Briefing on NMSS Programs, Performance, and Plans – Waste Safety

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Agenda

- Overview
- Major program accomplishments
- Challenges
- Strategies for success
- Risk-informing strategies
- Near-term and future policy issues
- Summary

Overview

- Diverse waste safety program poses unique challenges
- Subject to changing landscape
- Management/staff commitment to continuous improvement meets these challenges

Major Program Accomplishments

- Achieved all FY 2004 strategic and performance goals
  - Safety and security
  - Public confidence/Openness
  - Effectiveness/EERT
  - Management
- On track to achieve FY 2005 goals

Disposal

- Improved public availability of NRC's HLW documents through the LSN
- Enhanced openness in NRC waste disposal activities
- Independently evaluated technical quality of DOE documents

Storage and Transportation

- Completed PFS hearings
- Enabled industry to store spent fuel through timely regulatory actions
- Collaborated with DOT to influence international transportation standards and to promulgate conforming US regulations

Environmental

- Maintained high quality and timeliness of EISs
  - Completed LES draft EIS ahead of schedule
  - Completed Foster Wheeler final EIS ahead of schedule and under budget
  - Completed MOX final EIS
- Influenced international activities

Decommissioning

- Achieved greater flexibility in implementing the License Termination Rule
- Focused and streamlined the decommissioning program
- Increased the rate of site terminations

Challenges

- Emerging work
  - Unique
  - Technically complex
- Balance between openness and security
- Competing for specialized critical skills; sustaining staff capabilities
- Maintaining up-to-date infrastructure

Trends in Activities
FY 2005 – FY 2007

CASE LOAD TRENDS

- Waste Disposal ↑
- Transportation and Storage →
- Environmental ↑
- Decommissioning →

OTHER DRIVERS

Technical Complexity

Changing Environment

Coordination

Critical Skills

New approach to work

Caseload x Other Drivers = Resources

Strategies for Success

- Commitment to continuous improvement by increasing organizational capacity
  - Eliminate activities that do not contribute substantially to our goals
  - Streamline and improve processes and procedures
  - Improve communication
  - Maintain a flexible infrastructure
  - Recruit and retain critical skills
  - Be aware of what the future may bring

Risk-Informing Strategies

- Increased effectiveness and efficiency by focusing on areas commensurate with their importance to safety
- Eliminated or reduced unnecessary work

Integration of Activities

- Integrated management teams
- Cross-cutting training
- Cross-utilization of staff
- Coordination with Offices
- Transferred knowledge of hearing process and stakeholder involvement

Near-Term Commission Interactions

- Disposal
- Storage and Transportation
- Environmental
- Decommissioning

Future Policy Issues

- Spent fuel storage and transportation of evolving fuel designs
- NRC role in national LLW issues
- Implications of decommissioning for new reactor designs

Summary

- Challenges will continue
- Continuous improvement essential to address these challenges
- NMSS management and staff are committed to achieving NRC's strategic and performance goals in the most effective and efficient way we can

ACRONYMS FOR MATERIALS AND WASTE COMMISSION BRIEFINGS

(these may be discussed during the meetings)

ACMUI	Advisory Committee on Medical Use of Isotopes
ACNP	American College of Nuclear Physicians
ACNW	Advisory Committee on Nuclear Waste
ACR-700	Advanced Candu Reactor
ACRS	Advisory Committee on Reactor Safety
ADAMS	Agencywide Documents Access and Management System
AEA	Atomic Energy Act
AID	Agency for International Development
AIF	Assured Isolation Facility
AIT	Augmented Inspection Team
AMP	Authorized Medical Physicists
ANL	Argonne National Laboratory
ANP	Authorized Nuclear Pharmacist
ANPR	Advanced Notice of Proposed Rulemaking
ANS	American Nuclear Society
ANSI	American National Standards Institute
ARM	Accelerator-produced radioactive material
ASAM	Application of Safety Assessment Methodologies for Near-Surface Radioactive Waste Disposal Facilities
ASLB	Atomic Safety and Licensing Board
ASM	Additional Security Measure
AU	Authorized Users
BEIR	Biological Effects of Ionizing Radiation, Committee on the
BLEU	Blended Low-Enriched Uranium
BNFL	British Nuclear Fuels Limited
BPF	BLEU Preparation Facility
BPI	Business process improvement
BREDL	Blue Ridge Environmental Defense League
BSC	Bechtel SAIC
BWXT	BWX Technologies, Inc., a fuel cycle facility
CAR	Construction Authorization Request
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CMS	Consequence Management Subgroup, Department of Homeland Security
CNSC	Canadian Nuclear Safety Commission
CNWRA	Center for Nuclear Waste Regulatory Analyses
CoC	Certificate of Compliance
CORAR	Council on Radionuclides and Radiopharmaceuticals

CRCPD	Conference of Radiation Control Program Directors
CRP	Coordinated Research Project
CRPPH	Committee on Radiation Protection, and Public Health (Nuclear Energy Agency Committee)
CSA	Cognizant Security Agency
CY	Calendar Year
DCS	Duke Cogema Stone and Webster
DDMS	Digital Data Management System
DEDO	Deputy Executive Director for Operations
DEIS	Draft Environmental Impact Statement
DGEIS	Draft Generic Environmental Impact Statement
DHS	Department of Homeland Security
DOE	Department of Energy
DOT	Department of Transportation
DP	Decommissioning Plan
DS	Draft Standard
DWM	Division of Waste Management, Office of Nuclear Material Safety & Safeguards
EA	Environmental Assessment
EGIR	Nuclear Energy Agency Expert Group on Implications of the ICRP Recommendations
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
EPRI	Electric Power Research Institute
ESBWR	General Electric Simplified Boiling Water Reactor
EU	European Union
FANP	Framatome ANP
FCSS	Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards
FEIS	Final Environmental Impact Statement
FFLI	Fuel Facilities Licensing and Inspection
FR	Federal Register
FRA	Federal Railroad Administration
FRN	Federal Register Notice
FSC	Forum on Stakeholder Confidence
FUSRAP	Formerly Utilized Sites Remedial Action Program
FSER	Final Safety Evaluation Report
FWENC	Foster Wheeler Environmental Corporation
FY	Fiscal Year
GAN	Gosatomnadzor (Russian Federation Nuclear Regulatory Agency)
GANE	Georgians Against Nuclear Energy
GCEP	Gas Centrifuge Enrichment Plant
GDPs	Gaseous Diffusion Plants

GEIS	Generic Environmental Impact Statement
GL	General License
GLTS	General License Tracking System
GNFA	Global Nuclear Fuel-Americas LLC (A fuel cycle facility)
GPRA	Government Performance and Results Act
GSA	General Services Administration
GTCC	Greater Than Class C
HAZMAT	Hazardous Materials
HEU	Highly-enriched Uranium
HF	Hydrofluoric Acid
HI-STAR	Holtec International's dry cask storage design planned for use at ISFSI
HRA	Human Reliability Assessment
HLW	High Level Waste
HLWRS	Division of High-Level Waste Repository Safety
IA	Interagency Agreement
IAEA	International Atomic Energy Agency
ICC	Interagency Coordinating Committee
ICM	Interim Compensatory Measures
ICRP	International Commission on Radiological Protection
IIRSR	Integrated Issue Resolution Status Report
IMC	Inspection Manual Chapter
IMNS	Division of Industrial and Medical Nuclear Safety, Office of Nuclear Material Safety and Safeguards
IMPEP	Integrated Materials Performance Evaluation Program
IND	Improvised Nuclear Device
INEEL	Idaho National Engineering and Environmental Laboratory
INES	International Nuclear Events Scale
INMM	Institute of Nuclear Materials Management
IP	Inspection Procedures
IRIS	Westinghouse International Reactor Innovative and Secure
ISA	Integrated Safety Analysis
ISCORS	Interagency Steering Committee on Radiation Standards
ISF	Idaho Spent Fuel Facility (also referred to as Foster-Wheeler and 2nd ISFSI @ INEEL)
ISFSI	Independent Spent Fuel Storage Installation
ISG	Interim Staff Guidance
ISLs	In-Situ Leach facilities
IT/IM	Information Technology/Information Management
KTIs	Key Technical Issues
LA	License Application
LANL	Los Alamos National Laboratory

LES	Louisiana Energy Services
LEU	Low-enriched Uranium
LLRW	Low-Level Radioactive Waste
LLW	Low-Level Waste
LLWPA	Low-Level Waste Policy Act
LPR	License Performance Reviews
LQRAM	Large Quantity Radioactive Material
LSN	Licensing Support Network
LSNA	LSN Administrator
LSN ARP	LSN Advisory Review Panel
LTP	License Termination Plan
LTR	License Termination Rule
LTS	License Tracking System
MC	Manual Chapter
MC&A	Material Control and Accounting
MCNSNS	Mexican Comision Nacional de Seguridad Nuclear y Salvaguardias (Mexico Nuclear Regulatory Agency)
MDNR	Michigan Department of Natural Resources
MELOX	Nuclear facility in France
MFFF	Mixed Oxide Fuel Fabrication Facility
MII	Management Improvement Initiatives
MOU	Memorandum of Understanding
MOX	Mixed Oxide
NA	National Academy
NAC	Nuclear Assurance Corporation
NAS	National Academy of Sciences
NCRP	National Council on Radiation Protection and Measurements
NEA	Nuclear Energy Agency
NEI	Nuclear Energy Institute
NEPA	National Environmental Policy Act
NFS BLEU	Nuclear Fuel Services Blended Low-Enriched Uranium Project
NFS/IUSA	Nuclear Fuel Services/International Uranium Corporation (USA)
NISA	Nuclear and Industrial Safety Agency (Japan Nuclear Regulatory Agency)
NGO	Non-Government Organization
NMP	National Materials Program
NMSS	Office of Nuclear Material Safety and Safeguards
NNSA	National Nuclear Security Administration
NORM	Naturally Occurring Radioactive Material
NPL	National Priorities List
NRDC	National Resources Defense Council

NRR	Office of Nuclear Reactor Regulation
NTEU	National Treasury Employees Union
NSIR	Office of Nuclear Security and Incident Response
NUHOMS	spent fuel storage cask design
NWPA	Nuclear Waste Policy Act
OAS	Organization of Agreement States
OCAA	Office of Commission Appellate Adjucation
OCIO	Office of the Chief Information Officer
OCRWM	Office of Civilian Radioactive Waste Management at Department of Energy
OEDO	Office of the Executive Director for Operations
OGC	Office of the General Counsel
OHR	Office of Human Resources
OIP	Office of International Programs
OMB	Office of Management and Budget
OPA	Office of Public Affairs
ORIA	Office of Radiation and Indoor Air at Environmental Protection Agency
ORNL	Oak Ridge National Laboratory
ORP	Department of Energy Hanford Office of River Protection
OSART	Operational Safety Assessment Review Team (IAEA)
OSHA	Occupational Safety and Health Administration
OSTP	Office of State and Tribal Programs
PADEP	Pennsylvania Department of Environmental Protection
PART	Program Assessment Rating Tool
PBPM	Planning, Budgeting, and Performance Management
PCSA	Pre Closure Safety Analysis
PFS	Private Fuel Storage (An away-from reactor, spent fuel storage facility license applicant)
PG&E	Pacific Gas and Electric Company
PIRCS	Performance Identification, Resolution, and Corrective Action System
PMDA	Program Management, Policy Development, and Analysis Staff, Office of Nuclear Material Safety and Safeguards
PPS	Package Performance Study
PRA	Probabilistic Risk Assessment
PRI	Power Resources, Inc., a uranium recovery company
QA	Quality Assurance
R&R	Roles and Responsiblity
RAI	Request for Additional Information
RASSC	Radiation Safety Standards Committee
RCRA	Resource Conservation and Recovery Act
RDD	Radiological Dispersal Device
RED	Radiological Exposure Device

RES	Office of Nuclear Regulatory Research
RESRAD	A computer code for calculating doses from residual radioactivity for site cleanups
RIDM	Risk Informed Decision Making
RIPA	Reactor Inspection and Performance Assessment
RIRIP	Risk-Informed Regulation Implementation Plan
RIS	Regulatory Issues Summary
ROP	Reactor Oversight Program
RSO	Radiation Safety Officers
RTG	Risk Task Group, Office of Nuclear Material Safety & Safeguards
RTSG	Radioactive Transport Study Group
RWMC	Nuclear Energy Agency Radioactive Waste Management Committee
SAFSTOR	delayed dismantlement of facility undergoing decommissioning
SAR	Safety Analysis Report
SbF5	Antimony pentafluoride
SDMP	Site Decommissioning Management Plan
SER	Safety Evaluation Report
SESCDP	Senior Executive Service Candidate Development Program
SFPO	Spent Fuel Project Office, Office of Nuclear Material Safety & Safeguards
SGI-M	Safeguards Information - Modified Handling
SLOMFP	San Luis Obispo Mothers for Peace
SNF	Spent Nuclear Fuel
SNL	Sandia National Laboratories
SNM	Special Nuclear Material
SRM	Staff Requirements Memorandum
SRP	Standard Review Plan
SRS	Savannah River Site
STP	Office of State and Tribal Programs
SWR-1000	Framatome Advanced Boiling Water Reactor
SWU	Separative Work Unit
T&E	Training and Experience
TAR	Technical Assistance Request
TCM	Technical Committee Meeting (IAEA)
TECDOC	Technical Document (IAEA)
TENORM	Technologically Enhanced Naturally Occurring Radioactive Material
TMI	Three Mile Island reactor plant
TN	Transnuclear
TPA	Total Performance Assessment
TRANSAS	Transport Safety Appraisal Service (IAEA)
TRANSSC	Transportation Safety Standards Committee (IAEA)

TTC	Technical Training Center
TVA	Tennessee Valley Authority
UF6	Uranium hexafluoride
UMTRCA	Uranium Mill Tailings Radiation Control Act
UNB	Uranyl Nitrate Building
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation
USEC	United States Enrichment Company
UR	Uranium Recovery
USACE	U. S. Army Corps of Engineers
USCS	U.S. Customs
VA	Vulnerability Analysis
WASSC	Waste Safety Standards Committee
WEC	Westinghouse Electric Company
WIPP	Waste Isolation Pilot Plant
WIR	Waste-Incidental-to-Reprocessing
WPDD	The Working Party on Management of Materials from Decommissioning and Dismantling
WVDP	West Valley Demonstration Project
YM	Yucca Mountain
YMRP	Yucca Mountain Review Plan