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Carol Hanlon  
U.S. Department of Energy  
Yucca Mountain Site Characterization Office (M/S #025)  
P.O. Box 30307  
North Las Vegas, Nevada, 89036-0307

Re: Comments in regards to the Secretary of Energy's, upcoming preliminary recommendation of Yucca Mountain, Nevada, for development as a high-level nuclear waste repository

Dear Ms. Hanlon:

For many decades I have been following the U.S. Government's efforts to find a final solution to the disposal of spent nuclear fuel and high-level nuclear waste. It has been fascinating to watch hundreds of millions of dollars poured into numerous efforts that were later terminated. My personal comments, on the Secretary of Energy's, upcoming preliminary recommendation of Yucca Mountain, Nevada, for development as a high-level nuclear waste repository, follow.

I urge DOE to disqualify Yucca Mountain from any further consideration as the country's high-level nuclear waste repository for the following reasons.

Preliminary site recommendation is premature.

The Department of Energy (DOE) lacks a basis for considering site recommendation at this time since several key analyses and regulations are incomplete. The Final Environmental Impact Statement (EIS), required under the Nuclear Waste Policy Act (NWPA), has not been issued. More than 11,000 comments were reportedly received on the Draft Environmental Impact Statement (DEIS) and these comments have not been formally addressed under the provisions of the National Environmental Policy Act of 1969, as amended (Pub. L. 91-190, 42 USC 4321 et seq.) and under the President's Council on Environmental Quality guidelines (40 CFR 1503.4). Additionally, the preliminary site recommendation should not be conducted until all the requirements of Parts 1505 and 1505 of 40 CFR have been fulfilled, including the issuance of the Record of Decision (ROD) and the thirty (30) day period that follows the publication of the ROD in the Federal Register.

Similarly, the NWPA specifies that a site recommendation is to be accompanied by an analysis by the Nuclear Regulatory Commission (NRC) as to whether the DOE's could reasonably apply for a license to construct and operate the proposed repository (the "sufficiency review"). This document has not been issued. NRC has pointed to errors and inaccuracies in the DOE's analyses which have yet to be fully corrected. Also, the DOE's proposed licensing rule for a Yucca Mountain repository has not been finalized.

A site recommendation is contingent on the DOE's assessment of whether the proposed repository could meet the EPA's radiation protection standards for Yucca Mountain. The State of Nevada and environmental organizations are currently suing the EPA for having set an unacceptably weak standard that relies on dilution rather than containment of radioactivity at the proposed repository. The DOE should not move forward with site recommendation until these legal contentions have been resolved.

The "Yucca Mountain Science and Engineering Report" (YMS&ER), a key component behind the planned preliminary site recommendation, was based upon proposed EPA Yucca Mountain siting guideline, standards, not upon formally finalized standards. Key components of those new standards are undergoing challenge in the 9th Circuit Court of Appeals in San Francisco.

When it became clear that the Yucca Mountain site could not meet the "generic" standards criteria set forth in 40 CFR Part 191 Subpart B, a set of replacement standards were created (40 CFR Part 197). The previous standard indicated that the restricted "controlled area" would encompass no more than 100 square kilometers. The new standard expands that area by a factor of three, to 300 square kilometers. This, along with many other factors, indicates that politics, rather than science, is acting as a major driving force behind the selection processes of the proposed Yucca Mountain repository.

The length of time the standard is to be in effect, 10,000 years, does not include the time at which most of the radioactive materials placed in the repository would escape to the expanded "controlled area" boundary. The Department of Energy believes that peak doses to the public occur much later than 10,000 years. As indicated in paragraph 31 of the lawsuit, the inclusion of the 10,000 year period of performance is arbitrary, capricious, and contrary to two laws. The 10,000 year, primary study period, was, originally, chosen as a compromise, since there is great scientific uncertainty beyond that period. In fact, the potential hazard, near the contamination source, will exist for almost a million years.

#### DOE process lacks integrity

There has been clear signs of bad judgment, involving a Yucca Mountain report contractor, where DOE Headquarters appeared to be complacent until there was external public exposure. The latest round of public comment meetings began with short notices, limited in number and held at a couple of places that were controlled by the DOE. In addition, there may have been a speaking roster that provided some advantage to a small minority of people in Nevada that support the approval of the Yucca Mountain repository. As DOE attempted to adjust to numerous complaints, including those made quite visible by Nevada's key politicians, the notice of revised meetings, and comment end dates became disjointed, suggesting internal management failures. The DOE's credibility as a fair and unbiased arbiter of the Yucca Mountain repository proposal has been irrevocably undermined. The public and their representatives in Congress cannot have confidence in any recommendation that arises out of such a dramatically flawed process.

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Land use issue decisions remain in limbo

The Secretary's preliminary recommendation should not occur until the final configuration of the Repository Blocks have been chosen. So far the public has only been presented with a series of plans which are still being evaluated by those close to the DOE. The boundary lines of the "controlled area" will likely be determined by the choice of Repository Blocks. The present repository study site lies on lands covered by the Treaty of Ruby Valley which provided certain title rights to the Western Shoshone Indian Nation. Later, the U.S. Department of Interior designated most of these lands as "public lands." The Study site sits on public land that has been temporarily withdrawn from uncontrolled public access. Since a repository will effectively result in a permanent national sacrifice zone, the Nuclear Waste Policy Act, requires that the "controlled area" be permanently withdrawn via an act of Congress. The preliminary recommendation should not be made until a precise legal description, of the "controlled area" proposed boundaries have been published in the Federal Register, the public has been provided with several months to make comments on those boundaries, and a congressional bill has been written that precisely defines the permanent use of the proposed withdrawn lands and its exact boundaries. The Federal Register notice, of the proposed permanent land withdrawal, should cite the legal basis for such a withdrawal, under the U.S. Constitution.

"Yucca Mountain Preliminary Site Suitability Evaluation" report (YMPSSSE) defects

The "Yucca Mountain Preliminary Site Suitability Evaluation" report contains defects that need to be addressed before the DOE's Secretary offers his preliminary recommendation. Page 3-55 contains an outdated map of the NTS (as well as the NAFR). Compare this with the map, shown on page 3-99. Notice that the second map contains the revised boundary of the Pahute Mesa area which has been redrawn to accommodate the existing and potential "off-site" contamination of that NTS region. Also, the boundary of the NAFR, in Figure 3-11, is outdated. The boundary line near Scotty's Junction is inaccurate, and the boundary line near "Area 51" was altered over 15 years ago. The most recent NTS and NAFR boundary line changes occurred almost two years ago with the signing of the Military Land Withdrawal Act of 1999 (MLWA 99) (Pub.L. 106-65, Div. B, Title XXX, Subtitle A, §§ 3001 - 3041, Oct. 5, 1999, 113 Stat. 885 to 914 [refer to Sections 3011(b) and 3012]). On December 5, 1999, the DOE's Nevada Operations Office acknowledged a portion of the changes when they issued a press release titled "Nevada Test Site Boundary Amended."

The YMPSSSE report contained only one brief sentence that mentioned postclosure marking of the proposed YM repository. It appears at the end of section 2.3.1 on page 2-18. That sentence contained no reference citation to the claim that "[a] set of monuments extending at least 6.2 m (20 ft) above the surface would be constructed ..." The site suitability should not be approved by the DOE Secretary until an extensive plan for that marking, and its million-year up-keep, have been detailed. That plan should include numerous references to DOE's failure to accurately, and thoroughly, mark its past contaminated sites. Such references should extend beyond

the already published marking failures. The YM marking should include extensive details on the exact location of the waste containers as well as an extensive, and clear description of their contents. The contents should not be described in terms of tonnes of heavy metal, but in terms of the exact elemental isotopic composition expressed in internationally accepted engineering terms of grams and curies. The up-keep of the monuments should not be entrusted to the DOE. The monument preservation plan should make it perfectly clear that DOE bureaucrats can't be trusted to protect the public when they have more pressing items on their agenda and when congressional funding is tight.

### Short on Cumulative Impacts

I found the support documentation to be extremely skimpy in the area of cumulative impacts, especially where it concerned the 820+ underground nuclear explosion tests that were conducted at the adjacent Nevada Test Site. A measure of that environmental impact can be found in a DOE Nevada Operations Office report that contained an estimate, for partial cleanup of the underground test areas, of \$7.3 trillion.

"Focused Evaluation of Selected Remedial Alternatives for the Underground Test Area" (DOE/NV--465), April 1997, Nevada Environmental Restoration Project, Environmental Restoration Division, Nevada Operations Office, U.S. Department of Energy, North Las Vegas, Nevada, 89030-4134. (Summary: page 8-3)

DOE's OSTI Information Bridge URL:  
[http://www.osti.gov/bridge/product.biblio.jsp?osti\\_id=469154](http://www.osti.gov/bridge/product.biblio.jsp?osti_id=469154)

Since such costs and actions were considered impractical, the Institutional Control option was chosen, at 8,000 times less cost than the higher figure. The plan for the proposed Yucca Mountain repository is to utilize similar institutional control mechanisms to prevent human exposure to the buried contaminants for at least the first 10,000 years.

### Limited waste capacity, remote from the generators

The NWPA limits capacity of the proposed dump to 70,000 metric tons of waste, which would be insufficient to accommodate the waste projected to be generated by currently operating reactors during their licensed lifetimes not to mention additional waste that would be generated by proposed new or relicensed reactors. Therefore, a dump at Yucca Mountain would not "solve" or consolidate the nuclear waste problem. Quite the opposite, it would impose the dangers of high-level nuclear waste along transport routes and in Nevada, which does not generate high-level waste.

The Yucca Mountain Project is an enormous waste of taxpayer and ratepayer money. These funds should be redirected towards phasing out nuclear power and safely isolating the radioactive waste that has already been generated. Rather than throwing money at plans for new nuclear power plants, federal energy programs

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should point towards a sustainable energy future by actively promoting efficiency, conservation, and renewables.

The DOE has written that the Secretary of Energy will make his recommendation after reviewing all comments by the public and by other stakeholders, like the State of Nevada. The DOE should detail, in their next Federal Register notice, or decision publication, the process by which the Secretary reviews thousands of pages of comments, most of which are likely to be highly critical of plans to proceed with the YM operation. I urge the DOE to make all received comments available, verbatim, in dozens of public reading rooms throughout the country, as well as on the public Internet. Political scientists, environmentalist, and historians should be provided with ready, and easy, access to all data which will form the basis of this critical decision.

Thank you for considering these comments. I look forward to your response.

Sincerely,

*Vernon Brechin*

Vernon Brechin

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