Fuel Cycle Safety: One Commissioner’s Perspectives

NEA. Fuel Cycle Safety Workshop
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U.S. Nuclear Regulatory Commission
Global Cooperation

- Global marketplace a reality
- International partnerships
- Mining of uranium ore
- All steps of the fuel cycle
A Fuel Cycle Renaissance

• Outlook of industry
  – Conventional uranium-mining
  – In-situ leach facilities
    • as many at 12 new applications in the US

• Advanced enrichment technologies
  – USEC
  – GE

• Global cooperation on nuclear safety
Safety

- Safety Culture pilot study
- Agreement State licensing
  - Staff recommendation
- Natural hazards
  - Niigata earthquake in Japan
Future Challenges

Global Nuclear Energy Partnership

[Diagram showing steps such as Expand Nuclear Power, Recycle Nuclear Fuel, Enhance Nuclear Safeguards, Develop Advanced Burner Reactors, Establish Reliable Fuel Services, Design and Deploy Appropriately Sized Reactors, and Fuel Suppliers to Fuel Users.]
Future Challenges continued

• Digital instrumentation and control systems
  – Reactor
  – Fuel cycle facility

• High Level and Low Level wastes

• Legislative mandates
  – Incidental waste

• Public transparency
Human Capital

• Critical shortages
• Hiring
• Training
  – Regulatory experiences from around the world
  – Workshops vital
THANK YOU