



Materials Commission Briefing

**Martin Virgilio, NMSS
January 23, 2003**

Overview

- **Introduction**
- **Meeting purpose**
- **Objective**
- **Process**

Briefing Topics

- **Safety and Security of Radioactive Materials**
- **New Fuel Facility Licensing (MOX, LES, USEC, International support)**
- **National Materials Program**

Improving the Safety and Security of Radioactive Materials

- **Lowering the probability of events**
- **Limiting consequence of events**
- **Overarching issues**

Mixed Oxide Fuel Fabrication Facility (MOX)

- **MOX construction permit application was submitted and substantially revised**
 - **Currently under review**
 - **On schedule**

Mixed Oxide Fuel Fabrication Facility (MOX) (Cont'd)

- **Russians announce plans to adopt similar MOX design**

Louisiana Enrichment Services (LES)

- **Expect license submittal in January 2003**
- **NRC will use previous experience to expedite review**
- **LES paper on environmental and licensing issues**

United States Enrichment Corporation (USEC)

- **Expect license submittal Feb. 2003**

USEC (Cont'd)

- **Three-part program**
 - ▶ **Demonstration program (DOE regulatory control)**
 - ▶ **Lead cascade or demonstration phase**
 - ▶ **Commercial deployment**

National Materials Program

- **NRC, OAS, and CRCPD collaboration on Pilot Projects**
- **State fiscal issues: budget, staffing, travel**

Summary

- **NMSS commitment to:**
 - ▶ **Utilize the full potential of the staff**
 - ▶ **Demonstrate behaviors consistent with our core values**
 - ▶ **Increase organizational capacity**

ACRONYMS FOR MATERIALS AND WASTE COMMISSION BRIEFINGS
(these may be discussed during the meetings)

ACMUI	Advisory Committee on Medical Use of Isotopes
ACR-700	Advanced Candu Reactor
AID	Agency for International Development
AIF	Assured Isolation Facility
AIT	American Institute in Taiwan
ANL	Argonne National Laboratory
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 Licensing Board
BEIR	Biological Effects of Ionizing Radiation, Committee on the
BPI	Business process improvement
BREDL	Blue Ridge Environmental Defense League
BSC	Bechtel SAIC
BWXT	BWX Technologies, Inc., a fuel cycle facility
CAMECO	Canadian company that is part of the Louisiana Energy Services partnership
CAR	Construction Authorization Request
CERCLA	Comprehensive Environment Response, Compensation, and Liability Act
CNSC	Canadian Nuclear Safety Commission
CNWRA	Center for Nuclear Waste Regulatory Analyses
CoC	Certificate of Compliance
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
DEIS	Draft Environmental Impact Statement
DOE	Department of Energy
DOT	Department of Transportation
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

ESBWR	General Electric Simplified Boiling Water Reactor
EU	European Union
FCFB	Fuel Cycle Facilities Branch, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards
FCSS	Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards
FR	Federal Register
FRN	Federal Register Notice
FSC	Forum on Stakeholder Confidence
FWENC	Foster Wheeler Environmental Corporation
FY	Fiscal Year
GAN	Russian Federation Gosatomnadzor
GANE	Georgians Against Nuclear Energy
GDPs	Gaseous Diffusion Plants
GL	General License
GLTS	General License Tracking System
GNFA	Global Nuclear Fuel-Americas LLC (A fuel cycle facility)
GSA	General Services Administration
GT-MHR	General Atomics Gas Turbine Modular Helium Reactor
HAZMAT	Hazardous Materials
HLW	High Level Waste
IA	Interagency Agreement
IAEA	International Atomic Energy Agency
ICM	Interim Compensatory Measures
ICRP	International Commission on Radiological Protection
IGSC	Integration Group for the Safety Case
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
INER	Institute of Nuclear Energy Research (An organization in Taiwan Atomic Energy Council)
INES	International Nuclear Events Scale
INMM	Institute of Nuclear Materials Management
IP	Office of International Programs
IRIS	Westinghouse International Reactor Innovative and Secure
ISA	Integrated Safety Assessment
ISCORS	Interagency Steering Committee on Radiation Standards
ISF	Idaho Spent Fuel Facility
ISFSI	Independent Spent Fuel Storage Installation

ISLs	In-Situ Leach facilities
KTIs	Key Technical Issues
LANL	Los Alamos National Laboratory
LES	Louisiana Energy Services
LLW	Low-Level Waste
LQRAM	Large Quantity Radioactive Material
LSN	Licensing Support Network
LSN ARP	Licensing Support Network Advisory Review Panel
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
MELOX	Nuclear facility in France
MFFF	Mixed Oxide Fuel Fabrication Facility
MII	Management Improvement Initiatives
MOST	Ministry of Science and Technology, Republic of Korea
MOU	Memorandum of Understanding
MOX	Mixed Oxide
NAS	National Academy of Sciences
NCRP	National Council on Radiation Protection and Measurements
NEA	Nuclear Energy Agency
NEI	Nuclear Energy Institute
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)
NGO	Non-Government Organization
NMP	National Materials Program
NMSS	Office of Nuclear Material Safety and Safeguards
NRDC	National Resources Defense Council
NRR	Office of Nuclear Reactor Regulation
NSIR	Office of Nuclear Security and Incident Response
NUPEC	Nuclear Power Engineering Corporation (Japan)
NYDOH	New York Department of Health
NYSDEC	New York State Department of Environmental Conservation
NYSERDA	New York State Energy Resource and Development Authority
OAS	Organization of Agreement States
OCIO	Office of the Chief Information Officer
OCRWM	Office of Civilian Radioactive Waste Management at Department of Energy

OECD	Organization of Economic Cooperation and Development
OEDO	Office of the Executive Director for Operations
OGC	Office of the General Counsel
OHR	Office of Human Resources
OHS	Office of Homeland Security (Department of Homeland Security after legislation is implemented)
OIP	Office of International Programs
OPA	Office of Public Affairs
ORIA	Environmental Protection Agency Office of Radiation and Indoor Air
ORP	Department of Energy Hanford Office of River Protection
OSTP	Office of State and Tribal Programs
PBPM	Planning, Budgeting, and Performance Management
PCSA	Pre Closure Safety Analysis
PFS	Private Fuel Storage (A spent fuel facility license applicant)
PG&E	Pacific Gas and Electric Company
PMDA	Program Management, Policy Development, and Analysis Staff, Office of Nuclear Material Safety and Safeguards
PNNL	Pacific Northwest National Laboratory
PPS	Package Performance Study
PRA	Probabilistic Risk Assessment
PRI	Power Resources, Inc., a uranium recovery company
QA	Quality Assurance
RAI	Request for Additional Information
RASSC	Radiation Safety Standards Committee
RCRA	Resource Conservation and Recovery Act
RDD	Radiological Dispersal Device
RED	Radiological Exposure Device
RESRAD	Computer code
RIRIP	Risk-Informed Regulation Implementation Plan
RWMC	Nuclear Energy Agency Radioactive Waste Management Committee
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
SFRC	U.S. Senate Foreign Relations Committee
SLOMPF	San Luis Obispo Mothers for Peace
SNL	Sandia National Laboratories
SNM	Special Nuclear Material
SPEC	Source Production Equipment Company (Agreement State Licensee)
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
TCM	Technical Committee Meeting (IAEA)
TEC	Tennessee Environmental Council
TECDOC	Technical Document (IAEA)
TECRO	Taipei Economic Cultural Representative Office
TENORM	Technologically Enhanced Naturally Occurring Radioactive Material
TMI	Three Mile Island reactor plant
TPA	Total Performance Assessment
TRANSAS	Transport Safety Appraisal Service
TRANSSC	Transportation Safety Standards Committee
TTC	Technical Training Center
UK DTI	United Kingdom Department of Trade and Industries
UK NII	United Kingdom Nuclear Installations Inspectorate
UMTRCA	Uranium Mill Tailings Radiation Control Act
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
WIR	Waste-Incidental-to-Reprocessing
WPDD	The Working Party on Management of Materials from Decommissioning and Dismantling
WVDP	West Valley Demonstration Project
YMRP	Yucca Mountain Review Plan