

# CITIZEN ALERT

EIS001924

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**Citizen Alert's general comments on the  
draft Environmental Impact Statement (DEIS)  
for a high-level nuclear waste repository at Yucca Mountain  
Prepared by John E. Hadder RECEIVED  
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1 **The DEIS violates the intent of the National Environmental Policy Act (NEPA).**

- There is no alternative action presented in the DEIS normally required in an EIS. The Nuclear Waste Policy Act as amended in 1987 states that "... the Secretary [of Energy] shall not be required ... to consider the need for a repository, the alternatives to geological disposal, or alternative sites to the Yucca Mountain site;". The Department of Energy (DOE) could have and was asked (1995 scoping hearings) to consider alternative actions, and yet the DOE didn't.

- 2
- The "no-action" discussion of the DEIS is unreasonable, making on-site storage appear to be untenable. It *appears* as though the no-action discussion is designed to establish a "straw man" to give the preferred alternative (dump at Yucca Mt.) validity. The DEIS gives us no choice. There is no decision to be made, because the DEIS has made it for us. This is completely contrary to the intent of an EIS.

3 **Insufficient transportation analysis.**

- There is not clear picture of the transportation routes to be used, and specifically how the waste is to be transported. How is the public to make a decision on the impacts of the project when the transportation impacts can only be guessed? It should be crystal clear which routes are to be used, the mode of transportation, and where there will be stopping points for refueling etc. , so that exposure rates can determined and health impacts evaluated.

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- Privatization is apparently still a possibility at this point, which could completely alter the transportation picture. Is this yet another unknown we are to swallow?

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- The transportation casks have never been full-scale tested only 1/4 scale models were tested and the data was extrapolated using computer models to full-size. The General Atomics GA4/9 casks discussed in the DEIS have only just been licensed, but none have been made yet. It is unclear whether the tests are sufficient for all the conditions that will be encountered in cross country transit, especially through mountainous terrain.

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6 **Incomplete health impact assessment.**

- It is assumed that the only radiation health impact is one of cancer fatality, "latent cancer fatality". Cancer fatality represents only one of many radiation health impacts; other possible effects are premature aging, mild mutations in offspring, excess tumors, and genetic and teratogenic effects.

7 **Violates the Nuclear Waste Policy Act of 1982.**

- The fundamental concept of geological disposal as outlined in the act was for waste isolation. Instead the DEIS describes an "evolving" facility design based on delayed release of radioactivity by means of engineered barriers, so the site will leak. How much and when is not clear.

8 **Inadequate evaluation of uncertainties.**

- The DEIS is full of imprecise language like "very unlikely", "sufficient quantity", "probably would", etc. How are we to make a sound decision on a project of enormous scope as Yucca Mountain when we can't be certain of the science contained within.

- 9
- All of the "understanding" of how the repository will function in the future is based on computer models, so the long-term impacts are based on arguably incomplete data fed into largely untested models. Since many of these models represent chaotic systems there can be little to no guesswork, otherwise the calculated results (long-term impacts) could bear no resemblance to reality.

- 10
- Why is it that the DOE doesn't trust computer models for nuclear weapons testing, but does for the Yucca Mountain Project? Yucca Mountain performance in the far future is at least as complex as weapons design.

11... **Violates the Treaty of Ruby Valley.**

- The DEIS fails to address the Western Shoshone protest of the use of land outlined in the 1863 Treaty of Ruby Valley with the United States. Use of their aboriginal land for the dumping of nuclear waste is outside of the scope of the treaty, and strikes hard across their connection to the land as sacred.
- The Western Shoshone National Council contend that their ancestors would never have signed the Treaty of Ruby Valley had they been able foresee the dumping of such a substance as nuclear waste on their land.

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- The Western Shoshone Nation has declared their land, Newe Sogobia, nuclear free.

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**Poor and disingenuous public process.**

- While there have been a number of hearings in Nevada, there will be only 11 hearings outside of Nevada. The last four added only after public outcry and senatorial requests. The sheer scope of the transportation portion of this project should require a public hearing in at least all major cities along the transportation routes.

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- The DOE claims it would have been too costly to conduct more hearings. If this is so then why wasn't the hearing process budgeted into the entire project? It is hard to believe that the cost of good public process could even compare to the current expenditures, in the billions, to date.

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- A question and answer period has been set-up for the hearings that only pretends to engage the public. A pattern seems to have emerged whereby questions asked in which the truthful answer would cast serious doubt on the use of Yucca Mountain as a repository were dodged or stonewalled. On the other hand, just as detailed questions are answered completely and in a clear manner when the answer casts favorably on Yucca Mountain as the repository. It appears as though the DOE is an advocate for Yucca Mountain, which is contrary to its purpose to study Yucca Mt. in an objective way. The public has a right to an honest appraisal of the project in an open forum.

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**Document usefulness and readability.**

- The table of contents in the DEIS reads like a a column of numbers in a bank ledger without well demarcated topics using bold face print or subdivided categories within each main topic. The table of contents should easily direct people to information in the document. Anyone new to this process and these types of documented would feel unwelcome and may soon give up trying to understand the DEIS.

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- Much of the information is not clearly laid out resulting in miscommunication. For example, Table S-1 in the Summary DEIS, which also appears in the DEIS, is intended to be an overview of the impacts of the preferred action and no-action scenarios. However, there are numerous figures listed in the table without a sample calculation as to how they were arrived at or a convenient reference to the appropriate page of the DEIS that explains the calculation. Further, numbers are used along a row which have different definitions and should not be compared directly, but this is not explained either. As a result the table gives little useful information directly, and would tend to create a confusing picture of the impacts except possibly to those who manufactured the DEIS.

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- Risk figures and probabilities of possible events such as volcanism are quoted frequently without the inclusion of error bars. Is the number good to 30 % or an order of magnitude (factor of 10)? For these estimates to be useful there must a sense of how certain they are, and the significance of the relative uncertainty. The uncertainty analysis is essential to framing our understanding of the entire repository system in order to evaluate merit in using Yucca Mountain to dump the nation's high-level nuclear waste.

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- 18 • The uncertainty analysis presented in section 5.2 of the DEIS is not clearly written. It would have been helpful to have created a diagrammatic explanation of the handling of the uncertainties involved. This is the linchpin of the document, since an informed decision of the proposed action rest firmly on the DOE's understanding of the repository functioning, geology, transportation cask performance, etc., which has associated uncertainties. How is the public to evaluate the DOE's understanding of the project if it cannot gain a firm grasp of the uncertainties within?

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- 19 • Citizen Alert recommends that the DOE use a focus group approach in the future composed of average citizens of various professions and trades to review the document before general release. In this way many of problems with readability will be resolved before the formal process begins and more effective public comment and involvement will ensue.

20 All of the above general comments add up to an inadequate document on which to base policy decisions. It contains numerous unresolved issues, incomplete information, and lack of clarity on the overall confidence (real error bars on cited numbers) of a repository at Yucca Mountain. After reading the DEIS the general public should be able to walk away with focused picture of the repository and how well it will function, yet there are more questions than answers in the end.

21 Citizen Alert appreciates the effort of the DOE to field questions and hold more hearings at the public request; however, the public has so many more questions still unanswered and many potentially impacted communities had no hearings.

22 Based on what we can understand of the DEIS Citizen Alert does not support the action currently preferred in the DEIS, requires the decision of how to handle our nation's irradiated nuclear fuel and high-level waste be taken back to Congress proclaiming Yucca Mountain unsuitable, and develop a reasonable plan of action based on public safety and health.

At the very least, Citizen Alert demands that this DEIS be redone in manner that will engage the public and foster a complete picture of the proposed action, contain reasonable alternatives for meaningful comparison and possible action, and address all of the public concerns in an straightforward manner. For a project that has a licensing period of 10,000 years we can certainly spend the time now to make sure that a Yucca Mountain repository is in the best interest and protects the public health and safety of all the public now and for the future.