

**Comments of the  
High-Level Radioactive Waste Committee of the  
Western Interstate Energy Board  
on the  
“Draft Supplemental Environmental Impact Statement for a Geologic Repository for  
the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca  
Mountain” (Repository SEIS)**

**January 10, 2008**

These comments are provided by the High-Level Radioactive Waste Committee of the Western Interstate Energy Board (WIEB). WIEB is an organization of 12 western state governments and three Canadian provinces. It serves as the energy arm of the Western Governors’ Association. The Committee includes all western states which may be affected by the transportation of spent fuel and high level radioactive waste (HLW) to a potential repository at Yucca Mountain.

The Committee appreciates the opportunity to review and comment on DOE’s Draft Repository SEIS, issued in October 2007, and we appreciate DOE’s commitment to “work with states...and other interested parties in a cooperative manner to develop the transportation system.” (Page H-2)

Individual western states will comment on the Nevada Rail Corridor SEIS, the Rail Alignment EIS, and the Repository SEIS. The Committee’s comments focus on the national transportation portions of the Repository SEIS. The general policy of the western states regarding national transportation of spent nuclear fuel and high-level waste is presented in the Western Governors’ Association Resolutions [05-15](#), [06-7](#) and [07-02](#). These policy resolutions, which have been reconsidered and renewed several times since 1988, call for the federal government, in coordination with the states and tribes, to develop “a logical and timely transportation program”. This program would include fixing the shipping origins and destination points as early as possible, conducting full-scale cask testing, developing responsible criteria for selecting shipping routes, developing a sound methodology for evaluating optional mixes of routes and transportation modes, conducting a thorough review of the risks of terrorism and sabotage against spent fuel and high-level waste shipments, working with state governments to assure that adequate safeguards are in place prior to beginning shipments, and developing “a comprehensive transportation plan that includes the analysis of all needed transport-safety activities in a single document”.

DOE should incorporate into their National Transportation Plan for spent fuel and high-level wastes the National Academies’ 2006 recommendations for enhancing the safety and security of spent fuel transport.<sup>1</sup> These include:

- Transportation planners and managers should conduct detailed surveys of transportation routes to identify potential hazards that could lead to or exacerbate extreme accidents

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<sup>1</sup> “Going the Distance??: The Safe Transport of Spent Nuclear Fuel and High-Level Radioactive Waste in the United States”, The National Academies Press, 2006.

involving very long duration, high temperature, fully engulfing fires; planners should take steps to avoid or mitigate such hazards before shipments begin. (pg. 10)

- Full-scale package testing should continue to be used as part of the analytical and testing programs to validate package performance. (pg. 14)
- DOE should continue to ensure effective involvement of states and tribes in routing and scheduling of DOE spent fuel shipments. (pg. 15)
- DOE should fully implement its dedicated train and mostly rail decision before DOE begins transporting nuclear waste to the repository to avoid the need for a stopgap shipping program using general trains. (pg. 17, 19)
- DOE should identify and make public its suite of preferred highway and rail routes for transporting spent fuel and high-level waste to a repository as soon as practicable to support state and local planning, especially emergency response planning and follow the foreign research reactor spent fuel program in involving states and tribes in these route selections to obtain access to their familiarity with accident rates, traffic and road conditions and emergency preparedness. (pg. 18)
- DOE should negotiate with commercial spent fuel owners to ship the older fuel first except where spent fuel storage risks at specific plants dictate the need for immediate shipments; There are clear safety advantages from shipping older (radiologically and thermally cooler) spent fuel first. Therefore, the risk from these shipments would drop dramatically as well if the spent fuel generators and owners could be persuaded by DOE to ship their older fuel first. (pg. 20)
- DOE should begin shipments through a pilot program involving relatively short, logistically simple movements of oldest fuel from closed reactors to demonstrate the ability to transport this waste in a safe and operationally effective manner. (pg. 20)
- DOE should immediately begin to carry out its emergency responder preparedness responsibilities defined in Section 180 (c) of the NWPA. DOE should establish a cadre of professional of emergency responders to work with the Department of Homeland Security to provide consolidated “all-hazards” training materials and programs for first responders, include trained emergency responders on the shipment escort teams, use emergency responder preparedness programs for community outreach along planned routes. (pg. 20)
- An independent examination of the security of spent fuel and high-level waste transportation should be conducted before large quantity repository shipments to a repository begin including an evaluation of the threat environment, response of packages to credible malevolent acts, and operational security requirements for protecting spent fuel and high-level waste in transport. (pg. 8)
- DOE should work with the Department of Homeland Security, Department of Transportation, and NRC to develop, apply, and disclose consistent, reasonable and understandable criteria for protecting sensitive information about spent fuel and high-level waste shipments. They should commit to the open sharing of information that does not require protection and should facilitate timely access to such information. (pg. 21)

- DOE and Congress should examine options for changing the organizational structure of DOE's spent fuel transportation program to give the transportation program greater planning authority, greater flexibility to support future transportation programs and make the multi-year commitments needed to plan for, procure and construct the necessary transportation infrastructure. (pg. 23)

The transportation system in the Draft SEIS Proposed Action does not adequately reflect those recommendations.

The HLW Committee also notes that the Draft SEIS does not address issues posed by the current waste acceptance schedule that is governed by the standard contracts DOE has with utility companies. The waste acceptance "queue" (the specified order in which SNF would be picked up from which utilities) poses considerable challenges for any national transportation system both in terms of logistics and risk management (i.e., the desirability of shipping oldest fuel first).

Western Governors' believe that DOE must look to the highly successful Waste Isolation Pilot Plant (WIPP) transportation program for guidance in conducting any spent fuel and high level waste shipping campaign to a repository or interim storage facility. Further, Western Governors' insist that no shipments of spent nuclear fuel or high-level waste should be made to a repository or storage facility until DOE and the nuclear utility companies have worked with corridor states to implement an acceptable transportation plan for shipping the waste to permanent storage or disposal sites and until shipping routes have been cooperatively identified and funds and assistance provided to states at least three years prior to beginning shipments. Western Governors' also recommend that appropriate funds for technical assistance and training programs should be provided to states and tribes through whose jurisdictions spent fuel and high-level waste are to be transported. They further recommend that policies and procedures must be implemented to assure that states are fully compensated for all training, preparedness and response costs associated with these shipments. Such assistance must not be based upon arbitrarily established criteria, but closely linked to state-specific assessments of need.

We believe that DOE's NEPA documents for the proposed repository should be revised to include a comprehensive national transportation plan for repository shipments that reflects the essential elements of the transportation program identified in the Western Governors' policy recommendations for spent fuel and high-level waste transport. In the context of the Western Governors' Association policy resolutions [05-15](#), [06-7](#), [07-02](#), we offer the following general comments, several of which apply concepts from the discussion of mitigation in the Draft SEIS Section S.6:

**1. The Proposed Action for National Transportation (a):**

The proposed Transportation, Aging and Disposal (TAD) canister system is central to the transportation system proposed in the Draft SEIS and represents a major change from transportation scenarios contained in the 2002 Final Yucca Mountain EIS (FEIS). The transportation impacts of the proposed action cannot be fully evaluated based on the information presented in the Draft SEIS. There are no final TAD canister and over-pack designs (at the time of Draft SEIS publication, only "proof of concept" designs existed).

TAD system costs and financial arrangements are unknown and not addressed in the Draft SEIS. The proposed TAD system is not compatible with dry storage systems currently in use at civilian nuclear power plants, and the impacts of this are not adequately assessed.

DOE apparently made the decision to build the revised repository design around the TAD system without ever having examined the transportation impacts of such a course of action. The Draft SEIS does not evaluate the TAD system against other alternative approaches despite the fact that there is no assurance that TADs can be utilized in the manner and to the extent DOE proposes. DOE made the TAD decision without NEPA documentation and without examining feasible alternatives.

DOE has provided no contingency plans for national transportation in the event that rail access to Yucca Mountain is not available, and the decision to base the transportation system on TADs requires rail transport. There are major uncertainties as to the future availability of rail access to Yucca Mountain, and the Draft SEIS does not evaluate alternatives in the event such rail access is not available.

Under the Proposed Action spent fuel from 68 specified commercial site origins would be shipped cross-country by dedicated train, mostly in TADs, to the proposed repository. (Appendix G, Tables G-4 and G-10, Figures G-3 through 47) As stated above, DOE should identify the programs, procedures and controls by which it intends to accomplish this objective. See general comments above and further discussion in #4 below.

**2. The Proposed Action for National Transportation (b):** The proposed modal mix for cross-country transportation includes “measurable goals and targets” with which we do not concur. Specifically, we do not concur with the measurable objective that spent fuel from seven specified commercial site origins would be shipped cross-country (2646 shipments) by overweight truck (Appendix G, Tables G-8 and G-10; Figures G-3 through G-47). However, the Draft EIS does not assess the impacts of overweight trucks on highways and communities across the country through which such shipments would pass. Nor are the potential uncertainties and obstacles associated with a national overweight truck shipping campaign assessed, including states’ permit requirements for such shipment and logistical and operational uncertainties. We recommend that DOE reexamine these elements of its proposed action, with the objective that overweight trucks be used only for shipment to nearby railroads, generally within the origin state. We then further recommend that DOE identify the programs, procedures and controls by which it intends to accomplish this objective. See further discussion in #4 below.

The Draft EIS does not adequately examine the impacts that would inevitably be associated with implementing the proposed action, especially impacts resulting from the proposed use of TAD canisters. For example, many utility companies have already moved spent fuel into sealed canisters placed in dry storage, and many more will have done so before TAD canisters become available or waste can be moved to a repository. The Draft EIS does not adequately evaluate the feasibility, impacts (including worker health and exposure impacts), costs, and risks of repackaging such spent fuel into TAD canisters at the generator sites. The

information in the Draft EIS does not support the achievability of the goal of transporting 90% of the spent fuel by rail using the TAD canister system.

**3. Previous Scenarios for National Transportation.** It is unclear what the relationship of the proposed action in the Draft SEIS (i.e., shipping 90% of spent fuel by rail using TADs) is to the “mostly rail” shipping scenario evaluated in the 2002 Final Yucca Mountain EIS and later adopted by DOE as the preferred shipping mode in a subsequent Record of Decision. This should be clarified in the final SEIS, since the 90% scenario differs significantly from the 2002 FEIS “mostly rail” scenario. The 2002 FEIS scenarios do not provide a proposed action (for national transportation) with “measurable goals and targets” nor do they reflect a modal mix for cross-country transport that reflects “best practice” for a campaign of this import.

**4. The Proposed Action and Its Implementation Plan.** The proposed action for national transportation presented in the Draft SEIS is incomplete, in that it is not yet accompanied by the “programs, procedures and controls” required to implement its “measurable goals and targets.” We believe that DOE’s “National Transportation Plan” can and should identify and explain the detailed action steps required to implement the measurable goals and targets presented in the Draft SEIS proposed action. Such a National Transportation Plan should be considered the companion document for implementation of the proposed action presented in the Final SEIS. The Final SEIS should make the necessary linkage between “measurable goals and targets” and implementing “programs, procedures and controls.” The Final SEIS should describe the essential elements of the National Transportation Plan for repository shipments and propose overriding policies to ensure their uneventful and safe transport. These elements and policies should reflect the Western Governors’ Association policies and recommendations for spent fuel and high-level waste transport (see WGA Resolutions [05-15](#), [06-7](#), [07-02](#)). DOE should explain how the National Transportation Plan will achieve the measurable goals and targets of the proposed action.

The proposed action for national transportation presented in the SEIS (amended as suggested above, and combined with a sufficient National Transportation Plan for implementation) can provide a useful basis for DOE to work with states and others (in particular, utilities and the transportation industry). However, the Draft SEIS does not provide information and analyses sufficient to understand the working of the national transportation system that is proposed or to adequately evaluate the impacts of that system.

**5. The Impacts of a Campaign for Cross-Country Shipment of SNF and HLW.**

Regarding the (RADTRAN and RISKIND) methods used to assess the impacts of the proposed national transportation campaign, we find that they do not measure or even address the dimensions that make cross-country transport of high-level radioactive wastes the complex issue and concern that it obviously is.<sup>2</sup> We do not suggest abandonment of these

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<sup>2</sup> These dimensions include issues of distribution of impacts (e.g. the concerns of those that expect they may be—seemingly arbitrarily or unfairly—more affected than others), institutions (challenges to the roles, capabilities and/or traditional practices of institutions ranging from Congress to federal agencies to commercial carriers to state and local governments), societal risk (special perceptions of highly radioactive materials—not fully resolvable by scientific information and education—and the

methods, but we do recommend that their limitations be explicitly acknowledged, and we recommend that DOE then focus on the assessments and agreements needed to implement a truly “best practices” national transportation campaign. *Precisely because* current assessment methods do not address the full scope of impacts of a national campaign for cross-country transport of spent nuclear fuel and high-level waste, the mitigations discussed in the Draft SEIS Section S.6 (measurable goals and targets; implementing programs, procedures, and controls; and best management practices) have particular application in this context.

**6. Alternatives to the Proposed Action.** We observe that the Draft SEIS presents no alternatives to the proposed action such as: (a) Complete reliance on overweight truck shipment; (b) Complete reliance on legal-weight truck shipment, using casks with less capacity than the GA-4/9. The final SEIS should evaluate feasible alternatives to the national transportation scenario contained in the Proposed Action. Such alternatives must involve, at a minimum (a) contingency plans in the event rail access to Yucca Mountain is not available (this would most likely be the “mostly legal weight truck” scenario assessed in the 2002 FEIS), and (b) alternative approaches to the use of TAD canisters in the event these prove unworkable. The relevance of such alternatives, we presume, would be shortfalls in the implementation of the proposed action regarding the modal mix for cross-country transport. We note that the limitations of the assessment methods apply with even greater force to alternatives that represent less than full DOE commitment to “best practices” in choice of mode for cross-country transport (2,500 miles per shipment) of the nation’s commercial spent fuel. See discussion in #5 above.

**7. The National Implications of Transport in Nevada.** The Draft Nevada Rail Alignment EIS states that “In the event that DOE were not to select a rail alignment in the Caliente or Mina corridor, the future course that it would pursue...is highly uncertain.” (DOE/EIS-0369D, pg. 2-114) The Draft Repository SEIS states that “Implementation of the mostly rail scenario ultimately would require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada.” (Page S-vi) A Nevada rail spur, if “not selected” or indefinitely delayed, has major implications for the modal choice for cross-country transport presented as the proposed action in the Draft SEIS—implications not identified or addressed. The Draft SEIS should have evaluated alternatives for SNF and HLW transportation in the event rail access to Yucca Mountain is not available. As indicated, we believe that DOE should address the contingencies with implementing programs, procedures and controls designed to ensure that a rail access to a repository is available for all shipments, beginning in year 1 of repository operation.

More specific observations and comments are presented in the following table.

In conclusion, we believe DOE should fully address the deficiencies that we have identified in the NEPA documents and that DOE should provide a complete description in the Final SEIS on how DOE plans to implement the proposed spent fuel and high-level waste

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resulting behaviors), and contingency (the response of individuals and institutions to unexpected events, accidents, or institutional failure).

transportation program. We urge DOE to incorporate the Western Governors' spent fuel transport policy resolutions, as well as the National Academies' 2006 spent fuel transport safety and security recommendations, in DOE's National Transportation Plan for repository shipments.

Sincerely,



Barbara Byron  
WIEB HLW Committee Co-Chair



Joe Strolin  
WIEB HLW Committee Co-Chair

<i>Observations</i>	<i>Comments</i>
<p><b>1. Modal choice for cross-country transport.</b> The Repository SEIS states that “DOE would operate the repository following a primarily canistered fuel approach in which the majority (a goal of 90 percent) of commercial spent fuel would be packaged at the generator sites in TAD canisters.” (Section 2.1: Proposed Action; page 2-7) This results in a set of representative routes in which 68 commercial site origins would ship cross-country by rail (Table G-4 &amp; 5). Of these, 22 origins would use heavy-haul to deliver rail casks to a nearby rail yard. (Table G-7) Fifteen of the 22 have a barge shipment origin. (Table G-21) Only 7 commercial plant sites would ship cross-country by (overweight) truck. (Table G-8)</p>	<p>"The WIEB HLW Committee supports the use of dedicated trains for repository SNF and HLW shipments. The Final SEIS should specify a detailed plan for using dedicated trains that includes: a) Agreements with utilities regarding the waste pick up slots (i.e., the queue) to facilitate the make-up of dedicated trains at origin sites or nearby rail yards; b) Technology (development and/or application) or other measures to address cask loading constraints at some reactors; c) Site-by-site arrangements for delivery of rail casks from origins lacking direct rail access to nearby rail yards; d) logistical and operational arrangements demonstrating how spent fuel from different origins would be combined and how and where trains would be formed for cross-country shipments. The “National Transportation Plan” should detail how the origin-specific modes for cross-country transport will be achieved.</p> <p>In combination, the proposed modal mix and its implementing action plan should provide a basis for the assessment of routes across the West from the 62 commercial site origins in eastern states (including the Cooper Station and Fort Calhoun reactors in eastern Nebraska). Our review suggests the following results of the proposed action:</p> <ul style="list-style-type: none"> <li>• Truck transport of SNF and HLW (in overweight trucks; see #8, below) across the West would be substantially reduced.</li> <li>• The number of entry points (rail and truck) into the western region would be limited, thus limiting the number of routes affected. Those routes would be heavily affected, but, with lead time and federal cooperation, the state/local needs could be assessed and provided, thus preparing a limited</li> </ul>

	<p>number of routes more adequately for a 25+ year national transportation campaign.</p>
<p><b>2. Affected Environment Related to Transportation.</b> For national transportation purposes, the SEIS defines the “region of influence” as the area within one-half mile of the centerline of a rail or highway right-of-way, or a rail yard boundary. (Section 3.2, page 3-90) The analysis then uses RADTRAN 5 to estimate “off-link” radiation doses to “populations” within the one-half mile buffer. (Section G-3, page G-14; Section G.5, page G-34) “Populations” are based on 2000 Census data extrapolated to 2067, except in Las Vegas, where resident population is modified to include casino guests and casino workers along the Las Vegas Strip. (Section G.3, page G-6 and G-14)</p>	<p>These assumptions and methods may be a useful starting point for an assessment of a national transportation program involving thousands of miles of rail and highway routes in every region of the nation. However, it does not follow that the SEIS assumptions and methods constitute an adequate description of the affected environment needed for route and needs assessment in a campaign of this import. Such a description would include, not just estimated “populations,” but a systematic inventory of “features” (e.g. canyons and mountain passes, refineries and hazardous material industries, key infrastructure elements--e.g. bridges--and current conditions, hazardous materials flow, hospitals and nursing homes, stadiums and event centers, etc.), plus an inventory of state/local capabilities for addressing potential contingencies in various route segments. Some of these features and capabilities will be found beyond the half-mile buffer applied in the SEIS assessment. The inventories of “features” and “capabilities” should be available well before Section 180c and other campaign pre-planning efforts.</p>
<p><b>3. Transportation Impact Assessment.</b> Using representative routes and shipments generated by TRAGIS, and assumptions regarding “affected environment” discussed above, the SEIS uses RADTRAN 5 and RISKIND to estimate the impacts of incident-free transportation and transportation accidents. (Section G.3) Thus, “impacts” are model calculations of projected latent cancer, vehicle emission fatalities, and accident risk. (Section G.3, Tables G-4-7) In discussing the proposed action, the SEIS briefly discusses (in Section 2.4: Collection of Information and Analysis) uncertainty and perceived risk. It concludes that “sufficient information is</p>	<p>The best possible estimates of latent cancer and vehicle emissions fatalities cannot fully describe the effects of a transportation campaign for cross-country shipment of the nation’s spent nuclear fuel and high-level waste over a 25-year period. Such estimates cannot describe the people’s perceptions of this material, their trust in agency managers and Congressional decision makers, or their response to perceived inequity or to contingencies. They do not fully explain the importance of “best management practices” regarding such a campaign, or the special relevance of “measurable goals and targets,” and implementing “programs, procedures and</p>

<p>currently available to assess the range of impacts,” that “the public is very uncertain about the risks they face,” but that “much of the uncertainty is irreducible,” that “adverse impacts from perceptions of risk would be unlikely and relatively small,” that people can be expected to become “more risk-tolerant” as the program proceeds, and that the “social costs of perceived risk “could be mitigated....through information and education programs.” (page 2-79-81) Regarding transportation, the SEIS states that DOE would “meet or exceed the requirements of 10 CFR Part 71.” More generally, DOE would “set measurable goals and targets....(and) implement best management practices.” (page S-49)</p>	<p>controls” (S-49) in this context.</p> <p>The SEIS should explicitly acknowledge that RADTRAN and RISKIND, while useful, do not fully describe the effects of the prospective national transportation campaign. While information and education programs have roles, they do not address the range of perceptions and issues triggered by this program. (See General Comment #4, above.) In transportation as in other program components, best management practices (in combination with measurable goals and targets, and implementing programs, procedures, agreements, technologies and controls) are crucial. Measurable goals or targets (for modal mix and other elements) combined with implementing programs and agreements, can begin to provide assurance that best management practices are indeed being applied, thus addressing program effects not measured by RADTRAN and RISKIND.</p>
<p>4. <b>Dedicated Trains.</b> Applying the 90% by rail objective, the SEIS projects the shipment of 6490 rail casks containing TADs and 307 rail casks containing other canisters in 2289 dedicated trains from 68 commercial plant sites. (Section G.4, Table G-10) At each commercial site, the number of casks per dedicated train is assumed to be 3. For DOE sites, the SEIS projects the shipment of 2698 rail casks (non-TAD canisters) in 544 dedicated trains, assuming roughly 5 casks per train from each origin.</p>	<p>The basis for the assumption of 3 casks per dedicated train shipment is not explained or justified. If intended as a “conservative assumption,” we recommend that DOE set a higher (and measurable) target or goal. Note that 572 cross-country dedicated train shipments could be eliminated should DOE,(in cooperation with utilities and rail carriers), be able to ship 4 casks per train rather than 3.</p>
<p>5. <b>Rail Spur “Ultimately Required.”</b> The SEIS states that “implementation of the mostly rail scenario <i>ultimately would require</i> the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line.” (Summary: page S-vi, emphasis added)</p>	<p>This statement does not build confidence. Delayed construction of a Nevada rail spur implies:</p> <ul style="list-style-type: none"> <li>a) Construction and operation of an intermodal facility in Caliente or Mina (not discussed in the Repository SEIS);</li> <li>b) 25 overweight truck shipments on rural Nevada highways for each dedicated train shipment that cannot access Yucca Mountain (not discussed in the Repository SEIS);</li> </ul>

	<p>c) The need to build the rail spur anyway, at a further escalated cost; and</p> <p>d) A substantial inconsistency with proposed modal mix for cross-country transport. (See General Comment #7.).</p> <p>Rather than vaguely stating that the Nevada rail spur ultimately would be required, DOE should explain (e.g. in its National Transportation Plan) the steps it will take to ensure that the spur will be available before the commencement of repository operation. Otherwise, DOE should prepare another SEIS to address the substantial implied departure from the proposed modal mix for cross-country transportation identified in Tables G-4 and 5, G-7 and 8, and G-10.</p>
<p><b>6. Inventory Modules 1 and 2.</b><sup>3</sup> On the grounds that legislative action would be required, the SEIS classifies the effects of inventory modules 1 and 2 as a cumulative impact (Section S.5), and scales up the national transportation impacts, using the assumptions and methods applied to the proposed action (Section 6.3.1, Section 8.4.1). Inventory modules 1 and 2 double the commercial spent fuel in the proposed action, and nearly quadruple the amount of DOE high-level waste that would be delivered for disposal at Yucca Mountain.</p>	<p>The 130,000 MTHM of commercial spent fuel in modules 1 and 2 is arguably a more “reasonably foreseeable” expectation than the 63,000 MTHM in the “proposed action.” The SEIS suggests that, having determined that the nation’s first geologic repository would be in the West, and then having indefinitely postponed a second repository in the East, the cross-country transportation impacts of shipments beyond the current 70,000 MTHM limit can be estimated by scaling up those for the proposed action. As emphasized in General Comment #5, the assessment methods used in the SEIS do not address the dimensions that make cross-country transport of SNF the complex issue and concern that it obviously is. These dimensions have particular application to the prospect that all current and prospective SNF generated by the nuclear power</p>

<sup>3</sup> The “proposed action” assumes that cross-country transportation is limited by NWSA Section 114(d), which “provides that no more than 70,000 MTHM of spent nuclear fuel and high-level radioactive waste may be disposed in a first repository until a second repository is operating.” (Section S.5.1, page S-47) Inventory module 1 assumes legislative action that would increase the amount to be disposed in a first repository to about 150,000 MTHM. Inventory module 2 adds in 210,000 cubic meters of Greater-Than-Class-C and Special-Performance-Assessment-Required wastes.

	<p>industry, not just the portion specified in NWPA Section 114(d) would be shipped an average distance of 2,500 miles for disposal in the West.</p> <p>The SEIS should acknowledge the limitations of its methods for assessing transportation impacts (See #3, above) as applied to the proposed action, and the further limitations (e.g. regarding regional equity, trust in deciding and implementing federal institutions) as applied to inventory modules 1 and 2.</p>
<p><b>7. Shipment Escorts and Their Roles.</b> The SEIS states that “armed security escorts would accompany all shipments.” (page S-20) Dedicated train shipments would include “one to two escort cars” (page 2-45), and notes that escorts would be provided in all areas—urban, suburban, and rural. (Page 6-3) It also notes the reduction in radiation exposure to escorts (per ton shipped) by inclusion of more rail cars in dedicated trains. (Page 6-3)</p>	<p>The SEIS does not describe the roles of escorts in dedicated train and overweight truck shipment. These may include roles in security, monitoring (radiological and mechanical), notification, and/or first emergency response. These roles (and the associated equipment, training, employment arrangements and accountability standards) have implications for state/local needs related to cross-country transport of SNF and HLW. Perhaps via the National Transportation Plan, DOE should more fully describe the intended roles and capabilities of dedicated train and overweight truck escorts, thereby providing a basis for route-specific needs assessment and planning.</p>
<p><b>8. Overweight Trucks.</b> The SEIS proposed action would remove spent nuclear fuel from 68 commercial plant origins in 2289 dedicated train shipments (assuming 3 rail casks per train). A larger number of overweight truck shipments (2646) would be required to remove SNF from just seven “generator sites (that) do not have the ability to handle a rail cask at their facilities.” (Section G.3, Tables G-4 and G-8) The SEIS references “revised information on the cask handling capabilities at commercial sites” (page S-20), but it does not contrast the previous and revised information. It states that, whereas the FEIS assumed that reactor sites would modify their facilities to load large rail casks, “this SEIS does not make that assumption.” (Page S-20) The SEIS does not present</p>	<p>The SEIS finding that the impacts of overweight trucks may be similar to those of legal-weight trucks, reflects the limitations of the SEIS’s assessment methods (Section 6.3.1, pages 12 and 13), not a full assessment of the impacts of large-scale use of overweight trucks for cross-country transport.</p> <p>The SEIS should acknowledge that the impacts of the use of overweight trucks go well beyond those measured by the assessment methods used. We recommend (General Comment #2) that the Final SEIS reexamine the use of overweight trucks for cross-country transport, with the objective that overweight trucks be used only for shipment to nearby railroads, generally within the origin state. Further, plans for implementing the</p>

<p>the site-by-site modifications previously assumed, or explain why they are now abandoned.</p> <p>Overweight trucks (80-115,000 pounds) are subject to permitting requirements (generally time of day or seasonal restrictions) in each state through which they travel (Section 6.1, page 6-5). The SEIS concludes that “the impacts from the use of overweight trucks for shipments of spent nuclear fuel would be similar to the impacts from the use of legal-weight trucks.” (Section 6.1, page 6-5)</p>	<p>proposed modal mix should specifically address options to overcome the cask loading limitations of the seven commercial facilities identified in Table G-8. For any remaining cases, DOE should engage the affected states to coordinate the application of appropriate permitting requirements. The SEIS should acknowledge that the condition of bridges and other features (See #2, above) may restrict the use of overweight trucks for cross-country transport.</p>
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