

**Preliminary Comments on  
DOE Draft SEIS  
for Yucca Mountain &  
Draft Nevada Rail Corridor SEIS  
and Rail Alignment EIS**

**Bob Halstead  
Nevada Agency for Nuclear Projects  
US DOE Public Hearing  
Reno, Nevada  
November 19, 2007**

**Additional documentation available at  
<http://www.state.nv.us/nucwaste/trans.htm>  
Phone: 775-687-3744**

# General Comments on the Draft Rail Corridor SEIS & Rail Alignment EIS

- TAD canister system exists as concept only
- Yucca Mountain & 25 shipping sites lack rail access
- DEISs do not support selection of the Caliente Corridor
- Study of the Mina Corridor as a “nonpreferred alternative” unwarranted given Walker River Paiute Tribal Council withdrawal of support
- Selection of the “Shared Use” option - Surface Transportation Board prepare the Rail Alignment EIS
- No basis for proposed use of over-weight trucks
- The No Action Alternative should be Mostly Legal-weight Truck scenario per 2002 FEIS

# Spent Nuclear Fuel is Dangerous

- Commercial SNF would make up 90% of shipments
- Representative SNF: PWR, 4.2% initial enrichment, 50,000 MWDt/MTHM, 10 years cooling time
- Contact surface dose rate about 35,000 rem/hour
- Unshielded SNF results in lethal exposure in 1-2 minutes
- TAD rail cask (21 PWR) would contain in excess of 650,000 curies of Cs-137, GA-4 truck cask in excess of 135,000 curies of Cs-137
- 1% release of Cs-137 could result in cleanup costs of \$100 million to more than \$1 billion
- DOE could ship much hotter SNF (60,000+ MWDt/MTHM, 5-year cooled) by truck or rail
- Nevada, NAS, & GAO urge DOE to ship oldest fuel first

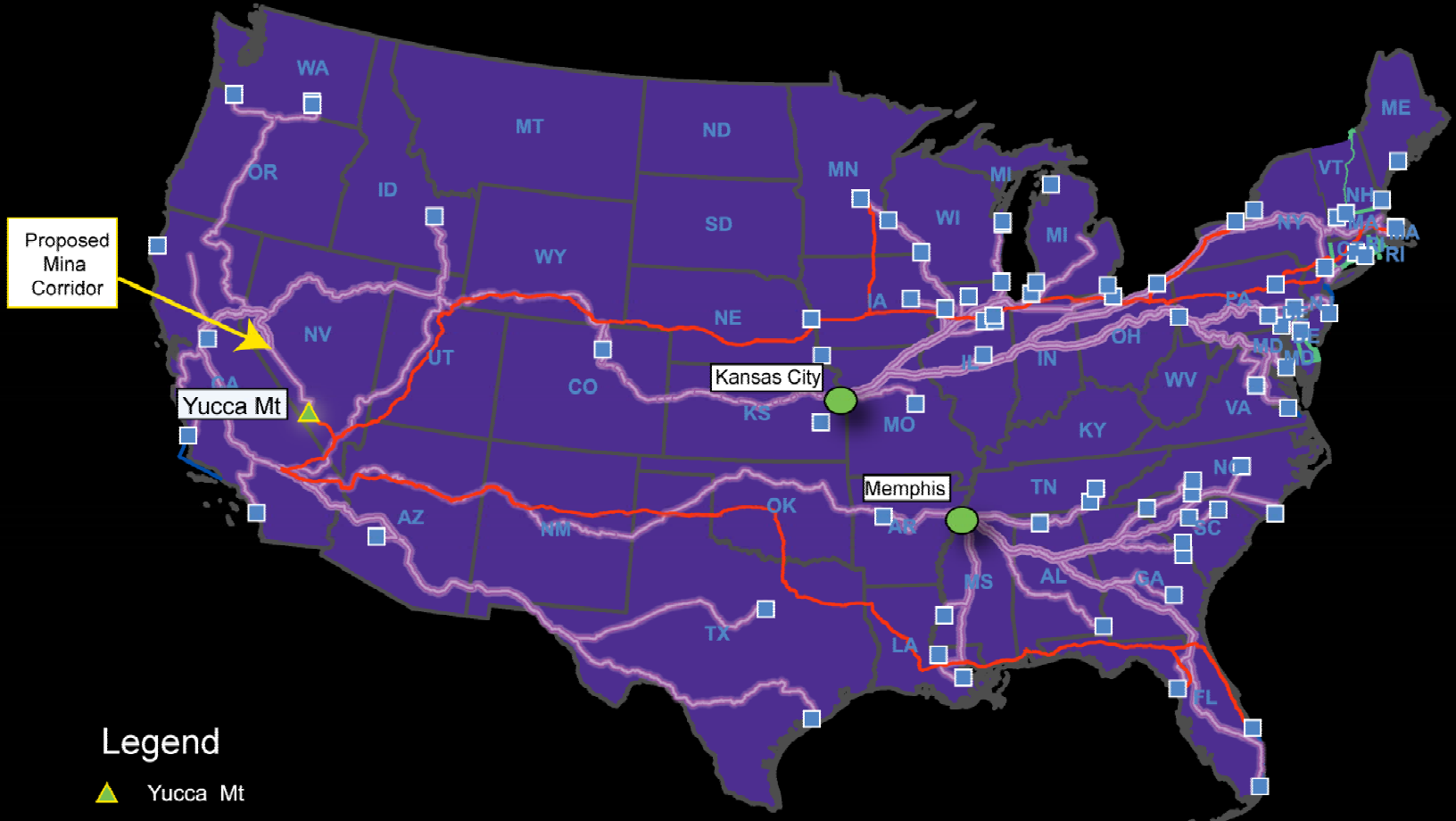
# DSEIS Does Not Adequately Address Transportation Safety and Security

- Does not consider worst case accidents - such combinations of factors “are not reasonably foreseeable”
- Underestimates consequences of severe accidents involving long duration fires (no DOE or NRC plans for full-scale cask testing in severe fire)
- Underestimates consequences of terrorist attack
- Dismisses potential for human error to exacerbate consequences of accidents or terrorist attacks
- Dismisses potential for unique local conditions to exacerbate consequences of accidents or terrorist attacks
- Acknowledges clean-up costs could reach \$10 billion

# DEISs Underestimate Potential Shipments through Reno-Sparks

- “Representative” rail routes shown in DEISs do not include preferred routes already identified by UP and BNSF, and ignore DOE program positions on “suite of routes,” multiple carriers, and no contract designation of required rail routes
- Under Proposed Action, 9,500 rail casks and 2,700 truck casks to Yucca Mountain over 50 years; 24,000 rail and 5,000 truck casks if no second repository
- DEISs: 21% of rail shipments enter NV from CA and traverse Reno-Sparks if Mina rail line is developed
- Nevada studies find potential for >45% of rail shipments through Reno-Sparks if Mina rail line is developed
- Map prepared by Nevada more accurately depicts rail routes that DOE would actually use

# Potential Rail Routes to Yucca Mt. via Proposed Mina Spur (Suite of Routes from Kansas City and Memphis Gateways)



## Legend

- ▲ Yucca Mt
- Shipping Sites
- Rail Routes to Yucca Mt.
- FEIS barge routes
- Likely Truck Routes under Mostly Rail Scenario

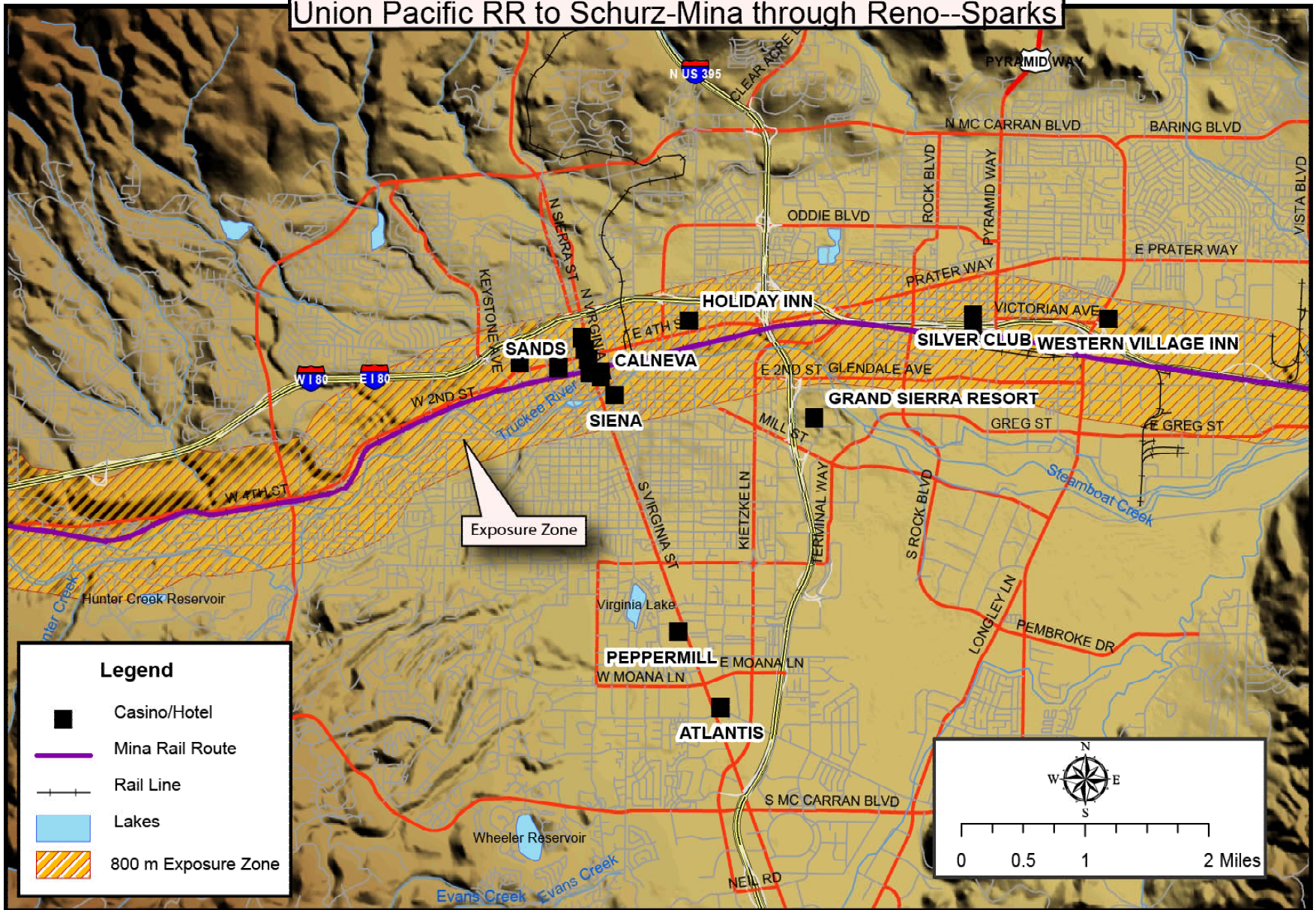
This map depicts routes for the Mostly Rail Scenario from nuclear waste shipping sites to the proposed Yucca Mt. repository via the proposed Mina spur. It shows routes on Class I Track from the shipping sites to the gateways of Kansas City and Memphis. The map also depicts likely highway routes from six reactor sites that ship by legal weight truck under the Mostly Rail Scenario.

# Public Health and Safety

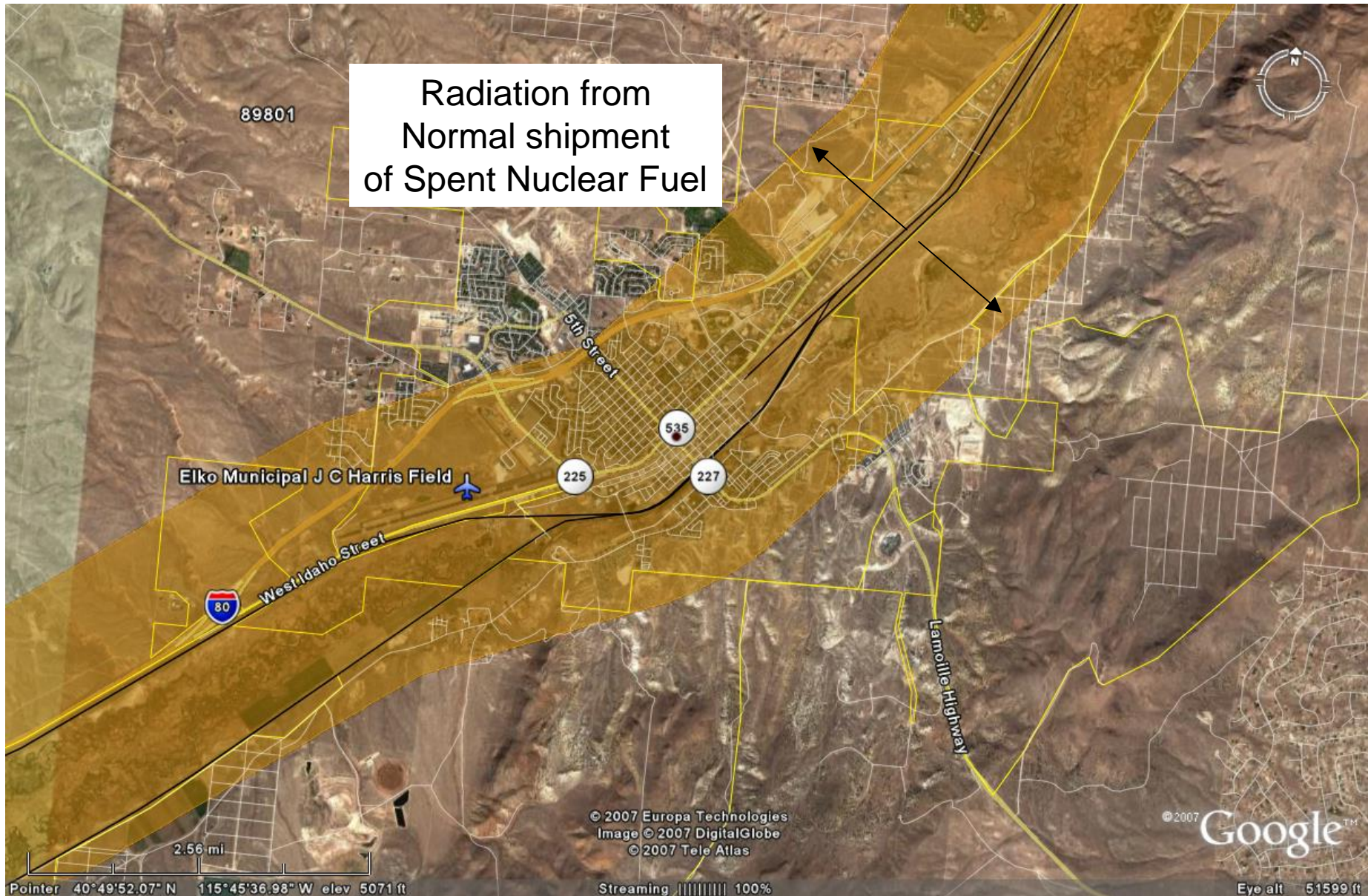
## Radiological Region of Influence (ROI)

- RA DEIS defines Radiological ROI for incident-free transport as area 0.8 km (0.5 mi) on either side of the Mina rail alignment centerline, and for accidents and sabotage the area 80 km (50 mi) on either side
- RA DEIS affected environment for radiological impacts includes individuals and businesses within the ROIs
- RA DEIS does not specifically evaluate impacts within the Radiological ROI along existing UPRR mainlines across Northern Nevada
- 10,000s of Nevadans live within the 0.5 mi ROI, and 100,000s of Nevadans live within the 50 mi ROI, along the existing UPRR mainlines across Northern Nevada

# Union Pacific RR to Schurz-Mina through Reno--Sparks



# Region of Influence for Normal Shipment of Spent Nuclear Fuel: Elko, NV



# Impacts within the Radiological Region of Influence Across Northern Nevada

- Doses to workers and public from routine operations, and creation of elevated exposure zones at near-route locations
- Accident prevention, security, and emergency response planning requirements and costs
- Doses to workers, responders, and public from severe accidents and successful terrorist attack or sabotage
- Economic losses from severe accidents and/or successful terrorist attack or sabotage, and cleanup and recovery costs resulting from release of radioactive materials
- Stigma & perceived risk impacts

# UPRR Trench through Reno



# Unique Local Conditions Require Impact Assessment

For example, how would shipments through the Reno Rail Trench affect:

- Doses to workers and public from routine operations?
- Stigma and public perception of risk, especially impact on downtown tourism?
- Accident prevention, security, and emergency response planning?
- Probability and consequences of severe accidents?
- Consequences of successful terrorist attack or sabotage?
- Symbolic value of shipments as target for terrorist attack or sabotage?