

U.S. NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Briefing on NMSS Programs, Performance, and Plans

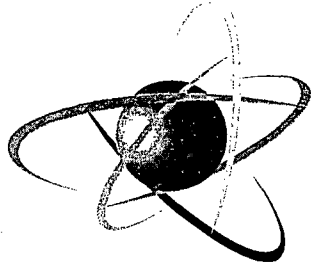
March 8, 2007

Jack Strosnider, Director

Nuclear Material Safety & Safeguards

Key Messages

- **The NMSS mission spans breadth of nuclear power cycle**
- **NMSS is reorganized to improve focus on fuel cycle safety**
- **NMSS is preparing to meet future challenges as nuclear power evolves**



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Protecting People and the Environment

Briefing on FCSS Programs, Performance, and Plans

March 8, 2007

Robert Pierson, Director

Fuel Cycle Safety & Safeguards

Key Messages

Fuel Cycle Facilities

- **Staff continues efficient reviews of license applications**
- **Amount and timing of work is uncertain**
- **New and different technologies require new and different staff knowledge, skills, and experience**

Program Accomplishments

Fuel Cycle Facilities

- **Issued license for LES National Enrichment Facility**
- **Issued SER and Final EIS for USEC American Centrifuge Plant**
- **Accepted LA and Integrated Safety Analysis Summary for Mixed-Oxide Fuel Fabrication Facility**

Program Accomplishments

Fuel Cycle Facilities

- **Approved Areva–Lynchburg and BWXT ISA Summaries**
- **Held first Fuel Cycle Information Exchange**
- **Completed downblending verification with IAEA**
- **Negotiated ADR with fuel cycle licensee in joint effort with R-II**

Program Accomplishments

Fuel Cycle Facilities

- **MC&A Rulemaking Activities:**
 - **Completed technical bases for changes to Part 74 – Additional requirements for:**
 - **SNM facilities**
 - **Potential geologic repository surface buildings**

Future Challenges

Fuel Cycle Facilities

- **Reprocessing/Recycling Technologies - GNEP**
- **Advanced Enrichment Technologies - SILEX**
- **Mixed-Oxide Fuel Fabrication**
- **Uranium Conversion/Deconversion**

Future Challenges

Fuel Cycle Facilities

- **New Facilities Safety and Safeguards, Licensing, and Inspection**
- **IAEA Safeguards**
 - **At new facilities**
 - **Implementation of Additional Protocol**

Strategies for Success

Fuel Cycle Facilities

- **Risk Inform Process**
- **Develop/Maintain Expertise**
- **Increase Resources**
- **Develop New Regulations and Guidance**
- **Increase Staff Flexibility**

Commission Decisions

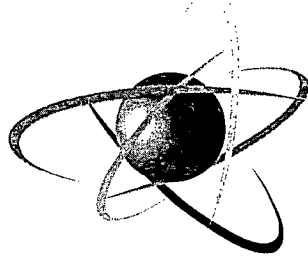
Fuel Cycle Facilities

- **Commission Papers (FY 2007)**
 - **GNEP – pace and scope of development of regulatory framework**
 - **Conversion/Deconversion facilities – NRC licensing, Part 40 rulemaking**

Commission Decisions

Fuel Cycle Facilities

- **MC&A Rulemakings**
 - **Part 74 changes**
 - **SNM facilities - FY 2009 final rule**
 - **Buildings at potential geologic repository - FY 2008 final rule**
 - **Enhanced requirements for NMMSS data collection - FY 2008 final rule**



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Briefing on SFST Programs, Performance, and Plans

March 8, 2007

E. William Brach, Director

Spent Fuel Storage and Transportation

Key Messages

Spent Fuel Storage & Transportation

- **Significant growth in storage facilities**
- **High stakeholder interest**
- **Evolving national strategy on spent fuel management**

Program Accomplishments

Spent Fuel Storage & Transportation

- **Private Fuel Storage license**
- **Casework timeliness and budget metrics**
- **Technical support for storage risk assessment**

Program Accomplishments

Spent Fuel Storage & Transportation

- **Transportation tunnel fire studies**
- **Leadership in international arena**

Future Challenges

Spent Fuel Storage & Transportation

- **Increasing casework demands and complexity**
- **Maintaining staff expertise**
- **Uncertainties in national spent fuel management**

Strategies for Success

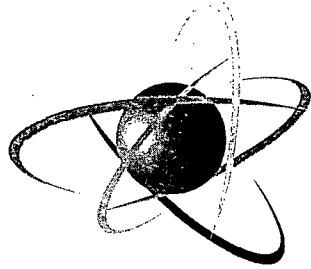
Spent Fuel Storage & Transportation

- **Aggressively recruit, develop, and maintain staff expertise**
- **Enhance regulatory framework**
- **Integrate transport, aging and disposal canister reviews**

Commission Decisions

Spent Fuel Storage & Transportation

- **Moderator exclusion for spent fuel transportation**
- **Storage certificate terms and regulations**



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Briefing on HLWRS Programs, Performance, and Plans

March 8, 2007

Lawrence E. Kokajko, Director

High-Level Waste Repository Safety

Key Messages

High-Level Waste Repository Safety

- **Staff maintains readiness to review proposed Yucca Mountain License Application**
- **The staff will continue its pre-licensing interactions with DOE**

Key Messages

High-Level Waste Repository Safety

- **Staff review will be risk-informed and performance-based**
- **The NRC has maintained its openness policy, LSN collection, and dedicated hearing facility in Las Vegas**

Program Accomplishments

High-Level Waste Repository Safety

- **Held public Technical Exchanges with DOE**
- **Prepared Interim Staff Guidance in several topical areas**

Program Accomplishments

High-Level Waste Repository Safety

- **Worked with CNWRA to revise and update NRC's Total-System Performance Assessment code**
- **Observed DOE Quality Assurance audits with Region IV and CNWRA**
- **Developed Knowledge Management and Transfer system**

Future Challenges

High-Level Waste Repository Safety

- **Finalize revisions to Part 63 and guidance**
- **Position resources necessary to complete LA review and make all necessary decisions in allotted time**
- **Maintain our excellent record in LSN administration & certification**

Strategies for Success

High-Level Waste Repository Safety

- **Continue to interact with DOE on key topical areas in pre-licensing**
- **Coordinate reviews of TAD with SFST**
- **Augment, train, and certify NRC staff**
- **Maintain core competencies at CNWRA**

Strategies for Success

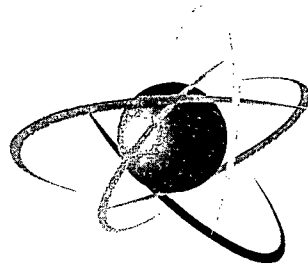
High-Level Waste Repository Safety

- **Continue public outreach activities**
- **Maintain neutrality and independence in what continues to be a highly contentious debate about Yucca Mountain**

Commission Decisions

High-Level Waste Repository Safety

- **Final Rule: Revisions to Part 63**
- **Security Rulemaking for GROA**



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Briefing on NMSS Program Budgeting, Planning, and Analysis

March 8, 2007

Mark Flynn, Director

**Program Budgeting, Planning, and
Analysis Division**

Key Messages

Program Budgeting, Planning, and Analysis

- **Manage NMSS Business Activities through reorganization, budget uncertainties, and move to Executive Boulevard**

Program Accomplishments

Program Budgeting, Planning, and Analysis

- **NMSS Reorganization**
- **Management of NMSS Resources**
- **Human Capital Management**
- **Knowledge Management**

Future Challenges

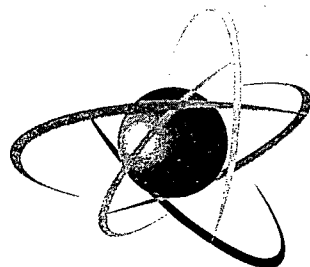
Program Budgeting, Planning, and Analysis

- **High Quality Resource Management/Support**
- **Move to Executive Boulevard**
- **Staffing**

Strategies for Success

Program Budgeting, Planning, and Analysis

- **Identify/Implement Process Improvements**
- **Utilize Shared Resources**
- **Collaborate with NRC Offices**



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Jack Strosnider, Director

Nuclear Material Safety and Safeguards

Organizational Capacity Model

- **Aspirations**
- **Strategies**
- **Organizational skills**
- **Human resources**
- **Systems and infrastructure**
- **Organizational structure**
- **Culture**

ABBREVIATIONS

ADR - alternative dispute resolution
BWXT - BWX Technologies
CNWRA - Center for Nuclear Waste Regulatory Analysis
DOE - U.S. Department of Energy
EIS - Environmental Impact Statement
FCSS - Division of Fuel Cycle Safety & Safeguards
FSME- Office of Federal and State Materials and Environmental Management Programs
FY - Fiscal year
GNEP - Global Nuclear Energy Partnership
GROA - Geologic Repository Operations Area
HLW - High-Level Waste
HLWRS – Division of High-Level Waste Repository Safety
IAEA - International Atomic Energy Agency
ISA - Integrated Safety Analysis
LA - License Application
LES - Louisiana Energy Services
LSN - Licensing Support Network
MC&A - Material control & accounting
MFFF – Mixed-oxide fuel fabrication
NMMSS - National Nuclear Materials Management and Safeguards System
NMSS - Office of Nuclear Material Safety & Safeguards
NRC - U.S. Nuclear Regulatory Commission
PCSA – Pre-closure safety assessment (for Division of High-Level Repository Safety)
SER - Safety Evaluation Report
SFST - Division of Spent Fuel Storage & Transportation
SILEX - Separation of isotopes by laser excitation
SNM - Special nuclear material
TAD - Transportation, Aging, and Disposal canister