



Defense Nuclear Facilities Safety Board
presentation to
Workshop on DOE Used Nuclear Fuel
and High-Level Waste

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Defense Nuclear Facilities Safety Board: Overview

- Executive Branch Agency dedicated to providing independent nuclear safety oversight of DOE Defense Nuclear Facilities
 - *Oversight, not regulation*
- Comprised of 5 Presidentially appointed members (including a Chairman & Vice-Chairman)
 - Required by law to be respected experts in the field of nuclear safety with a demonstrated competence and knowledge relevant to the independent investigative and oversight functions of the Board
- Supported by a Technical Staff of ~60 engineers and scientists
- 11 members of the Technical Staff assigned as resident Site Representatives at DOE Defense Nuclear Facilities



Defense Nuclear Facilities Safety Board: Functions & Powers

- **Functions.** With regard to the design, construction, operation, and decommissioning of DOE defense nuclear facilities:
 - Review and evaluate standards
 - Content and implementation
 - Areas requiring additional data or research
 - Investigate any event or practice that adversely affects public health & safety
 - Analyze design and operational data
 - Review facility design and construction
 - Make such Recommendations to the Secretary of Energy as the Board determines necessary to protect public health & safety
- **Powers.**
 - Hold hearings
 - Levy reporting requirements
 - Conduct special studies
 - Station Site Representatives



Defense Nuclear Facilities Safety Board: Purview

- “DOE Defense Nuclear Facility” means:
 - A production facility or utilization facility under the control or jurisdiction of the Secretary of Energy (SOE) and operated for national security purposes
 - A nuclear waste storage facility under the control or jurisdiction of the SOE
- Exclusions:
 - Naval Nuclear Propulsion Program
 - Transportation of nuclear explosives or material (Dept. of Transportation)
 - Any facility owned by the United States Enrichment Corporation
 - Any facility developed pursuant to the Nuclear Waste Policy Act of 1982 and licensed by the Nuclear Regulatory Commission (NRC)
- What this means in practice:
 - Most DOE facilities under the Office of Environmental Management (EM), plus a few in the Office of Science (SC) and Office of Nuclear Energy (NE)
 - Most National Nuclear Security Administration (NNSA, or NA) facilities



Defense Nuclear Facilities Safety Board: Purview

- EM sites of high interest to the Board:
 - Hanford Site
 - Oak Ridge National Laboratory
 - Savannah River Site
 - Idaho National Laboratory
 - Savannah River National Laboratory
 - Waste Isolation Pilot Plant
- NA sites of high interest to the Board:
 - Los Alamos National Laboratory
 - Nevada National Security Site
 - Sandia National Laboratories
 - Y-12 National Security Complex
 - Lawrence Livermore National Laboratory
 - Pantex Plant
 - Savannah River Site



DNFSB: Focus on Spent/Used Fuel

- Recommendation 94-1, *Improved Schedule for Remediation in the Defense Nuclear Facilities Complex*
- Recommendation 2000-1, *Prioritization for Stabilizing Nuclear Materials*



DNFSB: Focus on Spent/Used Fuel

Technical Reports:

- TECH-7, *Stabilization of Deteriorating Mark 16 and Mark 22 Aluminum-Alloy SNF at the SRS*, November 1995
- TECH-17, *Review of the Hanford Spent Nuclear Fuel Project*, October 1997
- TECH-30, *Safety Review of the Hanford SNF Project During the Design and Construction Phase*, February 2001



Recent Site Visits

- Board members visited the L-Basin at SRS in August 2010
- A Board member visited the CPP-666 Basin at Idaho in July 2009