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QA: N/A

OCT 29 2002

OVERNIGHT MAIL

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TRANSMITTAL OF REPORT ADDRESSING KEY TECHNICAL ISSUE (KTI) AGREEMENT  
ITEMS TOTAL SYSTEM PERFORMANCE ASSESSMENT AND INTEGRATION (TSPAI) 1.01  
AND 4.03

Reference: Ltr, Ziegler to Schlueter, dtd 5/9/02

This letter transmits a hard copy of a report entitled *Total System Performance Assessment – License Application Methods and Approach* (enclosure 1), and CD (enclosure 2) of the same report, which provides the basis for closure of TSPAI 1.01. Specifically, the KTI agreement states:

TSPAI 1.01: "Provide enhanced descriptive treatment for presenting barrier capabilities in their final approach for demonstrating multiple barriers. Provide discussion of the capabilities of individual barriers, in light of existing parameter uncertainty (e.g., in barrier and system characteristics) and model uncertainty.

DOE will provide enhanced descriptive treatment for presenting barrier capabilities in the final approach for demonstrating multiple barriers. DOE will also provide discussion of the capabilities of individual barriers, in light of existing parameter uncertainty (e.g., in barrier and system characteristics) and model uncertainty. The information will be documented in TSPA Methods and Assumptions document, expected to be available to NRC in FY 2002, for any potential license application."

The enclosed report provides the overall approach for conducting Total System Performance Assessment for the License Application (TSPA-LA) model development and analyses. Section 8.3 of this report discusses the enhanced approach and level of information to be provided in the description of barrier capabilities and the types of quantitative analyses to be used as appropriate to support the physical arguments. The consideration of parameter and model uncertainty in this report is consistent with the *Guidelines for Developing and Documenting Alternative Conceptual Models, Model Abstractions and Parameter Uncertainty in the Total System Performance Assessment for the License Application*, transmitted by the referenced letter.

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The enclosed report (Section 7.3) also documents the method that will be used to demonstrate stability of Total System Performance Assessment (TSPA) results and submodels, and it addresses part of TSPAI 4.03 on documentation of methodology. Specifically, the KTI agreement states:

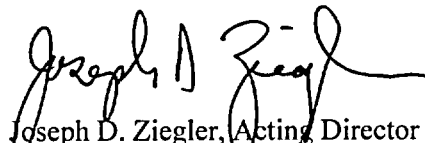
TSPAI 4.03: "DOE will document the method that will be used to demonstrate that the overall results of the TSPA are stable.

DOE will provide documentation that submodels (including submodels used to develop input parameters and transfer functions) are also numerically stable. DOE will address in the method the stability of the results with respect to the number of realizations. DOE will describe in the method the statistical measures that will be used to support the argument of stability. The method will be documented in TSPA LA Methods and Assumptions Document in FY 2002. The results of the analyses will be provided in the TSPA (or other appropriate documentation) for any potential license application in FY 2003."

Although TSPAI 1.01 and TSPAI 4.03 state that the information will be documented in the *TSPA-LA Methods and Assumptions* document, the *Total System Performance Assessment – License Application Methods and Approach* is the equivalent document. Appendix B of the enclosed report identifies those KTI agreements addressed by the report, and the location of the discussion therein.

The U.S. Department of Energy considers TSPAI 1.01 to be fully addressed by the enclosed report, and pending review and acceptance by the NRC, should be closed. TSPAI 4.03 is partially addressed by the enclosed report. The remaining portion of TSPAI 4.03 (the results of the analyses) will be documented in the TSPA-LA or other appropriate documentation, as stated in the agreement.

There are no new regulatory commitments made in the body or enclosures to this letter. Please direct any questions concerning this letter and its enclosures to Timothy C. Gunter at (702) 794-1343 or Mark C. Tynan at (702) 794-5457.



Joseph D. Ziegler, Acting Director  
Office of License Application & Strategy

OLA&S:TCG- 0062

Enclosures:

1. Hard Copy of *Total System Performance Assessment – License Application Methods and Approach*, TDR-WIS-PA-000006, Revision 00
2. CD for Enclosure 1

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cc w/encl 2:

D. S. Rom, NRC, Rockville, MD  
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cc w/o encls: (continued)

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