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U.S. Department of Energy
Office of Civilian Radioactive Waste Management
Attn: M. Lee Bishop
1551 Hillshire Drive M/S 001
Las Vegas, NV 89134

RE: Draft Supplemental Environmental Impact Statement for a Geological Repository for Spent Nuclear Fuel and high-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada – Nevada Rail Transportation Corridor DOE/EIS-0250F-S2D; 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

To the DOE:

We are residents of Las Vegas, Nevada, and property owners in Caliente and Lincoln County, Nevada, and have made public comments at two DOE hearings concerning the proposed railroad. This writing augments our statements of record.

The above-referenced documents (collectively referred to hereinafter as the "Study") are deficient and fatally-flawed because they fail to meet the standards required for such documents pursuant to the National Environmental Protection Act, and applicable federal case law, for the following reasons: . . .

1. The Study fails to identify alternatives that are environmentally preferable. In fact, the Study fails to identify alternative rail alignments, routes and segments previously identified, mapped and published by the DOE, including but not limited to: the Caliente Rail Alignment Crestline Alternative Segment, Caliente-Chalk Mountain Corridor, Orange Blossom Road Option, Mercury Highway Option, Mine Mountain Alternate, Valley Modified Corridor, Sheep Mountain Alternate, Indian Hills Alternate, Jean Corridor, Stateline Pass Option, Wilson Pass Option, Pahrump Valley Alternate, White River Alternate, Garden Valley Alternate, Carlin Corridor, Crescent Valley Alternate, Wood Canyon Alternate, Steiner Creek Alternate, Rye Patch Alternate, Monitor Valley Option, Big Smoky Valley option, Monitor Valley Option, Mud Lake Alternate, Goldfield Alternate, Tonopah Option, Area 4 Alternate, Ely Corridor, and Baker Corridor. The Study fails to analyze, report and compare any of the potential environmental effects of such alternatives. Such alternatives have been omitted for reasons known only to certain unknown and unidentified DOE personnel and consultants. DOE personnel have stated publicly that such alternative routes were eliminated from further and the Study by DOE based on DOE's estimates of costs and

difficulty of engineering and construction, but such engineering and construction analyses and estimates of all such omitted alternatives remain secret and are not of record, so their actual existence is in doubt. One of the alternate routes, the Caliente-Chalk Mountain Corridor was eliminated due to Department of Defense, U.S. Air Force opposition some years ago, but there is no indication in the Study whether that opposition remains presently. DOE has omitted alternatives from the Study capriciously and wrongfully.]

- 2 2. [Other potential railroad routes from existing mainline railroads to Yucca Mountain, Nye County, Nevada have either: (i) not been identified by DOE, or (ii) been identified by DOE and also not reported, which alternatives are potentially environmentally, economically, socially and culturally preferable or comparable to the Mina Rail Alignment, the Caliente Rail Alignment and Caliente Alternative Segment, Caliente Rail Alignment and Eccles Alternative Segment, and the no action alternatives.]
- 3 3. [The Caliente Rail Alignment, including the Caliente Alternative Segment, is the longest, most expensive route of all the alternatives ever considered and published on a map by the DOE for a railroad to serve Yucca Mountain. Worse, this alternative requires the greatest amount of Federal condemnation of private lands to acquire rights-of-way, the greatest number and amount of cuts, fills, and bridges. Worse yet, it involves the steepest grades and sharpest turns, and passes through the greatest number of cities and towns, including Caliente itself, of all of the alternatives. These facts are not addressed in the Study.]
- 4 4. [The Study fails to identify, analyze, or report the direct effects, indirect effects, cumulative effects, conflicts with plans, adverse environmental effects that cannot be avoided, differences between the short term effects, what effects are irreversible or irretrievable, energy requirements, economic and social effects, impact on quality of life, and historical and cultural resources of the Mina Rail Alignment, Caliente Rail Alignment, Caliente Alternative Segment, Caliente Rail Alignment, and Eccles Alternative Segment, and all the other alternatives referred to above in Sections 1 and 2 above.]
- 5 5. [At the November 15, 2007 public comment meeting in Caliente, Nevada and at the December 3, 2007 public comment meeting in Las Vegas, Nevada (hereinafter "Meeting" or "Meetings" as the proper case may be), DOE personnel stated that the DOE has conducted no geologic field studies of any alternative described in or omitted from the Study and that what geology DOE has been done has been limited to "study of U.S. Geological Survey maps and 'Nevada State Geological' maps." DOE personnel admitted at the Las Vegas Meeting that the DOE has taken no soils samples or rock samples on or along any alternative route. The Study does not report any analysis of soils, geologic or hydrogeologic detail, or field data for any alternative. The report recognizes none of the known geologic hazards along alternative rail alignments and segments. The Study is therefore lacking necessary substantive science and data and, therefore, lacks a reasonable basis for a credible analysis or comparison of the potential costs, impacts, geologic and other risks, and the like, of any alternative.]
- 6 6. [The Study fails to address the major geologic hazards that the preferred Caliente Alternative Segment intersects, most notably from the point of departure from the Union Pacific Railroad in Caliente to north of Indian Cove. This area, in fact the

entire town of Caliente, lies within the collapsed caldera of a volcano. The geothermal waters of the Caliente Hot Springs are volcanic waters that rise up through the rocks of the caldera in Caliente, including layers of surrounding limestone that are collapsed into the caldera. The resulting geothermal field is comprised of active steam vents, related solution cavities, solution caverns, and sinkholes. On December 3, 2007, a new geothermal vent and associated sinkhole appeared approximately 225 feet north end of the old railroad bridge across Clover Creek within the operating right-of-way of the proposed railroad.]

- 7 7. [The Study fails to address the risks to the railroad and railroad operations, and potential for release of toxic, high-level radioactive materials, resulting from geologic hazards along any alternative route, especially associated with roadbed erosion, failure and collapse due to geothermal activity along the Caliente Alternative Segment.]
- 8 8. [The Study fails to address the history of flooding and periodic catastrophic loss of large sections of Union Pacific mainline track, as well as whole trains of rail cars, in Clover and Rainbow Canyons, upstream, downstream and in Caliente itself. There have been at least four separate such catastrophic losses, the most recent in January 2005. At that time, the Union Pacific Railroad lost 22 miles of mainline track upstream and downstream of Caliente, together with more than 30 railcars. No reasonable or rational railroad operator would seek to access Yucca Mountain by means of new rail from Caliente due to: (i) the difficulty and costs of seismology, geotechnical studies, engineering and construction; (ii) difficulty and costs of maintenance, (iii) environmental impact, (iv) proven unavoidable risk of loss due to catastrophic flood, (v) geologic risk due to seismic and geothermal activity and resource, and (vi) impact on cultural and historical values. When an environmental impact study, such as the Study, omits even commonly known and understood facts concerning the environment with which people have had long experience, and which are easily and quickly discovered by even a casual investigator, it is not surprising that the conclusions of such a report, such as this Study, are simply wrong.]
- 9 9. [The Study fails to consider or report even the simple fact that Caliente lies in a narrow canyon at the confluence of two major stream drainages. The Caliente Alternative Segment involves construction of the proposed railroad directly into Caliente itself, at one point immediately over and through the confluence of the two major stream drainages in the entire region, Clover Creek and Meadow Valley Wash. The Eccles Alternative Segment avoids Caliente and the confluence of Clover Creek and Meadow Valley Wash, crossing each stream at separate locations and higher elevations with lesser drainage areas, and therefore, smaller run-off volume and flood capacity.]
- 10 10. [When asked at the Meetings why the DOE prefers to construct the proposed railroad directly into Caliente, over private lands, through the largest populated city in all of Lincoln County, across the confluence of the two major drainages in the area, over a known geothermal field and resource, when the Eccles Alternative Segment would involve none of these impacts or risks, DOE officials responded that the Eccles Alternative Segment would be "more difficult and expensive." Lacking any real information, data, sampling, study and detail of design and engineering and, therefore, knowledge of risks and costs of engineering and construction for either Alternative Segment, the DOE's answer is patently unfounded and very potentially false. The bottom line is that the DOE prefers the Caliente Alternative Segment over the Eccles Alternative Segment because the DOE believes, without significant foundation, that

the Caliente Alternative Segment to be “cheaper.” DOE officials said at the Meetings that they thought the Caliente Alternative Segment would be cheaper by “\$10 million to \$20 million.” A few years ago, DOE estimated that the proposed railroad would cost \$800 million. Recently, DOE estimated that the cost to be between \$2.5 billion and \$3.15 billion, a variance of between 312.5% and 393.75%. DOE is simply not credible when it comes to: (i) cost estimates for the proposed project; (ii) cost estimates for any of the Rail Alignments and Alternative Segments; and (iii) identification and choice of least cost alternatives. As a former owner-operator of a railroad, and as a geologist and attorney with more than 30-years’ experience, and as a court-qualified expert on the value of land and water rights, I, John Huston, do not hesitate to write that, in my expert opinion, for the reasons stated above, it is more likely that the Caliente Alternative Segment will be much more expensive and difficult of engineering, construction, and maintenance, and riskier to operate, than the Eccles Alternative Segment. While it is true that a railroad once occupied that stretch, it was a sub-standard railroad built early in the last century, without the demands of 125-ton car weights and the projected high utilization of the proposed railroad. It was not a railroad ever tasked with the handling and transportation toxic, high-level radioactive waste. It was a railroad built in time long before NEPA, when alternatives, impacts, losses, damages and effects of proposed projects were not identified, studied, fully-considered, understood, compared, and made known to the public. It was built at a time when cultural and historic values were not of serious concern and there was practically no tourism. It was sited, engineered and built without the benefits of scientific knowledge and data obtained the past nearly 100 years built, without the benefit of engineering sophistication and construction techniques developed over that same 100 years, and without modern excavation, earth moving and road-building equipment and materials. It was built at a time when Las Vegas hardly even existed at all. In any event, the rail has been pulled-up, the right-of-way abandoned, wildlife and vegetation returned and the right-of-way put to non-railroad uses by others. The fact of its former existence is nearly irrelevant for 2007 NEPA and project purposes.]

- 11 11. [The Study fails to address the fact that the Caliente Rail Alignment will result in all toxic, high-level radioactive materials to be transported on the proposed DOE railroad to enter the Colorado River drainage tributary to the lower Colorado River. The lower Colorado River is the drinking water supply for 20+ million people from San Diego to Orange County to Los Angeles, and from Phoenix to Tucson, and in Las Vegas, with additional persons relying on Colorado River water located in Mexico. It is also the irrigation supply for over one million acres of prime farmland. The Study includes no consideration or statement as to the potential risks to and effects on the Colorado River, its flora and fauna, people, cities, settlements and farms, or its potential effects on Mexico, or implications for U.S. treaty obligations to Mexico. It is important to keep in mind that both the Mina Rail Alignment and Carlin Rail Alignment, for example, do not involve bringing all such toxic, high-level radioactive materials into the Colorado River drainage.]
- 12 12. [The Study fails to report any significant level of engineering completed by DOE to compare the potential impacts of the Eccles Alternative Segment and the Caliente Alternative Segment; DOE personnel at the Meetings admitted that engineering for the Eccles Alternative Segment and the Caliente Alternative Segment has not been completed to any stage greater than “preliminary” and “conceptual.” As a result, and based on a complete reading of the Study, it is apparent that the DOE does not know, does not report and cannot report in the Study, the environmental effects, socio-

economic effects, conflicts with plans, energy requirements, and effects on quality of life and historical and cultural resources of either the Eccles Alternative Segment or the Caliente Alternative Segment. Even simple matters are not addressed. For example, the DOE does not really have any reliable idea how much gravel and ballast, concrete and steel, cut and fill, energy, bridging and caissons, and the like, either Alternative Segment will require. As a result, the DOE's determination that the Caliente Alternative Segment is "preferred" is unfounded, without science or logic, and is incomplete and inaccurate, and therefore premature. Lacking geologic and hydrologic detail, field measurements and sampling, data collection, samples analysis, seismic study, and design-level engineering, the Study does not and cannot analyze or report potential and comparative engineering, construction and maintenance costs, construction and operational risks, and environmental, economic, energy, planning, social and cultural effects of any route or any Alternative Segment.]

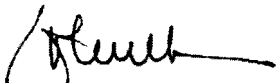
- 13 13. [The Study fails to consider the adverse effects of the proposed project on tourism, culture, quality of life, and history, including that resulting from risk, damage or destruction of the Caliente Hot Springs, Caliente Hot Springs Motel & Spa, Las Vegas Strip and downtown properties, Palm Springs resorts, and the like. The report fails to address the fact that Lincoln County is growing rapidly with an additional 200,000 people expected as a result of ongoing development at Coyote Springs and Mesquite, most all of which is based or founded in tourism and golf.]
- 14 14. [Symptomatic of DOE's cavalier disregard to even the basic notions of NEPA, the index to the multi-volume Study, with its charts, tables, maps and aerial photographs, does not include any reference to "radioactivity", "radiological region of influence", "radiological risk", or even anything beginning with the prefix "radio", even though the project for which the Study purports to be a draft environmental impact study is for a railroad intended by the DOE to haul toxic, high-level radioactive wastes from at least 134 sites located in some 43 of the States of the Union.]
- 15 15. [The Study considers the "radioactive region of influence" in Caliente, Nevada related to the Caliente Alternative Segment. The radioactive regions of influence are omitted for all other "towns" (also omitted are the DOE's estimates of the number of affected persons in these omitted towns). The omitted towns include Las Vegas, St. Louis, Chicago, Salt Lake City, San Bernardino, Sacramento, and a myriad other major, medium and small U.S. municipalities. These municipalities appear on maps included in the Study of potential rail routes for the nuclear waste, the rail transport of which will be enabled by the proposed railroad, but there is no mapping of the radiological areas of influence in these municipalities. There is no identification, quantification, or reporting of the effects, or potential effects, concerning the health, economies, societies, cultures, plans, property, and environment of more than 100 million people within the U.S., many of whom will be in the "radiological region of influence" if the proposed railroad project completed.]
- 16 16. [The number of persons to be impacted by the "radiological region of influence" pursuant to the Caliente Alternative Segment stated in the Study is patently incorrect. The number reported is 289 but the correct number of residents of Caliente living within the radiological region of influence pursuant to the Caliente Alternative Segment is nearly 1000. This represents an error factor of 400%. When a senior DOE official was asked about mistakes and statistics recited by DOE in the Study concerning DOE's projected loss of life resulting from the railroad project, the senior

official responded that such statistics, "like all EIS statistics, are esoteric." We submit that errors in figures cited by DOE in the Study are not "esoteric" at all and, further, that NEPA does not require or encourage that statistics and numerical estimates in environmental impact studies be "esoteric" or, by implication by the DOE senior official, incomprehensible.]


17 [The Study is premature, since it is obvious that DOE has not completed the work necessary to prepare and publish a draft environmental impact study for the proposed railroad consistent with the requirements of NEPA. DOE should abandon the Study and return to work to gain the data and information that is needed, make proper and complete tests and analyses, utilize and employ available science, and prepare a draft environmental impact study for the project that meets the requirements of NEPA. We expect that a properly completed study would result in very a very different preference for routing the proposed railroad.]

Thank you for this opportunity to provide our comments.

Sincerely,



John H. Huston



Jan Cole