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**STATEMENT OF THE U.S. DEPARTMENT OF ENERGY
BEFORE THE
SURFACE TRANSPORTATION BOARD**

Finance Docket No. 35106

**UNITED STATES DEPARTMENT OF ENERGY
--RAIL CONSTRUCTION AND OPERATION--
CALIENTE RAIL LINE IN LINCOLN, NYE,
AND ESMERALDA COUNTIES, NEVADA**

**December 4, 2008
NRC Las Vegas Hearing Facility
Pacific Enterprise Plaza, Building No. 1
3250 Pepper Lane
Las Vegas, NV 89120**

STATEMENT

Mr. Chairman and Members of the Board, my name is Mary Neumayr and I am the Deputy General Counsel for Environment and Nuclear Programs at the U.S. Department of Energy ("DOE").

DOE appreciates the opportunity to appear before the Board today to comment on its Application for a Certificate of Public Convenience and Necessity ("Application") to construct and operate an approximately 300-mile rail line in Nevada to be known as the Caliente Rail Line.

DOE has proposed to construct and operate this rail line in order to fulfill its responsibilities under the Nuclear Waste Policy Act of 1982, as amended ("NWPA") (42 U.S.C. § 10101 et seq.) to dispose of the nation's spent nuclear fuel and high-level radioactive waste. The rail line would connect the existing Union Pacific mainline at the City of Caliente to the Yucca Mountain repository, and would be used to transport spent nuclear fuel, high-level radioactive waste and construction materials to the repository site. The rail line would also promote economic development in rural communities in Nevada along the rail corridor by being available for common carriage rail service by commercial shippers. The Caliente Rail Line is consistent with the public convenience and necessity, and DOE respectfully urges that the Board approve DOE's requested certificate.

Recent Developments

As an initial matter, the Department notes the following developments that have occurred since DOE filed its Application.

First, in July 2008, DOE issued two documents prepared pursuant to the National Environmental Policy Act of 1969 (“NEPA”). In particular, DOE issued its final *Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada--Nevada Rail Transportation Corridor*, DOE/EIS-0250F-S2 (“Nevada Rail Corridor SEIS”), and its final *Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada*, DOE/EIS-0369 (“Rail Alignment EIS”), for the proposed Nevada rail line to the Yucca Mountain repository.

The Nevada Rail Corridor SEIS supplemented the *Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada*, DOE/EIS-0250F (“Yucca Mountain Final EIS”) that DOE issued in 2002. The Rail Alignment EIS tiers from the broader corridor analysis in both the Yucca Mountain Final EIS and the Nevada Rail Corridor SEIS. The Nevada Rail Corridor SEIS and Rail Alignment EIS were prepared by DOE in cooperation with the STB, other federal agencies, several counties in Nevada, and the City of Caliente. DOE filed copies of both the final Nevada Rail Corridor SEIS and the final Rail Alignment EIS in this proceeding on August 14, 2008.

The final Nevada Rail Corridor SEIS analyzes the potential impacts of constructing and operating a railroad for shipments of spent nuclear fuel, high-level radioactive waste, and other materials from an existing rail line near Wabuska, Nevada (in the Mina corridor). It also updates information, as appropriate, regarding the Caliente and other rail corridors that were previously analyzed in the Yucca Mountain Final EIS,

in order to identify any significant new circumstances or information relevant to environmental concerns.

The final Rail Alignment EIS analyzes the potential impacts of constructing and operating a railroad in Nevada for shipments of spent nuclear fuel, high-level radioactive waste, and other materials along common segments and alternative segments within the Caliente and Mina rail corridors. It also analyzes the potential environmental impacts from common carriage shipments along those rail alignments (the Shared-Use Option).

Second, in October 2008, DOE issued its record of decision selecting a rail alignment within the Caliente corridor. DOE filed this *Record of Decision and Floodplain Statement of Findings--Nevada Rail Alignment for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada* ("ROD") with the Board on October 9, 2008.

As stated in the ROD, DOE has decided to construct and operate a railroad along a rail alignment within the Caliente corridor, and to allow shipments of general freight on the rail line (Shared-Use Option), subject to obtaining a certificate of public convenience and necessity from this Board and any other necessary regulatory approvals.

Public Convenience and Necessity

The Board's consideration of DOE's Application is governed by 49 U.S.C. § 10901(c). That statute mandates issuance of a certificate of public convenience and necessity unless the Board makes an express determination that the proposed rail line is inconsistent with the public convenience and necessity. That statute creates a presumption that applications for new lines and new rail operations are to be approved.¹

¹ *Mid States Coalition for Progress v Surface Transportation Board*, 345 F.3d 520, 552 (8th Cir 2003). *Accord, Tongue River Railroad Company, Inc.—Construction and Operation Western Alignment*, STB

DOE respectfully submits that the Caliente Rail Line is consistent with the public convenience and necessity. The three factors that guide the Board's public convenience and necessity determination support that conclusion.

- **Financial ability.** The Caliente Rail Line is expected to cost approximately \$2.6 billion in 2008 dollars. The source of those funds will be the Nuclear Waste Fund, which was established pursuant to the NWPA to provide funds to cover DOE's costs associated with the disposal of spent nuclear fuel and high-level radioactive waste.² The value of the Nuclear Waste Fund at the beginning of this fiscal year was approximately \$24 billion.

- **Public demand.** DOE will use the Caliente Rail Line to transport spent nuclear fuel, high-level radioactive waste and construction materials to the Yucca Mountain repository site. That use satisfies the public demand criterion of the public convenience and necessity determination. As set forth in the Application and ROD, DOE will also hold out the Caliente Rail Line for commercial use, and DOE estimates that there could be approximately 8 train shipments per week of commercial freight demand along the Caliente Rail Line.

- **Public interest/Harm to existing services.** The Board has declared that "rail construction is presumed to be in the public interest."³ The Caliente Rail Line will enable

Finance Docket No. 30186, 2007 WL 2936132 (STB decided Oct. 5, 2007) (*Tongue River III*) at 7-8 ("Under 49 U.S.C. § 10901(c), the Board is directed to authorize the construction and operation of a proposed new line 'unless the Board finds that such activities are inconsistent with the public convenience and necessity' (PC&N). This permissive licensing policy reflects a statutory presumption adopted in the ICC Termination Act of 1995 (ICCTA) that new rail lines and new rail operations should be approved.").

² 42 U.S.C. § 10222. The value of the Nuclear Waste Fund was approximately \$21.6 billion when DOE filed the Application. The Nuclear Waste Fund is funded through a fee assessed against electric power generated by nuclear power plants, and additional funds are regularly paid into the Nuclear Waste Fund.

³ *Norfolk Southern Corp and Norfolk Southern Railway Company—Construction and Operation—in Indiana County, PA*, STB Finance Docket 33928, 2003 WL 21132522 (STB decided May 15, 2003) (*Norfolk Southern*) at *5.

DOE to fulfill its responsibilities under the NWPA and accordingly satisfies the public interest requirement. In addition, there are currently no existing rail services in the part of Nevada that the Caliente Rail Line will serve. The Caliente Rail Line, therefore, will not harm any existing rail services.

In sum, there are clear and undisputed grounds establishing that the Caliente Rail Line is consistent with the public convenience and necessity. Accordingly, the Board should grant DOE a certificate of public convenience and necessity.

Public Comments

As referenced above, DOE has issued its final Nevada Rail Corridor SEIS and final Rail Alignment EIS, as well as a ROD selecting a rail alignment and Shared-Use Option within the Caliente corridor. In preparing those documents, DOE undertook extensive public outreach activities among interested parties, agencies, States, localities, Tribes, organizations, and the general public. Those activities provided interested persons the opportunity to be informed about the proposed rail line, identify issues, and provide both written and oral comments to DOE both as part of the NEPA process and in this proceeding.

Those comments addressed a wide variety of topics, including environmental matters and mitigation. DOE has provided extensive responses to comments in the Nevada Rail Corridor SEIS and Rail Alignment EIS. DOE additionally provided responses in its Reply to Comments on the Application.⁴ The following addresses the major issues that have been raised by interested parties.

⁴ Reply of the United States Department of Energy to Comments on its Application for a Certificate of Public Convenience and Necessity (August 29, 2008), Appendices A and B.

- **Safety and Security.** A number of comments relating to the proposed Caliente Rail Line addressed safety and security issues.

As discussed in congressional testimony on September 24, 2008 by the Director of DOE's Office of Civilian Radioactive Waste Management ("OCRWM"), Edward F. Sproat, III, it is well established that spent nuclear fuel and high-level radioactive waste can be shipped safely by rail.⁵ Since the early 1960's, more than 3,000 shipments of spent nuclear fuel have been conducted safely and securely in the United States, having traveled more than 1.7 million miles. There has never been a spent nuclear fuel transportation accident that resulted in any release of radioactive material harmful to the public or the environment.

The National Academy of Sciences has determined that each spent nuclear fuel shipment is thousands of times less risky than shipments of other commonly transported hazardous materials. Even when the Yucca Mountain repository is operational, there will be far fewer shipments of spent nuclear fuel and high-level radioactive waste than shipments of these other hazardous materials.⁶

This demonstrated safety record is a consequence of the use of robust casks certified by the Nuclear Regulatory Commission ("NRC") to transport spent nuclear fuel, and strict regulatory standards for every aspect of logistics, including material characterization, packaging, loading, marking, equipment inspections, routing, training, security, and shipment monitoring. The National Academy of Sciences has concluded

⁵ Statement of Edward F. Sproat, III, Director, Office of Civilian Radioactive Waste Management, DOE, before the Committee on Commerce, Science and Transportation, United States Senate (September 24, 2008) (attached hereto)

⁶ *Going the Distance, The Safe Transport of Spent Nuclear Fuel and High Level Radioactive Waste in the United States*, (National Academy of Sciences 2006) ["NAS Study"] at 177 (addressing comparative risks of transporting spent nuclear fuel, chlorine, propane and methanol).

that, from a technical viewpoint, shipments of spent nuclear fuel present "...a low radiological-risk activity with manageable safety, health and environmental consequences when conducted with strict adherence to existing regulations."⁷ DOE's plans to ship spent nuclear fuel and high-level radioactive waste to the Yucca Mountain repository are building on this successful experience base.

DOE places the highest priority on the protection of spent nuclear fuel and high-level radioactive waste in transit and will implement appropriate measures to safeguard the transit of these materials. The use of these measures will ensure the safe and secure shipment of spent nuclear fuel and high-level radioactive waste. DOE is and will continue to coordinate our planning closely with the NRC, the Department of Transportation and the Department of Homeland Security.

- **Mitigation.** Other commenters focused on potential mitigation measures relating to the proposed rail line.

DOE has committed to implementing measures to avoid or minimize impacts related to shipment of spent nuclear fuel and high-level radioactive waste, including implementation of best management practices and measures during construction and operation of the railroad. DOE further proposes to constitute one or more Mitigation Advisory Boards to assist DOE in developing, implementing, and monitoring those best management practices and mitigation measures. DOE also has committed to consult with parties directly affected by the rail line, such as the State of Nevada, Native American tribes, local governments, utilities, the transportation industry, and grazing permittees, in a cooperative manner to develop and implement mitigation measures.

⁷ NAS Study at 7-8.

More information concerning mitigation measures is provided in the ROD and Chapter 7 and Appendix F of the Rail Alignment EIS, and Appendix B to DOE's Response to Comments on the Application. In the ROD, DOE commits to the following:

- o DOE will avoid disturbing floodplains and wetlands to the extent practicable and, if avoidance is not possible, will minimize impacts to the extent practicable. In general DOE will minimize impacts to floodplains and wetlands through the implementation of engineering design standards and best management practices, including minimum grading requirements, runoff controls, design and construction constraints, and protection of ecologically sensitive areas. DOE will design the rail alignment to avoid potential direct and indirect impacts to water resources wherever practicable. DOE will also implement a wetlands compensatory mitigation plan that will meet the requirements of the Environmental Protection Agency for mitigating losses of aquatic resources.
- o DOE will conduct an ethnographic evaluation of the rail alignment area to develop a cultural resources management program and proposes that the Consolidated Group of Tribes and Organizations assist in the evaluation and in the development and implementation of best management practices and mitigation measures regarding cultural resources.
- o DOE will implement the conservation and minimization measures listed in the Fish and Wildlife Service's biological opinion to protect Ute ladies'-tresses and the reasonable and prudent measures identified by the Fish and Wildlife Service to protect the Mojave population of the desert tortoise.

- DOE will prepare a Mitigation Action Plan in consultation with the proposed Mitigation Advisory Board(s) and directly affected parties, such as grazing permittees and local communities through which the Caliente Rail Line will pass.

- **“City” Sculpture.** DOE also received comments relating to the “City” earthworks sculpture located on private land in Garden Valley, Nevada.

DOE has addressed those comments by selecting the alignment segment in Garden Valley that is farthest from the sculpture to reduce any potential noise or aesthetic impacts to those visiting the sculpture. In its draft Rail Alignment EIS, DOE indicated that its preferred alignment for the rail line would pass within about 1 mile of the City sculpture. In response to comments, however, DOE selected an alternative route that is about 4 times farther than the preferred alignment in the draft Rail Alignment EIS. Other more distant routes were analyzed, but they were not reasonably feasible.

- **Dedicated trains.** Finally, participants in this proceeding have commented that the Board should require DOE to use dedicated trains for the shipment of spent nuclear fuel and high-level radioactive waste nationwide.

As discussed in its response to comments and in pleadings in this proceeding, the Board should not impose such a condition. Prior administrative proceedings have already addressed and rejected carrier attempts to impose mandatory special train restrictions on shipments of spent nuclear fuel, and DOE has cited to those relevant decisions and case authorities in its filings with the Board.

As discussed in those filings, DOE has adopted a policy to use dedicated trains as its *usual* mode of rail transportation for spent nuclear fuel and high-level radioactive

waste. In adopting this policy, however, DOE has recognized that such materials can be “shipped safely regardless of mode or type of service, primarily due to the stringent regulations in place and the robust nature of the transport packages involved.”⁸ DOE has additionally identified that the primary benefit of using dedicated trains is “the significant cost savings over the lifetime of the Yucca Mountain project,” including “greater operational flexibility and efficiency”⁹

A condition mandating the use of dedicated trains by DOE in all instances nationwide would impede DOE’s ability to pursue an alternate approach when the use of dedicated trains would not advance such cost savings and/or would interfere with DOE’s operational flexibility and efficiency for shipments to the Yucca Mountain repository.

* * *

In closing, DOE respectfully requests that its Application be approved. DOE appreciates the opportunity to appear before the Board and requests that a copy of this written statement be entered into the record.

⁸ July 6, 2005 Memorandum from Director, OCRWM Office of National Transportation, to Principal Deputy Director, OCRWM, at 1 (copy provided as Appendix E to DOE Reply to Comments on Application).

⁹ *Id.* at 3.

ATTACHMENT

**Statement of Edward F. Sproat III
Director
Office of Civilian Radioactive Waste Management
U.S. Department of Energy**

**Before the
Committee on Commerce, Science and Transportation
United States Senate**

September 24, 2008

Mr. Chairman and Members of the Committee, I am Edward F. Sproat III, Director of the Department of Energy's (DOE) Office of Civilian Radioactive Waste Management (OCRWM). I appreciate the invitation to appear before the Committee to discuss the safety and security of transporting spent nuclear fuel.

Since the early 1960s, more than 3,000 shipments of spent nuclear fuel have been conducted safely and securely in the United States, having traveled more than 1.7 million miles. There has never been a spent nuclear fuel transportation accident that has resulted in any release of radioactive material harmful to the public or the environment. The use of robust casks certified by the Nuclear Regulatory Commission (NRC), and strict regulatory standards for every aspect of logistics, including material characterization, packaging, loading, marking, equipment inspections, routing, training, security, and shipment monitoring, have all contributed to this outstanding safety record.

In 2006, the National Academy of Sciences published a study on the safety of spent nuclear fuel shipments titled: *"Going the Distance? The Safe Transport of Spent Nuclear Fuel and High-Level Radioactive Waste in the United States"*. In that report, the

Academy concluded that from a technical viewpoint, these shipments present "...a low-radiological-risk activity with manageable safety, health and environmental consequences when conducted in strict adherence with existing regulations." The plans to ship spent nuclear fuel to the Yucca Mountain repository in the 2020 timeframe are building on this successful experience base.

Roles and Relationships

The Department of Transportation (DOT) and the NRC have established safety and security regulations for transport of spent nuclear fuel. DOE has committed to meet or exceed these regulations for shipments to Yucca Mountain. The Nuclear Waste Policy Act of 1982, as amended (NWPA) explicitly requires the Department to ship spent nuclear fuel and high-level radioactive waste to a repository in transportation casks certified by the NRC. Under the NWPA, the Department must also comply with NRC notification requirements prior to conducting such shipments. In addition, the NWPA requires the Department to provide States and Tribes technical assistance and funds for training local public safety officials in safe routine transportation and emergency response procedures. The Department has selected mostly rail as the preferred mode of transport both nationally and in the State of Nevada for shipments to Yucca Mountain. The Department also has made the policy decision to use dedicated trains as the usual mode of rail service to enhance operational efficiency.

As the planning process for the Yucca Mountain transportation system evolves, we are continually looking for opportunities to further enhance the safety and security of these

shipments. Post 9/11, the NRC has also imposed additional security measures for its licensees transporting spent nuclear fuel and other materials, many of which were measures DOE had put in place for its shipments years before. We are and will continue to coordinate our planning closely with NRC, DOT, and the Department of Homeland Security.

Once routes and shipment schedules are established, advance notification will be provided to individuals that have appropriate security clearance in each governor's office in compliance with NRC regulations. All shipments will be accompanied by armed escorts and will be continuously monitored and tracked via satellite. We anticipate that most rail shipments will be conducted on dedicated trains, meaning no other materials will be transported on the same train, allowing for greater operational control of such shipments. Highway and rail shipments will be thoroughly inspected in accordance with standards of the Commercial Vehicle Safety Alliance or the Federal Railroad Administration, as appropriate, prior to departing from their points of origin.

Challenges and Issues

In their report on the safety of spent nuclear fuel shipments referenced above, the National Academy of Sciences addressed the relative risks of these shipments compared to other hazardous materials commonly transported in this country. Their findings demonstrate that each spent nuclear fuel shipment is thousands of times less risky than shipments of other commonly transported hazardous materials. This level of safety is the

direct result of the stringent regulatory standards and robust packages used for such shipments.¹

In addition to the lower risks for each shipment of spent nuclear fuel, there are far fewer of these shipments per year than shipments of other hazardous materials. In 2006, American railroads transported hazardous materials 111 billion ton-miles in over 1,000,000 rail cars. Of this total, less than 0.025 percent were spent nuclear fuel shipments.

The National Academy of Sciences, the transportation industry, the State of Nevada, and a broad spectrum of other stakeholders advocated strongly for a transportation system based on mostly rail shipments. Over the life of the repository, fewer than 3,000 trains can transport the same amount of spent nuclear fuel that would require more than 48,000 truck shipments. In addition, the use of Transportation, Aging, and Disposal canisters, which weigh up to 180 tons in their transportation configuration, requires the use of rail transport.

A significant fleet of transportation casks has to be developed to support shipments to Yucca Mountain. That process has started with funding for the design and certification of the Transportation, Aging and Disposal canisters and their transportation overpacks. Funding to support development of a fleet of approximately 150 transport casks that meet the stringent safety requirements of the NRC is needed as part of the transportation

¹ National Research Council of the National Academies, *Going the Distance? The Safe Transport of Spent Nuclear Fuel and High-Level Radioactive Waste in the United States* (Washington, D.C.: The National Academies Press, 2006), pp. 174-182.

system. In addition, the Department needs to develop a fleet of rail cars with the best available safety technology. These rail cars will meet the new requirements established by the Association of American Railroads. The Department is collaborating with the Naval Nuclear Propulsion Program on development of the next generation of security escort rail cars designed to this new standard

Current Status and Steps Moving Forward

In a 2004 Record of Decision, the Department selected mostly rail as its mode of transport, both nationally and in the State of Nevada. In June 2008, the Department completed the "Final Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada" (Rail Alignment EIS). The Rail Alignment EIS analyzes the environmental impacts associated with a range of potential alignments for constructing and operating a railroad in Nevada to Yucca Mountain. There was considerable public involvement in the development of the EIS and a Record of Decision is anticipated this fall.

As we move forward the Department will continue its ongoing collaborations with States, Tribes and stakeholders as we fulfill our commitment to establish a safe and secure transportation system for shipments to Yucca Mountain. I appreciate the Committee's interest on this important aspect of the Department's Yucca Mountain Program.