

**NEV-NEPA-05 - RADIOLOGICAL REGIONS OF INFLUENCE FOR
TRANSPORTATION**

1. A statement of the contention itself

Final Supplemental Environmental Impact Statement for Yucca Mountain, DOE/EIS 0250S-F1 (07/2008) ("FSEIS") Subsections 3.2.2 and 6.4.1, and Final Environmental Impact Statement for a Rail Alignment, DOE/EIS 0369 (06/2008) ("Rail Alignment FEIS" or "RA FEIS") (incorporated by reference in the FSEIS at 6-1) Subsection 3.2.10, which address the radiological regions of influence for transportation, fail to apply the preferred method of analysis consistently for transportation impacts in Nevada and nationally. This failure is significant because without consistently evaluating the radiological regions of influence for transportation DOE has failed to adequately assess their environmental impacts, and because those environmental impacts could be materially different from that presented in the FSEIS and the RA FEIS, neither document can be adopted by the NRC.

2. A brief summary of the basis for the contention

Both FSEIS Subsection 3.2.1 and RA FEIS, 3.1 adopt the same definitions for the regions of influence (ROIs) for radiological impacts of incident-free transportation (i.e., 0.8 kilometers or 0.5 miles on either side of the transportation route centerline) and for radiological impacts of transportation accidents and sabotage (i.e., 80 kilometers or 50 miles on either side of the transportation route centerline). However, the FSEIS and the RA FEIS fail to consistently apply the radiological ROIs used to assess transportation impacts within the Caliente and Mina rail alignments, in relation to transportation impacts in other parts of Nevada, and in relation to transportation impacts nationally.

3. A demonstration that the contention is within the scope of the hearing

The contention raises an issue whether DOE has complied with the NRC regulations at 10 C.F.R. §§ 51.67(a), 63.21(a), 63.24(c), and 63.31(c), the National Environmental Policy Act at 42 U.S.C. § 4332, as well as case law involving environmental impact statements, which apply to Yucca Mountain, and falls within the scope of the hearing as specified in section II, paragraph 1 of the Notice of Hearing.

4. A demonstration that the contention is material to the findings NRC must make to license Yucca Mountain

10 C.F.R. §§ 51.67(a) and 63.21(a) require DOE to submit an environmental impact statement (EIS) with its LA. 10 C.F.R. § 63.24(c) requires DOE to supplement its EIS to take into account the environmental impacts of any substantial changes in its proposed actions or any significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts. An environmental impact statement must contain a reasonably thorough discussion of the significant probable environmental consequences and must discuss the environmental impacts, including transportation impacts, of the proposed action – which requires DOE to take a hard look at the potential environmental consequences of the proposed action. See *Northwest Ecosystem Alliance v. Rey*, 380 F. Supp. 2d 1175, 1185 (W.D. Wash. 2006); and *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992). See also *Public Service Electric & Gas Co. (Hope Creek Generating Station)*, ALAB-518, 9 NRC 14 (1979); and *Florida Power & Light Co. (Turkey Point Units 3 & 4)*, LBP-81-14, 13 NRC 677 (1981). 10 C.F.R. § 63.31(c) provides that a construction authorization will not issue until the NRC weighs the environmental, economic, technical, and other benefits against environmental costs, and considers available alternatives contained in the EIS. This contention alleges non-

compliance with these regulatory provisions and case-law requirements, and therefore raises a material issue within the scope of the licensing proceeding.

5. A concise statement of the facts or expert opinions supporting the contention, along with appropriate citations to supporting scientific or factual materials

RA FEIS Subsection 3.2.10.1.2 and 3.3.10.1.2 provide detailed information regarding exposed populations and health and safety impacts within the radiological regions of influence (ROIs) along the Caliente and Mina alignments. However, neither the FSEIS nor the RA FEIS provide comparable information for the radiological ROIs along existing routes in other parts of Nevada and nationally. Specifically, DOE has failed to provide population and dose information for the ROIs along rail and highway routes in the Las Vegas metropolitan area. Analyses prepared for the State of Nevada, based on 2005 Bureau of Census estimates, concluded that about 95,000 residents currently live within one-half mile of the Union Pacific rail route in Las Vegas, and about 113,000 residents currently live within one-half mile of the highway routes in Las Vegas. There are also 34 hotels with 49,000 hotel rooms located within one-half mile of the rail route in Las Vegas. The State of Nevada estimates that more than 1.8 million residents live within the 50 mile region of influence for accidents and sabotage, along potential truck and rail routes, in southern Nevada and adjacent areas of Arizona, California and Utah. See "State of Nevada Perspective on the U.S. Department of Energy Yucca Mountain Transportation Program – 8154" (02/24-28/2008) (LSN# NEV000005266) at 16-18, and "Potential Consequences of a Successful Sabotage Attack on a Spent Fuel Shipping Container: Updated Analysis Revised Final Version" (11/01/2008) (LSN# NEV000005444) at 2-4.

6. There must be sufficient information to show that there is a genuine dispute with DOE, along with specific references to the portions of the LA being controverted

There is a genuine dispute between the State of Nevada and DOE regarding the reporting of information regarding exposed populations and the evaluation of health and safety impacts within the radiological regions of influence along the Caliente and Mina alignments, along existing routes in other parts of Nevada, and nationally. DOE has provided this information only for the ROIs along the Caliente and Mina alignments. Nevada believes that the same information must be provided for the ROIs along existing routes in other parts of Nevada, and nationally.

This deficiency is significant because, without full consideration of exposed populations and health and safety impacts within the transportation radiological regions of influence, there is no adequate evaluation of environmental impacts as required under NEPA. Because those environmental impacts could be materially different from that presented in the FSEIS and the RA FEIS, neither document can be adopted by the NRC.