

**UNITED STATES OF AMERICA**  
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**BEFORE THE SURFACE TRANSPORTATION BOARD**  
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**STB Ex Parte No. 670**  
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**ESTABLISHMENT OF THE RAIL ENERGY  
TRANSPORTATION ADVISORY BOARD**  
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**COMMENTS OF THE STATE OF NEVADA AGENCY  
FOR NUCLEAR PROJECTS**  
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**April 16, 2007**

**STATE OF NEVADA AGENCY FOR NUCLEAR PROJECTS  
COMMENTS ON STB Ex Parte No. 670 ESTABLISHMENT OF THE  
RAIL ENERGY TRANSPORTATION ADVISORY COMMITTEE**

In response to the Notice issued March 9 2007, in STB Ex Parte No. 670, the State of Nevada Agency for Nuclear Projects (Nevada) submits the following comments addressing the questions posed by the Board specifically, as well as nuclear energy and rail transportation impacts generally.

**A. The Board's questions:**

**1. What are the views of rail and energy stakeholders as to the potential utility of such a committee?**

The State of Nevada Agency for Nuclear projects believes that creation of a rail energy transportation advisory committee would be a great benefit to both the Surface Transportation Board (STB) and the stakeholders nationwide affected by rail energy transportation. A properly structured advisory committee would provide the STB and stakeholders with essential information on rail performance, capacity constraints, infrastructure planning and development, and effective coordination among suppliers, carriers and users of energy resources, for the nuclear energy industry in general, and specifically regarding rail transportation of spent nuclear fuel and high-level radioactive waste.

The mandate of the rail energy transportation advisory committee should include the transportation system being developed by the U.S. Department of Energy (DOE) for the proposed high-level nuclear waste repository at Yucca Mountain, Nevada. DOE is developing a mostly rail transportation system for shipping spent nuclear fuel and high-level radioactive waste from 72 civilian nuclear power plant sites and 5 DOE facilities to the proposed Yucca Mountain repository. Up to 95 percent of the spent fuel from civilian

power reactors, and all of the DOE-owned spent fuel and high-level radioactive waste, could be shipped by rail, primarily but not exclusively by dedicated trains.

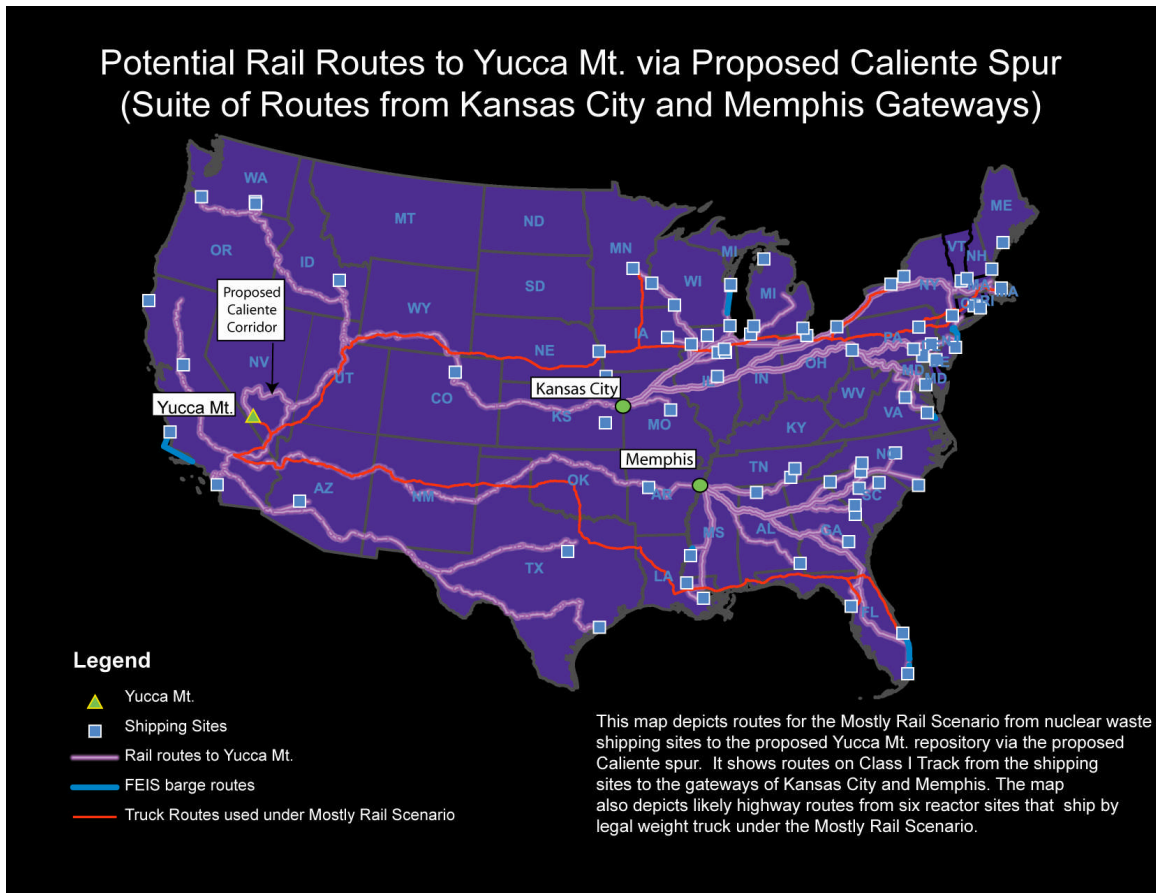
Yucca Mountain currently lacks rail access. DOE is proposing construction of a new rail line to Yucca Mountain. DOE has identified two potential rail access corridors, Caliente (approximately 320 miles in length, estimated cost in excess of \$2 billion) and Mina (approximately 250 miles in length, estimated cost \$1.6 billion). Either option would constitute the longest new rail construction project in the United States in many decades. The proposed DOE rail line could also be used for general commercial traffic.

DOE has also proposed shipping nuclear waste by rail to one of several potential intermodal facilities in Nevada, for delivery to Yucca Mountain by legal-weight trucks or heavy haul trucks. Since about 24 reactor sites lack direct rail access, DOE may also need to move nuclear waste to intermodal facilities, using barges and heavy haul trucks, before shipping spent fuel to Nevada by rail.

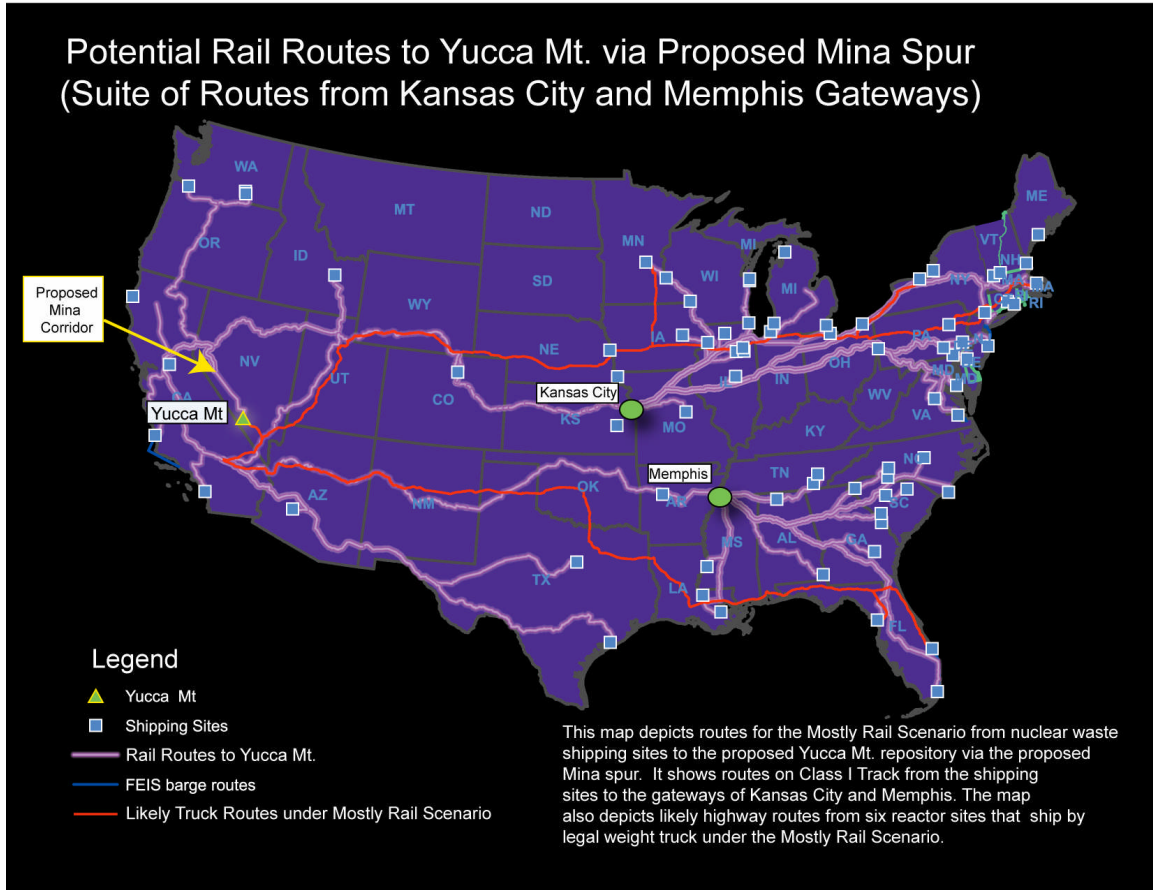
If the Yucca Mountain project goes forward, DOE could begin rail shipments to Yucca Mountain sometime between 2017 and 2025. Under its current proposed action, DOE would ship about 9,600 rail casks in about 3,200 trains over 24 years. There would likely be on average two cross-country train shipments per week, every week, for 24 years. If Yucca Mountain's capacity were to be expanded, there could be 2 or 3 trains per week, every week for four decades or more. The average shipment distance would be about 2200 miles.

**Figure 1** shows the likely cross-country rail routes to Yucca Mountain if DOE constructs a rail access line along the Caliente corridor, and **Figure 2** shows the likely cross-country rail routes to the Mina corridor. The rail routes to Yucca Mountain could

traverse up to 45 states, 700 counties, and 50 Indian Reservations. The rail routes could traverse 80-100 cities with population greater than 100,000. More than 100 million people live in counties traversed by likely rail routes. Eight to eleven million people reside within one-half mile of a potential rail route to Yucca Mountain.



**Figure 1.** Potential Cross-country Rail Routes to the Caliente Rail Corridor.



**Figure 2.** Potential Cross-country Rail Routes to the Mina Rail Corridor.

## 2. What would be the appropriate scope of such a committee's mandate?

The scope of the committee's mandate should include railroad transportation related to nuclear power and nuclear waste management.

## 3. What would be the optimum size of such a committee, and how should the committee's membership be allocated among various stakeholder groups?

The size of the committee should be large enough to accommodate representatives from affected states, such as Nevada, affected local governments, such as Las Vegas/Clark County and Reno/Sparks/Washoe County, NV and affected Indian

Tribes, such as the Walker River Paiute Indian Tribe, Schurz, NV, and public interest groups serving those communities.

Although the ramifications of nuclear energy transportation have nationwide impact, the ultimate impact will be focused on Nevada. For that reason, composition of an advisory committee on rail energy transportation should include NV stakeholders for the nuclear energy component.

#### **B. Nuclear Energy and Rail Transportation.**

Nevada believes that utilizing present technology, nuclear energy as component of domestic and global energy programs, such as the Administration's Global Initiative for Nuclear Energy Program (GNEP), will continue to generate substantial waste in the form of spent nuclear fuel (SNF) for which neither the industry nor the government has found an acceptable facility(s) for storage or ultimate disposition. The sole national repository presently planned for Yucca Mountain Project (YMP) in Nevada does not and will not adequately meet the necessary science, safety or security requirements.

Transportation to YMP will utilize a "mostly rail" scenario, after completing the construction of new rail line by the Government which may or may not entail "shared use" for non-nuclear common carrier commercial traffic.

The number SNF rail shipments projected to YMP for the first and second years will exceed the total of nuclear shipments in the US during the past 38 years. The shipping casks will be newly developed and different from those currently used for transport. Containment safety and security of the casks are being developed and tested by computer modeling not actual physical tests.

The nuclear component of domestic and global nuclear energy plans suggest the Surface Transportation Board should necessarily include stakeholders in advisory capacity to provide effective communication on rail and energy industry issues such as planning, routing and performance, rail capacity and operating constraints such as infrastructure, car development and supply, transload facilities and train consist, and effective coordination among suppliers, rail carriers, shippers and impacted local representatives for safety and security of SNF waste transportation.

**C. Conclusion: A Rail Energy Transportation Advisory Committee is Appropriate.**

The State of Nevada Agency for Nuclear Projects (Nevada) encourages the Surface Transportation Board to establish a Rail Energy Transportation Advisory Committee with a broad cross-section that includes a “nuclear energy” component. The Departments of Energy (DOE), Transportation (DOT) and Homeland Security (DHS) should also benefit from the STB’s establishment of an advisory committee.

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**Date: April 16, 2007**

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**Robert R. Loux**