Management of Activities Under DNFSB Recommendations 2000-1 and 97-1

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Panel Introductory Remarks
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Background: Recommendation 94-1
Strategy for Nuclear Materials Stabilization

- Goal was to address highest risk materials in first 3 years, in accordance with Board's recommendation
  - Vented residue drums at Rocky Flats
  - Vented Pu solution bottles at PFP
  - Repackaged all Pu in contact with plastic
  - Stabilized Mk-31 targets at SRS
  - Performed 100% vault inventory at LANL
- Stabilization activities have been given a high priority among competing DOE missions
- Stabilization program has taken longer than originally planned; compensatory measures are in place to ensure continued safety of workers and public

Recommendation 2000-1

- Board's Recommendation issued January 14, 2000
- Re-emphasized the remaining 94-1 stabilization actions
- Department's Implementation Plan issued June 8, 2000; addressed the nine technical sub-recommendations from 2000-1 related to stabilization
- Revision 1 of 2000-1 Implementation Plan issued January 19, 2001; incorporated several individual milestone changes as well as a new baseline for LANL stabilization

Stabilization Progress

- K-Basins fuel movement initiated in December 2000
- Plutonium packaging systems (compliant to 3013 Standard) coming on-line this year (Livermore, Rocky Flats, Hanford)
- Design of 235-F stabilization and storage capability at Savannah River Site on schedule

2000-1 Current Issues

- TVA HEU Agreement for SRS HEU
- Start of plutonium packaging at RFETS

2000-1 Management Team

- Comprised of Office Directors of programs with 2000-1 responsibilities, as well as EH, GC, and CR as appropriate
- Monthly meetings to discuss issues and and update status for Responsible Manager
- Monitor inputs into SIMS

DNFSB Recommendation 97-1

- Scope of Recommendation 97-1 (issued 05/97) concerns safe storage of Department's ^{233}U inventory
- Inventory is primarily at ORNL and INEEL (~400kg each) with minor amounts at other sites
- ^{233}U is a legacy material from past nuclear development programs and presence of certain decay isotopes in the inventory creates a radiological hazard which makes handling difficult
- It is weapons usable but its promise was primarily as a reactor fuel

DNFSB Recommendation 97-1 Implementation Status

- Major issue concerns integrity of ^{233}U packages in storage at ORNL
- Department's plan is to begin package sample inspection program in late summer of FY01; remote handling system for packages to be used
- Department considering making ^{233}U inventory available for commercial processing of beneficial isotopes
  - would disposition inventory and resolve storage problems at ORNL
  - provide greater supply of much needed isotopes to medical community for cancer research an potential treatment

DNFSB Recommendation 97-1
Managing the ^{233}U Program

- 97-1 Technical Team formed to integrate and execute actions specified by 97-1 Implementation Plan (IP)
- Team consists of technical specialists, site representatives from affected sites, and representatives from DOE HQ organizations with jurisdiction or ownership of facilities and material
- Ability of team members to speak for the sites and funding organizations expedited execution of IP
- Regular team meetings provided necessary interaction for planning and integration of activities

DNFSB Recommendation 97-1
Managing the ^{233}U Program (con't)

- Program Execution Plan (PEP) developed using a systems engineering approach to define ^{233}U program tasks, integrate site activities, and provide basis for budget formulation
- Result: **On time completion of 97-1 commitments**

DNFSB Recommendation 97-1
Recent Developments

- Secretarial public commitment to ensure availability of ^{233}U material for cancer treatment clinical trials (6/00)
- ORNL EOI (6/00)
- DOE Decision to issue RFP at ORNL(9/00)
- Draft RFP issued for ORNL Inventory (1/01); comments are being evaluated
- INEEL began trade studies to examine and validate potential beneficial uses of ^{233}U and infrastructure to support prospective uses