

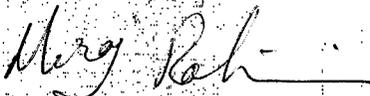
**Summary Highlights
of NRC/DOE Technical Exchange
on Draft Safety Evaluation Report
for Disposal Criticality Analysis Methodology
March 22, 2000
Las Vegas, Nevada**

The summary highlights of the Technical Exchange between the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) staff are provided in the following. The purpose of the meeting was to discuss the results of staff evaluation documented in Draft Safety Evaluation Report on Disposal Criticality Analysis Methodology Topical Report, Revision 0 issued by the NRC in March 22, 2000.

The meeting agenda, the attendance list, and copies of the presenters' slides are provided as Attachments 1, 2, and 3, respectively. The following paragraphs discuss only those Open Items for which DOE expressed different views than that provided in the draft SER.

- As part of the staff evaluation criteria, NRC indicated that per Regulatory Guide 3.71, credit for fuel burnup may be taken only when the amount of burnup is confirmed for each assembly by physical measurements. DOE proposed to present additional information which is based on performing burnup verification measurements on a sample of spent fuel population. NRC indicated that staff will consider any additional information which DOE desires to submit before releasing the final SER.
- With respect to the open item on the probability design criterion, DOE indicated that probability criterion is used for design purposes and no critical configurations will be screened out based on the probability criterion presented in the TR. DOE also indicated that screening for the purpose of Total System Performance Assessment (TSPA) is performed by DOE TSPA staff, and the intention is to provide all the probability and consequence analyses to DOE TSPA staff. NRC indicated that TR should at least show the approach for criticality analyses feeding into TSPA analyses. DOE agreed to provide information with respect to interface between the criticality methodology described in TR and subsequent TSPA analyses in the Overall Methodology section.
- On the issue of multi-parameter versus single parameter trending, NRC agreed to examine the information provided to the staff prior to the meeting. However, the staff expects the information to be provided formally along with the information from the first, second bullets and any other comments on the other open items or conditions.
- With respect to including a criticality margin in screening the critical configurations after performing regression analyses, the staff agreed to examine their position in light of including all uncertainties from regression or lookup table calculations.
- On the issue of validation approach for the power model, DOE indicated that a distribution instead of using an average value for the power will be used for the purpose of consequence analysis. NRC indicated that they will re-consider this open item depending on the assumption about the type of distribution.

With regard to methodology, modeling, and validation approach for postclosure disposal criticality risk, DOE stated that it is the DOE TSPA responsibility to analyze the criticality risk. However, NRC believes that evaluation of any event, such as criticality, has to be performed in its entirety and in terms of its impact on repository performance. The TR is the vehicle by which the DOE's approach with regard to determining postclosure criticality risk can be described in a complete and comprehensive manner.



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