Interim Centralized Spent Nuclear Fuel Storage Site for America License #SNM-2513

NRC – RIC 2006
Session W4GH
Spent Fuel Management
Washington D.C.

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Chairman of the Board
Private Fuel Storage, L.L.C.
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Private Fuel Storage

License

- ASLB recommended License on February 24, 2005
- Commissioners voted to License on September 9, 2005
- US Supreme Court refused appeal on voiding of laws blocking PFS
- NRC License issued on February 21, 2006

Site Partners

Skull Valley Band of
Goshute Indians

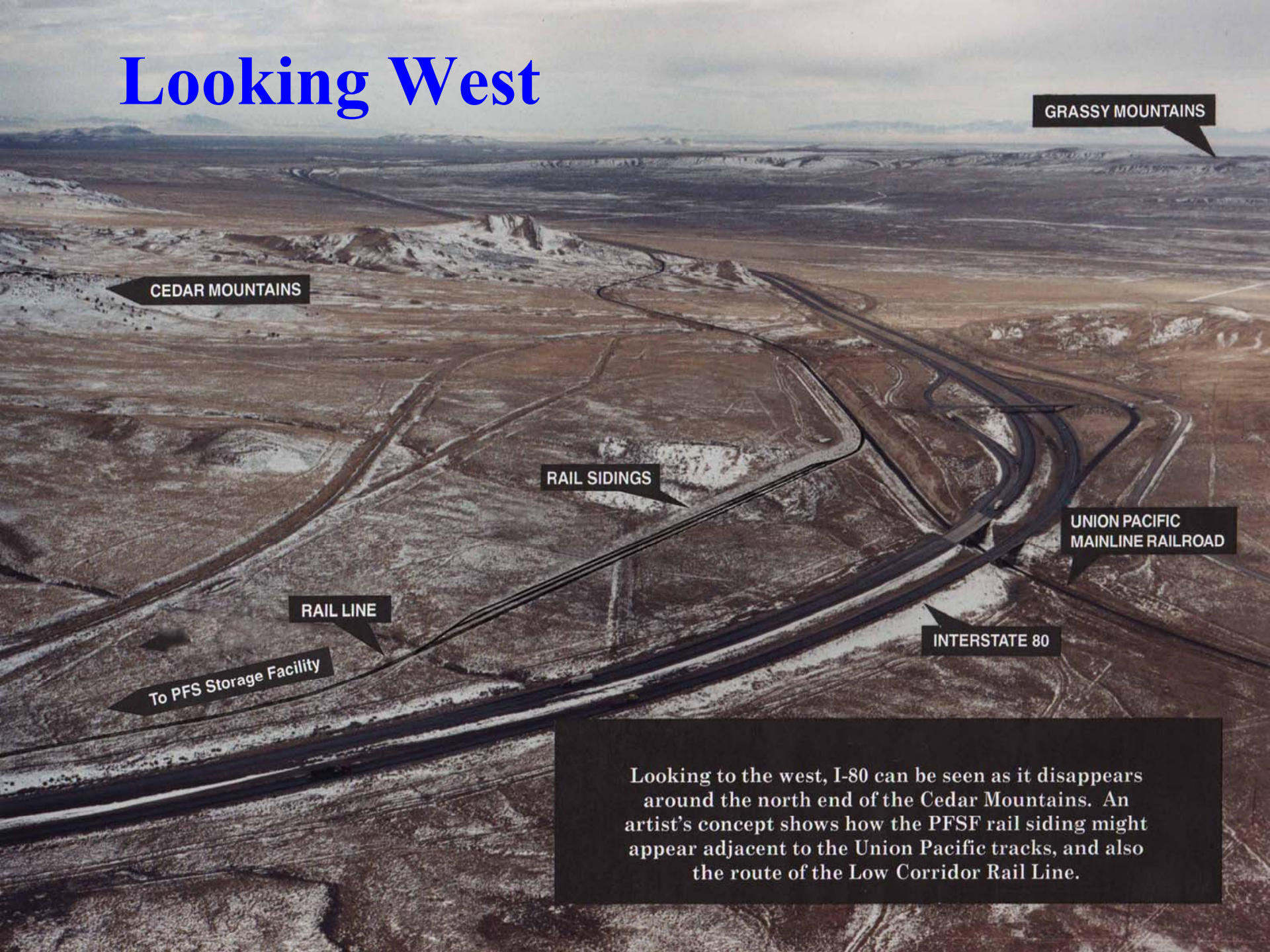
Major Benefits

- Less expensive than on-site storage by an individual utility
- Enhances security of spent fuel
- Fulfills planned temporary site as outlined in 1982 NWPA
- Flexible outflow to accommodate either reprocessing or shipment directly to the proposed underground repository at Yucca Mountain

Aerial View

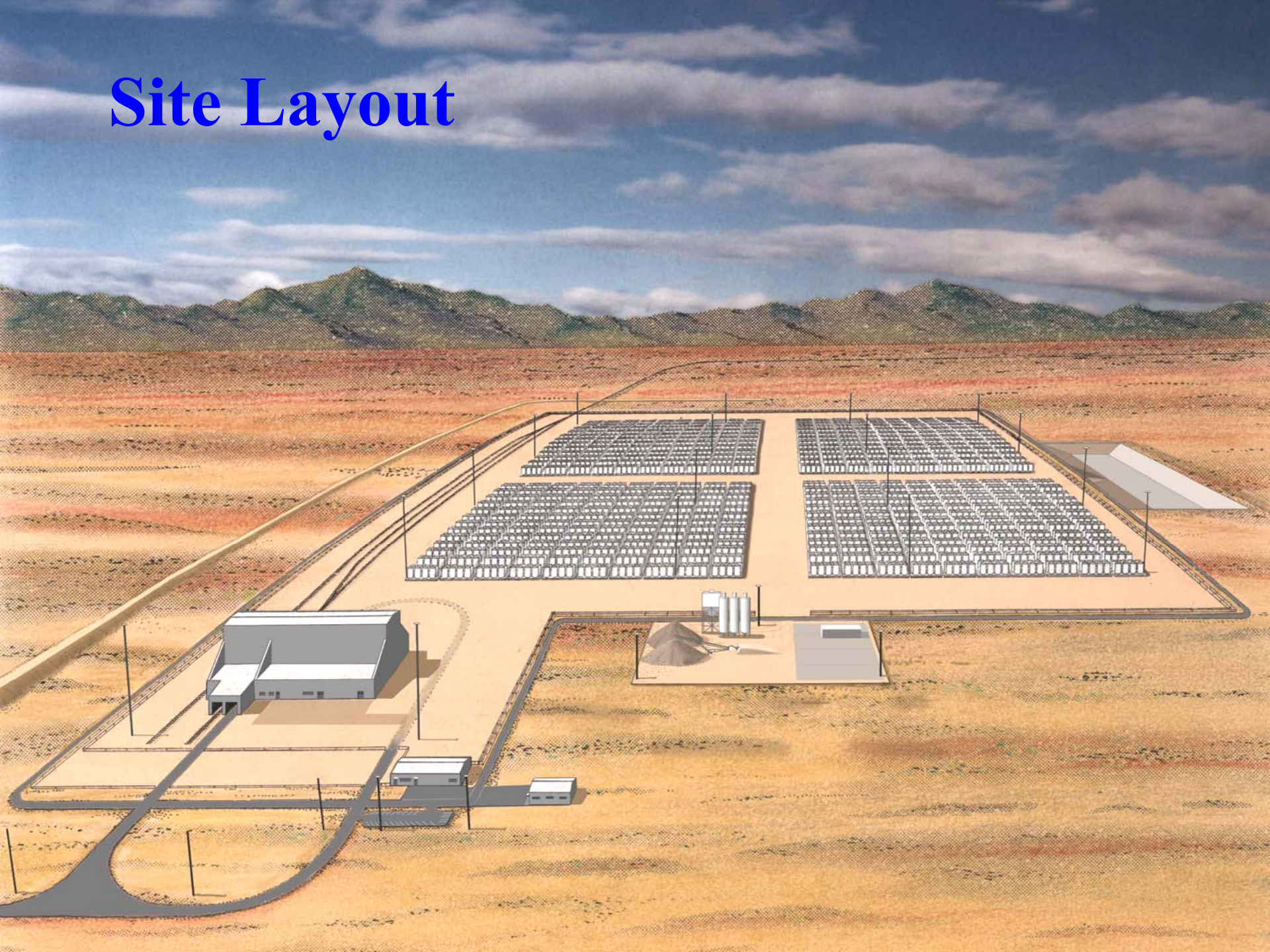
Looking to the north, this artist's concept shows the PFSF facility, including the Low Corridor Rail Line and the site access road.

Looking West



Looking to the west, I-80 can be seen as it disappears around the north end of the Cedar Mountains. An artist's concept shows how the PFSF rail siding might appear adjacent to the Union Pacific tracks, and also the route of the Low Corridor Rail Line.

Site Layout



Facility Description

- Space for up to 4000 casks
- Temperature indicators installed for remote read-out
- Periodic inspections
  - Looking for debris blocking vents

Transportation Strategic Concepts

- Review of truck vs. rail-only option
- Decision to select rail-only
  - Reduces interactions with public highway vehicles
  - Enhances security of shipments
  - Reduces by a factor of 20 to 60 the number of shipments

…continued

Transportation Strategic Concepts

- Work with States as stakeholders
- Get early route agreement before submittal to DOE
- Provide training of First Responders before shipment

Railcar Standards

- Each bearing transmits conditions of vibration and temperature while in route
- Electro magnetic braking to shorten stopping distance
- Shelved couplers to protect against rough track decoupling
- 20+ parameters transmitted live time to satellite
- Full test of prototype
- Continuing surveillance of each cask car in service – for aging impacts
- Single use trains

Route Selection

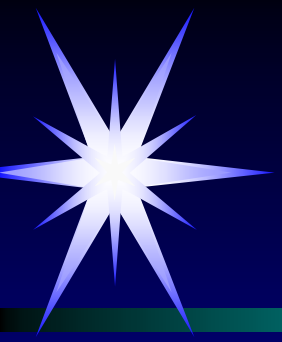
- Once equipment upgraded - route selection process next issue
- PFS determines best route from each customer to storage site
- Consult with railroads on initial round of review for their route preference
- Review and modify with NRC, DOT, and stakeholders (state & local governments)

Construction

- Rail car testing of prototype to be completed
- Fabrication of rolling stock and handling equipment parallels site construction and startup
- Site staffing and training

Operations

- Scheduled for 2008/09
- 200 canisters per year capability
- 40,000 MTU (4,000 canisters) capacity under current license
- Open to all utilities and all canister vendors



Questions??