



"Joe Strolin" <jstrolin@nuc.state.nv.us> on 01/10/2008 04:06:01 PM

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To: "Jane Summerson" <Jane_Summerson@ymp.gov>, <Jane_Summerson@Notes.YMP.gov>, <eis_office@ymp.gov>

cc:

Subject: State of Nevada Comments on DOE's Draft Nevada Rail Corridor SEIS and Draft Rail Alignment EIS

LSN: Relevant - Not Privileged

User Filed as: Excl/AdminMgmt-14-4/QA:N/A

Dear Dr. Summerson,

Attached are two pdf files containing (1) the State Of Nevada's Comments On DOE's 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—Nevada Rail Transportation Corridor – DOE/EIS-0250f-S2de and DOE's Draft 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-0369d and (2) a cover letter formally transmitting the State's comments.

Comments of the Draft Yucca Mountain Repository SEIS have already been sent via separate email.

I would appreciate it if you would acknowledge receipt of these comments by replying to this email and/or by calling my office at 775-687-3744.

Thank you for your attention to this matter.

Joe Strolin

Joseph C. Strolin, Administrator
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(775) 687-5277 (Fax)  Cover Letter - Draft Rail EIS Comments.pdf  State of Nevada Comments - Rail EISs-Final.pdf

KENNY C. GUINN
Governor

STATE OF NEVADA

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January 9, 2008

Dr. Jane Summerson
EIS Office
Office of Civilian Radioactive Waste Management
U.S. Department of Energy
1551 Hillshire Drive
Las Vegas, NV 89134

Re: State of Nevada Comments on DOE's 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—Nevada Rail Transportation Corridor – DOE/EIS-0250F-S2DE and Draft 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-0369D

Dear Dr. Summerson:

Attached please find the State of Nevada's comments on the above-referenced Draft EISs. Please note that the document includes a number of Attachments that are incorporated by reference and made part of the overall State comments. All attachments are available electronically on the internet, and links have been provided in the text of the comments.

If you have questions regarding these comments, please contact me or Joseph Strolin, Planning Division Administrator for the Agency for Nuclear Projects, at 775-687-3744.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert R. Loux".

Robert R. Loux
Executive Director

RRL/cs

Attachments

cc Governor Gibbons
Attorney General Catherine Cortez Masto
Richard Bryan, Nevada Commission on Nuclear Projects
Nevada Congressional Delegation
Affected Local Governments and Tribes

**STATE OF NEVADA COMMENTS ON
DOE'S 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—NEVADA RAIL TRANSPORTATION
CORRIDOR – DOE/EIS-0250F-S2DE
AND
DOE'S DRAFT 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-0369D**

1.0 INTRODUCTION

The State of Nevada (State) submits these comments in response to the U.S. Department of Energy's (DOE) *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—Nevada Rail Transportation Corridor – DOE/EIS-0250F-S2DE* (the Draft Rail Corridor EIS) and *Draft 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-0369D* (the Draft Rail Alignment EIS). Separately, the State is also submitting comments on a second DOE NEPA document issued at the same time - DOE's *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* (the Draft Repository SEIS).

1 [While the comments provided herein address the Draft Rail Corridor EIS and the Draft Rail Alignment EIS, it is important to note that the actions contemplated by the three EISs (two of which are bundled together in a single document) are inextricably interrelated, and there are common issues relevant to both. Consequently, these comments are also intended to apply to the Draft Repository SEIS (DOE/EIS-0250F-S1D) where common issues, impacts, and/or program elements exist, and are, therefore, hereby incorporated by reference into the State of Nevada's comments on the Draft Repository SEIS.]

2 [As noted in our earlier comments on DOE's Notices of Intent (NOI) to prepare the draft EISs, the actions proposed by DOE, taken together, comprise nothing less than a major restructuring of the entire Yucca Mountain high-level radioactive waste management program. The proposed changes affect the universe of repository program elements, including the actual design of repository surface facilities, the characteristics of the waste disposal packages and engineered barrier systems, the thermal characteristics of the repository subsurface, the long-term performance of the waste isolation system and how that is modeled, the repository waste acceptance process, including waste packaging

and storage activities at 72 commercial reactor sites and 4 DOE facilities, and the entire national and Nevada waste transportation systems.]

[The material submitted herein is intended to be viewed in the context of a continuum of comments that also includes (1) the State of Nevada's comments on DOE's Draft Yucca Mountain EIS (February 28, 2000), (2) State of Nevada and Clark County joint comments on the Supplement to the draft Yucca Mountain EIS (July 5, 2001), (3) State of Nevada comments on DOE's notice of intent to prepare an EIS for the alignment, construction and operation of a rail line to Yucca Mountain (May 25, 2004), (4) State of Nevada comments on DOE's amended notice of intent to prepare an EIS for the alignment, construction and operation of a rail line to Yucca Mountain (December 11, 2006), and (5) State of Nevada's comments on DOE's notice of intent to prepare a supplement to the final Yucca Mountain EIS (December 11, 2006). Those documents and the comments they contain, together with other associated documents (see Attachments), are hereby incorporated by reference into and made fully part of these comments on the Draft Nevada Rail Corridor SEIS and the Draft Rail Alignment EIS.]

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2.0 GENERAL COMMENTS

2.1. [The Rail Corridor/Rail Alignment EISs are premature in the Absence of a National Transportation Plan

4

The Draft EISs are both premature and inappropriate and are reflective of the inverted nature of DOE's entire approach to transportation planning. Before making any decision regarding rail corridors in Nevada, DOE should have undertaken a national routing analysis to look at the differential impacts of various route alternatives, taking into consideration differing impacts caused by differences in routing schemes based on which mainline and rail spur access routes are available in Nevada.

Only after such a national transportation analysis is completed can DOE assess which rail access route (if any) in Nevada is preferred and justify the decision to construct and operate a rail spur. To do otherwise is unacceptable and, Nevada officials believe, a violation of the requirements of the National Environmental Policy Act (NEPA).]

2.2. [Role of the USDOT Surface Transportation Board in Preparing the Rail EIS

5

Because DOE has now announced that the rail line it proposes would be a "shared use" line open to general commerce, the USDOT Surface Transportation Board (STB) should be the lead agency that prepares the Rail Alignment EIS.

In assigning to itself "lead agency" status for this massive transportation project, DOE appears to have preempted the exercise of regulatory authority by the Surface Transportation Board (STB) over this new rail line and the activities proposed by DOE in the Draft EIS.

Long-standing precedent establishes that the STB has jurisdiction and prior approval authority over activities proposed by DOE, i.e., the construction and operation of rail lines within the national railroad system. 49 USC 10901. STB jurisdiction includes primary responsibilities regarding such activity under the National Environmental Policy Act (NEPA) that may not be delegated to others. *Harlem Valley Transportation Association v. Stafford*, 500 F.2d 328, 336 (2nd Cir. 1974); *State of Idaho v. ICC*, 35 F.3d 585, 595 (D.C. Cir. 1994). DOE cannot, and should not, now attempt to pre-empt the STB's appropriate role of "lead" agency for evaluating the environmental impacts of the railroad activity proposed.

DOE now admits to the commercial "shared use" of the rail line it intends to construct and operate in Nevada, a line would be an integral extension of the nation's existing interstate commercial rail system. However, DOE again fails to acknowledge that the STB has, by statute, exclusive jurisdiction and corresponding special environmental expertise, over such transportation activity, 49 USC 10501(b), and to establish for NEPA purposes the STB as the "lead agency" over such activities environmental impact issues. 10 CFR 1021.103, 40 CFR 1501.5.]

2.3. [Failure to Conduct a National Scoping Process

6

The choice of a Nevada rail spur alternative will have wide-reaching implications for shipments of SNF within Nevada and around the country. The decision to construct a rail spur at Caliente vs. some other rail corridor will unavoidably affect the entire HLW transportation system, resulting in greater numbers of shipments along certain rail routes and through certain states and cities and lesser numbers of shipments through other areas. These system-wide differential impacts have never been adequately assessed, and the final EIS for the proposed rail spur must evaluate the full range of impacts and impacted areas.

Since states and cities around the country stand to be substantially affected by DOE's choice of a Nevada rail spur, Nevada contends that DOE should have scheduled public hearings on the draft EIS in strategic locations nationwide, not just in Nevada. Such locations should have been chosen based on an analysis of how shipments from reactors and generator sites would be routed to a Caliente rail spur. There should have been a sufficient number of such meetings to adequately cover key impacted states/cities throughout the Yucca Mountain transportation system.]

2.4. [Inadequate Review Time (Inadequate Comment Period)

7

DOE released not one, but two lengthy, highly complex, extraordinarily cumbersome, confusing and, in some instances, inscrutable draft EIS documents (actually containing three draft EISs, since the Rail Corridor and Rail Alignment

draft EISs were bundled together) on October 12, 2007. In addition to the voluminous content of the draft EISs themselves, these documents contain hundreds of references that provide the bases for the documents' information, analyses, findings, and conclusions. The 90-day comment period provided for in the Federal Register Notice that commenced the availability of the draft EISs is not sufficient for the State of Nevada, affected local governments and tribes, and the public to review, understand and comment on these two documents. The specified comment period is also considerably shorter than the 180 days afforded for comments on the Draft Yucca Mountain EIS issued in 1999. In addition, the current 90-day period encompasses the Christmas/New Year's holiday period, which dramatically complicates the review and comment process for the State, affected local governments and tribes, and the public.

In reviewing the draft EISs and associated references, Nevada reviewers discovered that many of the referenced documents were not initially available on-line or in electronic format for ready access by reviewers. Consequently, the State and the public lost weeks of review time while DOE searched for missing references and attempted to make them accessible.

It is imperative that DOE afford sufficient time for affected parties and the public to review the two draft EIS documents and formulate comments. At a minimum, an additional 60 days should have been added to the comment period, given the importance of the subject matter, the first-of-a-kind project that is being evaluated in the Draft EISs, the size and complexity of the documents, and the need to obtain and review important reference material. DOE should immediately extend the comment period for each of the draft EISs for at least 60 additional days.]

2.5 [Inadequate Analysis of the Proposed Action versus Module 1 and 2 Transportation Scenarios (no second repository)

8

The Draft Rail Alignment EIS fails to adequately consider the impacts of the Proposed Action versus the Inventory Module 1 and 2 transportation scenarios (no second repository) described in Section 8.4 of the Draft SEIS. Under Module 1, the estimated number of rail casks shipped to the repository would increase from 9,495 to 21,909 over the 50-year operations period. Under Module 2, the estimated number of rail casks shipped to the repository would increase from 9,495 to 24,112 over the 50-year operations period. Under Modules 1 and 2, the estimated number of truck casks shipped to the repository would increase from 2,650 to 5,025 over the 50-year operations period.

All of the impact analyses in the Draft Rail Alignment EIS must be revised to include side-by-side comparison of the expected impacts under the Proposed Action, Module 1, and Module 2. Revisions are required regarding impacts to land use and ownership; aesthetic resources; air quality and climate; surface water resources; groundwater resources; biological resources; noise and vibration; socioeconomics; occupational and public health and safety; utilities, energy, and

materials; cultural resources; paleontological resources; and environmental justice.]

2.6. [Inadequate Analysis of Rail Corridors in Nevada and Inappropriate Selection of the Caliente Rail Corridor

9

DOE's selection of the Caliente Corridor is not supported by the information presented in the Draft Rail Corridor SEIS – the information in the Draft SEIS does not adequately compare Caliente with other *viable* rail corridors. The analysis of potential rail corridors in Nevada is inadequate, incomplete, and arbitrary. Different corridors are evaluated at different levels of detail.]

2.7. [Inappropriate Inclusion of the Mina Rail Corridor as an Alternative to the Proposed Action

10

DOE has analyzed the Mina rail corridor as a potential alternative in both draft Rail EISs even though it acknowledges that the route cannot be used without the consent and support of the Walker River Paiute Tribe. Because the tribe has formally advised DOE that it may not use reservation lands and the rail line that crosses tribal lands for the proposed Mina rail spur, the draft Rail EISs characterize it as a “non-preferred alternative.” However, NEPA requires that alternatives evaluated in an EIS be capable of being selected – i.e., they must be viable alternatives. Because the Walker River Paiute Tribe has refused permission for DOE to use any portion of its reservation for the proposed rail spur (and without such permission the Mina route cannot be used), it is inappropriate and a violation of the letter and spirit of NEPA for DOE to have included Mina as an alternative for comparing rail corridors in the Draft Rail Corridor EIS. The Mina route is not viable (therefore not a “reasonable alternative”) and should have been excluded as an alternative in both Draft EISs.]

2.8. [Failure to Provide Basic Information about the Proposed Caliente and Mina Rail Alignments Necessary for Impact Assessment (vertical profile, top-of-rail elevations)

11

The Draft Rail Alignment EIS fails to provide the detailed information on proposed rail alignments necessary for the assessment of impacts required under NEPA. Specifically, DOE has failed to present detailed rail alignment design maps and plan views, including vertical profiles, for the Caliente and Mina preferred alignments and alternative segments. Certain references, such as the Nevada Rail Partners reports, refer to “conceptual rail plan-and-profile drawings (based on the 5-foot contour mapping),” [DIRS 182777, 182778] but the plan and profile information is not included in Draft Rail Alignment EIS or any of the references provided on the DOE website.

Detailed information on the vertical profile of the finished track-bed structure is critical for assessing impacts on humans, livestock, and wildlife. The top of rail

elevation above the adjacent land surface, and the width and slope of the ballast shoulders, are essential for determining the extent to which the railroad presents a barrier to movement at any specific location along the alignment. Based on the limited information provided in the Draft Rail Alignment EIS, it appears that the top of rail elevation may range from 18 inches to ten feet or more above the adjacent land surface. Similar information is needed for those segments of the alignment constructed within cut-away areas.

Without detailed plan-and-profile drawings, potentially affected individuals and other reviewers cannot accurately determine the impacts of rail construction and operation on privately-owned and leased lands traversed by the alignment.

Without detailed plan-and-profile drawings, reviewers cannot determine whether or not the proposed alignments comply with the design parameters established by DOE.

Without detailed plan-and-profile drawings, reviewers cannot independently verify the cut and fill requirements, the sub-ballast and ballast requirements, the right of way requirements, the disturbed area estimates, other major project attributes, and the resulting construction costs and impacts.]

2.9. [Failure to Provide Reliable Cost Information about the Proposed Caliente and Mina Rail Alignments

12

The Draft Rail Alignment EIS fails to provide credible information of the cost of constructing the Caliente and Mina preferred rail alignments. The cost estimates provided (Vol. I, page 2-5) – \$2.2 billion (2005\$) for Caliente and \$1.7 billion (2005\$) for Mina – are lower than the cost estimates in the July 2007 draft of the DOE National Transportation Plan (NTP). The draft NTP states: “A range of estimated costs have been developed to describe the financial commitments necessary to execute the Nevada Rail Infrastructure Project through March 2017.” The cost estimates, in constant 2006 dollars, range from a “Low Point” of \$1.7 billion, a “Mid Point” of \$2.4 billion, to a “High Point” of \$3.2 billion. The NTP cost estimates “are based on the Caliente Corridor.”[Draft NTP, page 52]

The Draft Rail Alignment EIS provides no explanation for the rapid escalation in the estimated cost of constructing a railroad along the Caliente corridor since publication of the Yucca Mountain FEIS in 2002. The FEIS estimated the Caliente construction cost at about \$800 million.

The Draft Rail Alignment EIS provides no information updating the construction costs for the Carlin, Jean, and Valley corridors.

The two references cited in the Draft Rail Alignment EIS, DIRS 182777 and 182778, provide almost no meaningful information on the methodology and data used to develop the Caliente and Mina construction cost estimates. The estimated

construction costs cannot be independently verified based on the cited references. The cited references provide absolutely no information on the unit prices assumed for right-of-way acquisition, earthwork, ballast, concrete ties, rails, bridges, culverts, etc. The references do explain that the construction cost estimates do not include any costs “to mitigate impacts.” [DIRS 182777, page 13]

The Draft Rail Alignment EIS should have provided an alternative cost estimate for the 10-year construction schedule. The references concede that under the extended construction schedule “additional costs would be incurred.” The additional costs would include: “escalation, extended overhead costs, maintenance of constructed facilities not in use, and security.” [DIRS 182777, page 13]

The Draft Rail Alignment EIS should have provided an alternative cost estimate for construction of the Caliente and Mina alignments using ballast shipped in from existing quarries in Utah, Wyoming, and other states. The Draft Rail Alignment EIS should have assessed whether elimination of the need for construction of new quarries along the proposed alignments could significantly reduce adverse environmental impacts.]

[The Draft Rail Alignment EIS fails to explain the implications of rail line construction costs for route selection decisions. Appendix C provides cost information on alternative segments that DOE dropped from further consideration. It appears that DOE passed over segments that would have significantly reduced adverse impacts primarily for the purpose of reducing construction costs. This particularly appears to be the case regarding alternative segments in Meadow Valley, Coal Valley, Garden Valley, the Goldfield mining district, and Beatty Wash.] 13

[The Draft Rail Alignment EIS fails to discuss the overall implications of rail construction costs for program decisions, such as the selection of the preferred corridor or the preferred shipment mode. The estimated construction cost of the Caliente rail line increased from \$800 million in 2002, to \$2 billion in 2005, and to more than \$2 billion in 2007. Additional cost increases could occur when the Final EIS is published. Is there some cost threshold where construction cost would become the major factor in selecting the preferred rail corridor? Is there some cost threshold for rail access that would trigger a reconsideration of the preferred transportation mode?] 14

2.10. [Insufficient Assessment of Disruption of Access Regarding Land Use and Other Impacts (Focus on Private Property)] 15

The Draft Rail Alignment EIS fails to adequately consider the substantial disruption of access to, and use of, public lands, leased lands, and private property due to the construction of the proposed rail alignment. The region of influence for such impacts would be a minimum of 5 miles on each side of the rail alignment centerline, and along some segments of the proposed alignments, the region of

influence could be 10 miles or more, depending upon topography, and upon seasonal road use restrictions. The disruption of access would directly affect farming, ranching, mining, residential developments, seasonal home developments, recreation, and emergency services.

This is particularly the case with the Caliente preferred rail alignment. The Draft Rail Alignment EIS documents the connections made by some of the rural roads between certain points in the region. However, the Draft Rail Alignment EIS does not examine the implications of the need to restrict access at areas where rural Class 3 and 4 roads are bisected by the proposed rail line. Likely impacts will be to (1) effectively restrict access to wide areas south of the proposed rail line; (2) increase travel time for rural residents traveling through rural Nevada; and (3) the proposed action creates a barrier that impacts private property by restricting access to it.]

[The Draft Rail Alignment EIS must be revised to apply a minimum 5 mile region of influence regarding impacts to land use and ownership; aesthetic resources; biological resources; socioeconomics; occupational and public health and safety; utilities, energy, and materials; cultural resources; and environmental justice.]

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2.11. [Impacts to Las Vegas and Clark County

17

The Draft EISs fail to include a comprehensive assessment of impacts to the Las Vegas metropolitan area and Clark County that result from a Caliente rail line and/or rail-to-truck intermodal operations.

DOE estimates 2,650 truck shipments through the Las Vegas metropolitan area, on I-15, I-215 (the Northern and Western Beltways), and US 95, under the proposed action. If there is no second repository, there would be 5,025 truck shipments. There would be 1-2 truck shipments per week, every week, for 50 years.

DOE estimates 755 rail-cask shipments (about 8% of the total), in about 252 trains, through Las Vegas on the Union Pacific mainline, under the proposed action. If there is no second repository, and the same percentage shipments enter NV from CA, there could be about 1,929 rail cask shipments in 647 trains through Las Vegas. The DOE estimate could result in 5-13 trains per year, for 50 years.

State of Nevada estimates up to 4,400 rail-cask shipments (45% of the total), in about 1,467 trains, through Las Vegas under the proposed action. If there is no second repository, there could be 10,850 rail cask shipments in 3,617 trains, through Las Vegas – or between 29 and 72 trains per year, or 2 - 6 trains per month, for 50 years.

DOE defines the radiological region of influence (ROI) for incident-free transport as the area 0.8 km (0.5 mi) on either side of the rail alignments centerline, and for

accidents and sabotage the area 80 km (50 mi) on either side. The affected environment for radiological impacts includes individuals and businesses within the ROIs.

The State of Nevada has applied the radiological ROIs to the potential DOE shipping routes through Las Vegas and Clark County, based on a half-mile buffer around highways and the UPRR mainline, using the Clark County GIS Management Office "streetcenterline" file, and the Bureau of the Census 2005 census tract estimates. The State estimates that at least 113,000 residents of Clark County live within one-half mile of a highway route for truck shipments to Yucca Mountain while at least 95,000 residents of Clark County live within one-half mile of the Union Pacific route for shipments to Yucca Mountain via Caliente.

Based on previous studies, the State of Nevada estimates at least 40,000 nonresident visitors and workers in Clark County would likely be located within one-half mile of the highway and rail routes for shipments to Yucca Mountain at any hour of the day. Virtually all of Clark County's 2 million residents live within the 50-mile radiological region of influence for transportation accidents and sabotage.

The Union Pacific mainline travels through the Las Vegas metropolitan area for about 36 miles. Most of the largest and best-known Las Vegas hotel-casinos are within a mile-and-a-half of the railroad. From Flamingo Road to Fremont Street, the railroad runs parallel to the world-famous Las Vegas Strip, little more than one-half mile away. Along this segment of the route, several major hotel-casinos are actually less than 400 meters (one-quarter mile) from the railroad, and some hotel-casino parking lots are within 60 meters (200 feet). The Clark County Government Center in downtown Las Vegas is located adjacent to the railroad. Two major public entrances to the county government building are less than 100 meters from the railroad, and the employee parking lot is within 20 meters of the railroad.

If DOE constructs a new rail line from Caliente to Yucca Mountain, tens of thousands of Clark County residents would be affected by the shipments. Moreover, these shipments could continue for a period of four decades or more. The potential for large-scale rail shipments through Las Vegas is a major concern for the State of Nevada, Clark County, and the Cities of Las Vegas and North Las Vegas. In addition to the potential impacts on residents, the proximity of the Union Pacific mainline to the world-famous Las Vegas Strip and to other major commercial properties create truly unique local impact conditions.

The Draft EISs, however, failed to address the full range of potential rail and truck transportation impacts to Las Vegas and Clark County.]

2.12. [Impacts to the Reno-Sparks Metropolitan Area, Washoe County and
Communities Along the I-80 Corridor

18

Selection of the Mina rail line alternative – or any Yucca Mountain rail access route that departs the Union Pacific main line in northern Nevada – presents an entirely new rail corridor routing that would significantly impact Washoe County, the Reno-Sparks metro area, and all of the other communities located along the I-80 corridor from the border with California to the Utah border. Estimates of the number of shipments through Washoe County, the Reno-Sparks metro area and the Lyon County community of Fernley range from 10% to over 80% of the total, depending upon general routing strategies (such as the “suite of routes” strategy DOE currently considering), rail routing criteria developed by DOE and state regional groups, and factors used by the railroad companies in routing rail shipments on a seasonal and daily basis.

The railroads will likely find it attractive (due to economics, weather conditions, and railroad traffic logistics) to route a significant number of cross-country shipments along southern mainlines, passing through San Bernardino and/or Los Angeles, California, up through the Central Valley to the Sacramento area and across the Sierra Nevada Mountains to Reno via the Union Pacific (UP) mainline. Likewise, spent fuel and defense high-level wastes from Washington, Oregon and northern California generators would be shipped south through northern California and through the Reno-Sparks metro area. Communities such as West Wendover, Elko, Carlin, Winnemucca, and Lovelock would be impacted by SNF and HLW shipments from the east. The Draft EISs fail to examine the full range of impacts of waste shipments on these communities, considering both minimum and maximum shipment scenarios.

The newly completed railroad trench in Reno poses potentially new and troublesome circumstances for any incident, accident, or terrorist action that might result in derailment, release, or other obstruction of shipments. The Draft EISs fail to mention, let alone evaluate, the impact of the Reno trench in terms of increasing the risks posed by SNF and HLW shipments, impacts on emergency preparedness and response, impacts to public health and safety, radiation exposures due to routine operations and accident conditions, and other factors associated with the use of the rail line through Reno for shipments of highly radioactive materials.

The proposed Mina rail corridor requires analysis and evaluation of a wide range of new and substantial impacts not heretofore undertaken. Impacts in the Reno-Sparks metropolitan area and surrounding counties have elements that are similar to, yet also vastly different from, those in Nevada’s other metropolitan area of Las Vegas and Clark County. Because the proposed Mina corridor will utilize the UP east-west mainline that parallels the I-80 corridor, dramatic new impacts to the region and stakeholder interests in northern Nevada and California will result and require serious study.]

2.13. [Incomplete and Inadequate Assessment of Adverse Impacts to Native Americans

19

The treatment of Native American issues and impacts is entirely inadequate. While potentially affected Indian Tribes are identified, there is no comprehensive assessment of potential impacts, particularly regarding potential impacts to Native communities from the transportation of spent fuel and HLW, both in Nevada and nationally. For Native American interests in Nevada, it presents a sanitized section on "Native American Views of the Affected Environment," but fails to reflect the strong and ubiquitous opposition to the Yucca Mountain project on the part of Native peoples in Nevada and California, and the impact of moving forward with the project and the rail line in the face of such strong opposition.

The Draft EISs also fail to reveal in discussion of the affected environment that Native American tribes in the immediate vicinity of the Yucca Mountain project area and along potential transportation routes are, for the most part, economically disadvantaged. Reservations and communities in Nye, Lincoln, and Inyo counties are rural and isolated, and either lack a land base or have land bases too small to support their populations by ranching or other locally common means. A large number of people are unemployed, underemployed, and/or living below the poverty level. Any negative statewide economic impacts associated with or caused by the repository or repository-related nuclear waste transportation will have a disproportionate impact on such communities because of these depressed baseline conditions.

The 1986 Environmental Assessment for Yucca Mountain stipulated that, "[i]f the Yucca Mountain site is approved for site characterization, [Native American impacts] will receive appropriately detailed treatment in research to be performed during the Environmental Impact Statement process." The EA also made special note of the "potential for impacts on Native American cultures from [SNF and HLW] transportation activities" and stated that "[t]his aspect will receive appropriately detailed treatment ... if Yucca Mountain is approved for site characterization." These Draft EISs contain inadequate "detailed treatment" of Native American impacts.

The State of Nevada's research has shown that Native American tribes in the area around Yucca Mountain and along transportation routes have unique governments. As independent federally recognized entities, tribal governments have a role equivalent to states in most federal undertakings. They also have a special status according to various environmental and cultural protection acts and in the Nuclear Waste Policy Act of 1982. The repository project has also spilled over into the campaign by the Western Shoshone National Council, a political entity made up of representatives from many Western Shoshone tribes, to reclaim lands under the Treaty of Ruby Valley of 1863. This has brought the Western Shoshone and other tribal governmental entities into conflict with DOE, as well as other federal and state agencies. There has even been conflict among various

Native communities/groups over how to approach the land claim issue – conflict that has been exacerbated by the ongoing Yucca Mountain project. Because of the unique governmental position of tribes, their interests are not likely to be well protected or even properly represented in deliberations over the repository. They may also come into conflict with neighboring local governments over differences in positions regarding the repository, thus increasing their isolation from intergovernmental interaction. None of these issues are addressed in the Draft EISs.]

2.14. [Inadequate Treatment of Accidents and Terrorism/Sabotage Impacts

20

The Draft EISs underestimate the consequences of severe accidents and terrorism/sabotage incidents, especially with respect to heavy-haul transportation. The Draft EISs fail to appropriately recognize human-initiated events as risk factors associated with the loading, transportation, and unloading of radioactive waste shipments.

The Draft EISs must acknowledge the existence of credible and realistic risks from sabotage and terrorism. The symbolic value of repository shipments as targets and the regularity, frequency, and duration of shipments substantially increase the risks of human-initiated events.

Spent fuel loading, transfer, and unloading activities should have been recognized as vulnerable to sabotage and terrorism attacks. These risks should have been addressed in the Draft EISs together with the implications of new regulations needed to limit the effects of human-initiated events on the overall repository shipment program.

The complete point-to-point shipment process needs to be re-analyzed using updated assumptions about terrorist/sabotage technology and more realistic expectations of the potential for sabotage and terrorism attacks. The State of Nevada has begun this process by publishing several relevant documents on target types and risks associated with potential adversaries. Recognition of these concerns and an adequate analysis of the risks associated with potential terrorism/sabotage must be incorporated within the final EISs.

Analyses of terrorism impacts in the final EISs must fully conform to the ruling of the Ninth Circuit Court of Appeals in the Diablo Canyon Case. See *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016 (9th Cir. 2006).]

2.15. [Railroad Safety Impacts

21

The Draft EISs fail to comprehensively assess impacts to safety from issues raised in the lawsuit brought by workers and employees against the Burlington Northern and Santa Fe Railway Corporation [filed May 2004 in the U.S. District Court for the District of Iowa, Western Division]. That petition was attached to the State of

Nevada's comments on DOE's April 8, 2004 Federal Register Notice (State of Nevada Comments on DOE's Notice of Intent to Prepare and Environmental Impact Statement for Alignment, Construction, and Operation of a Rail Line to a Geologic Repository at Yucca Mountain, Nye County, Nevada – May 24, 2004) and is incorporated by reference into these comments. The operational safety deficiencies alleged in the litigation are systemic in nature and have direct relevance to the operation of any rail line to Yucca Mountain. The lawsuit specifically addresses increased risks and the potential for accidents involving spent fuel shipments as a result of railroad safety violations and worker intimidation. The Draft EISs should have addressed these safety deficiencies and assess the impacts on risk, operations, and overall performance. Further, the Draft EISs should have addressed these issues in a comprehensive fashion (i.e., their effects on the national Yucca Mountain rail transportation system), not just in relation to the proposed Nevada rail lines.]

2.16. [Inadequate Evaluation of Alternatives

22

The Draft EISs should have evaluated, in the same level of detail as the proposed action, alternatives that involve proposed intermodal operations/scenarios, including (1) heavy-haul truck transport of large rail casks from an identified intermodal facility, and (2) legal weight truck shipments of LWT casks off-loaded from rail cars at the intermodal facility. The discussion of intermodal scenarios and the assessment of intermodal impacts should also have encompassed the various operational scenarios posited by DOE, including (1) intermodal operations for some period of time until a rail line direct to Yucca Mountain can be constructed, (2) intermodal operations in lieu of a Yucca Mountain rail spur, and (3) concurrent and/or overlapping direct rail and intermodal operations.

The Draft EISs make no mention of DOE's Supplemental Analysis (SA) issued March 10, 2004 which effectively modifies the 2002 Yucca Mountain FEIS by evaluating a legal-weight truck/rail intermodal scenario of transportation nationwide and in Nevada for the first 6 years and possibly longer. Intermodal by its very nature involves significant loading, unloading, transfer and interline transportation activities that the repository FEIS found gives rise to increased impacts and risks to the environment, worker safety and general public health and safety.

The newly proposed intermodal transportation scenario required the Draft EISs to take "good hard look" and conduct a "reasoned analysis" of the environmental impacts of legal weight truck /rail intermodal transportation nationwide and in Nevada – something that has not been done in the repository FEIS or the Supplemental Analysis context.]

2.17. [Failure to Adequately Assess the Impacts of “Shared Use” Rail Operations

23

As part of the evaluation of alternatives, and the assessment of impacts related to identified alternatives, the Draft Rail Alignment EIS should have thoroughly discussed options for operation and management of the proposed rail line. These include at least two major options: (1) a dedicated, single-purpose rail line owned and operated by DOE for the sole purpose of shipping SNF and HLW to Yucca Mountain, and (2) a multi-use/shared-use rail line that would be used for the movement of other cargoes in addition to SNF and HLW to Yucca Mountain.

A thorough and comprehensive assessment of impacts arising from each alternative must be conducted in a fashion that allows for direct comparisons. The Draft Rail Alignment EIS should have contained an adequate feasibility analysis documenting the full range of currently planned, and potential future, shared uses for the rail spur, identifying pros and cons of such uses, and assessing cumulative impacts of multiple-use operations (i.e., increased traffic; increased risk from operations and/or from other cargoes such as toxics, explosives, and the like; etc.). For example, shared use could result in a massive increase in traffic, and a dramatic change in train characteristics, if the rail line were used for delivery of coal to one or more coal-fired electric generating plants. Such potential impacts are not assessed in the Draft RA EIS.

The potential for unplanned expansion of a shared use railroad, for uses such as multiple daily round-trip deliveries of coal in mile-long dedicated trains, is part of what transportation planners refer to as “induced traffic.” Research into travel behavior has consistently shown that expanding infrastructure capacity leads to additional travel demand. The degree to which this “induced traffic” occurs varies according to the congestion on the corridor; however, it is clear that the problem of induced traffic is real. The Draft Rail Alignment EIS does not address the problem of increasing traffic and increased impacts due to shared use of the proposed Caliente rail line. This calls into question wisdom of the DOE’s role as the agency with lead jurisdiction. The STB is much better equipped to understand and examine the entire range of implications of a shared use rail line and the likelihood and severity of the induced traffic that will follow.]

2.18. [Cumulative Impacts

24

The Draft EISs fail to thoroughly assess cumulative impacts from other DOE activities (i.e., low-level radioactive waste, mixed LLW and hazardous waste, and transuranic waste activities at NTS; other ongoing or planned DOE programs at the NTS; past weapons testing activities at NTS; commercial/private industry activities at/near the NTS), ranching; mining; any planned highway or other infrastructure activities ongoing or planned for the area surrounding the proposed rail line; and any and all other existing or reasonably foreseeable activities that might affect or be affected by the proposed action.]

2.19. [No-Action Alternative

25

The No-Action Alternative analyzed in the Draft Rail Corridor and Draft Rail Alignment EISs states that in the event DOE does not select a rail alignment and construct rail access to Yucca Mountain, the future is “uncertain.” Such a scenario is entirely inappropriate for a legitimate No-Action Alternative and violates NEPA requirements for analyzing the impact of not implementing the proposed action. The most likely alternative in the event that rail access is unavailable (and Yucca Mountain is ultimately developed as a repository) would be the “Mostly Truck” scenario analyzed in the 2002 final Yucca Mountain EIS (or some variation of that scenario). The Draft EISs should have evaluated the impacts of a legal-weight truck transportation system nationwide and in Nevada. The No-Action Alternative referred to in the Draft EISs is not appropriate, violates the letter and spirit of NEPA, and should be eliminated from consideration.]

2.20. [Failure to Adequately Explain and Justify Use of Overweight Trucks

26

The DOE assumption that non-rail shipments would be made by “overweight” trucks is wholly unsubstantiated in the Draft EISs, and the impacts of the use of overweight trucks in Nevada and elsewhere are not analyzed.]

2.21. [Inadequate Analysis of Highway Routes in Nevada

27

The evaluation of alternative highway routes is inadequate, incomplete, and relies on numerous questionable assumptions. The most likely alternative highway route (the NDOT ‘B’ route from I-80 to US 93 to US 6 to US 95) is not analyzed at all; the primary route (I-15 to US 95) assumes infrastructure (the I-215 beltway) that may not be useable given uncertainties over its status as part of the interstate highway system, and ignores the current HM 164 default route (I-15 connecting directly with US 95 in Las Vegas).]

2.22. [Other Agency Involvement - Necessary Federal And State Agencies Are Omitted

28

In the Draft EISs, DOE continues to ignore other obvious responsible agencies in transportation. Although the STB is now included as a cooperating agency (although it should be the lead agency – see comment above), DOE fails to include the Federal Railroad Administration - responsible for railroad operations and safety; various administrations within the U.S. Department of Transportation, including the Pipeline and Hazardous Materials Safety Administration (PHMSA) - responsible for rules for transportation of hazardous materials, the Federal Highway Administration (FHWA), and the National Highway Traffic Safety Administration (NHTSA); and the Department of Homeland Security - responsible for the security of transportation modes, systems, and infrastructure. 10 CFR 1021.103, 40 CFR 1501.6, 1508.5 and .26.

While acknowledging that the Department of Interior (DOI) Bureau of Land Management (BLM) is properly a “cooperating agency” for land-use related purposes, DOE fails to recognize and include other DOI bureaus, specifically, Fish and Wildlife Service (FWS), Office of Surface Mining (OSM), and Bureau of Indian Affairs (BIA), notwithstanding the obvious statutory authority, responsibility, and expertise in the environmental issues addressed. 10 CFR 1021.103, 40 CFR 1501.6.

In addition, there are numerous State of Nevada agencies with statutory, regulatory, or oversight roles and responsibilities for rail and highway activities contemplated by the Draft EISs. These include, but are not necessarily limited to, the Nevada Public Utility Commission (rail regulations), the Nevada Department of Transportation, the Nevada Department of Public Safety (especially the Nevada Highway Patrol and the Nevada Division of Emergency Management), the Nevada Division of Health, the Nevada Department of Conservation and Natural Resources (especially the divisions of Environmental Protection, State Lands, State Parks, Wildlife, Water Resources, etc.), the Nevada Department of Museums, Library and Arts (Historic Preservation Office), and others. The Draft EISs should have assessed roles of and impacts to each of the affected State of Nevada agencies.]

2.23. [Impacts on BLM Resource Management Plans (RMP)

29

The Draft EISs fail to address all needed changes to the affected BLM resource management plans and the appropriateness of those changes. The fact that BLM is currently in the process of revising its Ely RMP makes communication and coordination among the two federal agencies even more imperative.]

2.24. [Not Business as Usual

30

The proposed Nevada rail spur is not, and must not be treated as, simply another rail line. The purpose for which DOE is proposing to construct and operate the rail line is unique and has the potential to negatively and substantially impact people and the environment in an unprecedented way. If DOE ultimately constructs a rail access route to Yucca Mountain using the Caliente route, a rail spur over 300 miles long would be built to carry SNF and HLW from nuclear power reactors and other facilities around the country. At least 70,000 metric tons and potentially more than 120,000 metric tons of this dangerous material would be transported along this corridor, requiring thousands of shipments over a period spanning 40 years or more. An accident involving release of this material could result in massive and long-lasting environmental damage. Even without an accident, repeated exposures to routine radiation emitted by shipping containers over long periods of time can result in negative health consequences. The mere fact that the line will be used as a nuclear waste transportation corridor also has the potential to stigmatize both the spur line itself and surrounding areas, resulting in potential impacts to property values and other economic consequences for users

of adjacent or nearby lands. The Draft EISs fail entirely to assess impacts resulting from the special nuclear nature of the proposed action and alternatives.

The proposed Yucca Mountain project has created major and sustained conflict between the State of Nevada and the federal government over the years and is likely to continue to be a major source of controversy in the future. Yet the Draft EISs fail to evaluate the impacts resulting from such conflicts and controversy.]

2.25. [Inadequate and Misleading Treatment of Risk Perception and Stigma Impacts

31

Section 4.1.3 of the Draft Rail Alignment EIS does not fulfill the requirement of evaluating the label of the section: “perceived risk and stigma” impacts of high-level nuclear waste (HLNW) transport. Instead, it retreats to a position of “know-nothing” ignorance and claims that the required task cannot be done. In doing so, the Draft EIS makes several invalid claims about how social science applies to these topics.

Some of the confusion in this section of the Draft EIS is to mistake the study of individual psychology and behavior with social psychology and behaviors. The Draft EIS ignores the basic theories, data and information available for evaluating the potential outcomes from perceived risk of HLNW and stigma. Considerable research (literally hundreds of articles, books, and case studies) has been done in the last two decades that addresses the interrelationships between risk and social behaviors.¹ The point is not what each individual in a population of humans will do but what the probable behavior of the population will be. This is what is meant by “Social Impact Assessment”. The references below show that public responses to radioactive waste accidents can and should be evaluated as socioeconomic impacts based upon studies of specific populations such as residents in an area subject to HLNW transportation accidents and the responses of potential visitors and tourists to Las Vegas and Nevada.

¹ Some examples of research in the scientific literature that demonstrate convincingly the feasibility and necessity of evaluating risk perception and stigma impacts of radioactive waste activities include:

Slovic, P. (2000). *The Perception of Risk*. London: Earthscan. This book by the preeminent figure in the study of public risk perceptions and responses includes 26 chapters covering the period 1974-2000. Chapter 17 (Perceived Risk, Trust and the Politics of Nuclear Waste) originally published in *Science* (1991) is a basic introduction to public attitudes. Other chapters deal with The Social Amplification of Risk and Technological Stigma.

Flynn, J., P. Slovic and H. Kunreuther. (2001). *Risk, Media and Stigma*. London: Earthscan. A wide ranging text on the social mechanisms of public responses to technological risks. Chapter 9, “The Effects of the Rocky Flats Nuclear Weapons Plant on Neighboring Property Values” presents an appraiser’s approach to determining the stigma effects. Chapter 20, “Risk, Media and Stigma at Rocky Flats”, provides a description of the survey methods that accounted for potential buyer evaluations of the nearby housing values. (originally published in *Risk Analysis*, 1998). This information was presented in the case of Cook, et al. vs. Rockwell International and Dow Chemical Co. in U.S. District Court (Denver) in 2005. The jury in that case found for the property owners and awarded \$352 million in actual damages and \$200 million in punitive damages. In terms of a method for forecasting future behavior, see Chapter 6 on a method that showed adverse behaviors of people who expressed negative images of Las Vegas. A year and a half after the images were elicited, these people, in proportion to their image ratings, were significantly less likely to visit Las Vegas.

Pidgeon, N., R. Kasperson, and P. Slovic. (2003). *The Social Amplification of Risk*. Cambridge, UK: Cambridge University Press. This book includes 16 chapters on the US and European experience with technological risks and the processes that present information to the public. Included is Chapter 14, “Nuclear Stigma,” an historical account of the information on events and conditions that produced the US public responses to nuclear technologies.

The following examples of false and misleading statements from this section of the Draft EIS demonstrate the range of failure to understand and prepare an adequate EIS on the issue of risk and stigma:

1. “[T]here is no valid method to translate these [risks from HLNW] perceptions into quantifiable economic impacts” (This assertion should be replaced by a description of how risk perceptions and behaviors apply to the transportation of HLNW by attention to the existing literature as a guide to preparing a valid impact assessment).
2. “[T]here are no reliable methods whereby such impacts could be quantified with any degree of certainty.” (In addition to being an incoherent comment since “any degree” could range from 0-100 percent, there are proven methods demonstrated in the literature).
3. “[M]uch of uncertainty is irreducible” (All future events present some uncertainty. However, this does not absolve the authors of an EIS from characterizing the uncertainty bounds. Such analyzes should take account of the probable circumstances and the available evidence.).]

2.26. [Implications of Price Anderson Act Liability System

32

The Draft EISs fail to sufficiently evaluate the full implications of the Price Anderson Act liability system in terms of its effects and impacts on the national transportation system, rail operations, Nevada transportation, states and communities along shipping routes, property values along shipping routes, and host communities for generator sites, the repository site, other facilities where nuclear waste would be stored or handled.]

2.27. [Insufficient Assessment of Impacts on Aesthetic Resources

33

The Garden Valley portion of the proposed Caliente rail corridor passes near a unique aesthetic and cultural resource that was not adequately assessed in the Draft Rail Alignment EIS. A characteristic of the Draft Rail Alignment EIS is that it is retrospective and therefore fails to adequately address areas that are deliberately being developed as cultural resources. Since the 1970s Michael Heizer, the artist, and the Dia Foundation have spent decades and tens of millions of dollars developing a unique cultural resource in Garden Valley – the “City” installation. While the Draft Rail Alignment EIS does acknowledge the presence of the City installation, the assessment is wholly inadequate for a number of reasons.

First, DOE has performed ambient noise assessments in the area and concluded that there will not be significant impacts due to rail noise. The appraisal of the train noise was performed from areas that are not specifically intended as viewing

platforms for the City Installation. Therefore the noise assessments that are the basis for concluding that there is no impact were performed at places that do not address the intended use of the area.

Second, DOE has assessed noise impacts assuming relatively small numbers of trains. The Draft Rail Alignment EIS section on auditory impacts specifies small numbers of trains traversing the rail line for construction and waste shipment purposes and overlooks the likely substantially larger numbers of trains that will traverse the rail line because of shared uses. An implication of the shared use line is that increased access could lead to the development of new facilities (e.g. coal-fired electric generating plants) that will lead to an increased number of rail trips. This phenomenon, well-documented in the transportation field, is referred to as “*induced traffic*.” It means that improved access leads to an increase demand for transportation services. For example, construction of one 1000 MW coal-fired power plant to be served by the new rail line could result in an additional 2-6 train trips per day of loaded and empty coal cars, with 110 cars or more per train. The Draft Rail Alignment EIS does not acknowledge or assess the likely impacts of induced traffic resulting from the rail line’s construction.

The photo-simulations contained in the Draft Rail Alignment EIS also fail to adequately address the impact of the proposed action in several ways. First, the photo-simulations were made from locations that do not correspond to the specific viewpoints selected for use by the artist. Therefore, the photo-simulations do not accurately reflect the intended viewpoints for the City installation. Second, the Draft Rail Alignment EIS does not assess the complete range of visual impacts on the site, including the construction camps and proposed wells. Third, the Draft Rail Alignment EIS asserts that the proposed action is consistent with BLM objectives for the management of Class II areas, but it does not indicate why that is so or provide any basis for this conclusion. The proposed action is a new substantial metal-topped linear feature built above the flat valley floor that extends from east to west across the entire length of the valley. The proposed action is unique for that valley because there are no other rail lines in the vicinity. Although there are several dirt roads, there are no other rail lines. It is difficult to credit the DOE’s finding that the finished rail line will not “attract the attention of the casual observer,” nor is that finding adequately supported in the Draft Rail Alignment EIS.

The Draft Rail Alignment EIS argues that the small numbers of rail shipments will not be visually disruptive. This assertion ignores the likelihood of increased rail shipments due to induced traffic caused by the shared use of the rail line. As access to this area is improved, other facilities could find it desirable to locate there (e.g. coal plants). As a result, more shipments, possibly many more shipments will use to rail line. The likelihood and significance of these additional shipments is not assessed in the Draft Rail Alignment EIS.

The Draft EIS Rail Alignment does not address two aspects the CEQ has specified for understanding impacts of the type found in the proposed action. First, the *context* of the impact should be considered. The place of the City installation in Garden Valley is deliberately intended to create a unique physical setting for a cultural artifact. The City installation has already been decades in preparation and was sited in a specific way to achieve a very specific artistic effect. Particular view-sheds were selected and purchased to deliberately enhance the ability to access, observe, and experience the City installation. BLM recognized this particular context when it reclassified the area from Class III to Class II in 2005. When the current plan for the city installation is complete, it will be the heart of a cultural area that will attract visitors from around the world to visit a remote part of the Nevada desert. The Draft Rail Alignment EIS does not address the *prospective* cultural significance of the City installation, nor does it address the context of the proposed action with respect to the cultural context of the City Installation.

Another way in which the Draft Rail Alignment EIS does not address the impacts appropriately is the *intensity* of the impacts. The Draft Rail Alignment EIS completely understates the degree to which the proposed rail line will be used and, therefore, it understates the intensity of the impacts. The Draft Rail Alignment EIS does not examine the degree or likelihood of induced traffic that will result if the proposed action is adopted.]

2.28. [Re-suspension of Radioactive Particles from Past Fallout Events

34

Portions of both the Schurz-Mina and Caliente rail corridors lie in the path of many of the radioactive fallout clouds that left the NTS during atmospheric weapons and cratering nuclear explosion tests. These particles, which remain hazardous for hundreds of years or longer, lie in the soil and will pose a hazard during any period of land disruption (i.e., rail construction). The railroad work will involve the movement of massive quantities of desert soils that will likely result in the radioactive particles being lofted into the atmosphere, creating hazards for railroad workers and the public, including communities and people downwind from such activities. The final EIS must assess the risks and impacts associated with soils disruptions and re-suspension of any residual radioactive fallout particles.

Preparatory to developing the Draft EISs, DOE should have conducted extensive baseline surveys of the area within the proposed rail corridors and any other areas that would be disturbed by construction or other activities to develop baseline data on the extent of contamination against which impacts of rail construction and operational activities could be assessed.]

2.29. [Impacts on Current and Future Water Resources, Water Users, and Water Quality

35

The Draft EISs do an inadequate job of assessing impacts on water resources within the area of the rail corridors and for stakeholders outside the actual corridors who currently use or who intend to use such water resources. DOE activities in the course of implementing the plans for the rail line, such as construction activities, gravel mining and land disturbance, rail line operations, waste disposal, etc. will have deleterious impacts on both water supplies and water quality. In addition, the areas proposed for the rail line include numerous spring areas, which, if degraded in any way, could adversely impact wetland habitat, wildlife, and livestock. All of these impacts are not adequately assessed in the Draft EISs.

Significantly, the Draft EISs fail to adequately evaluate the impact of the proposed Caliente rail corridor on applications for water rights filed by the Southern Nevada Water Authority with the State of Nevada Division of Water Resources as well as water rights applications that may be affected by the Schurz-Mina rail corridor. Rights-of-way for future pipeline corridors that may be transected by the proposed rail corridors have likewise not been adequately analyzed.

Portions of the proposed rail corridors include areas that are located in areas needed for the development of future wells to monitor groundwater that flows through the Pahute Mesa nuclear blast cavities. The Draft EISs fail to adequately assess impacts of the rail line and related land uses on the future ability to monitor impacts of past nuclear testing on groundwater, including the extent to which rail construction and operations may contribute to and/or exacerbate groundwater contamination in the area.

The draft EISs also fail to adequately address the issue of how DOE plans to obtain water required for the construction of the proposed rail line, rail operations, and other activities. This is especially relevant since the Nevada State Engineer has already denied DOE permanent water rights for the proposed Yucca Mountain repository on the grounds that the use of water for the construction and operation of the proposed repository is not in the public interest. It is difficult, therefore, to see how a rail line for the importation of radioactive waste into Nevada will pass the public interest test. The final EISs must specify and analyze contingency plans DOE has for obtaining water for proposed activities in the likely event that water rights for the project are denied by the State.

Significant cuts will be required to maintain grade and curve requirements. In locations where the groundwater is close to the surface, these cuts may intercept aquifers, causing groundwater to seep from the cuts to the surface and thereby creating water quality concerns. The Draft EISs do a poor job of identifying all such area of groundwater that may be intercepted by cuts and the impacts of any resulting seepage from aquifers.]

3.0 SPECIFIC COMMENTS

3.1 [Description of the Proposed Action (Draft Rail Corridor SEIS)]

36

The Draft Rail Corridor SEIS does not identify the array of new facilities that would need to be constructed along the rail line, nor does it evaluate their environmental impacts. As demonstrated in the Rail Alignment Draft EIS, construction of a rail line would require the addition of numerous facilities such as an interchange yard, staging yard, maintenance of way facilities, rail equipment and cask maintenance facilities, and a Nevada railroad control center (RA p. 2-5). None of these facilities were described in the 2002 FEIS. The facilities would increase many of the impacts previously examined, including socioeconomic impacts and land use impacts.]

[Although the Draft Rail Alignment EIS provides significant increases in the estimated cost of a rail line constructed in either the Caliente or Mina Corridors, the Draft Rail Corridor SEIS does not provide updated construction cost estimates for any of the other corridors. Therefore, it is impossible to adequately evaluate the merits of the Caliente or Mina routes compared to other corridors not selected. Given the high estimated cost of the Caliente rail line, costs of constructing the rail line in other corridors should have been updated.]

37

3.2. [Land Use Conflicts (Draft Rail Corridor SEIS)]

38

Land use conflicts identified in the Corridor Draft SEIS include conflicts with private mining operations. Supplemental information in the Corridor Draft SEIS shows that land use conflicts with respect to mining operations are on the rise, particularly in the Carlin Corridor. As DOE acknowledges, the rising price of gold and other metallic resources has caused a “resurgence in the number of mining claims” (CA p. 5-11). Most of the conflicts are where known mining patents are within the proposed corridors and where there is increasing activity today.

DOE understates the potential for land use conflicts over mineral development. While the very nature of mineral development precludes the precise geographical identification of conflicts with future mining projects, it is possible to predict that certain areas have strong mineral potential. While a number of exploratory activities are underway, it is reasonable to predict that significant additional mineral deposits will be discovered in the corridors in Nevada.

Depending on the distance between the rail line and the deposits, a rail line in the proximity of newly discovered deposits could be a detriment to the development of newly discovered mineral resources. Potential conflicts include the intersection of rail line and haul roads used to transport mined material from a mine for processing.]

3.3. [Socioeconomic Impacts (Draft Rail Corridor SEIS)

39

DOE has substantially increased the estimated workforce required to construct the proposed rail line, from 1,230 worker-years to 6,600 worker-years for the Carlin Corridor, for example (CA p. 5-9). The worker-years for other corridors analyzed increased similarly. This is a significant increase in the number of workers required, which would have significant socioeconomic impacts not previously assessed. Yet, the Draft Rail Corridor SEIS fails to update and adequately assess potential socioeconomic impacts to rural counties.]

3.4. [Project Description (Draft Rail Alignment EIS)

40

The Rail Alignment Draft EIS provides an incomplete and inconsistent description of the proposed action. The locations of quarries, staging areas, man camps, and other facilities are only shown on sketch maps, which do not show the exact location of the facility, or the existing terrain, vegetation, or other land features. There are also many inconsistencies within the description. For example, in some places DOE states that the right-of-way won't be fenced, but in other places it states that the right-of-way fencing will be determined by BLM. The "nominal width" of the operations right-of-way is stated as being 400 feet in the text (RA p. 2-5), but a DOE reference document indicates that the right-of-way width varies significantly, to a maximum width of 1,000 feet (DIRS 182824). The right-of-way width in the area of a large cut would be 480 feet and in the area of a large fill would be 575 feet.

Although in some parts of the Draft EIS the DOE recognizes that cut and fill slopes will result in disturbed areas that are wider than 400 feet, it provides no information that would allow the reader to determine where these areas are. The maps provided in the on-line map atlas are only satellite images, and do not provide contours to allow the reviewer to estimate areas where significant cuts and fills may be required.

Although the locations of bridges are provided, the location and size of culverts are not provided. Large culverts can be used as grade separated crossings for livestock movements. Without knowing the locations of these culverts, it is not possible to assess impacts on ranching operations or the effectiveness of mitigative measures.]

3.5 [Land Use Impacts (Draft Rail Alignment EIS)

41

DOE concludes in the Rail Corridor Draft SEIS that land use impacts will be insignificant, based primarily on disturbed acreage. Although the number of disturbed acres is one measure of land use impacts, it is not the only one. For linear facilities such as a rail line, an assessment of land use impacts should also include an evaluation of the impacts of bisecting current and future land uses. For example, splitting a ranching operation with a rail line can have significant

impacts on the entire operation, not just the area within the right-of-way. Similar impacts will be felt by other types of businesses and government operations. These impacts should have been fully assessed in the Draft Rail Alignment EIS.]

3.6 [Fencing (Draft Rail Alignment EIS) 42

There are many conflicts between the Draft Rail Alignment EIS, the Draft Rail Corridor SEIS and supporting documents regarding whether or not the right-of-way will be fenced. Most western ranching operations are based upon a combination of privately owned fee land and grazing leases on publicly owned lands. In most cases, the ranching unit depends on these grazing leases to be economically viable. Most grazing leases are held by the ranches that can access the lease as a logical part of their operation. Splitting an existing operation with a rail line that will limit access to the leased land can have significant adverse effects on the operation of the ranch. The degree of impact that splitting a ranching operation with the rail line will have will be much greater if the rail road right-of-way is fenced.

In the Draft Rail Alignment EIS, DOE provides conflicting statements regarding fencing. For example, DOE states that it will consult with BLM during the final design phase to determine where fencing will be required on Public Lands (RA p. 4-61). In the sections on impacts to big game and wild horses and burros, however, DOE states that the rail line will not be fenced (RA p. 4-231 and 4-232). In the section on potential mitigation, DOE states that potential mitigation measure includes "limit fencing on public lands to those areas where safety is a concern, or where it is required for the safety of livestock" (RA p. 7-16), without stating who is going to determine whether the right-of-way must be fenced due to safety concerns.]

3.7 [Barrier to Movement (Draft Rail Alignment EIS) 43

A rail line will create substantial barriers to movement. In supporting documents, DOE provides typical cross sections for a large fill cross section, large cut cross sections, and large cut and fill cross sections (DIRS 182824, pp. 2, 4, 5). The DEIS fails to recognize that areas where significant fill, cuts, or cuts and fill are required create substantial barriers to movement. Barriers such as these located in the middle of a ranching operation, would create significant hardship on the operator -- perhaps making the difference between an economically viable operation and one that cannot survive.

DOE recognizes this potential impact in its analysis of impacts for the Mina Corridor, when it states: "Because the corridor intersects grazing allotments, a rail line could create a barrier to livestock movement. Livestock could have difficulty accessing water if there was a deep cut or a high fill associated with the rail line. Ranching operations and livestock rotations could be disrupted" (C 3-11). However, the recognition of this impact is not carried through to the Draft

Rail Corridor SEIS' discussion of the impacts of a rail line in other corridors, nor does DOE make any attempt to provide information regarding the locations where significant cuts or fills occur. More troubling, in its analysis of the impacts of the Mina and Caliente alignments in the Rail Alignment Draft EIS, DOE reaches the opposite conclusion that such impacts would be insignificant, by stating that: "the presence of a rail line could require livestock on some allotments to adjust to new routes to access water and forage. Generally, livestock could learn these new routes and acclimate to, and cross the rail line in most areas" (RA, p. 4-61).

Ranching operations will be the most affected by the barrier to movements created by the proposed rail lines. DOE should acknowledge the significant impacts of a rail line on livestock movement. It should also identify the exact locations where the rail line will create barriers to movement, both through the presence of large cuts and fills and areas where the rail line will be fenced. The EIS should discuss mitigative measures that would allow livestock and equipment to cross the rail line, such as culverts and bridges. The EIS should also evaluate the feasibility of various locations for crossings, because possible locations for this type of grade separation are highly dependent upon terrain. For example, the height required for separation can be provided by natural drainages. Box culverts can be used as grade separated crossings for livestock and ranching equipment. These "underpasses" will be limited to locations where they can be constructed based on the topography and the profile of the proposed rail line. The degree of impact – and the effectiveness of mitigation measures – depends on a combination of the height of proposed road crossings (either at grade or grade separated) and proposed drainage structures. The EIS does not contain sufficient information to allow for evaluation of this issue.]

3.8 [Emergency Response (Draft Rail Alignment EIS) 44

The Corridor Draft SEIS and the Rail Alignment DEIS do not assess the potential impact on emergency response services in rural counties of Nevada. The emergency response services would be impacted both during construction and during operations. During construction, there would be a significant increase in the demand for emergency response resulting from construction accidents and from traffic accidents related to the increased traffic associated with the large construction workforce. There is also the potential for spills of hazardous materials during construction.

Construction and operation of the rail line would also increase the possibility of rangeland wildfires. These impacts have not been assessed by DOE, nor have any mitigation measures been suggested. Mitigative measures should include the development of a plan for fire prevention and suppression, developed in cooperation with appropriate local, State, and federal agencies. The plan should include procedures to restore any land affected by a construction related wild land fire. Rail equipment used during construction and operation should be adequately equipped and maintained to reduce the potential fire hazard.

DOE has not adequately addressed the impact on emergency response services at the rural county first responder level for this decades-long massive shipping campaign.]

3.9. [Biological Resources (Draft Rail Alignment EIS)

45

DOE has significantly understated the impact to biological resources. Loss of habitat would not be limited only to the physical loss of habitat due to the construction of the rail line. The rail line passes through or adjacent to many significant biological resource areas, including critical habitat, migration corridors, etc. The construction and operation of the rail line would reduce the value of these areas, resulting in significantly greater loss in resources than just the area physically within the rail line right-of-way. The Caliente rail line would cross and be near to critical habitat for many species of wildlife. Critical habitat is absolutely necessary for wildlife. Human activity, such as the operation of a rail line, in or even near critical habitat can seriously degrade the value of that habitat for wildlife. This is especially true of linear facilities, such as a rail line, that pass through habitat areas. Without undisturbed access to critical habitat, the wildlife using that habitat may abandon large areas of year-round habitat. The *Environmental Baseline File for Biological Resources* (DIRS 104593) lists the following crucial habitats within the Caliente corridor: Bighorn Sheep Crucial Winter Habitat (Cedar Range), Mule Deer Crucial Winter Range (Cedar Range), Quail Crucial Habitat in Meadow Valley. The Caliente corridor contains many additional biological resources within the corridor or within 5 kilometers of the corridor. Although these resources are identified in the *Environmental Baseline File*, the DOE makes no attempt to quantify the impacts of the rail line on most of these resources.

DOE does not adequately address the potential impact of construction of rail line on the spread of noxious weeds and invasive species. The discussion of noxious weeds is inadequate in several respects.

In the Draft Rail Corridor Draft SEIS, DOE does acknowledge that noxious weeds may be a problem, stating that “clearing vegetation and disturbing the soil could create habitat for colonization by noxious weeds and invasive species in the Mina corridor. . .” (CA p 3-26). DOE then concludes that reclamation of disturbed areas would reduce the colonization by noxious weeds. Under cumulative impacts for the Mina corridor, DOE further notes that linear disturbances, such as rail lines, may result in the spread of noxious weeds into areas where they had not previously been a problem. DOE then concludes that the “strict adherence to best management practices should reduce the potential for impacts” and that the cumulative impacts, would therefore, be small (CA p. 4-25).

Similarly, in the Rail Alignment DEIS, DOE concedes the potential for establishment of noxious weeds and invasive species along the rail alignment and

adjacent areas, but concludes that the application of “best management practices” would minimize or avoid the impacts (RA p. 4-193). Such vague assertions are unacceptable. The use of the term “best management practices,” without more information, gives no assurance that the practice will actually be implemented sufficiently to reduce the potential for the establishment of noxious weeds.

DOE also fails to give enough information on how it will address a significant conflict between best management practices for weed control and best management practices for other construction activities. DOE acknowledges that watering of land surfaces during construction could encourage the establishment of noxious weeds, and therefore, proposes to limit watering of land surfaces “to the extent practicable” to mitigate this potential impact (RA p. 4-193). Not only is the phrase “to the extent practicable” unacceptably vague and non-committal, but the best management practice of avoiding watering may well conflict with other project related requirements, such as the need to apply water to soils for proper compaction and the watering of disturbed areas and haul roads for dust control (RA p. 7-11).

DOE does note in the section on best management practices that it will use weed-free straw and mulch for reclamation activities (RA p. 7-15). Since it is critical that straw or mulch used for reclamation not result in the introduction of invasive species, this requirement should be absolute, and not subject to the caveat of “to the extent practicable.” To ensure that the mitigation is followed, DOE should commit to requiring the use of **certified** weed free mulch in all the reclamation contracts for the rail line construction.]

3.10. [Water Resources (Draft Rail Alignment EIS)

46

The Draft EIS’ discussion of groundwater impacts is limited to impacts associated with groundwater withdrawals for construction activities and from infiltration of pollutants from potential spills during construction and operation. However, most of the rail corridors crosses rugged terrain where there will be significant cuts required. These cuts could intercept groundwater flow. When shallow aquifers are intercepted by a linear cut, such as those associated with a rail line, adverse impacts can occur both down-dip and up-dip from the cut. The cut would allow water to drain from the aquifer, causing dewatering or lowering of the water table up-dip from the cut. The recharge to the aquifer down-dip from the cut would be eliminated or reduced, causing groundwater levels to decline. Lowering of the water table of the aquifer could cause serious impacts to ranching operations if there is significant decline. Many stock watering wells are pumped by windmills. The pumps used on windmills are suction pumps, and have a very limited height that they can pump. Therefore, wells located where the water table is lowered significantly could become unusable. DOE has not provided sufficient information on the actual routes and the location and depth of cuts to assess these potential impacts.]

3.12 [Socioeconomics (Draft Rail Alignment EIS)

47

DOE's methodology of assessing the socioeconomic impacts of the Caliente and Mina rail alignments is significantly flawed, and therefore would does not adequately evaluate the impacts on communities in rural Nevada. DOE assumes that almost all of the workers would live in construction camps, commuting from permanent homes in either the Washoe County/Carson City area (Mina Corridor) or the Clark County area (Caliente and Mina Corridor) (Rail Alignment Draft EIS, pp. 4-265 and 4-623). This is an erroneous assumption for several reasons. First, the DOE fails to recognize that significant construction projects in the metropolitan areas of Clark County and Washoe County create a demand for construction workers. Workers who currently reside and work in these metropolitan areas would have no incentive to leave jobs in their current area of residence to work at the remote location of the proposed rail line. DOE also fails to recognize that many of the skills required for construction of a rail line may not be the skills of the existing construction work force in the Washoe County/Carson City and Clark County areas. Therefore, the employment demand created by the construction of the rail line will most likely be met by workers who relocate to the area from other states, creating temporary residences in the communities along the rail line corridors.

The DOE's assumption also ignores the experience of other communities in the western U.S. with similar types of construction activities. Many construction workers for similar types of construction arrive at the job site with their own RVs, and expect to live in them at or near the job site. Others will want accommodations in local communities, including motel rooms and apartments. Even if space is available in construction camps, many of the workers will chose these other housing options. Some of them will bring their families with them, increasing the temporary population increase associated with construction.

In any event, even if it were likely that workers would live in construction camps, DOE's methodology does not recognize that temporary residents do place a demand for locally provided services, whether they reside in man camps, personal RVs, or other housing in the area. The model used to predict population increases and socioeconomic impacts of the construction workforce assigns the increased population and demand for services to the permanent residence location assumed for the worker, primarily in the Washoe/Carson City or Clark County area (Rail Alignment Draft EIS, pp. 4-271 and 4-630). These are large, growing metropolitan areas where the population increase due to the rail line construction could be absorbed. Therefore, DOE predicts little or no socioeconomic impact.

A large, temporary resident workforce would have significant socioeconomic impacts on Caliente where the rail line would originate. DOE now states that significant additional facilities such as an interchange yard, maintenance of way facility, equipment maintenance facility, etc will be required. Many of these facilities would probably be located near the start of the rail line. Construction of

these facilities would also increase the impacts on Caliente, since the construction of these facilities would be at a fixed location near Caliente, rather than further along the rail corridor.

Finally, as DOE recognizes, Congress might not appropriate sufficient funds to construct the rail line in the time frame suggested by DOE. Therefore, DOE concludes that the construction may last for up to ten years. Yet, the socioeconomic impact analysis in the DEIS only assesses impacts over a five-year construction period (RA p. 4-263).

DOE's assumption that the shorter construction period of only five years is the "bounding" or most conservative case for assessing impacts is incorrect. DOE incorrectly assumes that since the shorter construction time frame results in higher employment, it is, by default, the worst case. The increased population associated with the construction of the rail line will create an additional demand for services from rural counties. Over a short period of time, these demands could perhaps be absorbed in the current budgets for County agencies. However, when the period of time is extended, the deficits in operating budgets would continue to build, making it difficult to continue to meet the increased demand for services. A longer construction timeframe would extend the time period over which local governments need to provide services, which could result in greater financial impacts to local governments. Therefore the DOE's socioeconomic assessment should include a complete assessment of construction impacts over both the preferred alternative time frame of five years and the alternative time frame of ten years.]

3.13. [Transportation

48

In both the sections on national transportation and Nevada transportation, the representative rail and truck routes shown in Figure 6-1 of the Repository Draft SEIS do not represent the actual routes that will probably be used to transport spent nuclear fuel and high-level waste through Nevada under the proposed action for the Caliente Alignment. The representative routes shown in this figure do not include Interstate 80 or the Union Pacific main line railroad through northern Nevada. It is very likely that these routes would be used for most of the shipments from the west coast.

The representative routes also do not recognize DOE's current philosophy as expressed by DOE at the DOE Technical External Coordination (TEC) Working Group meetings in 2007 that a "Suite of Routes" would be required due to safety and security concerns. DOE has defined a "Suite of Routes" to mean "more than one route from a shipping location to the repository." Applying the suite of routes concept to the potential routes will result in more routes than shown on Figure 6-1. This would undoubtedly increase the number of shipments through northern Nevada.

In the Yucca Mountain FEIS, DOE stated that trucks carrying truck casks would be legal-weight trucks. DOE now expects the trucks to be overweight. DOE originally rejected the use of overweight trucks because the overweight truck permitting system could create significant problems meeting shipping schedules. Now that DOE is planning on using overweight trucks, they should describe how they intend to overcome the permitting obstacles previously identified. DOE concludes that the impacts from overweight trucks would be similar to the impacts from the use of legal-weight trucks. No analysis is provided to justify this conclusion. The DOE assumption that non-rail shipments would be made by “overweight” trucks is unsubstantiated in the Draft EIS, and the impacts of the use of overweight trucks in Nevada and elsewhere are not analyzed.

The evaluation of alternative highway routes is inadequate, incomplete, and relies on numerous questionable assumptions. The most likely alternative highway route (the NDOT ‘B’ route from I-80 to US 93 to US 6 to US 95) is not analyzed at all; the primary route (I-15 to US 95) assumes infrastructure (the I-215 beltway) that may not be useable given uncertainties over its status as part of the interstate highway system, and ignores the current HM 164 route (I-15 connecting directly with US 95 in Las Vegas).]

49 3.13. [Best Management Practices and Mitigation

The DOE’s discussion of mitigative measures in the Repository Draft SEIS is extremely inadequate. One mitigating measure that DOE cites to address transportation safety is the DOE *Radioactive Material Transportation Practices* manual (DOE M 460-2.1). This manual was originally adopted in 2002. DOE is currently revising this manual, but has not released the revised manual. Therefore, it is inappropriate to rely on the mitigative actions cited, since they will be revised in the near future. Instead, DOE should describe in the Repository Draft SEIS the exact practices that it is committed to upholding.

Similarly, Section 9.3 of the *Repository SEIS* discusses mitigating actions for transportation impacts. For Nevada Transportation, DOE states that Chapter 7 of the Rail Alignment Draft EIS provides mitigation measures for construction of the rail line in Nevada. No “best management practices” or proposed “mitigative measures” are provided to address transportation impacts in Nevada. Thus, it is impossible to tell what the mitigation measures are.]

60 [When discussing the need for training for emergency responders to respond to incidents involving these shipments, DOE states that Section 180(c) of the NWPA allows DOE to provide funding for this training. The EIS, however, states that “DOE **could** provide such training” (Page 9-7, *Repository DSEIS*, emphasis added). DOE should state that the NWPA requires DOE to provide such funding, and that DOE will provide the training. However, the EIS should address the likely and reasonably foreseeable possibility that Congress will not appropriate sufficient funds to provide adequate training for all responders.]

4.0 OTHER STATE AGENCIES' COMMENTS

4.1 Comments of the Nevada Division of State Lands

The State of Nevada Department of Conservation and Natural Resources Division of State Lands makes the following comments with respect to the Draft Rail Alignment EIS:

1. [The Draft EIS should include better analysis of the negative impacts of proposed fencing of the project. In general, fencing of rights-of-way is extremely detrimental to wildlife migration as well as to grazing permittees, private property owners and the general public.] 50
2. [The Draft EIS should list all needed support facilities and recognize the importance of locating them within Nevada and in close proximity to established communities.] 51
3. [The rail line's impacts on visual resources should be addressed in the Draft EIS, especially in close proximity to Beaver Dam State Park, existing highway corridors, wilderness study areas, communities and any other areas identified during the public comment process.] 52
4. [The Draft EIS should specify the ratio of rail use to heavy truck use and delineate the procedures for the intermodal transfers of waste, locations, needed safety measures and routes.] 53
5. [It was recommended during scoping comments that the Draft EIS specify a local stakeholder committee that can participate directly with the DOE on all aspects of construction and running of the rail line. As activities proceed, this committee can participate by recommending changes based on their local observations. This committee should be comprised of local elected officials, community leaders and other residents, and representatives of appropriate state agencies.] 54
6. [The Draft EIS does not clearly consider all impacts the rail line will have on local land use plans, zoning and existing land uses.] 55
7. [The Draft EIS process should address all needed changes to the affected BLM resource management plans and the appropriateness of those changes. Existing resource management plan policies or land use maps should not be changed simply as a reaction to the Draft EIS.] 56
8. [The Draft EIS does not adequately explore the potential impacts to water users in the Amargosa Valley.] 57

4.2 Comments of the Nevada Office of Historic Preservation

The Nevada State Historic Preservation Office makes the following comments on the Draft Rail Alignment EIS:

Comment 1: [The Draft EIS separates cultural resources (S-60) from American Indian Interests (S-62) much as the Draft Repository SEIS does. The identification of properties of religious and cultural significance should be considered an activity separate from seeking viewpoints. Because properties of religious and cultural significance have not yet been identified it is premature to predict that effects would be small to moderate.] 58

Comment 2: [The Draft EIS minimizes the effect the selection and building of the Goldfield alternative four would have on the Goldfield National Register District. Construction through a National Register District would likely be more than a “small to moderate” impact – it could be sufficiently significant to result in a delisting of the Goldfield Historic District.] 59

ATTACHMENTS

The following attachments are incorporated by reference into the formal comments of the State of Nevada on DOE's Draft Nevada Rail Corridor Supplemental EIS and Draft Rail Alignment EIS:

State of Nevada's comments on DOE's Draft Yucca Mountain EIS (February 28, 2000)
<http://www.state.nv.us/nucwaste/eis/yucca/ymdeis.htm>

State of Nevada and Clark County joint comments on the Supplement to the draft Yucca Mountain EIS (July 5, 2001)
<http://www.state.nv.us/nucwaste/news2001/nn11299.htm>

State of Nevada comments on DOE's notice of intent to prepare an EIS for the alignment, construction and operation of a rail line to Yucca Mountain (May 25, 2004)
<http://www.state.nv.us/nucwaste/news2004/pdf/nv040525ocrwm.pdf>

State of Nevada Comments on the Department of Energy's Draft Environmental Assessment for the Withdrawal of Public Lands for the Proposed Caliente Rail Corridor
<http://www.state.nv.us/nucwaste/news2005/pdf/nv050923doe.pdf>

State of Nevada Comments on DOE Draft Environmental Assessment for Proposed Infrastructure Improvements for the Yucca Mountain Project
<http://www.state.nv.us/nucwaste/news2006/pdf/nv060808doe.pdf>

State of Nevada comments on DOE's amended notice of intent to prepare an EIS for the alignment, construction and operation of a rail line to Yucca Mountain (December 11, 2006)
http://www.state.nv.us/nucwaste/news2006/pdf/nv061211ocrwm_rail.pdf

State of Nevada's comments on DOE's notice of intent to prepare a supplement to the final Yucca Mountain EIS (December 11, 2006)
http://www.state.nv.us/nucwaste/news2006/pdf/nv061211ocrwm_nei.pdf

The Transportation of Spent Nuclear Fuel and High-Level Radioactive Waste , By Planning Information Corporation
<http://www.state.nv.us/nucwaste/trans/1pichome.htm>

Nuclear Waste Transportation Security and Safety Issues
Available on LSN at: <http://nvlsn.nv.gov/documents/NEV0000491.PDF>

A Preliminary Study of Sabotage and Terrorism as Transportation Risk Factors Associated With the Proposed Yucca Mountain High-Level Nuclear Facility
<http://www.state.nv.us/nucwaste/trans/jballard.htm>

A Mountain of Trouble: A Nation at Risk - Report on Impacts of the Proposed Yucca Mountain High-Level Nuclear Waste Program

<http://www.state.nv.us/nucwaste/yucca/impactreport.pdf>

Planning for an Unpredictable Event: Vulnerability and Consequence Reassessment of Attacks on Spent Fuel Shipments (paper presented at WM 2005, the 32nd annual Waste Management Symposium, in Tucson, Arizona, on March 2, 2005)

http://www.state.nv.us/nucwaste/news2008/pdf/WM05_terrorism.pdf

Statements of Nevada Representatives at Various Public Hearings on the Draft Rail EIS

<http://www.state.nv.us/nucwaste/news2007/pdf/halstead071115caliente.pdf>

<http://www.state.nv.us/nucwaste/news2007/pdf/halstead071119reno.pdf>

<http://www.state.nv.us/nucwaste/news2007/pdf/halstead071126amargosa.pdf>

<http://www.state.nv.us/nucwaste/news2007/pdf/nv071203rhalstead.pdf>

<http://www.state.nv.us/nucwaste/news2007/pdf/nv071203rloux.pdf>

<http://www.state.nv.us/nucwaste/news2007/pdf/nv071205jhall.pdf>

Yucca Mountain Transportation Implications for the State of California

<http://www.state.nv.us/nucwaste/news2007/pdf/nv070625caciepr.pdf>

Reconnecting to the Caliente Rail Route – Implications for the Las Vegas Valley, Presentation to Nevada Commission on Nuclear Projects, Las Vegas, Nevada, May 23, 2007

<http://www.state.nv.us/nucwaste/news2007/pdf/nv070523caliente.pdf>

The Effects of Human Reliability in the Transportation of Spent Nuclear Fuel (June 1988).

<http://nvlsn.nv.gov/documents/NEV0000043.PDF>

State of Nevada Socioeconomic Studies of Yucca Mountain 1986 - 1992: An Annotated Guide and Research Summary

<http://nvlsn.nv.gov:80/documents/NEV0000056.PDF>

State of Nevada Comments on O.C.R.W.M. From Reactor Spent Fuel Shipping Cask Preliminary Design Reports

<http://nvlsn.nv.gov/documents/NEV0000470.PDF>

Nothing Recedes Like Success? Risk Analysis and the Organizational Amplification of Risks", by William R. Freudenburg in the journal, *Issues in Health and Safety* (Winter 1992)

<http://www.state.nv.us/nucwaste/news2008/pdf/NothingRecedesSuccessRisk1992.pdf>

Full-Scale Cask Testing Revisited, Again, Paper presented at Waste Management '06 (February 27 -March 2, 2006)

<http://www.state.nv.us/nucwaste/news2006/pdf/wm06casktesting.pdf>

State of Nevada: Yucca Mountain Transportation Security Issues (Waste Management 2007)

<http://www.state.nv.us/nucwaste/news2007/pdf/wm07ymtrans.pdf>

State of Nevada: Any Way to Run A Railroad: Implications of Dedicated Trains (Waste Management 2006)

<http://www.state.nv.us/nucwaste/news2006/pdf/wm06railroad.pdf>

State of Nevada Comments on the NRC Draft Report on Spent Fuel Transportation Package Response to the Baltimore Tunnel Fire Scenario (NUREG/CR-6886/PNL-15313), December 30, 2005

<http://www.state.nv.us/nucwaste/news2005/pdf/nv051230nrc.pdf>

Nuclear Engineering International Magazine, "Railroading Nevada" (October 2005)

http://www.state.nv.us/nucwaste/news2005/pdf/nei05oct_caliente.pdf

State of Nevada Perspective on the Proposed Caliente Rail Corridor (October 13, 2005)

<http://www.state.nv.us/nucwaste/news2005/pdf/wieb051013.pdf>

State of Nevada: Hot Time in the City: Which Shipment Mode for High Level Nuclear Waste Affects Urban Areas Most (Waste Management 2005)

http://www.state.nv.us/nucwaste/news2005/wm/urban_impacts.pdf

State of Nevada: Integrating Hazards Assessment and Impact Assessment: The Case of the Caliente Rail Corridor to Yucca Mountain (Waste Management 2005)

http://www.state.nv.us/nucwaste/news2005/wm/caliente_rail.pdf

State of Nevada Views on the Proposed Caliente Rail Corridor (February 10, 2005)

<http://www.state.nv.us/nucwaste/news2005/pdf/nv050210halstead.pdf>

State of Nevada: Beyond the Mountains: Nuclear Waste Transportation and the Rediscovery of Nevada (Waste Management 2004)

<http://www.state.nv.us/nucwaste/news2004/pdf/wm0304.pdf>

State of Nevada: Presentation of Robert Halstead on Yucca Mountain Transportation Access Issues to the National Academy of Sciences Study Committee on Transportation of Radioactive Waste, July 25, 2003

http://www.state.nv.us/nucwaste/news2003/pdf/nas_halstead2.pdf

State of Nevada: Radiological Impacts of Incident-Free Transportation to Yucca Mountain: Collective and Maximally Exposed Individual Doses – Paper presented at the Health Physics Society Annual Meeting, June 2002

<http://www.state.nv.us/nucwaste/news2003/pdf/HPSPaper-FEISImpactsCritique6-20-02.pdf>

State of Nevada: Rail Access to Yucca Mountain: Critical Issues (Waste Management 2003)

<http://www.state.nv.us/nucwaste/news2003/pdf/nv030225d.pdf>

State of Nevada: Many Roads to Travel: Alternative Approaches to Route Selection for Yucca Mountain Shipments (Waste Management 2003)

<http://www.state.nv.us/nucwaste/news2003/pdf/nv030225e.pdf>

State of Nevada: How Many Did You Say? Historical and Projected Spent Nuclear Fuel Shipments in the United States (Waste Management 2003)

<http://www.state.nv.us/nucwaste/news2003/pdf/nv030225b.pdf>

State of Nevada: Testimony of Robert J. Halstead Before the Committee on Energy and Natural Resources, United States Senate, May 22, 2002

<http://www.state.nv.us/nucwaste/news2002/nn11705.pdf>

State of Nevada: Additional Comments to the NRC on Nevada's Petition for Rulemaking with Respect to Safeguards for Spent Fuel and HLW Shipments, January 1, 2000

<http://www.state.nv.us/nucwaste/news2000/nn10472.htm>

NRC: Rulemaking Petitions: Nevada, 49410-49413, September 13, 1999 [FR Doc. 99-23691]

<http://www.state.nv.us/nucwaste/news/fr13se99-30.htm>

State of Nevada: Petition to Institute Rulemaking and to Initiate a Comprehensive Assessment (June 22, 1999)

<http://www.state.nv.us/nucwaste/news/ag990622b.htm>

State of Nevada: Reported Incidents Involving Spent Nuclear Fuel Shipments 1949 to Present (May 1996)

<http://www.state.nv.us/nucwaste/trans/nucinc01.htm>

State of Nevada: An Independent Cost Assessment of the Nation's High-Level Nuclear Waste Program (February 1998)

<http://www.state.nv.us/nucwaste/trans/pic2/2piccovr.htm>