

October 25, 2001

Dr. Gordon W. Wittmeyer  
Manager, Performance Assessment  
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SUBJECT: ACCEPTANCE OF IM 20.01402.761.140, "TOTAL SYSTEM PERFORMANCE ASSESSMENT AND INTEGRATION (TSPAI) ISSUE RESOLUTION BLUEPRINT — LETTER REPORT"

Dear Dr. Wittmeyer:

The Center for Nuclear Waste Regulatory Analyses (CNWRA) transmitted the subject Intermediate Milestone on September 27, 2001. The report was received on September 28, 2001. The work documented in the final issue resolution blueprint fulfills IM 20.01402.761.140. I would like to note that the final blueprint — which identifies the original comments and shows the corresponding Department of Energy (DOE) response and the resulting agreement — succeeds the earlier (draft) iterations that were critical to the success of the Total System Performance Assessment and Integration (TSPAI) issue resolution technical exchanges. Reviewers will find this letter report to be a useful resource, when they are conducting follow-up reviews of forthcoming DOE documents.

During my review of the TSPAI Issue Resolution Blueprint, I have identified a number of changes that need to be made in the letter report. Upon completion of the following changes, the deliverable will be found acceptable:

1. The link between individual comments and the applicable acceptance criteria needs to be clearly presented.
2. There may be confusion caused by the current naming of the Model Abstraction comments and their corresponding link to an acceptance criterion, because the acceptance criterion for model integration is Criterion One in the draft Yucca Mountain Review Plan and Criterion Five in the TSPAI Issue Resolution Status Report, respectively. Use the Yucca Mountain Review Plan framework for the comments and change the text appropriately. A uniform standard for numbering the comments (i.e., the numbering of the scenario analysis comments) should be adopted and applied retroactively, to avoid confusion and improve the usefulness of the report. This will allow related comments to be grouped.

Dr. G. W. Wittmeyer

3. A number of comments identified in the TSPAI Issue Resolution Blueprint were addressed during technical exchanges on the Igneous Activity Key Technical Issue. To the extent possible, the resolution of these comments should be included in the Issue Resolution Blueprint with enough detail to indicate how they were addressed. I recognize that, in these cases, it may not be possible to use the current approach of using a verbatim DOE response to the TSPAI comments and questions.
4. It appears that comments SA-1, SA-2, SA-27, and SA-28 are missing from the letter report. The DOE response is missing from some of the comments (e.g., SA-31, SA-45, SA-46, SA-USFIC-1, SA-ENFE-1). Agreements are missing for some of the entries (e.g., Direct 1.1.1, Direct 1.1.2, Direct 2.2.1, Direct 2.TT.1). The global agreements pertaining to scenario analysis apply to comments SA-75 and SA-76; reference these agreements, as appropriate.
5. The comments Dose 2.TT.3 and Direct 2.TT.1 are identified as the same comment. They have different DOE responses and agreements, however.
6. A set of editorial comments will be provided separately. Make the appropriate changes to the text.

In addition, I suggest that the following be added to the report as an Appendix: (1) summary highlights from the August 6-10, 2001, technical exchange, (2) copies of those NRC presentations that provided DOE with elaborating detail on our comments and questions, and (3) a list of the relevant agreements reached during the TSPAI and Igneous Activity Technical Exchanges. This information will convey important information that is not currently conveyed in the Issue Resolution Blueprint.

I reviewed the TSPAI Issue Resolution Blueprint against the expectations that were outlined for the activity and the final report. These expectations were largely met or exceeded with the work provided by CNWRA. The availability of a useful, but unqualified, electronic database at the time of the last technical exchange exceeded the expectations for the deliverable. I would like CNWRA to take the following actions with respect to the database:

1. Demonstrate the database to appropriate NRC and CNWRA staff. The goal of this demonstration is to increase their awareness of the database and to request their input on desired enhancements that would make the database useful for other reviews or activities.
2. Apply the appropriate CNWRA quality assurance requirements to the database, so that it will be available as a tool for future reviews. Please establish an Administrative Item to monitor the progress of this effort.

Dr. G. W. Wittmeyer

We will make the revised TSPAI Issue Resolution Blueprint publicly available after the Yucca Mountain Review Plan is released.

If you have any questions, please contact me at (301) 415-6628 or (jrf2@nrc.gov).

Sincerely,

James R. Firth, Element Manager **/RA/**  
Total System Performance Assessment  
and Integration KTI  
Division of Waste Management  
Office of Nuclear Material Safety  
and Safeguards

cc: B. Meehan, CAB1/ADM  
J. Linehan, PMDA

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**Accession No.: ML013020040**

**DOCUMENT NAME: G:\DWM\EPAB\JRF\20010149LET.WPD Log No.: 01-172**

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