Issue, or Issue of Adequate Protection).

Safety Observation—a safety item that will not challenge adequate protection of public health and safety when the facility begins radiological operations. The Board may choose to communicate formally on these topics to provide independent advice and analysis to DOE.

Safety Issue—a safety item for which the Board requires additional information to assess whether it could challenge adequate protection of public health and safety when the facility begins radiological operations.

Issue of Adequate Protection—a safety item where the Board recommends corrective actions to ensure adequate protection of public health and safety when the facility begins radiological operations.

IV. Policy

The Board shall review the design and construction of defense nuclear facilities as follows:

- Prioritize independent oversight activities using a systematic and graded approach that considers the:
    - Hazards that may lead to accidental radiological uptake or exposure;
    - Hazard categorization, project size, complexity, and schedule;

- Maturity of project technology; and
- Board's resource limitations.

- Execute independent oversight by performing reviews with defined scope and durations at specified and logical points in the process and document the review results in four formal reports to the Board:
  - Conceptual design (including the Safety Design Strategy and the Conceptual Safety Design Reports);
  - Final design (including Preliminary Documented Safety Analysis);
  - Construction (including Quality Assurance Program, design compliance of a selective subset of installed safety systems, structures, and components, and specified Technical Safety Requirements); and
  - Commissioning (a selective subset of safety programs including aspects of startup and testing, Technical Safety Requirements, and associated procedures).
- Conduct effective oversight by evaluating input from resident inspectors, staff reviews and observations, Board Member field visits, DOE project status briefings, and Board hearings to identify safety items. Commensurate with the type of safety item (see §III. Definitions):
  - Provide timely and formal communications to DOE so that the Board's independent advice, analysis, and recommendations may be factored into the normal DOE decision-making process to the maximum extent possible.
  - Track DOE's efforts and progress regarding safety items identified in formal communications from the Board. Tracking will cease once:
    - DOE formally communicates its decision regarding resolution of the safety items to the Board; and
    - The Board formally responds, nominally within 90 days, to DOE's communication.
  - Use any of the Board's statutory tools to inform DOE and the public of design or construction safety items.