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To: Weber, NMSS
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AUTHOR: SEN Harry Reid

AFFILIATION: CONG

ADDRESSEE: J. Summerson + L. Bishop

SUBJECT: U.S. DOE, draft suppl environ impact statement for a geologic repository for the disposal of spent nuclear fuel and HLW at Yucca Mountain..

ACTION: Information

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Congress of the United States

Washington, DC 20510

January 10, 2008

Dr. Jane Summerson and Mr. Lee Bishop
EIS Office
Office of Civilian Radioactive Waste Management, DOE
1551 Hillshire Dr.
Las Vegas, Nevada 89134

- Re: U.S. Department of Energy, Draft 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 (DOE/EIS-0250F-S1D).
- Re: U.S. Department of Energy, Draft Supplemental EIS for Nevada Rail Transportation Corridor, and Draft EIS 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-0250F-S2D and DOE/EIS-0369D).

Dear Dr. Summerson and Mr. Bishop:

We write in regard to the two Draft Supplemental Repository and Rail Alignment Environmental Impact Statements (Repository SEIS and Rail SEIS) that were published in October 2007. The SEISs are incomplete; based on flawed assumptions; and lack essential environmental, technical, and economic analysis. While we are firmly opposed to the Department's efforts to obtain construction authorization for a repository in Nevada, we also believe that it would be dishonest and dangerous for the Department to rely on incomplete environmental analyses to support its license application.

Draft Repository SEIS

Below, we have highlighted several issues that bring into question the quality and completeness of the Repository SEIS. We are skeptical whether the Department can adequately address these issues by the time it plans to submit a license application for construction to the Nuclear Regulatory Commission.

The Department's failure to examine the performance of a standardized transport, aging, and disposal (TAD) canister after the proposed repository has been closed is conspicuous. Although DOE has made TAD canisters a fundamental component of its spent nuclear fuel transportation methods, its interim storage plan, and its proposed geologic repository design, the Department does not even give proper consideration to how TAD canisters will perform after emplacement in the proposed repository.

While the absence of such analysis is troubling, it is not surprising, considering that the DOE does not yet have a final TAD design. Without a final TAD design, estimated impacts of TAD canisters are subject to change and are unreliable as a basis for determining long-term repository performance. Moreover, the Department cannot provide any reliable estimate of what percentage of spent nuclear fuel – they only offer a “goal of 90 percent” – will actually arrive in TAD canisters and what percentage will have to be repackaged by DOE at the repository prior to emplacement. It is clear that the Department’s proposal to rely on TAD canisters for shipping, aging, and disposal is still in the early stages of development and is not yet ready for serious NEPA analysis.

A second issue that DOE should reconsider in its final Repository SEIS is that the locations for several planned facilities are not specified in the draft SEIS. For example, the locations for an explosives storage area, cask maintenance facility, solid waste landfill, and borrow pits have not yet been fixed. These facilities would contain hazardous, explosive, and/or radioactive materials and could be exposed to seismic activity, flooding, and other natural disasters. As these facilities could have a significant impact on the environment, the Repository SEIS cannot be complete without specified locations and complete environmental analysis for each facility.

Additionally, the DOE has based its conclusions about post-closure environmental impact on the assumption that the government will install 11,500 titanium drip shields over waste canisters sometime in the next 100 to 300 years. This approach is extremely problematic – not only is it impossible to know whether these drip shields will actually ever be installed one to three centuries from today, it is also speculative to assume that we will have adequate titanium to do so or that the proposed repository will be in a physical condition that allows these drip shields to be installed. Simply put, it appears that DOE has crafted the idea of installing drip shields in an attempt to show that a repository could meet EPA’s Radiation Protection Standards for Yucca Mountain without considering the idea’s feasibility. While it may be prudent for the DOE to consider the technology and science behind using drip shields for geologic storage of nuclear waste, it is irresponsible for the Department to assume the application of drip shields in its NEPA and license application documents for Yucca Mountain.

Further, it appears that many statements in the Repository SEIS are unsupported. In several instances, there are no scientific references listed to support claims on topics such as volcanic eruptions, nuclear criticality, and radiation dosages for members of the public. In any final NEPA documents that DOE publishes, we are hopeful that the Department will ensure that references are complete so that statements and claims can be efficiently and effectively considered by the Nuclear Regulatory Commission, the public, and all interested parties.

Draft Rail SEIS

We remain deeply concerned with the Department’s plans for constructing a rail line through Nevada to Yucca Mountain. The Caliente Rail Corridor – the Department’s

preferred route – would send spent nuclear fuel over 300 miles through Nevada. With no existing rail line, the construction of the Caliente Corridor would have a significant impact on the environment and water quality and could interfere with new renewable energy development and mining. Worse, the trains could be exposed to rock falls, landslides, and potential earthquakes while carrying nuclear waste – a devastating possibility that warrants meticulous analysis by the Department. Unfortunately, such a level of analysis has not yet been completed.

The Rail SEIS lacks adequate analysis of fundamental aspects – from geology to land use and cultural resources to energy resources – and the Department has not fully considered how the Caliente Corridor will impact Nevada. The Rail SEIS leaves out critical information related to geologic events and seismic impacts that could disrupt the railway as well as nuclear waste shipments. Despite the fact that the National Environmental Policy Act (NEPA) requires a full disclosure of environmental impacts, with the goal of achieving transparency, DOE has not provided maps of surface faults or buried faults, which could threaten the integrity of the railway.

With respect to the environment, the Rail SEIS does not provide a complete evaluation of the Caliente Corridor's potential impact on the environment. The Department has failed to closely consider soil erosion and harms to water quality near the railroads, which suggests that DOE simply does not have a complete understanding of its rail alignment proposal. Railroad construction will necessarily dislodge rock and soil, induce erosion, and create a risky environment during flooding events for a railway intended to transport tens of thousands of tons of radioactive waste. The Department's SEIS disregards these potentially disastrous scenarios without providing a technical basis for all of its conclusions.

The Rail SEIS also fails to consider the flow into springs and wetlands of poor-quality water – water that has been mixed with chemicals, sediment, and petroleum products spilled from construction equipment.

Additionally, the economic impact on the affected communities must be thoroughly considered before the Department decides to break ground on the Caliente Corridor. DOE's preferred route would severely impact rural communities; disrupt livestock operations and grazing lands; utilize scarce water resources; and cross private residential, industrial, and commercial land with the railway. In addition, we are also concerned that the Caliente Corridor would interfere with mining and renewable energy development in Nevada. Although DOE acknowledges that there are potential wind, solar, and geothermal energy resources along the Caliente Corridor, the Department fails to consider the opportunity costs of constructing a rail line over this land. The Rail SEIS erroneously states that the locations of energy resources are unknown, despite the fact that publicly available maps (<http://www.unr.edu/geothermal/renewables.htm>) show that there are significant potential solar energy resources in the northeast corner and western boundary of the Nevada Test and Training Range.

Although the Rail SEIS does provide limited consideration of mining, it does not adequately assess the impacts that the proposed corridor would have on mine shafts and tunnels, mining safety, and the integrity and stability of the railroad itself. The Department must make a more comprehensive effort to assess the opportunity costs of lost mining potential caused by the Caliente Corridor, as well as the possible impact on existing mining activity.

Another area of concern is that the Rail SEIS ignores the impact that the Caliente Corridor would have on the Las Vegas metropolitan area. The Department is proposing to send one to two trucks each week carrying nuclear waste over Clark County's most highly traveled highway and interstates, yet has failed to consider the environmental, social, and economic impact that this action will undoubtedly have. This nuclear waste shipping campaign will include up to 13 rail shipments through Las Vegas each year, using the DOE's estimates which are likely low, and will proceed for up to 50 years. The state of Nevada has estimated that at least 95,000 Nevadans live, work, and entertain tourists on the Las Vegas Strip within one-half mile of the routes through Clark County to Yucca Mountain using the Caliente Corridor. It is inconceivable that the Department's Rail SEIS could be finalized without a much more comprehensive analysis of the impact that the preferred route will undoubtedly have on Clark County and the Las Vegas metropolitan area.

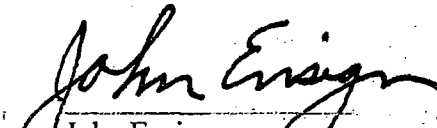
Finally, it would be impossible for the Department to issue a truly complete Rail SEIS without conducting a national scoping process. The Caliente Corridor would cause thousands of shipments of nuclear waste across national railways to deliver nuclear waste to Nevada. DOE has not adequately analyzed the impact of a national nuclear waste shipping campaign, despite the fact that states, cities, and communities home to millions of people will be significantly impacted by the transportation network made possible by the Caliente route to Yucca Mountain. The Department should perform a national public scoping for affected communities as part of the Rail SEIS. NEPA requires such a scoping process, and the Caliente Corridor is a primary component in this major federal action.

The Yucca Mountain Project has faced many controversies and management failures, and the science behind the proposal is questionable at best. As a result, the above comments provide a summary of only some of the most serious flaws with the Rail and Repository SEISs. We are confident that the public, the state of Nevada, and other interested and affected individuals will also provide thoughtful comments and raise issues that the Department has not yet considered. It is imperative that the Department provide each comment it receives on these SEISs thorough consideration, considering the magnitude and long-term impact of the proposed repository.

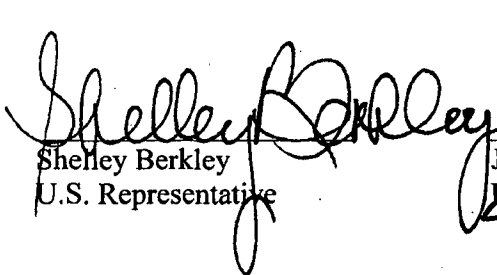
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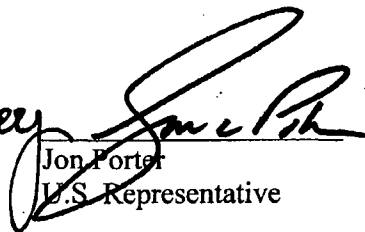
Harry Reid
U.S. Senator



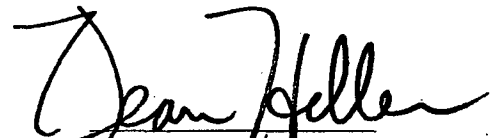
John Ensign
U.S. Senator



Shelley Berkley
U.S. Representative



Jon Porter
U.S. Representative



Dean Heller
U.S. Representative

cc: Honorable Samuel W. Bodman, Secretary, DOE
Honorable Dale Klein, Chairman, NRC
Mr. Edward F. Sproat, Director, OCRWM
Mr. Michael Weber, Director, Office of Nuclear Material Safety and Safeguards