



Department of Energy  
Washington, DC 20585  
April 10, 1992

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*John*

Robert R. Loux, Executive Director  
Agency for Nuclear Projects  
Nuclear Waste Project Office  
Capitol Complex  
Carson City, Nevada 89710

RE: Your letter of March 11, 1992, regarding my request for comments on the "Report of Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada." SAIC-91/8000, January 1992.

Dear Mr. Loux: *Bb*

I welcome the opportunity to respond to the questions you raised in your letter of March 11, 1992, and to correct some misconceptions regarding the subject report and my purpose in sending it out for public comment. In addition to my responses to each of your questions (provided in the enclosure to this letter), I would like to provide some perspective on the site evaluation process and the actions that led to the availability of the Report of Early Site Suitability Evaluation (ESSE).

In November 1990, I held a workshop in Albuquerque, New Mexico to provide an opportunity for open discussion of various approaches to the evaluation of site suitability. The applicability of these approaches to the evaluation of site suitability (or unsuitability) early in the site characterization process was a major focus of discussion. The State of Nevada was invited to attend, along with other interested parties, but unfortunately declined to participate in this seminal meeting on our approach to site evaluation.

Based on the results of that workshop, in December 1990 I directed Carl Gertz to prepare and implement a plan for an early assessment of the suitability of the Yucca Mountain site in accordance with the Department of Energy (DOE) general siting guidelines (10 CFR Part 960). As I noted in the letter that accompanied the ESSE report, this early evaluation was directed to implement the goals and commitments established by the Secretary of Energy in his 1989 Report to Congress and is part of a larger strategy for the ongoing and iterative process of site evaluation.

I consider the evaluations documented in the ESSE report to represent a current baseline, or benchmark, that can be used in the coming months to help focus and prioritize data acquisition activities and provide a foundation for the resolution of technical issues related to site evaluation. I have invited comments on the ESSE report and the accompanying peer review report, and on the overall site evaluation process, in order to help assure that the basis for DOE decisions on future plans and activities is sound. In addition to seeking general review and comment, I am seeking input on the ESSE report and its relationship to the overall site evaluation process at the first meeting of Director's forum, to be held May 7, 1992, in Chicago. Based on the comments received and the information contained in the ESSE report and the

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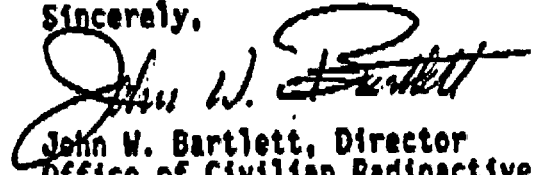
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accompanying report of the peer review panel, I will make a decision regarding future plans and actions for evaluating the Yucca Mountain site.

In addition to the hundreds of copies of the ESSE report and accompanying peer review report that were sent to various interested parties under my letter of February 21, 1992, we have placed a notice in the Federal Register, dated March 20, 1992, informing other interested parties and the public of the availability of these reports for comment. These reports are available in our information offices, as well as on request to the Yucca Mountain Site Characterization Project Office, as indicated in the published notice.

I hope that my responses address your concerns and that you will take advantage of the opportunity to participate in the review and provide me with your comments on the ESSE report and the site evaluation process during the public comment period that ends June 15, 1992. I also hope that the State will be represented at my forum meeting in May so that we can discuss broader issues related to program policy, strategy, and plans for site evaluation. Should you have any other detailed questions on this subject, please call Carl Gertz at the Yucca Mountain Site Characterization Project Office on 702-794-7920.

Sincerely,



John W. Bartlett, Director  
Office of Civilian Radioactive  
Waste Management

Enclosure

**ATTACHMENT**

**Response to Questions Regarding the Request by the Department of Energy for Comments on the "Report of Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada." SAIG-91/8000, January 1992.**

**Reference: Letter from Robert R. Loux to John W. Bartlett, dated March 11, 1992.**

The following responses address each of the seven questions posed in the referenced letter regarding the intentions of the Department of Energy (DOE) in sending the "Report of Early Site Suitability Evaluation of the Potential Repository Site at Yucca Mountain, Nevada" (ESSE report) out for public review and comment. These responses clarify certain points and correct some misconceptions regarding the subject report, as well as to provide a better understanding of the DOE's overall site evaluation process.

1. *Why has the DOE issued the ESSE for public comment in the form of a final contractor report, rather than as a draft DOE program document subject to revision after review and comment by affected parties and the public?*

The ESSE report was issued as a final contractor report because it reflects the considered judgement of the core team of technical experts who evaluated the current data base and level of understanding of site processes and conditions. The conclusions and recommendations presented in the report with respect to each of the conditions of the DOE's general siting guidelines (10 CFR Part 960) represent the judgements of the core team members given the weight of the evidence and comments received from a group of independent peer reviewers. The report reflects DOE policy and guidance regarding the use of 10 CFR Part 960 as the basis for the technical evaluation of site suitability, but it does not reflect DOE policy or decisions on our future strategy and plans for site evaluation. Although the ESSE and peer review reports will be used as part of the basis for future plans and actions by DOE relating to the evaluation of the Yucca Mountain site, no decisions regarding such plans and actions have yet been made based on the information in these reports. We are requesting comments from the State of Nevada, other affected governments and interested parties, and the public as input for these decisions.

2. *Why were the affected parties and the public excluded from the process of development of this final report?*

Although the affected governments, interested parties, and the public were not directly involved in the development of the ESSE report or asked to participate in the peer review that was conducted for the lead contractor, efforts were made to provide information on this evaluation in open forums. In November 1990, DOE hosted a workshop in Albuquerque, New Mexico to provide an opportunity for open discussion of various approaches to the evaluation of site suitability. The applicability of these approaches to the evaluation of site suitability (or

unsuitability) early in the site characterization process was a major focus of discussion. The State of Nevada was invited to attend, along with other interested parties, but declined to participate. Based on the results of this meeting, in December 1990, DOE directed that an early assessment of the suitability of the Yucca Mountain site in accordance with the DOE's general siting guidelines (10 CFR Part 960) be initiated. In addition, during 1991, information on ESSE activities was provided in briefings given at monthly meetings held by the Yucca Mountain Project Office and other briefings given to the Nuclear Waste Technical Review Board (NWTB), the technical staff of the Nuclear Regulatory Commission (NRC), and the NRC's Advisory Committee on Nuclear Waste (ACNW). Representatives from the State of Nevada were present at nearly all of these meetings and had knowledge of the ESSE activities as well as the opportunity to provide comments on these activities to Senior DOE and contractor staff in open forums.

As noted in the letter that accompanied distribution of the ESSE report, this early evaluation is part of a larger strategy for the ongoing and iterative process of site evaluation. The State of Nevada and other affected governments, interested parties, and the public are now being invited to comment formally on both the ESSE and accompanying peer review reports, and on the site evaluation process. As part of this process, the State has the opportunity to evaluate and comment on the information and conclusions presented in the ESSE report. The State also has the opportunity to advise DOE of its views regarding DOE's policy, strategy, and future plans for site evaluation before decisions are made and implemented. The Federal Register notice announcing the availability of the ESSE and peer review reports for review was published on March 20, 1992. Copies of the reports were distributed to various organizations and individuals earlier, under a cover letter dated February 21, 1992. In addition to seeking general review and comment, the ESSE report and its relationship to the overall site evaluation process are the topics on which DOE is seeking input at the first meeting of the Director's forum, to be held May 7, 1992, in Chicago. A general announcement for this meeting was published in the Federal Register on April 2, 1992, and letters of invitation and information materials are being sent to representatives of the various interested and affected parties.

3. *Does the DOE intend to consider the comments of affected parties and the public and adopt a revised report as a DOE program document on the results of its early Yucca Mountain site suitability evaluation?*

We fully intend to consider and respond in writing to the comments received from the affected governments, interested parties, and the public on the ESSE and accompanying peer review reports and on our policy, plans and strategy for site evaluation. Our overall plans for site evaluation were published in the Site Characterization Plan (SCP) in 1988 and reviewed by the State and the NRC staff, among others. In March 1991, we completed an initial prioritization of areas of testing related to postclosure performance concerns. We have yet to refine our priorities for future data acquisition activities or identify the site evaluation issues that may be appropriate for resolution based on the results from the broadly-based assessment of the site that is documented

in the ESSE report. The comments we receive on this report and on the overall site evaluation process will be considered in formulating future plans and actions for site evaluation and issue resolution.

- 4. *What was the basis of the DOE review of the report prior to its issuance for public comment? Does the DOE endorse the report's results and recommendations, despite the published disclaimer?*

The technical evaluation of site conditions by the ESSE core team and their overall conclusion that the Yucca Mountain site is suitable for characterization was supported by the independent peer reviewers. The DOE did not review the ESSE report with regard to the technical merits of the evaluations performed for each guideline condition prior to issuing the report for public comment and has not yet endorsed the specific conclusions and recommendations made for each guideline condition. Although the report reflects DOE policy and guidance regarding the use of 10 CFR Part 960 as the basis for the technical evaluation of site suitability, it does not reflect DOE policy or decisions on our future strategy and plans for site evaluation.

- 5. *What is the significance of your reference to this report as a baseline site evaluation? DOE has adopted other "baseline" documents which are considered controlling documents of the DOE program.*

The ESSE report presents the second comprehensive evaluation of the site in terms of the DOE's general siting guidelines. The first such evaluation was published in the Environmental Assessment that was issued in 1986. Although the ESSE report has been referred to as a "baseline" site evaluation, this does not mean that the report will become part of the technical requirements baseline against which program activities are controlled. The report was not intended to, nor will it become part of the program's formal technical-cost-schedule baseline. The report should be viewed as a current benchmark or reference for our present understanding of the site and its suitability under the siting guidelines. It might be better stated that the ESSE report provides a basis for decisions regarding future site characterization activities. The information in this report, along with input received from the public review and the Director's forum, will be used in the coming months to help improve our focus and priorities for site evaluation activities.

- 6. *To what extent are the results of the ESSE based on draft reports, internal memoranda, oral presentations and written communications that are not readily available to affected parties and the general public during the announced review period?*

The majority of the information considered by the ESSE core team and referenced in their report is contained in papers published in technical journals and in technical reports published by the National Laboratories and the U.S. Geological Survey. This information is normally available in technical libraries such as those at the University of Nevada campuses in Las Vegas and Reno. Your office has already been provided with copies of the references cited earlier in the SCP. A small fraction of the information is contained in memoranda and other written

communications that were made available to the peer reviewers and will be available to others for review, on request, through the Yucca Mountain Project Office.

7. *Why were the previous substantive comments of the State of Nevada, other affected parties and the public regarding the unsuitability of the Yucca Mountain site not considered in the ESSE?*

Previous comments by the State of Nevada on DOE's plans for site characterization, including comments received on both the consultation draft SCP in 1988 and the final SCP in 1989, have been responded to in considerable detail. The geotechnical issues identified by the State in their comments on the SCP as being of particular concern with respect to the suitability of the Yucca Mountain site dealt with the potential impacts on repository performance of recurrent faulting and volcanism, and of human intrusion due to the possible presence of natural resources at the site. These same concerns regarding conditions that indicate the unsuitability of the site, plus an additional concern related to the possibility of fast flowpaths for ground water travel, were expressed by the State in the attachment to the November 14, 1989 letter from Governor Miller to the Secretary of Energy. The State's contentions regarding these concerns were responded to in some detail in a letter from Carl Gertz, Associate Director for Geologic Disposal, to Governor Miller on April 25, 1991.

We believe that the ESSE report responds fully to the concern expressed by the State in their comments on the SCP that "...despite admonitions from the State of Nevada and numerous other parties [e.g., the NRC, the ACNW, the Edison Electric Institute], the plan fails to provide a program that places an emphasis on early examination of critical geotechnical issues that could lead to disqualification of the site under DOE's own General Guidelines for the Recommendation of Sites for the Nuclear Waste Repositories (10 CFR Part 960) or the controlling regulations of the Nuclear Regulatory Commission and the Environmental Protection Agency." The ESSE focuses on the "... early examination of critical geotechnical issues that could lead to disqualification of the site . . . ." The ESSE, by having this focus, also meets the Secretary's intent as expressed in this November 1989 reassessment report.

In this 1989 Report to Congress on Reassessment of the Civilian Radioactive Waste Management Program, the Secretary of Energy responded to the suggestions made by the State and others and committed to "...a new focus on the early evaluation of the suitability of the Yucca Mountain site...." The Secretary stated that "...in its near-term scientific investigations of the Yucca Mountain candidate site, the DOE has decided to focus on surface-based testing aimed specifically at evaluating whether the site has any features that would indicate that it is not suitable as a potential repository site." As noted in the letter that accompanied distribution of the ESSE report, this early evaluation was directed to implement the goals and commitments established by the Secretary and is part of a larger strategy for the ongoing and iterative process of site evaluation.

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All of the suitability issues raised by the State were considered explicitly in the evaluations conducted by the ESSE core team under DOE's siting guidelines and their conclusions were subject to review by independent technical peers. Based on their evaluation of the available evidence, including that presented in technical papers and reports by people who have been openly critical of the Yucca Mountain site or who have provided support to the State in evaluating DOE's plans for site characterization, the ESSE core team concluded that more information is needed to resolve the four primary issues raised by the State. As noted, our overall plans for site evaluation were published in the SCP in 1988 and reviewed by the State. In March 1991, we completed an initial prioritization of areas of testing related to postclosure performance concerns. We have yet to refine our priorities for future data acquisition activities based on the results from the assessment of the site that is documented in the ESSE report. The comments we receive on this report and on the overall site evaluation process will be considered in formulating future plans and actions for site evaluation that will allow us to focus on the most critical suitability issues.