

Lincoln County
NUCLEAR OVERSIGHT PROGRAM
(702) 726-3511  **P.O. Box 1068**
Caliente, Nevada 89008

330096

RECEIVED

OCT 26 2001

October 19, 2001

Ms. Carol Hanlon
U.S. Department of Energy
Yucca Mountain Site Characterization Office
(M/S #025)
P.O. Box 30307
North Las Vegas, Nevada 89306-0307

RE: Lincoln County/City of Caliente Comments Regarding a Possible Site
Recommendation by the Secretary of Energy for Yucca Mountain

Dear Ms. Hanlon:

On behalf of Lincoln County and the City of Caliente, through their Joint City/County Impact Alleviation Committee I am pleased to submit these comments on a possible site recommendation of Yucca Mountain as this nation's first deep-geologic repository for spent nuclear fuel and other high-level radioactive waste. Lincoln County is one of ten local governments designated by the Secretary of Energy as potentially "affected" by the Yucca Mountain project. As a consequence, the County and the City of Caliente have a responsibility to provide these comments and recommendations to the Department of Energy. I encourage the Secretary of Energy to give full consideration to this letter before deciding if, and under what conditions, to recommend the Yucca Mountain site as a geologic repository.

With regard to the technical basis upon which the Secretary may formulate a recommendation, Lincoln County is concerned about the DOE's use of proposed rather than existing siting guidelines in preparing the preliminary site suitability evaluation. By all accounts, DOE has determined that the Yucca Mountain site is suitable for recommendation by applying a set of guidelines which are not found in federal regulation. DOE has not provided an assessment of the suitability of the Yucca Mountain site against existing siting guidelines found at 10 CFR 960 and 963. As a consequence, it appears as though DOE does not know whether the Yucca Mountain site is suitable for recommendation under existing siting guidelines. Either DOE should promulgate final revised siting guidelines at 10 CFR 960 and 963 in advance of any recommendation by the Secretary or the Department should prepare a evaluation of the suitability of the site

relative to existing siting guidelines. If the site can not be shown to be suitable under existing guidelines, the Secretary should not recommend the site to the President.

Supporting documents suggest that design of the repository system is not complete. A final site suitability evaluation should be conducted only after the design of the facility has been completed. Absent final design, there is no guarantee that the repository will perform in a manner consistent with preliminary evaluations. It is not clear to what extent the final design will vary from the design basis used in preliminary evaluations of site suitability. Supporting documents do not reveal the extent of uncertainty associated with lack of a final design. Any decision to recommend the Yucca Mountain site should be reserved until a final design for the facility is available and suitability evaluation for said design completed.

In reviewing documentation intended to support a Secretarial decision whether to recommend the Yucca Mountain site to the President, we note the Draft Environmental Impact Statement Yucca Mountain was not considered in evaluating the preliminary suitability of the site. There are many facets of the biosphere and near field environment, including demographic and socioeconomic conditions, which might bear upon various assumptions utilized in the evaluation of system performance. A final determination about the suitability of the site should be made only after all relevant assumptions are verified against information contained with the Final Environmental Impact Statement for the Yucca Mountain project.

Lincoln County and the City of Caliente believe that the Secretary of Energy must consider the Final Environmental Impact Statement for the Yucca Mountain site when deciding whether to recommend the site to the President. To date, Department of Energy staff have suggested that release of the Final Environmental Impact Statement would occur concurrently with the site recommendation. This would suggest that the Secretary of Energy may not be able to consider the contents of the Final EIS when making a decision on whether to recommend the site. Lincoln County and the City of Caliente recommend that the Secretary delay any decision to recommend the site until at least 45 days following public release of the Final EIS.

Tables 1 and 2 of the Yucca Mountain Preliminary Site Suitability Evaluation imply that for most all applicable existing and proposed EPA and NRC standards, the Yucca Mountain site meets dose limits. Tables 1 and 2 do not indicate the range of dose estimates associated with uncertainty. Depending upon the level of uncertainty, doses for some standards may actually exceed relevant EPA or NRC standards. A decision by the Secretary to recommend the Yucca Mountain site must consider the range of dose estimate uncertainty and such range of estimates must be included in any written documentation supporting a recommendation. Should the range of dose estimates for any parameter exceed the relevant EPA or NRC standard, the Yucca Mountain site should not be recommended to the President for licensure.

In deciding whether to recommend the Yucca Mountain site to the President, Lincoln County and the City of Caliente encourages the Secretary of Energy to consider not only

the suitability of the site under siting guidelines proposed at 10 CFR Parts 960 and 963, but also the impacts of the development and operation of the repository upon the residents, economy and environment of Nevada. The County further recommends that the Secretary of Energy consider whether identified impacts can be sufficiently mitigated so as to ensure maintenance of the quality of life enjoyed by County and City residents. If development and operation of the repository system will diminish our quality of life, then the Secretary of Energy should not recommend the Yucca Mountain site to the President.

It is recommended that the Secretary assess whether the level of risk associated with the repository system (including transportation) is greater or less than that associated with current waste management practices. Any recommendation by the Secretary regarding the Yucca Mountain repository system should include a definitive statement providing a quantitative comparison of the total of deaths associated with continuation of current on-site management of waste and with the repository system. Such estimate of fatalities should consider death from exposure to radionuclides and death from system operational accidents (including transportation accidents). Only with the provision of such a comparative statement of risk will the President, the Congress and the public know with any certainty whether the proposed Yucca Mountain repository system results in a net public health and safety benefit to the Nation. If the repository system does not provide such net benefit, the Yucca Mountain site should not be recommended to the President.

Site recommendation supporting documents developed by Doe and its contractors do not address whether drifts and ventilation shafts will act as conduits for igneous materials. If not considered, this possibility may represent a pathway for rapid intrusion of igneous material and a resultant intersection with far greater numbers waste canisters impacted than may have been previously considered. An assessment of the extent to which ventilation shafts and drifts may heighten the extent of igneous material coming in contact with waste packages must be considered by the Secretary prior to reaching any conclusions regarding the licenseability of the Yucca Mountain site.

Prior to making a site recommendation, the Secretary should also consider the extent to which a volcanic dike intrusion of the repository could serve to impede the effectiveness of ventilation shafts and repository cooling. The potential for steam production related to volcanism and related gaseous releases from the repository should also be taken into account by the Secretary when formulating a recommendation.

The public may perceive the Department of Energy as fitting its site suitability guidelines to the Yucca Mountain site. This appearance is supported by the Department's failure to promulgate revised guidelines until after completion of the preliminary site suitability evaluation against the proposed new guidelines. As a consequence, the public is left with the distinct impression that the site may not have been able to comply with existing suitability guidelines. It is recommended that the Secretary require an evaluation of the Yucca Mountain site against existing suitability guidelines at 10 CFR 963. Any recommendation by the Secretary should include an assessment of the public health and

safety benefit of the new suitability guidelines. If the new guidelines are simply “site fitting”, the Secretary should so disclose said fact.

Lincoln County encourages the Secretary to not make a recommendation based upon “preliminary” evaluations of the suitability of the Yucca Mountain site. Presumably, DOE intends to develop a more refined and/or complete assessment of the site prior to submission of a license application to the NRC. The Secretary is encouraged to refrain from making a site recommendation based upon a preliminary suitability evaluation, withholding such decision until such time as a more refined and/or complete evaluation has been completed. Lincoln County and the City of Caliente suggest a more robust evaluation of the site which addresses the issues raised within comment letter.

Finally, Lincoln County and the City of Caliente request that the Secretary not conclude the fate of Yucca Mountain until such time as DOE selects a preferred transportation mode and route(s) for spent nuclear fuel and other high-level radioactive waste. Transportation is an essential and integral component of the repository system. A thorough evaluation of the suitability of the site can not be complete until a mode and route(s) of transportation to the site is known to be achievable.

Sincerely,



Lola Stark

Lincoln County Nuclear Oversight Program