



STATE OF THE TECHNICAL PROGRAMS

EXECUTIVE DIRECTOR FOR
OPERATIONS BRIEFING TO THE
COMMISSION

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AGENDA

Introduction

Nuclear Reactor Safety and
Security

Nuclear Materials and Waste
Safety and Security

Conclusion

Nuclear Reactor Safety and Security

Reactor Oversight

- Program Considerations
 - Incorporating experience into the program
 - License renewal - Inspection
 - Fire protection - Inspection
 - Lessons-learned -
followup/implementation

Reactor Oversight

- Potential Challenges
 - Early detection of performance trends
 - Vendor oversight
 - IRRS program review

Reactor Oversight

- Potential Policy Issues
 - Safety culture
 - Fire Protection
 - Revision of the Enforcement Policy

Incident Response

- Program Considerations
 - Implement National Framework/Communication Plan
 - Intergovernmental coordination
 - Outreach with stakeholders
 - Modernization
 - EP exercises

Incident Response

- Potential Challenges
 - Incident command center concept
 - Communication during threat response
 - Comprehensive Reviews

Incident Response

- Potential Policy Issues
 - Continuity plans
 - Emergency Planning changes

Licensing

- Program Considerations
 - License renewal
 - Watts Bar, Unit 2
 - Power uprates
 - Non-power reactor applications

Licensing

- Potential Challenges
 - Operator licensing for new reactors/operating reactors
- Potential Policy Issues
 - NGNP/Advance reactor priorities

Rulemaking

- Program Considerations
 - Part 50, Section 50.46, ECCS
 - Part 73, Access Authorization during construction
 - Part 50, Section 50.47, Emergency Preparedness

Rulemaking

- Program Considerations (cont)
 - Materials Security, Parts 20, 30, 32, 70, 73, 74, etc.
 - General Licenses, Parts 31, 32, 40
 - Uranium Recovery Part 40, In Situ Leach

Rulemaking

- Potential Challenges/Policy Issues
 - Rulemaking Priorities and Allocations of Resources
 - Expediting the Rulemaking Process

Research

- Program Considerations
 - Advanced Reactors
 - State of the Art Reactor
Consequence Analyses (SOARCA)
 - Operating reactor licenses - Life
Beyond 60

Research

- Potential Challenges
 - Maintaining NRC's Independent Analytical and Modeling Skills
 - Expanding SOARCA

Research

- Potential Policy Issues
 - Next Generation Nuclear Power (NGNP)
 - Presentation of SOARCA results
 - Technology Neutral Framework

Nuclear Materials and Waste Safety and Security

Nuclear Materials Users

- Program Considerations
 - Radioactive Materials Security
 - Agreement States
 - Materials Licensing and Inspection Programs
 - Regulatory Infrastructure

Nuclear Materials Users

- Potential Challenges
 - Maintaining alignment with stakeholders
- Potential Policy Issues
 - Additional Increased Controls for radioactive sources
 - ICRP recommendations

Nuclear Materials Users

- Potential Policy Issues (cont)
 - RDD definition and consequences
 - Expanding NSTS
 - Threshold Values for Radionuclides of Concern
 - Additional Materials Security Rulemakings

Uranium Recovery, Decommissioning, and Low Level Waste

- Program Considerations
 - Decommissioning
 - Waste Incidental to Reprocessing
 - Low Level Waste
 - Uranium Recovery

UR, Decommissioning, and LLW

- Potential Challenges
 - Expected Number of Uranium Recovery Applications
 - Restricted Use of Decommissioned Sites
 - Zion Decommissioning

UR, Decommissioning, and LLW

- Potential Policy Issues
 - LLW Strategic Assessment Activities and Priorities
 - Base Realignment and Closure
 - Blending of Waste

Fuel Facilities

- Program Considerations
 - Licensing and oversight of new facilities
- Potential Challenges
 - Developing and maintaining the regulatory framework

Fuel Facilities

- Potential Challenges (cont)
 - Attention to operating and new facilities
 - Risk Informing Licensing and Oversight Processes
 - Information security
 - Hanford Waste Treatment Plant Review

Fuel Facilities

- Potential Policy Issues
 - Safeguards
 - Information Security

High-Level Waste

- Program Considerations
 - Repository license application review
 - Transportation, aging, and disposal canisters (TAD)

High-Level Waste

- Potential Challenges
 - Statutory milestones
 - Applications for Transportation and Storage Casks

High-Level Waste

- Potential Policy Issues
 - Environmental standard and final rulemaking on Part 63
 - Waste confidence
 - Package Performance Study
 - Burn-up Credit

Spent Fuel Storage and Transportation

- Program Considerations
 - Licensing and inspection
 - Evolving national strategy on spent fuel
 - Regulatory infrastructure

Spent Fuel Storage and Transportation

- Potential Challenges
 - Demanding performance measures
 - Risk-informing reviews
 - Stakeholder communications

Spent Fuel Storage and Transportation

- Potential Policy Issues
 - Harmonization on transportation requirements
 - Security regulations for storage and transportation
 - Federal interim storage

Acronym

- ECCS – Emergency Core Cooling System
- EP – Emergency Preparedness
- ICRP – International Council on Radiation Protection
- IRRS – Integrated Regulatory Review Service
- LLW – Low Level Waste
- NGNP – Next Generation Nuclear Plant
- NSTS – National Source Tracking System
- RDD – Radioactive Dispersal Device
- SOARCA – State of the Art Reactor Consequence Analysis
- UR – Uranium Recovery