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1986


MEMORANDUM
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US NUCLEAR REGULATORY COMMISSION

'86 AUG 14 AIO:27

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WM-RES
WM Record File
D1003
Weston

WM Project 10, 11, 16
Docket No. Sub encl.
PDR
LPDR (B.N.S)

DATE: August 11, 1986

SUBJECT: Quality Reviews - BWIP

Distribution:
Ibrahim Le fevre

(Return to WM, 623-SS)

A review is provided for each BWIP comment.

This presentation is in accord with SRP - Page 7, 5.2 (1, 2, 3, 4, and 6).

Enclosure located in the DCC.

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BWIP

MAJOR COMMENT NO. 1

Natural Resources

- 5.2.1 OK, comment is specific enough to indicate NRC concerns about DOE conclusions; new information on success of hot, dry rock experiment in western USA could be included.
- 2 OK, comment references as relevant FEA information.
- 3 OK, NRC has clearly identified and documented concern about geothermal resources.
- 4 Comment is technically consistent with current level of knowledge on geothermal energy sources, provided some additional information on "hot, dry rocks" is included.
- 6 OK, no obvious inconsistencies.

BWIP

MAJOR COMMENT NO. 2

Tectonic Model

- 5.2.1 OK, the NRC has appropriately pointed out their concerns and alternative viewpoint to those presented in the FEA relative to a tectonic model for the RRL area; however, the NRC should qualify some of their conclusion type statements in view of the fact that considerable additional analysis remains to be completed on this topic in site characterization. The possibility still exists that site characterization studies may confirm DOE presentation on this topic in the FEA.
- 2 OK, the comment appropriately references and represents the FEA information. This comment is definitely consistent with FEA review plan objectives in that it points out a major deficiency in the FEA; lack of adequate consideration of tectonic models.
- 3 OK, the model is related to a major concern.
- 4 OK, consistent with approach to the discipline in that the tectonic mechanisms which affects postclosure as well as preclosure are major concerns.
- 6 OK, comment is consistent with specific NRC position which has existed for at least the last two and half years, that a tectonic model is essential to determining the stability of the reference repository location and to appropriately address preclosure and postclosure guidelines.

NOTE: The emphasis on the "model" is appropriate; however it is noteworthy that intensity of concern with the BWIP "model" is somewhat greater than that presentation "comments" for Yucca Mountain and the salt sites, especially for Richton Dome and Deaf Smith [the latter geologic settings readily warrants lesser intensity].

BWIP

MAJOR COMMENT NO. 3

Seismicity & Seismic Hazard Analysis at BWIP

- 5.2.1 Ok, with some reservations. The basis for the concerns that are expressed in this NRC comment are certainly defensible. However, it is our opinion that the hypothetical model of a microearthquake rupture surface should not be presented in this comment since although the model is properly referenced, the NRC could be put on the defensive to justify the data presented when in fact it should be the DOE that should be justifying the information as presented in the final FEA.
- 2 This comment references only two sections in the FEA. More specific reference to section numbers, page numbers, even to the point of including quotes from the FEA would be more appropriate.
- 3 This comment is certainly consistent with the FEA review plan objectives in that it points out the serious concern that the NRC has for the significance of earthquake activity and its impact on preclosure and postclosure guidelines.
- 4 This comment references only two sections in the FEA. More specific reference to section numbers, page numbers, even to the point of including quotes from the FEA would be more appropriate.
- 6 OK, comment is consistent with specific NRC position which has existed for at least the last two and half years, that a tectonic model which explains the seismicity and seismicity patterns is essential to determining the stability of the reference repository location and to appropriately address preclosure and postclosure guidelines.

BWIP

MAJOR COMMENT NO. 4

Tectonic Stability

- 5.2.1 OK, the NRC has questioned specific statements in the FEA and has pointed out alternative and technically feasible and defensible explanations for these features.
- 2 OK, FEA information has been properly presented and referenced. Guideline 960.5-2-11(b)(4)(ii) does not exist. [Should it read 960.5-2-1(b)(4)(ii)?]
- 3 OK, tectonic stability of the BWIP site has been a major concern voiced by the NRC for at least the last two and half years.
- 4 OK, major comments 2, 3, and 4 all stem from the same NRC concern, the tectonic stability of BWIP. Although all three comments address various aspects of the overall issue and are consistent with other comments, it may be more appropriate for the NRC to combine major comments 2, 3, and 4 into one major comment on this issue.
- 6 OK, comment is consistent with specific NRC position which has existed for at least the last two and half years, that a tectonic model is essential to the determining the stability of the reference repository location and to appropriately address preclosure and postclosure guidelines.