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August 16, 2001
Contract No. NRC-02-97-009
Account No. 20.01402.761

U.S. Nuclear Regulatory Commission
ATTN: Mr. James Firth
Office of Nuclear Material Safety and Safeguards
Division of Waste Management
Environmental and Performance Assessment Branch
Mail Stop 7C-18
Washington, DC 20555

Subject: Completion of IM 20.01402.761.110—Technical Exchange on Total System Performance Assessment—Site Recommendation (TSPA-SR)/License Application (LA) Revision 00

Dear Mr. Firth:

The purpose of this letter is to document work conducted by the Center for Nuclear Waste Regulatory Analyses (CNWRA) in support of the August 6–10, 2001, U.S. Department of Energy (DOE) and U.S. Nuclear Regulatory Commission (NRC) Technical Exchange on Total System Performance Assessment and Integration (TSPAI) Key Technical Issue (KTI) Issue Resolution, and to record completion of IM 20.01402.761.110 (Technical Exchange on TSPA-SR/LA Revision 00). Much of the supporting review work was initiated 6 to 10 months ago when the DOE released preliminary versions of their Analysis and Model Reports (AMRs) on Features, Events, and Processes (FEPs), their revised FEPs database, and their TSPA-SR; however, the preparatory work was accelerated in the early summer once staff in other KTIs had completed their issue resolution technical exchanges and were able to fully support reviews of DOE FEPs and model abstraction AMRs. The TSPAI Issue Resolution Blueprint, which documents all of the TSPA-related comments developed by NRC and CNWRA staff based on these reviews, will be submitted in Access database format as IM 20.10402.761.140 (TSPA Issue Resolution Blueprint—Letter Report), on September 19, 2001.

Tasks conducted by the CNWRA before and during the TSPAI Issue Resolution Technical Exchange include

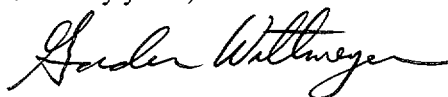
- Review of all FEPs AMRs, development of a FEPs comments table, and participation in the DOE and NRC Technical Exchange on FEPs held in Las Vegas, Nevada, from May 15–17, 2001;
- Review of both the TSPA-SR Technical Document and Model Report, development of comments related to each of the four TSPAI subissues, and construction of the Access database version of the TSPAI Issue Resolution Blueprint;
- Evaluation of hand checked verification calculations contained in the TSPA-SR Model Report and compilation and verification of NRC and CNWRA replicate calculations in Scientific Notebook 460.



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If you have any questions about the broad scope of preparatory work conducted by the CNWRA, please contact me at (210) 522-5082. If you have more specific questions about the reviews and analyses conducted under each TSPAI sub-issue, please contact: (i) Dr. Osvaldo Pensado at (210) 522-6084 for Scenario Analysis, (ii) Dr. Stefan Mayer at (210) 522-6816 for Model Abstraction, (iii) Dr. Sitakanta Mohanty at (210) 522-5185 for Demonstration of Multiple Barriers, and (iv) Mr. James Weldy at (210) 522-6800 for Demonstration of the Overall Performance Objective.

Sincerely yours,



Gordon W. Wittmeyer, Ph.D.
Manager, Performance Assessment

GWW/cw

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