

COMMISSION BRIEFING SLIDES/EXHIBITS

**BRIEFING ON THE STATUS OF RES
PROGRAMS, PERFORMANCE, AND PLANS**

MARCH 27, 2003



Office of Nuclear Regulatory Research Commission Briefing

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Outline

- **State of RES**
- **Selected Program Highlights**
- **Summary**

State of RES

- **Safety mission**
- **Effectiveness and Efficiencies**
- **International and Domestic activities**
- **Human Capital**
- **OIG Safety Culture areas for improvement**

Selected Program Highlights

- **Homeland Security**
- **Advanced Reactors and Design Technology**
- **Risk Informed Initiatives**
- **Operating Experience Assessment**
- **Generic Safety Issues**
- **Materials degradation and aging**
- **Spent Fuel Transportation and Waste**

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RES Briefing

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HOMELAND SECURITY RESEARCH

- **Develop technical basis to assess the vulnerability of NRC licensed facilities**
- **Realistic engineering analysis**
- **Insights, mitigative strategies, and integrated risk assessment**
- **Maintain dialogue with the other offices and outside stakeholders**

Advanced Reactors Design and Technology

- **Evaluation of New Designs**
- **Safety/Technical issues and analytical tools**
- **Research plan and infrastructure**
- **Policy issues**

Risk-Informed Initiatives

- **Support agency efforts to use risk information**
- **Risk assessment methods and application**

Operating Experience Assessment

- **Data collection and analysis**
- **Accident Sequence Precursor Program**
- **Industry Performance Trends**
- **Performance indicator enhancement**

Generic Safety Issue Program

- **Eliminated backlog of issues; current issues are being addressed on schedule**
- **Considerable interest in information and insights**
- **Overall effectiveness of the Generic issue process is under review**

Materials Degradation and Aging

- **Key aspect of many safety and regulatory issues**
- **Research contributes state-of-the-art technology safety evaluations**
- **Materials research contribution to Davis Besse evaluation and long-term actions**

Spent Fuel Transportation and Waste Research

- **Package Performance Study**
- **Dry cask storage license renewal**
- **Radionuclide transport**
- **Clearance and entombment
rulemaking**

Summary

- **Agency safety decisions**
- **Focus on human capital**
- **Provide bases for sound and timely agency decisions**
- **Attention to efficiency and effectiveness and realism**