



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



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



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



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



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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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