



Department of Energy

Washington, DC 20585

QA: QA

OCT 07 2002

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U.S. DEPARTMENT OF ENERGY OFFICE OF CIVILIAN RADIOACTIVE WASTE
MANAGEMENT OFFICE OF QUALITY ASSURANCE (OQA) ISSUANCE OF
SURVEILLANCE RECORD OQA-02-S-22 OF BECHTEL SAIC COMPANY, LLC (BSC)

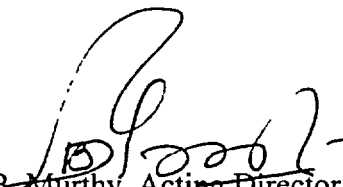
Enclosed is the Surveillance Record, OQA-02-S-22, conducted by representatives of OQA at
BSC's facilities, August 26-September 6, 2002.

The surveillance was performed to evaluate the adequacy of TDR-WIS-PA-000006, Revision 00,
Draft E, *TSPA-LA Methods and Approach Document*, in establishing the methods and
approaches to be used for conducting Total System Performance Assessment - License
Application.

The surveillance team determined that Draft E is an improvement over former Project methods
and approach documents. There were no conditions adverse to quality noted. However, the team
identified three recommendations that are cited in the report.

The surveillance is considered complete and closed as of the date of this letter. No response is
required to this surveillance record or the recommendations.

If you have any questions, please contact either James Blaylock at (702) 794-1420 or
Kristi A. Hodges at (702) 794-1464.


Ram B. Murthy, Acting Director
Office of Quality Assurance

OQA:JB-1860

Enclosure:
Surveillance Record OQA-02-S-22



Printed with soy ink on recycled paper

NM5507
WM-11

OCT 07 2002

cc w/encl:

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**OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
QUALITY ASSURANCE SURVEILLANCE REPORT**

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QA Surveillance Number
OQA-02-S-22

Complete only applicable items

1. Organization/Location Bechtel SAIC Company, LLC (BSC), Las Vegas, NV	2. Subject TDR-WIS-PA-000006, Revision 00, Draft E, "TSPA-LA Methods and Approach Document"	3. Date(s) Performed August 26 - Sept. 6, 2002
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4. Surveillance Scope
Evaluate the adequacy of TDR-WIS-PA-000006 for establishing the methods and approaches to be used for conducting the Total System Performance Assessment - License Application (TSPA-LA) model development and analyses.

5. Requirement(s) (Procedure, Specification, Drawing, etc.) AP-3.11Q, Revision 3, ICN 2, "Technical Reports"	6. Originator Kristi A. Hodges
	Team Members F. Harvey Dove

SURVEILLANCE RESULTS

7. Description/Details

The surveillance team evaluated the TSPA-LA Methods and Approach Document (MAD) to ensure its adequacy for use in preparing TSPA-LA models and analyses.

TSPA-LA Planning:

The MAD, which was in draft at the time of the surveillance, has been designated as "Q"; therefore, the TSPA-LA is subject to the requirements of the Office of Civilian Radioactive Waste Management DOE/RW-0333P, "Quality Assurance Requirements and Description." The "Q" determination was based on an Activity Evaluation prepared in accordance with AP-2.21Q, "Quality Determinations and Planning for Scientific, Engineering, and Regulatory Compliance Activities," which since has been superseded by procedures specific to science and engineering. A review of the Activity Evaluation for that Technical Work Plan (TWP) (TWP-MGR-PA-000009), and also for Model Analysis and Calculations (TWP-MGR-PA-000011), concluded that AP-2.21Q was appropriately implemented.

(Continued on page 2)

8. Persons (and their organizations) Contacted R. L. Howard, Deputy, Performance Assessment Strategy and Scope J. A. McNeish, TSPA Department Manager David Sevougian, TSPA Department Lead J. F. Pellitier, TSPA Department Lead	9. CAQ/NCR/TE Issued <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Recommendation Issued <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	CAQ/NCR/TE Number(s) N/A CIRS Number(s): 3147, 3149, 3150
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10. Surveillance Conclusions SAT UNSAT

Throughout the MAD there are indicators that prior audit findings and U.S. Nuclear Regulatory Commission (NRC) concerns were understood and taken seriously, which is viewed by this team as significant progress. The formation of teams; i.e., the Abstraction Team; Features, Events and Processes Team; Parameter Team; and various staff positions with specific responsibilities over former problem areas, are positive and meaningful steps in developing a defensible TSPA-LA.

(Continued on page 3)

11. Completed By (Originator) (Print Name) Kristi A. Hodges	Signature 	Date 9/17/02
12. Reviewed By (Appropriate QA Manager) (Print Name) Ram B. Murthy	Signature 	Date 10/04/02
13. Approved By (QVM) (Print Name) Ram B. Murthy	Signature 	Date 10/04/02

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7. Description/Details: (Continued)

A concern during the surveillance was the absence of a TWP for the TSPA-LA model; however, a draft TWP was presented with a reasonable explanation that the TSPA staff had initiated the TWP but subsequently refocused its effort on the MAD. Based on discussion, the TWP will be completed and issued after issuance of the MAD.

MAD Preparation & Checking/Review:

The MAD was prepared in accordance with AP-3.11Q. No deficiencies were identified; however, a concern pertaining to comment resolution is discussed in the procedure vs. guidance section below. At the time of the surveillance the document had entered the AP-2.14Q, "Review of Technical Products and Data" review process; however, the conduct of that formal review was not included in this surveillance.

Although AP-3.11Q was used to prepare the MAD, the document is unique in that it is not a technical report per se; it is a general planning document for a specific activity; i.e., the TSPA-LA, which will produce many technical reports. The TWP describes the MAD as a status document and counters any perception that it is a final design document. Regardless of classification and/or characterization, the activities established within the MAD are admittedly subject to change.

Procedure vs. Guidance:

The TSPA organization has struggled in deciphering what should be considered guidance and what should be included in a procedure. Furthermore, there is the added burden of determining the appropriate level of detail that belongs in the MAD, which is neither a procedure nor a guidance document.

Based on discussion, there are differing interpretations of the word "guidance." Some perceive guidance as administrative information; others perceive it as management expectations. When questioned whether adherence to the established guidance is critical to meeting regulatory expectations, TSPA management responded affirmatively. It was then explained that TSPA-LA guidance documents are intended to meet expectations based on results of previous Office of Quality Assurance audits and NRC concerns pertaining to the TSPA-Site Recommendation (SR), in which insufficient and inconsistent methodology was applied to produce TSPA-SR models and analyses. However, as often occurs, an intended solution has created an unintended problem in the area of procedure vs. guidance.

The AP-3.11Q checking process produced comments that challenged the inclusion of detail in the MAD and guidance documents rather than in implementing procedures. For instance, the MAD includes a Parameter Entry Form (or equivalent memorandum) that is to be submitted with associated Data Tracking Numbers to the Technical Data Management System (TDMS). The form is also included in the "Guidelines for Developing and Documenting Alternative Conceptual Models, Model Abstractions, and Parameter Uncertainty in the Total System Performance Assessment for the License Application." The Guidelines document is considered non-Q; however, there is concern that some of its content should be incorporated into a Q procedure. Also, MAD Section 6, "Control of the TSPA-LA Model," contains a TSPA Model Change Approval Form for documenting changes to the TSPA-LA model. These forms are considered guidance; however, they provide transparency of decisions pertaining to the model and approvals of such decisions.

The associated AP-3.11Q comments were signed off, which indicates that the reviewer was satisfied with the comment responses; however, the procedure vs. guidance issue had not been resolved. Instead, a decision was made to defer the reviewer's concerns for evaluation and resolution outside of the MAD review process. The surveillance team did not object to deferring the issue outside of the review; however, of concern was the apparent lack of transparency in the comment resolution. A recommendation was made to annotate applicable comments to indicate that the issue was deferred for evaluation outside of the comment and review process. (See recommendation #1)

Although supportive of the desire to provide up-front guidance and direction in order to achieve uniformity and consistency, the surveillance team understands the concerns raised via the AP-3.11Q process. Rather than interjecting in the comment resolution process, and ongoing discussion, the team opted to allow BSC to address and resolve the issue internally and will oversee the results. Two relevant observations are noted:

- 1) Assertions have been made that Project procedures are overly prescriptive and an improvement initiative is poised to evaluate and streamline procedures perceived as inefficient. However, project history supports that less prescriptive procedures tend to reiterate requirements and provide insufficient detail and "how to." The surveillance team is concerned that a proliferation of guidance documents will result in general procedures with the "how to" incorporated into non-Q documents that are not considered auditable and/or enforceable. The goal to reduce audit findings may be successful; however, the ultimate goal to meet regulatory expectations may, as a result, fall short. (See recommendation #2)

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7. Description/Details: (Continued)

- 2) The MAD and associated guidance document are highly detailed. Because it is difficult to distinguish guidance from expectation, there is a risk that areas considered important may "fall through the cracks" and be overlooked. The surveillance team is concerned that the MAD has not clearly established or promoted an understanding of which areas can or cannot be sacrificed. There are caveats built into the document; i.e., technical and schedule risk. There are also "maybe" statements that imply "If time permits, this will be done; if time does not permit, something else will be done." The maybe statements are assumed to be of lesser importance, but that is not readily evident or understood. (See recommendation #2)

MAD Revision :

Once issued, it is unlikely that the MAD will be revised. The "TSPA-SR Methods and Assumptions Document" was obsoleted early in the TSPA-SR effort, but schedule did not allow it to be revised to meet changing technical approaches, evolving NRC expectations and/or quality assurance (QA) issues/concerns.

Because revision is unlikely, a proactive approach is needed to create the record of decisions that result in deviations from the MAD. TSPA management, rightfully so, does not want to consult QA and/or obtain sign-offs for each deviation, as a rigid structure of quality verification is not conducive to this type of effort.

Important, in the big picture, is that decisions are well-documented with sufficient justification and impact analysis so that, when eventually challenged, the logic and reasoning will be readily available without recourse to originators or utilization of independent teams to justify acceptability. Much like building in quality, the project must build in defensibility. Whether records are Q or non-Q or developed from guidance documents or procedures, ultimately, the record must speak for itself. (See recommendation #3)

10. Surveillance Conclusions: (Continued)

However, there is concern that an aggressive LA schedule will create the same demands that contributed to past shortfalls. If Project history is a factor in future performance, it is perceived that, once again, schedule will compete with quality and one or both will suffer. However, if Project history can be effectively used as a factor to improve future performance, goals can be reached.

Overall, the MAD is a significant improvement over former Project method and approach documents. No deficiencies were identified during the surveillance, as the document was still in draft and has yet to be implemented. However, three recommendations for management's consideration were identified.

RECOMMENDATIONS:

- 1) AP-3.11Q comments concerning whether detail in the MAD should be incorporated into a procedure, which were signed off as though resolved, need to be annotated to reflect that the issue was deferred for evaluation outside of the MAD review. (CIRS # 003147)
- 2) An effort to identify which areas in the MAD cannot be sacrificed to schedule risk is recommended. And, from that determination, a subsequent effort to determine whether additional detail is needed in governing procedures; i.e., detail that will ensure that adequate checks and verifications are accomplished in areas important to quality and regulatory expectations. (CIRS # 003149)
- 3) A method for documenting decisions that result in deviations from the MAD needs to be established, since it is unlikely that the document will be revised. Sufficient attention has been given to up-front planning and guidance for achieving an acceptable end product. An equal mindset is needed to establish "as we go" the defensibility for TSPA-LA decisions. (CIRS # 003150)