

## Listed below are the Four Counties adopted contentions filed with the ASLBP Board(s) on June 25, 2009

**(Notes)**

The underlined “[hyperlink](#)” will take you to the Trackhearings website and link you to the actual filing by the entity listed above the link.

*The Four Counties Admitted Contentions and Joint Nye contentions summaries are also listed at the bottom of this table.*

<p><b>State of California <u><a href="#">Contentions</a></u> (hyperlink – control and click to follow links)</b></p>	<p><b>CAL-NEPA-01 to 05 CAL-NEPA 08, 10, 15, 17 to 20</b></p>
<p><b><i>CAL-NEPA-1 DOE’s NEPA Documents Impermissibly Segment the Project by Deferring Analysis of the Environmental Impacts of Transportation of Spent Nuclear Fuel and High-Level Waste Through California to Yucca Mountain Page 19</i></b></p>	<p><b>Basis of this contention.</b> The NEPA documents prepared by DOE identify, predict, analyze, and disclose only what DOE characterizes as “representative routes” for transportation of spent nuclear fuel and high-level radioactive waste in and through California, but fail to identify, predict, analyze, and disclose actual and reasonably foreseeable specific routes in and through California, fail to identify different environmental impacts on California from different specific routes, fail to predict and disclose impacts beyond those from radiological releases, including reasonably foreseeable impacts on air (other than stating that the project will not cause national standards to be violated), water, water supply, land, housing, highways and freeways, railroad tracks, facilities and rights-of-way, or impacts on other environmental media and public facilities that may occur from transport in and through California of these radioactive materials, although the documents do at least some analysis of these factors for Nevada (e.g., Repository SEIS Chapter 6, sections 6.1.2 through 6.1.3), and fail to compare the impacts of routes in and through California that would be needed to connect with the Mina or the Caliente rail routes in Nevada.</p>

<p><b>CAL-NEPA-2</b>  <b>DOE's NEPA Documents Impermissibly Segment the Project as to Route Selection and Route-Specific Impact Analysis</b>  <b>Page 24</b></p>	<p><b>Basis of this contention.</b> DOE's NEPA documents identify, predict, analyze, and disclose only what DOE characterizes as "representative routes" for transportation of spent nuclear fuel and high-level radioactive waste, segmenting and piecemealing the NEPA analysis by deferring the identification and analysis of actual routes and the route-specific environmental impacts until a time years in the future when DOE will purportedly prepare a Transportation Plan and Operational Plan of unspecified content, specificity, and scope, documents that bear directly on the safety and environmental impacts of the Yucca Mountain project, but that may not even exist to be presented to the Atomic Safety and Licensing Board or the NRC until this Proceeding is over, preventing the public from reviewing and commenting on them and the NRC from considering them.</p>
<p><b>CAL-NEPA-3</b>  <b>DOE's NEPA Documents Impermissibly Fail to Analyze and Disclose Different Environmental Impacts from the Mina and Caliente Routes</b>  <b>Page 28</b></p>	<p><b>Basis of this contention.</b> The NEPA documents prepared by DOE identify, predict, analyze, and disclose only the potential route-specific environmental impacts on Nevada of rail transportation of spent nuclear fuel and high-level radioactive waste via the rail routes identified by DOE as the Mina route or the Caliente route, but fail to identify, predict, analyze, and disclose the difference in the potential environmental impacts on California from these different routes and the dramatically different amounts of radioactive material that will be transported through California from other states, depending upon whether the Mina route, or the Caliente route, within Nevada is chosen.</p>
<p><b>CAL-NEPA-4</b>  <b>DOE'S NEPA Documents Fail to Adequately Discuss or Analyze Mitigation in California Adequately</b>  <b>Page 33</b></p>	<p><b>Basis of this contention.</b> The NEPA documents analyze and discuss mitigation for the environmental impacts of Yucca Mountain within Nevada, including discussion of mitigation boards to ensure appropriate mitigation, but do not analyze, discuss, or commit to mitigation measures for the environmental impacts of the transportation portion of the project in California.</p>
<p><b>CAL-NEPA-5</b>  <b>DOE's NEPA Documents Are Based on an Incomplete and Inaccurate Project Description, Since a Doubling or Tripling of Yucca Mountain's Capacity Is Reasonably Foreseeable Due to DOE's Request to Congress to Authorize Such a Capacity Increase</b></p>	<p><b>Basis of this contention</b> In December 2008, DOE submitted to Congress "The Report to the President and the Congress by the Secretary of Energy on the Need for a Second Repository" (DOE/RW-0595, LSN CEC00000613), in which DOE recommended that Congress remove the existing limit on the legal capacity of Yucca Mountain to receive and emplace nuclear waste, and describing Yucca Mountain as capable of storing and/or disposing of three times its current limit (<i>Id.</i> at 1, 8), or even four to nine times its current limit (<i>Id.</i>, at 8), amounts of waste that the NEPA documents do not do more than acknowledge in passing (Repository SEIS Chap. 8), and for whose transportation, including the portion that would be transported through California, the NEPA documents do not analyze or disclose the reasonably foreseeable environmental impacts.</p>

<p><b>CAL-NEPA-8</b>  <b>DOE'S NEPA Documents</b>  <b>Fails to Describe the</b>  <b>Maximum Reasonably</b>  <b>Foreseeable Accident</b>  <b>Page 46</b></p>	<p><b>Basis of this contention.</b> Repository SEIS Section G.9.7 acknowledges the possibility of damage to truck and rail shipping casks due to various accident scenarios, calculates the possible amounts of radioactive materials that could be released from what DOE considers to be the maximum reasonably foreseeable accident, and estimates the potential public health impacts that the release of radioactive materials in urban and rural areas from such an accident would cause, but provides no estimate of the cost of cleanup after the maximum reasonably foreseeable accident, and no estimate of other economic impacts from such accident, despite the fact that DOE computer models are fully capable of calculating and producing such estimates.</p>
<p><b>CAL-NEPA-10</b>  <b>Failure to Analyze Impacts of</b>  <b>Intermodal Transfers</b>  <b>Page 54</b></p>	<p><b>Basis of this contention.</b> The NEPA documents fail to provide a specific description or analysis of how DOE will fulfill its obligations to safely handle and ship spent nuclear fuel from California reactor sites to Yucca Mountain using intermodal transportation.</p>
<p><b>CAL-NEPA-15</b>  <b>By Using Representative</b>  <b>Routes, DOE Has Failed to</b>  <b>Analyze Environmental</b>  <b>Impacts of Probable Routes</b>  <b>Railroads Would Use</b>  <b>Page 73</b></p>	<p><b>Basis of this contention.</b> The “representative rail routes” described in the Repository SEIS were estimated using a very generic model that does not reflect specific recommendations made by the rail industry; the Repository SEIS fails to demonstrate that the routes it analyzes are the actual routes railroads will use, as opposed to an artificial construct that does not reflect the real routes over which the waste will travel through California or nationwide to the Yucca Mountain repository.</p>
<p><b>CAL-NEPA-17</b>  <b>Environmental Impacts from</b>  <b>the Use of Heavy Haul Trucks</b>  <b>at Local Sites</b>  <b>Page 82</b></p>	<p><b>Basis of this contention.</b> The Repository SEIS (section 6 and G-15, G-18) describes the numbers of shipments that will originate from the Diablo Canyon reactor; however, the Repository SEIS does not assess the consequences of using roads and highways in the area around the reactor for large numbers of heavy-haul shipments of spent nuclear fuel over an extended time period.</p>
<p><b>CAL-NEPA-20</b>  <b>Failure to Adequately Analyze</b>  <b>Impacts on Local Emergency</b>  <b>Management Responsibilities</b>  <b>Page 93</b></p>	<p><b>Basis of this contention.</b> Although DOE's Repository SEIS recognizes that environmental impacts could result from transportation-related incidents, it fails to analyze or disclose how it will ensure adequate funding and training of state and local government to assist in responding to any accidents or sabotage to shipments of high level radioactive waste to Yucca Mountain; instead, it merely states that “States and tribes along shipping routes have the primary responsibility for the protection of the public and environment in their jurisdictions” (Section H-6, page H-16).</p>

<p><b>Nuclear Energy Institute</b>  <u><a href="#">Accepted Challenges</a></u>  <i>(hyperlink)</i></p>	<p><b>NEI-NEPA-01</b>  <b>NEI-Safety-01</b></p>
<p><b>NEI - SAFETY - 01: Spent Nuclear Fuel Direct Disposal in Dual Purpose Canisters</b></p>	<p>The License Application (“LA”) fails to permit direct disposal of dual purpose canisters (“DPCs”) containing commercial spent nuclear fuel and is therefore inconsistent with “as low as is reasonably achievable” (“ALARA”) principles, unnecessarily generates additional low-level radioactive waste (“LLRW”), and wastes limited resources.</p>
<p><b>NEI - NEPA - 01: Inadequate NEPA Analysis for 90% TAD Canister Receipt Design Contention [10 C.F.R. 2.309(f)(1)(i)]: Page 40</b></p>	<p>The Yucca Mountain Final Supplemental Environmental Impact Statement (“FSEIS”) fails to analyze reasonably foreseeable environmental impacts that will result from DOE’s proposal to receive up to 90% of spent nuclear fuel (“SNF”) at Yucca Mountain in Transport, Aging, and Disposal (“TAD”) canisters.  Yucca Mountain License Application (“LA”) states that the repository surface facilities are designed to receive at least 90% of commercial SNF at the repository in TAD canisters (loaded at reactor sites). This will result in some commercial SNF already loaded into dual-purpose canisters (“DPCs”) and transportable bare fuel casks (“BFCs”) being unloaded and reloaded into TAD canisters at reactor sites. The Department of Energy’s (“DOE’s”) FSEIS fails to analyze the environmental impacts from having to unload DPCs and BFCs and reload TAD canisters at reactor sites, including the additional low-level radioactive waste that will result from the discarded DPCs and BFCs, and the environmental impacts associated with transporting the discarded DPCs and BFCs.</p>

<p><b>State of Nevada</b>  <u><a href="#">Nevada's submitted challenges (hyperlink)</a></u></p>	<p><b>NEV-NEPA- 07</b>  <b>NEV-NEPA-15</b>  <b>NEV-Safety-05</b></p>
<p><b>NEV -NEPA-07</b>  <b>Page 1070</b></p>	<p><b>NEV-NEPA-07 - OVERWEIGHT TRUCKS</b>  A brief summary of the basis for the contention. FSEIS Subsection 6.1.6 regarding use of overweight trucks for shipment of legal-weight truck casks fails to systematically assess the impacts of using overweight trucks for spent fuel shipments to Yucca Mountain, nationally and in Nevada. DOE provides contradictory evidence on the expected radiation exposures to workers, based on studies prepared in 1987 and 1993 (see FSEIS at 6-5 through 6-8), and DOE provides no analyses of the radiological impacts to safety inspectors and to members of the general public compared with use of legal-weight trucks.</p>
<p><b>NEV-NEPA-15</b>  <b>Page 1105</b></p>	<p><b>NEV-NEPA-15 - TAD SHIPMENT ESTIMATES</b>  A brief summary of the basis for the contention. FSEIS Subsection 6.1.7 at 6-8 based shipment estimates "on 90 percent [by metric tons of heavy metal (MTHM)] of the commercial spent nuclear fuel being shipped in rail casks that contained TAD canisters. Shipment of the remaining 10 percent of the commercial spent nuclear fuel would be in rail casks that contained other types of canisters such as dual-purpose canisters or as uncanistered spent nuclear fuel in truck casks." SAR Subsection 1.5.1.1 at 1.5.1-8 requires DOE to demonstrate its capability to meet the 90 percent TAD threshold on an annual basis. The FSEIS Appendix A.2 also provides a shipment estimate based on 75 percent of commercial spent nuclear fuel received in TAD canisters shipped by rail.</p>
<p><b>NEV-SAFETY-05</b>  <b>Page 76</b></p>	<p><b>NEV-SAFETY-05 - EMERGENCY PLAN</b>  A brief summary of the basis for the contention. Despite the statement that SAR Subsection 5.7 is as complete as possible in light of information that is reasonably available, DOE has not submitted an emergency plan or even a description of an emergency plan but instead, throughout SAR Subsection 5.7, provides mere commitments to provide various elements of an emergency plan and thus:</p> <ul style="list-style-type: none"> <li>(i) coordination efforts between emergency response plans of state and local authorities for actions outside the GROA are missing from SAR Subsection 5.7.1.1;</li> <li>(ii) maps identifying primary routes for emergency response equipment access or evacuation are missing from SAR Subsection 5.7.2.2.4;</li> <li>(iii) letters of agreement and memoranda of understanding with local emergency response and support organizations to provide firefighting, ambulance, and emergency medical</li> </ul>

	<p>services are missing from Subsection 5.7.2.2.4;</p> <p>(iv) the protective actions to be taken to protect the health and safety of the public are missing from SAR Subsection 5.7.5.1;</p> <p>(v) the off-site location of the emergency operations facility and the joint information center is missing from SAR Subsection 5.7.8.1;</p> <p>(vi) the required quarterly communication and equipment checks and drills with offsite response organizations are missing from SAR Subsection 5.7.12.1; and</p> <p>(vii) Copies of letters of agreement and memoranda of understanding to allow participation by government agencies in emergency response and planning activities are missing from SAR Subsection 5.7.15.2.</p>
<p><b>Summary of Four Counties (Churchill, Esmeralda, Lander and Mineral) Contentions admitted in the Licensing Proceedings</b></p>	
<p><b>4NC-SAFETY-001</b></p>	<p>DOE has failed to make an accurate estimate of the type and number of canisters to be used to ship SNF to the repository. In stating that 90% of the SNF will be shipped to the repository in TADs, DOE has <i>overestimated</i> the number of TADs and <i>underestimated</i> the number of DPC's that will be utilized for such shipments. These erroneous estimates are the consequence of DOE's arbitrary assumption that the commercial generators will purchase TADs and repackage significant quantities of fuel held in DPCs into the TADs at the <i>generator</i> sites. Because the higher-than-estimated-quantities of SNF shipped in the DPCs will have to be re-packaged into TADs <i>at the Yucca Mountain Site</i> before the material can be placed in the repository, there is an increased risk to worker safety caused by the additional handling requirement. Furthermore, the repackaging is a process which is required to be addressed in the SAR with respect to design of the operations area, and these additional volumes were not factored into the design.</p>
<p><b>4NC-NEPA-001</b></p>	<p>DOE failed to carry out a sufficient analysis in the EIS documents of the significant and substantial environmental impacts of overweight truck transportation of SNF and HLW through the four counties upon the roads, highways, physical and human environment as required by NEPA. Further, the volume of truck traffic is underestimated, which compounds the impacts. Our affidavits estimate the mitigation necessitated by the impacts within the four counties, in today's dollars, will be approximately \$185 million in highway improvements, with \$18 million in recurring annual maintenance costs.</p>

<p><b>4NC-NEPA-002</b></p>	<p>DOE failed to conduct a sufficient analysis of the significant and substantial environmental impacts to the human environment with respect to emergency response capacity and the related consequences within the four counties arising from the truck shipment of SNF/HLW through the counties. Further, there was an absence of adequate consideration of mitigation of the unavoidable adverse impacts. As set forth in the affidavits submitted by the four counties, we project the mitigation which will be required will include approximately \$16 million in upfront capital costs for facilities, and over \$15 million in recurring annual costs for operation and maintenance of first responder capability. In addition, the costs of establishing a voice and data system to enable critically needed communication interoperability among the first responders is estimated to require approximately \$7 million in upfront costs and \$3 million in operational costs. Each of these estimates is rendered in the context of today's dollars.</p>
<p><b>4NC-NEPA-003</b></p>	<p>DOE's EIS process is inadequate because it fails to consider the differing impacts of alternative types of transportation canisters used upon worker safety estimates at the repository. Because the type of shipping canisters selected by the commercial generators affects whether fuel must be repackaged at the repository site before emplacement, and because repackaging can increase exposure to radiation, the varying effects of the alternative containers on the human environment must be considered. NEPA requires that DOE provide an analysis of this variable, as well as the means to mitigate resulting harmful impacts.</p>
<p><b>Nye County</b></p>	
<p><b>JOINT SAFETY</b></p>	
<p><b>6. JOINT SAFETY - Aircraft Over Flights - with the Nevada Counties of Churchill, Esmeralda, Lander, and Mineral, and Inyo County, California.</b></p>	<p>DOE provides no basis for its assumption that the Air Force will restrict its activities in the repository vicinity. Yet, DOE takes credit for various flight restrictions on Air Force operations in the vicinity of the proposed repository. DOE states, "The accident analysis conducted assumed that such flight restrictions would occur." No further basis or justification of this critical assumption is discussed. DOE discusses its event sequence probability calculations (based in large part on the noted unsupported assumption) and states, "Consequently, the aircraft hazard to the surface facilities is screened out as an initiating event."</p>