

Spent Nuclear Fuel Transportation Experience

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Progress Energy

Discussion Topics

- **Progress Energy Transportation History**
- **Shipment Security**
- **Organization and People**
- **Procedures**
- **Coordination and Notification**
- **Emergency Response**
- **Summary**

Progress Energy Nuclear Plants

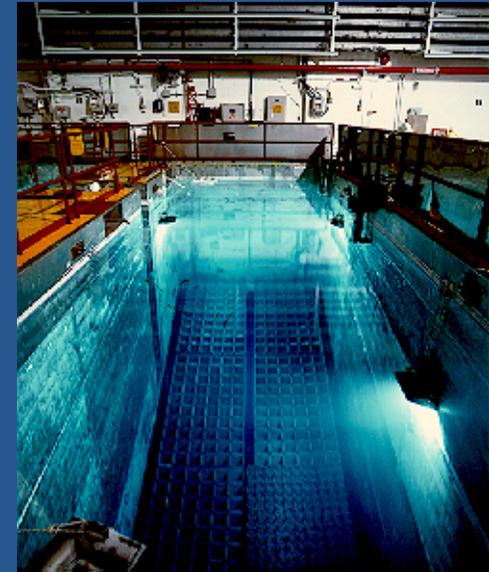
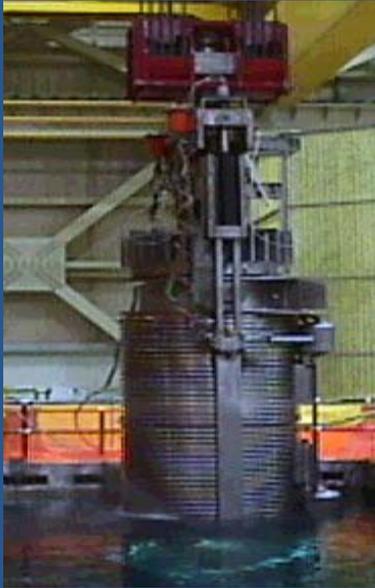


Spent Fuel Management Strategy

- Maintain operating reserve at all nuclear units
- Spent fuel shipping program to reduce inventories at Brunswick and Robinson
- Maximize use of Harris spent fuel pools



Transportation Experience



- 173 shipments
- Over 30,000 miles
- 4,000 spent fuel assemblies transported

Excellent Operational Record

- No radioactive spills or releases
- No radiation exposure to train personnel or general public
- Increased security since 9/11/01



Success Factors



- Nuclear safety focus
- Clearly identified accountabilities
- Continuous improvement culture
- Pre-shipment briefings
- Post-shipment critique and lessons learned

Shipment Security

- Dedicated rail shipments
- Time of shipments and specific security provisions are 'safeguards information'
- Continuous, remote monitoring of shipment location



Dedicated Train

- Locomotive
- Empty Flatcar
- Cask Car
- Cask Car
- Empty Flatcar
- Caboose



Shipment Personnel



- Trained and Qualified Personnel
- Proficient core team
 - ◆ At each site
 - ◆ Accompany shipment

Shipment Organization

- Shipment Manager
- Radiological Escort
- Mechanic Escorts

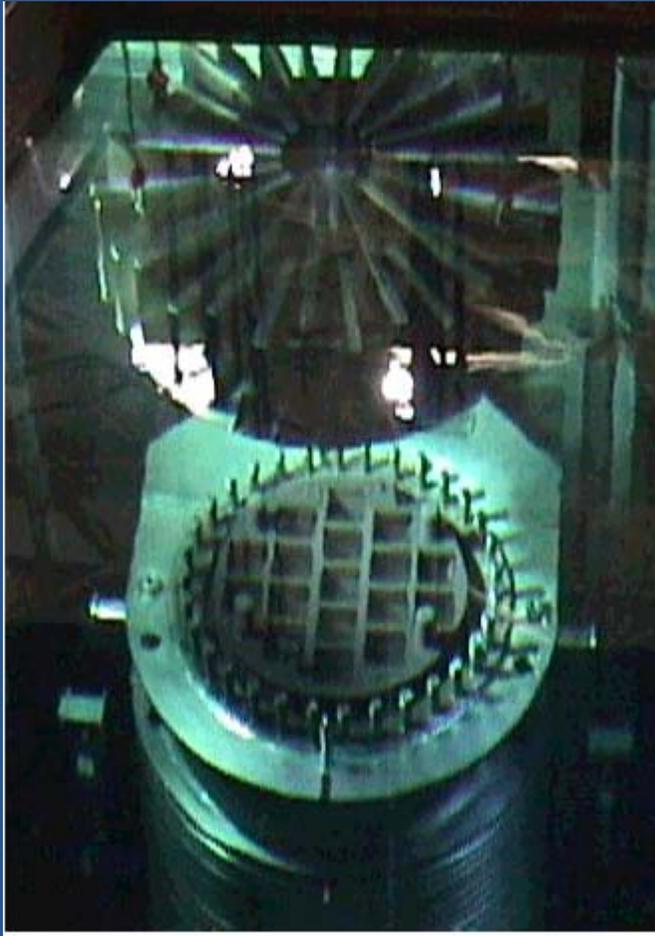


Shipment Organization



- Communicators
- Plant Response Coordinator & Team
- Response Manager

Detailed Procedures



- Site procedures
 - ◆ Loading
 - ◆ Unloading
 - ◆ Shipment Preparations
- Transportation
 - ◆ Routine
 - ◆ Emergency

State and Local Coordination

- Initial meetings with towns and counties
- Periodic exercises with State and County Emergency Personnel
- Ongoing Communication



Notification of Shipment Status

- Advance Notification
 - ◆ State – Governor's designee (7 day)
 - ◆ Federal –NRC (10 day)
- State and County updates during shipment



Emergency Response



- Pre-identified scenarios
- Radiological and hazard information readily available
- Dedicated and trained response personnel

Summary



- **Successful transportation experience exists**
- **Coordinated effort between Utilities, Federal, State and Local organizations**