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Operational Benefits of Using Dedicated Trains To Transport Spent Fuel To Yucca Mountain

Presented by: Joe Grumski

Dedicated Trains

On Monday, July 18th, 2005, DOE distributed its new “Department of Energy Policy Statement for Use of Dedicated Trains for Waste Shipments to Yucca Mountain.” Under this policy DOE will use dedicated train service – train service dedicated to one Commodity – for its rail transport of spent nuclear fuel and high-level radioactive waste to the Yucca Mountain Repository site in Nevada.

Dedicated Trains

Why Dedicated Trains?

- Safety
- Security
- Economics
- Rail Logistics and Scheduling

Why Dedicated Trains

Safety

- **Direct transit reduces the time the packages are in transit as compared to regular train service.**
- **Reduced radiological risk due to less transit time**
- **Reduced risk to the individuals in the escort cars**
- **Reduced number of interchanges minimizes the probability of impact and damage to the cars.**

Why Dedicated Trains

Security

- **Dedicated Trains rail shipments will take less time to arrive at it's destination.**
- **Dedicated Trains wait time is minimized in interchange yards for switches.**
- **Shipment planning will have more options.**

Why Dedicated Trains

Economics

Although cost per mile for Dedicated Trains is higher than regular train service, the overall system cost will be lower in the long term.

Turn around on equipment will create the need for less equipment

- Less equipment means less maintenance and overall operational needs**

- Provides flexibility and improves productivity for railroads to vary routing changes.**

Why Dedicated Trains

Rail Logistics and Scheduling

- **Planning**

- Will allow for a variety of routing plans, will give RR more flexibility.

- **Operational Resources**

- Will require less resources; i.e. tracking and tracing of equipment, management of equipment, and better equipment utilization.

- **Flexibility**

- Allows for equipment to be mobilized and demobilized to any location without long lead times

- **Efficiency**

- Execution will be more seamless than regular train service

In Summary

Highlights of the Use of Dedicated Trains

– Safety

- Lower risk to public, operational personnel, and equipment.

– Security

- Ability to change routing, better observation, significantly less time in public sector.

– Lower Packaging and Equipment Costs

- Less railcars, casks, operation personnel

– Contracting

- More simplified

In Summary

What is Needed?

Provide a Life-Cycle Implementation Program For Transportation Equipment and Packaging Systems Utilizing the Dedicated Trains.

- Need to provide quantitative numbers to support justification to implement the policy

**“Well done is better than well
said.”**

Benjamin Franklin