

RECEIVED

EIS001873

Wendy Dixon, EIS Manager  
Dept of Energy  
P.O. Box 30307  
North Las Vegas, NV 89036-0307

FEB 29 2000

From Louis Benezet Prince Mine Pioche, NV 89043

RE:Comments, Draft Environmental Impact Statement for Yucca Mountain (DEIS)

Thank you for providing this opportunity for comment on the DEIS. The following comments supplement my testimony at the DEIS hearings in Caliente and Las Vegas. While my comments on the document aim to identify the omissions and shortcomings of the DEIS, I should note here that I recognize the extensive work that has gone into it. The DEIS has not failed to increase my understanding of the Project.

General:

1 [ The DOE proposes to transport all of the nation's highly radioactive waste to Yucca Mountain for disposal in a deep underground repository. How much highly radioactive waste will be moved here and buried DOE cannot say. What means or routes will be used to transport the waste DOE has not decided. DOE does not know how the repository will be designed or how it will function to prevent unacceptable radiation doses to humans and contamination of the environment. DOE does not know what the acceptable levels of radiation exposure will be. Because of these unknowns, spelled out in the DEIS, the document, which is intended to be the basis for a decision to proceed with the project, is an insufficient and premature effort.

DOE has apparently taken the position that that it is unnecessary to know more about the project at this point because whatever alternatives are adopted the impacts will be insignificant. This is simply not adequate.

Local issues /Transportation:

2 [ As a resident of a community on a potential transportation route for highly radioactive waste I need to know how our community will be affected. I don't want Congress to authorize Yucca Mountain and only afterwards learn that a route through our community has been selected without it being subjected to a fully detailed and specific EIS. The following are just some of the issues that must be addressed.

3 [ The Meadow Valley Wash, a perennial stream which flows to Lake Mead via Moapa Valley is known for heavy flooding which has destroyed the UP rail line more than once. The DEIS states that the Caliente Intermodal site is in a 500 year floodplain. However, I believe it has been inundated within the memory of local people. DOE admits that a flood and surface water analysis of the area has not been performed. This is an example of why, in my view this EIS is insufficient to support a decision to select this or any other transportation mode or route.

4 [ Highway 93 west from Caliente over Oak Springs Summit is a treacherous route, especially during or after a snowstorm. I have been stuck on this route more than once. Accidents on this winding mountain road have taken numerous lives. I do not believe it is feasible to upgrade this road sufficiently for it to be used for a radioactive waste haul-route without significant additional risk to travelers. West of Hiko, State Rte 375 crosses several mountain ranges in one of the most remote regions of Nevada and presents a challenge to travelers during severe weather. You are far from help out there. These concerns need to be examined in detail. Also, in connection with  
5 the proposal to establish a haul-route or rail line across the Nellis Bombing Range it is necessary

DEIS comment p 2

to consider the risks from low flying Air Force planes and the extent to which radioactive waste transportation would interfere with the Air Force mission.

6 One worst-case accident scenario for a transportation accident involving highly radioactive waste indicates a 40 square mile area would be contaminated. Nuclear waste accidents have a potential for extremely bad consequences, which must be weighed against their probability of occurrence. In Caliente, the probability of occurrence would appear to be much higher if a transfer depot were located near the city than if train shipments were just passing through.

7 Our community depends on visitors traveling on Hwy 93, the "Great Basin Highway," to support our economy. How will we be affected if this becomes a haul-route for highly radioactive waste? We offer visitors several scenic areas and five state parks. How will we be affected if DOE establishes a transfer depot for highly radioactive waste near Caliente in scenic Rainbow Canyon about half a mile from Kershaw Ryan State Park?

8 High-level radioactive waste would in effect be in storage at the transfer facility at certain times, mainly on weekends, when much of the local population congregates at the large church at the south end of Caliente near the road that would access the facility. How will the proximity of this extremely dangerous material affect the lifestyle of this small community? Invited on a tour of the Braidwood nuclear power plant in Illinois, I listened to a local government official describe how living near the plant affects people in nearby communities, subtly, but deeply. Despite assurances of safety which are generally believed, a person's automatic reaction to hearing the sound of a siren is to think that something has gone wrong at one of the nuclear reactors. The extent to which actual or perceived risk is voluntarily assumed plays into the equation also.

9 Will new businesses be discouraged from coming to a Caliente if it becomes host to a transfer facility for highly radioactive waste? At least one businessman I know tells me he would not have come to Caliente had he been aware of the proposed site. Several residents have told me the same thing. Some, including a few who have lived there many years, say they plan to move away if the facility is established. As with the other issues I have raised, DOE should set forth how these socioeconomic factors surrounding the Caliente Intermodal site compare with those of other communities within a mile of a possible transfer site or haul-route or rail corridor.

10 The Caliente Intermodal Facility proposal, along with other proposals, and in particular the Temporary Storage proposal a few years ago, has caused strong reactions among the residents of the local communities. The people have become polarized over the nuclear issue, and distrustful of their local government officials. Elected officials who have become involved in the issue have found themselves in deep water. These represent impacts of the Yucca Mountain Project on the communities, which have already occurred and are ongoing.

11 The DEIS does not fully consider cumulative impacts of transportation through Lincoln County. Our communities are within an area extending approximately 100 miles downwind of the Nevada Test Site and Yucca Mountain, and we have suffered high numbers of cancer deaths because of the radioactive fallout from nuclear weapons tests. We need to know what additional contamination we are to experience from Yucca Mountain and from transportation of highly radioactive waste under normal as well as accident scenarios. I feel there is no justice in subjecting us to any additional radiation exposure.

12 The proposal to ship low-level nuclear waste via an intermodal station at Caliente is directly linked to the similar proposal for high-level waste in that establishment of the former facility, primarily as an alternative to avoid shipment through Las Vegas, could weigh heavily in the eventual choice of a Caliente High-level waste corridor. For this reason the cumulative impacts of both projects need more than the slight attention they receive in the DEIS. Caliente will likely

DEIS comments p 3

receive either all or none of the combined impacts, and more information is needed on transportation risks, especially under socioeconomic impacts. All of the above issues are examples of

the factors that DOE must set forth for the decisionmakers. Lincoln County and Caliente are representative of communities, not just in Nevada but in 43 states, whose concerns must be addressed. It is no surprise that DOE has deferred considering the transportation issue. A decision to designate Yucca Mountain will impact millions of people. Failure to face the transportation issue will not make it go away.

NEPA requirements / No Action Alternative:

- 13 [ The DEIS fails to satisfy several essential requirements of NEPA (National Environmental Protection Act). 1) It does not present or evaluate reasonable alternatives to the Yucca Mountain Project. 2) It does not present alternatives for protecting the environment or future generations from the impacts of the proposed action beyond the 10,000-year period, even though it identifies radiation exposure levels beyond this time frame above acceptable limits set by present standards. 3) Rather than provide the basis for a decision on the Yucca Mountain Proposal it appears to be aimed at justifying a foregone conclusion.

The fact that the national effort to manage high-level radioactive waste has been compromised by continual political maneuvering to "change the rules of the game" does not alter the fact that DOE has failed to frame a choice consistent with the national objectives of protecting and enhancing the environment.

- 14 [ Yucca Mountain is essentially a radionuclide delivery system. Eventually the repository will leak, canisters will deteriorate, the environment will be contaminated and people will be exposed. Geologic and climactic events, which cannot be predicted, will likely speed up the process, as will completely unforeseeable events involving human intrusion.

- 15 [ DOE description of a "No-Action Alternative" whereby government and industry simply give up on finding an alternate solution to high-level radioactive waste, eventually abandoning the stuff where it lies, is a cop-out, of course. It tries to make Yucca Mountain appear to be a better solution than it is by saying that the only alternative is to do nothing, which would be worse. Actually Yucca Mountain and DOE's No Action Alternative are quite similar. Both ignore the obvious fact that we can and will find a better alternative than to transfer the burden of radiological risk to sacrifice populations, whether they be future generations or the citizens of our politically less powerful states.

DOE should at the least include in this EIS a realistic No-Action scenario based on a best guess as to the kind of high-level waste program that would likely replace Yucca Mountain and evaluate the impacts within a time frame sufficiently short to exclude meaningless speculation. In this context a "conservative" analysis is not one which seeks to make Yucca Mountain look good by exaggerating impacts of the alternative, as DOE has done in the DEIS. DOE must present Yucca Mountain conservatively by comparing it against that scenario which would involve the least environmental impact.

Additional Comments, DEIS page:

- 16 [ 1-7) DEIS should analyze consolidation at DOE sites if this plan would be changed depending on

the choice of alternative.

- 17 [1-3) EIS should be issued after rulemaking process is complete.]
- 18 [1-7) DOE must demonstrate that the properties of the Yucca Mountain site can in themselves ensure against releases, otherwise explain that another site would serve as well.]
- 19 [Chapter 8 should be expanded to include spent fuel that could be generated by new power plants or future DOE activities. The question to ask is: What is its maximum quantity of radioactive waste that could be sent to the Yucca Mountain area without the benefit of another complete EIS, and what would be the impacts of this expansion of the Project?]
- 20 [1-21) As a baseline for comparison the No Action Alternative in the DEIS is worse than inadequate since it results in a skewed comparison.]
- 21 [DOE has failed to hold a sufficient number of hearings along transportation routes.]
- 22 [1987 NWPA amendments are contrary to the intent of NEPA.]
- 23 [1-22) DEIS does not adequately respond to scoping issues.]
- 24 [2-1) The additional field surveys, consultations, analyses and reviews mentioned in paragraph five must be included in this EIS if it is to serve as the basis for a decision regarding transportation mode and corridor.]
- 25 [2-2) The DEIS needs to describe and analyze the effectiveness and feasibility of the active and passive controls that would be used.]
- 26 [2-6) Again the DEIS, in paragraph 1, has identified elements that must be presented in this document but are lacking.]
- 27 [2-13) The discussion of closure scenarios must identify any conditions that might affect the ability of the DOE to carry out this fifteen year project 300 years from now.]
- 28 [2-40) Armed escorts will be required regardless of population density.
- If the transportation crew were dead or kidnapped they would be unable to notify local authorities.]
- 29 [2-43) DEIS must identify whether general or dedicated freight service will be used.]
- 30 [2-44) If there is a possibility smaller rail casks will be used, a discussion of the impacts of legal weight trucks must be included under intermodal scenarios.]
- 31 [2-47) If there is a possibility other legal-weight truck routes will be used they must be identified and the transportation impacts for each fully described.]
- 32 [2-53) DEIS should state the maximum amount of radioactive waste that could be held at an intermodal facility and the maximum time that it could be held. These figures should be the basis for normal and accident scenario impacts including sabotage and terrorism. Security facilities connected with the Intermodal sites should be identified.]
- 33 [Heavy-haul speeds must be identified for the various mountain grades on each route as well as

DEIS comment p 5

A discussion of the feasibility of road improvements for the various routes must be included.

34

2-59) No Action Alternative discussion is inadequate.

35

2-79) DOE must explain why they believe it is acceptable to expose future generations "hundreds of thousands of years after closure" to levels of radiation exposure that would not be acceptable today.

36

2-86) Reliance on incomplete and unavailable information is reason to postpone release of EIS.

37

2-88) DOE should state when transportation decisions will be made and issue new DEIS at that date.

38

3-9) DOE must explain why 50,000 acres of public land in addition to the 100,000 acres of available NTS and Nellis Range land are required for the Project.

39

3-70) The Indian attitude towards the land which is holistic represents sanity, compared to the insanity of the Nuclear Age which is the result of typical linear thinking on the part of big government and big industry. Many of us Non-Indians are coming to share this holistic attitude that the land is sacred and all the creatures related. DOE does not explain how this discovery may result in nuclear waste policies based on stopping waste generation as a first step to protect the earth. That discussion should begin on page one of this DEIS.

40

3-72) The map of the socioeconomic region does not show Pioche, the county seat of Lincoln County. Alamo, Hiko, Panaca, and Rachel should also be shown since they are on potential haul routes.

41

3-87) BLM visual resource classes are not in themselves very meaningful. Other agencies and organizations must be consulted.

42

3-105) The fact that the Meadow Valley Wash flows to the Colorado River should be included.

3-124) See comment above regarding need for flood assessment of Caliente Intermodal site.

43

3-127) Caliente Intermodal site appears to be about 200 meters from the stream.

44

3-133) The rock art site is fairly close to the Caliente Intermodal site.

45

3-135) See comment above concerning BLM visual classes. The Kershaw Ryan State Park should be mentioned here as a resource. On the following page BLM Visual Resource classes are displayed as if they included all the aesthetic resources of the area. Important areas not shown as resources, because they are not BLM lands apparently, should include the Pahrangat Lakes, and Groom Mountain.

46

4-5) If only 870 acres are needed why are 150,000 acres being withdrawn? Why are additional lands being withdrawn from public use?

47

4-47) It should be noted that death is one adverse non cancer effect of silicosis.

48

4-60) Accident impacts would involve more than radiation exposure to humans. Socioeconomic impacts of accidents are one example of other impacts that must be included.

DEIS comments p 6

- 49 [4-63) DOE assumes that a seriously injured worker would not be concerned about radiation exposure. That does not make sense. DOE should show the radiation consequences to involved workers under scenarios 13-15.]
- 50 [4-65) The DEIS must address consequences of sabotage events even if they are unlikely.]
- 51 [4-79) DOE should state what will be the capacity for low-level waste at NTS 300 years from now.]
- 52 [4-81) In my estimation Nevadans represent a minority which will be adversely affected, and downwinders are victims of environmental injustice.]
- 53 [4-85) see comment above (3-70). "DOE will consult with..." does not address this issue.]
- 54 [4-86) Impacts from cask maintenance should be included.]
- 55 [4-100) Waste retrieval should be included with costs of the Proposed Action.]
- 56 [4-110) The DEIS should state any additions costs of the waste staging facility operation, or all costs of the Prior Receipt proposal.]
- 57 [5-16) To whom is an explosive criticality "not credible?" Clearly it is credible to some critics of Yucca Mountain. DOE must, again, show the impacts of this scenario.]
- 58 [5-17) For DOE to assume that population and climate will remain the same for the next 10,000 years does not represent a conservative approach to the uncertainty issue.]
- 59 [5-18) Uncertainty related to the unavailability of data can be remedied by performing the necessary work before issuing the DEIS]
- 60 [6-2) The statistical presentation in this section, on the incident-free and accident scenario impacts of transporting high-level waste nationally and in Nevada is probably incomprehensible to the average resident of, say, Caliente, Nevada. This chapter should be re-written in plain English. The various tables in this section alternate between expressing risk in terms of individual doses, collective doses numbers of cancer deaths, and probabilities of cancer death. While the information appears fairly complete, the tables are not presented in a logical order that allows the risk of the various alternatives to be compared.
- This kind of statistical approach, absorbing definite risk to actual people in large, vaguely defined population numbers results in statements which are simply "not credible" to an ordinary person.
- By analogy, it is not considered safe by anyone to discharge a shotgun on the streets of a city of a million people, even though the statistical probability that a particular individual will be hurt may be negligible. To continue the analogy, if someone were actually proposing to fire the gun anyway, it would be important to know on which street and whether it would be pointed horizontally or vertically. The DEIS totally avoids the question of who is being targeted for potentially deadly radiation bombardment. The DEIS also ignores the fact that individuals in some communities will receive a significantly higher exposure. For example residents of communities on a transportation route in Nevada, Utah, or Arizona, will likely be exposed to more shipments than people on a route in California or New England.]
- 61 [6-24 & 26) The DEIS should state in which community the "maximally exposed" resident will live and on which section of the route the worker will work.]

DEIS comment p 7

- 62 [6-41) The DEIS generalizes that the likelihood of an accident occurring in Nevada would be less than that for the rest of the nation. This ignores the fact that, depending on routing decisions that may be made on the basis of this document, Caliente, under the Intermodal, or some point on the I-15/ US 95 interchange, under the legal-weight truck option, will be the most likely setting in the nation for a worst case accident. This is an example of how the DEIS tweaks the figures to understate the transportation risks to the actual people who will be affected.]
- 63 [6-6) See comment to 4-60 above. The full range of transportation accident impacts must be included.]
- 64 [6-48) Under Cultural Resources the necessary systematic studies of Native American Sites and resources should be included in the EIS.]
- 65 [6-57) The negative socioeconomic impacts from transportation including accidents are missing here and throughout the DEIS as I have said.
- DOE should specifically address the issue of how security requirements around the Intermodal sites would affect the residents of Caliente. For example, would access be denied to areas near the facility that are presently available for public use?
- 66 [6-96) Accident risks are not the same for the different routes, which should be obvious. Accident risks should be higher in the Intermodal Transfer area.]
- 67 [6-97) DOE assumes Socioeconomic impacts would occur mainly in Clark County. It seems likely that the construction could cause a short boom and bust cycle in a town like Caliente.]
- 68 [6-98) Even the BLM Visual Resource map shows the Caliente Intermodal site as being in a Class II area. Meeting Class III objectives is not satisfactory.]
- 69 [6-98) The impacts to aesthetics and cultural resources would be greater at Caliente than at the other sites.]
- 70 [6-103) The possibility that the Meadow Valley Wash would be contaminated in the event of an accident needs to be addressed.]
- 71 [6-115) I fail to see what objective could be accomplished by heavy-haul from Caliente to Las Vegas.]
- 72 [6-118) The Pahranaagat Lakes and Ash Springs are important surface water resources which could be contaminated by an accident. Visual resources are also important here.]
- 73 [7-1) Entire section is inadequate.]
- 74 [8-5) DOE should include Spent Nuclear Fuel from new reactors that may be licensed in the future if Yucca Mountain is expanded.]
- 75 [9-1) This section identifies measures DOE would consider under mitigation if Yucca Mountain is Licensed. This is not sufficient. DOE must commit to mitigate impacts from normal operations and accidents, including compensation to individuals and communities.]
- 76 [9-16) DOE has not identified which measures it is committed to and which it is considering.]

DEIS comment p 8

77

9-17) Having identified the potential for contamination of surface water, DOE must explain how they would clean up the Meadow Valley Wash after a worst case accident near the Caliente Intermodal site and what that would cost.

78

9-21) Surveys of biological resources at some future date do not constitute mitigation. These resources must be identified prior to the route decisions.

79

9-23) This document must include a commitment to these safety measures.

Lincoln County Independent Research:

The County, under its federally funded Nuclear Waste Oversight Program, has produced numerous studies containing information concerning local impacts of the Yucca Mountain Project. As the County has stated in comments on the DEIS, the DOE has evidently not made any use of the County effort, which has cost approximately five million dollars to date. Following are some of the findings of the County studies. (My own observations are in parentheses).

80

From Analysis of 46 mile rail corridor in Lincoln County 1986

The study notes that 40% of the rail line is curved due to rugged terrain.

Breaking is required for most of the route going south.

There is potentially a problem of the rail line being washed out due to flow from several side canyons under low clearance bridges. (One such low clearance bridge drains the site of the proposed Caliente Intermodal Facility. -LB)

A good percentage of the time the wind is towards Caliente from Rainbow Canyon (and the Intermodal site) and would carry fallout from an accident to the town.

There is an average of 12 trains daily, and the average speed through the area is 32 mph.

There were 18 derailments between 1979 and 1981 involving 67 cars. Subsequently the record improved. (The current derailment record should be reviewed).

Rocking of the cars on curves at 17 mph. is a main cause of derailments, but trains must travel at this speed as they frequently speed up or slow to negotiate the curves.

Sabotage potential is increased due to the remote and rugged nature of the area.

Emergency response in parts of the canyon areas would be next to impossible.

The Union Pacific RR Co. is not prepared to provide the needed level of emergency capability.

Mitigation measures identified include 1) a new rail line bypassing the area. 2) Implementing special train operations procedures. 3) Creation of a new organization to oversee HLW shipments and react to sabotage threats.

(The County has not yet completed any studies of the proposed Intermodal Facility and Heavy - haul route).

DEIS comment p 9

81 Risk Analysis of SNF Transportation through Lincoln County 3 vols. 1995

This study analyzed both rail and legal weight truck transportation using the RADTRAN model.

The study found that highway transportation risk for rural Lincoln County would be greater than for the nation as a whole and that transportation risk would be higher for highway than for rail.

The study equates higher radiation exposure with stop times on route.

(Though, as stated above Lincoln County has not produced an analysis of the Intermodal option, it would appear from this study that the Intermodal/Heavy-haul option would involve greater risk than all-rail options).

82 Lincoln County Emergency Preparedness Inventory 1992

Documents the County's lack of preparedness to handle accidents involving nuclear waste.

Response times in much of the county would be in excess of one hour.

In a preamble on local perception of risk the study notes that less than half of Caliente residents believe that radioactive waste can be transported safely.

83 A Nevada Local Government Perspective on European Nuclear Waste Management 1990

Following a tour of several European facilities and meetings with various officials, a group of Lincoln County residents concluded that:

Generators not government should be responsible for managing radioactive waste.

Local government should have the power to withhold approval for nuclear waste disposal sites.

84 Various studies of local attitudes, perception of risk and the role of the media in amplifying risk perception. 1992-94

50% of Caliente respondents to a survey were exposed to fallout from above ground testing. Compared to other southern Nevada Communities Caliente respondents expressed higher distrust of the federal government, greater concern about risk, and more ambivalence concerning possible economic benefits of YMP.

Although coverage of YMP in the Las Vegas Review Journal seems biased against the Program, Lincoln County residents rely on local community rather than outside media in forming opinions.

Respectfully submitted  
Louis Benezet