

**Comments For:**  
**Draft Supplemental EIS for A Geologic Repository for the Disposal  
Of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye  
County, Nevada**  
**And**  
**Draft EIS for a Rail Alignment for the Construction and Operation of a Railroad  
At Yucca Mountain, Nye County, Nevada**

**Submitted by Lander County, Nevada**

**General Comments**

**The EIS Needs to Include the Existing UP Rail Line through Nevada**

DOE needs to examine the entire Mina Rail route in more detail than the national transportation route analysis contained in the Final Environmental Impact Statement for Yucca Mountain. The Mina route segment from Salt Lake City to Yucca Mountain has not been evaluated in terms of risk analysis, impacts on existing rail operations, emergency response capabilities, and potential areas for increased accidents and derailments, etc.

DOE needs to describe how many rail shipments will occur on the northern Union Pacific under the both alternatives. Although certain routing options may not be completely known at this time, an estimate of shipments should be made in the EIS.

**Lack of Detailed Analysis for Resource Impacts**

The EISs do not contain sufficient information for the various impact analyses. There are only general descriptions of the resources being impacted. Furthermore, DOE postponed certain analysis until the construction phase. For example, impacts to cultural resources are largely unknown and will not be fully investigated until construction. Most subject areas are only given cursory treatment.

**EIS Scoping Comments Ignore or Not Addressed**

Many of the County's original scoping comments were largely ignored in the EIS. The EIS ignored potential impacts to:

- Radiation Health and Safety the EIS has not examined potential direct, indirect and cumulative impacts to public health associated with transportation impacts along the northern Union Pacific railroad in Nevada and Utah. This route has never been examined in any of the EIS prepared for Yucca Mountain.
- Impacts and analysis of transporting spent nuclear fuel and high-level nuclear waste through northern Nevada along the existing Union Pacific Rail line.
- Alternatives routes around the Walker River Reservation.

- Transportation options for generator sites that will not use rail. DOE increased the estimates of shipments, but did not indicate where they would come from or how they would reach the proposed repository. This situation is a direct result of a decision to construct a rail line.
- Cumulative analysis of all potential future shipments to Yucca Mountain was largely ignored. DOE needs to disclose the full potential of rail shipments to Yucca Mountain.

### **Lacks specific committed mitigation and monitoring measures**

The EIS lacks specific committed mitigation throughout the document. DOE needs to provide specific mitigation measures for resources impacts. A section to the EIS should be added which discusses the impacts and mitigation measures. Section 7.0 (Best Management Practices and Mitigation) does not suffice as mitigation. It is simply a restatement of the regulatory framework already applicable to DOE activities with respect to rail construction. Appropriate references should be made to Department of Interior standard operating procedures and other policies. This is a major construction project affecting both public and private lands in both corridors. It is difficult to believe that there are no significant impacts, mitigation, or monitoring required.

### **Legal Requirements for Consideration of Mitigation Alternatives**

As stated in the Council on Environmental Quality's (CEQ's) regulations for implementation of the National Environmental Policy Act (NEPA), consideration of alternatives to the proposed action is "the heart" of an Environmental Impact Statement (EIS). 40 C.F.R. § 1502.14. *See also Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992). The alternatives that must be considered in an EIS include alternatives for mitigating the environmental impacts of the proposed action. 40 C.F.R. § 1502.14(f). Section 1502.16 of the CEQ regulations also requires an EIS to discuss the relative costs and benefits of mitigative measures.

An EIS's discussion of alternatives "must look at every reasonable alternative, with the range dictated by the 'nature and scope of the proposed action.'" *Idaho Conservation League*, 956 F.2d at 1519, quoting *State of California v. Block*, 690 F.2d 753, 757 (9th Cir. 1982). The EIS must provide "sufficiently detailed information" to allow agencies "to decide whether to proceed with an action in light of potential consequences. *Idaho Conservation League*, 956 F.2d at 1519-20.

### **Inadequate Discussion of Mitigation Alternatives in the Draft EIS**

Lander County is concerned about the environmental impacts of transportation of high-level nuclear waste along the Caliente Corridor. If the Caliente Corridor is used, nuclear waste will be shipped by rail across the northern part of Lander County from California. Contrary to the requirements of NEPA and CEQ implementing regulations, the DOE has never provided any detailed discussion of mitigative measures for the portion of the

Nevada rail transportation route that crosses Lander County. The only discussion of alternatives that the DOE has undertaken is an extremely general discussion in Section 9.3 of the 2002 Final EIS of mitigative measures that “DOE is required to implement, has determined to implement, or has identified for consideration.” 2002 FEIS at 9-19.

The discussion in the 2002 FEIS is so vague and non-committal as to both violate NEPA and be of no use whatsoever to Lander County in determining (a) what precise measures DOE proposes to implement, (b) whether DOE and not some other entity will implement them, or (c) whether they are effective. Mere statements of “good intentions” are not sufficient, especially where an agency expects mitigation measures to be undertaken by third parties. *Preservation Coalition, Inc. v. Pierce*, 667 F.2d 851, 860 (9th Cir. 1982). The Draft Rail Alignment EIS should include a detailed discussion of precisely what measures the DOE proposes to take along the entire Nevada transportation corridor, including those portions that go through Lander County.

The level of detail should be sufficient to allow a meaningful evaluation of the effectiveness of the mitigative measures. The DOE should consult, as an example of such a detailed analysis, Chapter 12 and Appendix D to the Draft EIS prepared by the Surface Transportation Board for the Powder River Basin Expansion Project in 2001.

Moreover, to the extent that it has addressed mitigative measures for the Caliente Rail Alignment, the DOE also applies an improper standard. Instead of committing to take mitigative measures, the DOE states that it will “consider” them. Draft Rail Alignment DEIS at 7-1. As discussed above, an EIS’ discussion of mitigation alternatives must amount to more than mere speculation. *Preservation Coalition, Inc.*, 667 F.2d at 860. The Draft Rail Alignment DEIS also states that DOE will implement “best management practices,” which it defines as “practices, techniques, methods, processes and activities commonly accepted and used throughout the construction and railroad industries . . . and that provide an effective and practicable means of preventing or minimizing the adverse impacts of an action on human health and environment.” *Id.* The word “practicable” implies that the choice of “best management practices” will be affected by cost considerations. Yet, the EIS gives no details regarding the measures it is considering, or any information regarding its evaluation of the cost-effectiveness of those measures. By failing to provide this information, the DOE defeats any attempt by the public to understand or evaluate the nature, usefulness, or cost-effectiveness of mitigation measures.

### **Socioeconomic Impacts**

The socioeconomic analysis directs most impacts to Clark and Washoe Counties. This is not an accurate depiction of impacts. In most northeast Nevada communities where large scale construction projects have occurred (mining and power plant construction), the socioeconomic impacts are pronounced and local. By directing impacts to Clark and Washoe County is simply an attempt to mask both positive and negative impacts and not

recognize the true impacts in communities such as Hawthorne, Fernley, Silver Springs, Fallon, Goldfield and Battle Mountain.

### **No Long-Term Monitoring**

The EIS does not identify appropriate long-term monitoring mechanisms to deal with the uncertainty of resource impacts. There are several resources categories including socioeconomics, grazing, soils, public services, etc. which could utilize appropriate monitoring to determine the extent to which impacts may require additional monitoring.

### **Intermodal Transportation**

Considering the unknown costs and impacts of the Caliente Route, there is a strong probability that DOE may use an intermodal transfer station. Although reference has been made to Caliente performing that function, DOE has never adequately addressed this issue by examining more than one alternative. Also, the DOE needs to further examine the entire Mina Rail route including alternative routes around the Walker River Paiute Reservation.

### **Highway and Truck Transportation**

The EIS recognizes that more truck shipments will occur yet the EIS did not analyze this increase in truck shipments. DOE needs to discuss the potential access points for shipments not using rail. The overall level of truck shipments appears low given the number of sites that actually have rail service.

The EIS needs to identify the specific generator sites that will access the Mina Rail alternative and identify the number of shipments entering the route from the west and from the east. DOE should also identify likely truck routes for non-rail shipments. There are a number of generator sites in the west that do not have direct rail access suggesting truck shipments are required. Also, the location of generator sites in the west could utilize more than one route to access Yucca Mountain rail spurs (Caliente and Mina). DOE needs to show the number of anticipated rail shipments traversing northern Nevada for both the Caliente route and the Mina Route.

### **Carlin Route**

The Carlin rail route still remains a viable option to Caliente and Carlin. There are a limited number of land use conflicts toward the northern end of the route in Crescent Valley associated with a checkerboard pattern of public and private ownership. DOE never made a reasonable effort to assess the difficulty to assemble private lands. The cost to acquire such lands would be substantially below the costs to construct the Caliente Route.

The Carlin rail route remains DOE's preferred secondary rail alternative. Any new environmental analysis addressing rail access should include this route because it avoids several Nevada communities adjacent to the rail line and it avoids rapidly growing areas in western Nevada. Lander County prepared several reports on the potential impacts and costs associated with this route. The Carlin Route provides a reasonable cost alternative to Mina and Caliente. The no action alternative needs to include the Carlin Route as a potential alternative.

The updated information on the Carlin Route is meaningless and has no bearing on the actual feasibility of the route.

## Summary-DOE/EIS-0369D

Pg. S-4 Last Para. ... same level of analysis as that for Carlin, Jean and Valley Modified rail corridors. The Mina Corridor should be analyzed to the same level of detail as the Caliente corridor.

Pg. S-9 Sec. S.2.4.1 At what level do impacts require mitigation? A qualitative characterization is a subjective one. Therefore, the use of qualitative impacts would likely require monitoring. Does DOE implementing regulations for NEPA require a monitoring plan?

Pg. S-10 S.2.4.1 3<sup>rd</sup> para. The EIS needs to include specific passages to BLM RMP & policies.

S-11 paragraph 2 When necessary DOE should reference specific mitigation. Impacts to grazing and loss of forage appear significant yet there is no mention of level of significance or whether mitigation is required.

S.2.4.1.5 DOE needs to provide more detail as to how it would address mitigation of cultural resources in the corridors.

S-14 1<sup>st</sup> para. Not all impacts would be considered positive. The summary did not include potential impacts to public facilities and services such as emergency response, housing, etc.

S-15 S.2.4.2 The summary should have discussed potential cumulative impacts associated with additional YMP shipments of spent nuclear fuel and high-level waste.

Table S-2 DOE Should have included costs to construct the corridor, Lander County prepared more recent cost estimates for the Carlin Corridor.

S-17 The mostly rail alternative requires off-site improvements at or near reactor sites. They should be described in the EIS. The Trojan, Humboldt Bay, Rancho Seco and Diablo Canyon are not directly served by rail. How will these sites transport waste to Yucca Mountain?

S-38 Table S-5 Table s-5 needs to include a comparison of costs.

S-43 S.3.2.4 DOE should not abandon any rail line. The EIS should stipulate a process or method to work with users, private entities and governments in the area to transition ownership and operational responsibility.

S-67 S.3.10. The cost estimates are suspicious given that the Caliente corridor is longer, more difficult to construct, has more bridges and crosses far more difficult terrain as compared to the Mina Corridor. Cost estimates to develop other alternatives should have been included.

S-39 Staging yards and other facilities. Were they evaluated in terms of the following issues:

- Security
- Proximity to populations.
- Cost to secure the sites.

## **Volume I –Supplement Environmental Impact Statement**

Pg. 1-2 Sec. 1.3 States that DOE considered 5 rail corridors in detail. The statement is not necessarily true only limited cursory information was developed for the Carlin Rail corridor. Lander County developed far more information about the corridor than any of the DOE studies.

Pg 1-6 2<sup>nd</sup> para. It is not necessary to designate the Mina route as a non-preferred alternative. The Mina corridor is superior to the Caliente corridor in nearly all categories. Do the CEQ regulations define non-preferred?

Pg. 2-2 Sec. 2.2.1 The description of the Mina Corridor is misleading. The corridor is comprised of new construction and reconstruction. The existing portion of the rail line from Hazen to Mina is subject to reconstruction. New construction extends from Hawthorne south to Yucca Mountain. The description of the corridor needs to be refined.

Pg. 2-4 Sec. 2.2.1.1 The Mina Corridor originates at Hazen not Wabuska. The text should be corrected and the analysis should reflect that change.

Pg. 2-5 DOE should consider options for commercial ownership and operations of the rail line.

Pg 2-7 Shared Use Option DOE needs to select the shared use option for either corridor and clearly state that the rail corridor will be open to this use. The EIS should clearly state that under a shared use scenario commercial (non-nuclear) shipments will increase substantially.

Pg. 2-13 Table 2-1 Socioeconomics impacts does not include impacts to Churchill County. The analysis ignored the largest urban area within close proximity to the rail line. Why?

Pg. 2-13 Table 2-1 needs to describe mitigation and monitoring measures to be undertaken by DOE for rail construction.

Pg. 2-14 and 2-15 Land Use. DOE describes the resources and conflicts, but never establishes whether such conflicts are significant adverse environmental impacts or whether the conflicts represent small, median or large impacts. The analysis needs to make some judgment about the impacts.

Pg 2-15 Hydrology- This section simply describes what could happen and not whether there will or will not be impacts. There is no impact analysis.

Pg 2-14 Summary of impacts. The summary generally lacks sufficient qualitative or quantitative analysis.

Pg. 3.4 Para. 4 The Mina Rail Corridor should have included all areas up to Hazen. Yucca Mountain would become the largest user on the rail line. It is difficult to understand how DOE can segment the Mina Rail corridor with the rail line below Wabuska being the corridor and the rail line above it not. Please explain.

Land Use Section- The impact analysis does not quantify or qualify any impacts. The analysis discusses potential conflicts and issues, but does not consider them small, medium or large, why? There are significant impacts when new rail construction occurs on private lands. This section calls for impacts on grazing operations and loss of forage, but offers nothing in terms of mitigation. Why?

Figure 3-1 should be expanded to include Churchill County portion of the Mina Rail Corridor.

Pg. 3-14 DOE failed to include a discussion of Lahontan Reservoir that is adjacent to the Mina Corridor. The reservoir and the Carson River are adjacent to the corridor. Both features are important locally and regionally to provide agricultural and drinking water supplies in the region.

Pg. 3-15 para. 2 The perennial water bodies should include the Carson River and Lahontan Reservoir.

Figure 3.5 DOE should include a similar figure which shows the surface water features in the corridor.

Pg. 3-20 para. 5 What are the impacts to water quality from bridge construction and what is the appropriate mitigation. Please explain.

Section 3.2.3.2.1 Surface water section offers little in the way of impact analysis and nothing in terms of mitigation. More specific details should be provided.

Section 3.2.3.2.2 Groundwater. DOE needs to describes its options to provide adequate water for rail construction activities in the event the State Engineer denies permits for wells supporting construction. Also, DOE needs to describe how it will meet drinking water standards for construction camps in the event groundwater does not meet MCLs.

Section 3.2.3.2.1 This section is incomplete because adequate cultural resource analysis has not been completed for the corridor.

Pg. 3-33 3.2.6.2.2.4 During the shipment of spent nuclear fuel and high-level radioactive waste from the Hazen siding to Yucca Mountain, people along the rail line could be exposed to direct radiation from approximately 9,500 shipping casks. What about people along the corridor from Hazen to Salt Lake City. DOE did not analyze this section of rail. Is it similar to national transportation impacts? Why distinguish the Mina Corridor from national transportation impacts?

In the incident-free-scenario the latent cancer fatality (LCF) is fairly low. The LCF, however, is considerable in the event of a severe accident. The EIS needs to provide estimates of latent cancer fatalities in the UP corridor in Northern Nevada from incident free and accident scenarios.

Pg. 3-35, Sec. 3.2.7 The region of influence for the socioeconomics analysis is defined as those Nevada counties the Mina rail corridor would cross, and the two areas where most workers would be expected to reside (the Carson City/Washoe County area and Clark County). Churchill County will have far greater socioeconomic impacts than Carson City. It is the largest urban community near the rail line. Furthermore, the County has the construction sector capable for participating in rail construction.

Pg. 3-32 To estimate transportation impacts, DOE defined the region of influence beginning at the Hazen siding in Churchill County, Nevada, and ending at Yucca Mountain. Why does DOE use Hazen to Yucca Mountain as a region of influence and ignore it for socioeconomic and other resources?

Pg. 3-35 The per capita income in this paragraph for Carson City is wrong. The Bureau of Economic Analysis shows 2000 per capita income for Carson City to be \$32,041.

Table 3-10 should have shown Churchill County and other Nevada Counties along the Northern Union Pacific Branchline.

Pg. 3-35, last paragraph- Unless otherwise noted, all general demographic, social, economic, and housing information was estimated by the U.S. Census Bureau during the 2000 decennial national census and was reported in the Census American FactFinder. There is more current socioeconomic data available. Where available, the text should be updated to current. The 2000 Census is nearly 8 years old.

Table 3-11 should be updated with current information. There is current per capita income, housing inventories (Demographer), unemployment, school enrollment, etc. Churchill County should be included in this Table. It has a higher potential for socioeconomic impacts than Carson City.

Table 3-12 Churchill County should have been included in this Table. The table should be updated with more recent information.

Sec. 3.2.7.2.1.3 pg 3-43 There is no discussion of impacts to local emergency response and public safety services for construction and operations. The Hawthorne Army Ammunition Depot has a hazmat team. Will they be utilized in the event of an accident? DOE has completely ignored this issue. Construction certainly results in impacts to local public safety and emergency resources. Where is the analysis?

The EIS needs to have a complete description of the emergency response capabilities throughout the Union Pacific route in northern Nevada. DOE needs to examine the ability to provide emergency medical services to accidents involving radiological

materials. Hazardous materials response teams along the Mina Route in northern Nevada should be identified.

Pg. 4-1 Cumulative Impact Analysis- The most important cumulative analysis is the past, present and reasonably foreseeable radioactive waste shipments to and from the Yucca Mountain and the Nevada Test Site. With the extension of power plant operating licenses and new applications for nuclear power plants, it is reasonable to assume that waste shipped and stored at Yucca Mountain could increase substantially. The cumulative analysis should have examined this issue.

Pg. 4-1 Cumulative Impacts- DOE needs to examine the increased rail activity and the impacts to transportation in the region.

Pg 4-23 DOE has not addressed the use of groundwater for drinking water supplies and how it intends to meet drinking water standards for human consumption at construction camps.

Sec. 4.2.2.4.2 DOE needs to set forth measures it will implement to control invasive and noxious weeds during construction. Neither the cumulative impact section or the impact analysis addresses this issue. Monitoring should be required.

## **Volume II Mina Rail Corridor**

Alternative Segments. DOE needs to consider alternative segments around the Walker Reservation. With the costs of reconstruction through Indian Lands, DOE could have considered other options to avoid the reservation.

Most of the impact analysis related to the Caliente and Mina Corridor are cursory discussions with little or no real analysis. The impacts are based largely upon qualitative subject judgments.

Section 4.3.2.2.1.2 DOE would need to gain access to private land that falls within the Mina rail alignment construction right-of-way and the locations of support facilities. Segments that would cross private lands include Mina common segment. DOE needs to describe how they will obtain access to private lands, what compensation or mitigation will be provided?

Section 4.3.2.2.3.2 DOE needs to quantify impacts to grazing, set forth committed mitigation, work with permittees and BLM to return the allotment to pre-construction conditions. Grazing operations should not have to incur aum reductions. DOE also needs to quantify the life time value of the loss in grazing.

DOE needs to explain how they would acquire permits for construction camp water and wastewater systems. The water system would need to provide water capable of meeting drinking water standards. Also, details for meeting fireflow requirements and water

storage should be noted. Wastewater treatment requires the disposal and use of treated effluent. How will DOE dispose of their treated effluent during the winter months when land application is not possible?

Sec. 4.3.9.2.3.3 DOE needs to ensure that adequate fire suppression exists to control potential for wildland fires. This section did not address emergency medical impacts.

Sec. 4.3.9.12.3.4 Accommodations could be made to decrease the possibility of adverse impacts to local law enforcement capacity. DOE needs to specify those accommodations. Typically, County Sheriffs only have one or two patrol officers available to respond to calls. Responses to distant locations associated with rail construction could have very negative impacts on local public safety capabilities.

Sec. 4.3.9.2.4.2 Impacts to rail crossing should also be considered in the cumulative impact section. Also, there is no at grade rail crossing at U.S. Highway 50 at Hazen.

#### **Volume IV Cumulative Impacts**

Pg. 5-1 Cumulative impacts are not necessarily limited to the region of influence. Future radioactive waste shipments are an example. This is probably only true for construction and not operations.

Pg 5-45 Other regional economic development plans and activities within Nye, Esmeralda, Lyon, and Mineral Counties. Other economic development activities of Churchill County should also be included.

Pg. 5-48 Sec. 5.3.1.1 Residential, commercial, and industrial development activities associated with growth in the Mina rail alignment cumulative impacts region of influence; including the Pahrump area and the Reno-Carson City area adjacent to the northern portion of the Mina rail alignment region of influence. Residential, commercial and industrial development activities associated with growth in Mineral County, Lyon County and Churchill County should also be included. Why is Reno-Carson City included when they are fairly remote from the corridor? Please explain.

Pg 5-45 Sec. 5.3.1.1 Reasonably foreseeable future actions and the continuation of existing actions in the Mina rail alignment cumulative impacts region of influence were also considered. Figure 5-3 shows the locations of individual projects and activities. Churchill County and the future development initiatives in the Hazen area should be included in the impact analysis.

Pg. 5-63 Sec. 5.3.2.2.5 Recreational Land Use. This section should include Lahontan Reservoir and State Park. More than 450,000 visitors a year use the reservoir and the Mina rail line runs adjacent to and within ¼ mile or closer to the reservoir and park facilities. It is difficult to understand how DOE can talk about recreation sites in the cumulative analysis that are further remote from the rail line and not include Lahontan Reservoir. The BLM day use facilities at Walker Lake are further from the rail line than

Lahontan Reservoir and recreation activities in Pahrump have little or no relationship to the rail line.

Also, the rail line through Churchill County has a number of private crossings used by offroad vehicles and other recreation land users. Increasing use of the rail line will increase conflicts with recreation users in the area.

Pg. 5-65 With or without the proposed railroad, urbanization and economic development activities, while increasing, would not generally change the overall undeveloped character of the Mina rail alignment region of influence. This statement is not necessarily true, rail development will stimulate other rail served industrial requirements in Nye, Esmeralda, Lyon, Churchill and Mineral Counties. The growth in industrial development will result in more jobs, housing and development throughout the corridor.

Pg 5-74 Sec. 5.3.2.9 This section needs to include Churchill County and the Fallon area. Also, local impacts to Lyon County, Mineral County and Churchill County will be greater than anticipated. DOE has set up the socioeconomic impact analysis so that the largest impacts will be absorbed by distant urban areas where cumulative impacts will be small.

Pg. 5-75 para. 8 Consistent with the methodology established in the Yucca Mountain FEIS (DIRS 155970-DOE 2002, p. 4-43), most of the construction workers for the proposed Mina rail alignment are assumed to be residents of Clark County. This statement is not necessarily true particularly for the northern portions of the route. Major large scale construction projects occur in northwestern Nevada. Few if any workers or construction firms originate in Clark County. What is the basis for this conclusion. Is there another project in northern Nevada that is primarily support by Clark County firms and employees?

Pg. 5-78 Sec. 5.3.2.10.2 This section needs to include a radiological health and safety analysis for all shipments under expanded repository scenarios.

The cumulative analysis only discusses potential actions which may have cumulative impacts. There is no analysis of the actual impacts. How much waste could actually be transported to Yucca Mountain including waste from reactors that are not currently built. DOE needs to estimate the shipments and assess the impacts particularly with respect to transportation and radiological risk.

Pg. 7-1 Table 7-1 is not committed mitigation. It only describes the regulatory framework underwhich DOE must already operate. There is no mitigation.