



**Department of Energy**

Washington, DC 20585

QA: N/A  
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**AUG 01 2003**

**OVERNIGHT MAIL**

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**RESPONSE TO U.S. NUCLEAR REGULATORY COMMISSION (NRC) OBSERVATION  
AUDIT REPORT (OAR) NO. OAR-03-01 OF AUDIT BQAP-BSC-03-02**

During NRC's observation of Bechtel SAIC Company, LLC (BSC) audit, BQAP-BSC-03-02, *Unsaturated Zone Flow and Transport Analysis/Model Reports*, two Audit Observer Inquiries (AOIs) and one NRC Observation were identified. These AOIs and the observation are documented in OAR-03-01. In summary, the AOIs and observation were:

- How will the U.S. Department of Energy (DOE)/BSC assure that only qualified and verified data and software are used for high-risk significant applications supporting license application? (AOI #1)
- How will DOE and BSC management create an environment to assure personnel performing checking and quality assurance assignments will be afforded adequate time to perform their assigned tasks? What metric will be used to assure quality activities are not influenced by cost and schedule? (AOI #2)
- During a meeting associated with the audit, actions were noted that are contrary to the Office of Civilian Radioactive Waste Management policy for a Safety Conscious Work Environment. (NRC Observation)

The responses to the AOIs are detailed in the Enclosure. Additionally, a review was performed by BSC senior management in response to the actions described in the NRC Observation. The results of that review and the actions taken were detailed in two written summaries provided to DOE management. These summaries outlined the actions to be taken as a result of the BSC review as well as describing disciplinary action taken because of identified performance failures on the part of several personnel. Additional details of the actions taken have been provided to the NRC on-site representatives.

This response answers the AOIs and the NRC Observation.

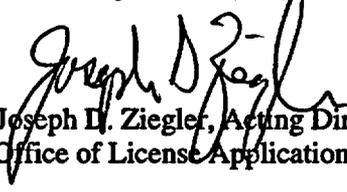


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If you have any questions, please contact April V. Gil of my staff at (702) 794-5578.

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

OQA:KMG-1374

Enclosure:  
As stated

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**AOI #1** – DOE/BSC used qualified, verification level 2 (QL-2), and unqualified data as inputs for modeling and analysis purposes, for low risk significant applications supporting site recommendation. Given that unqualified Data Tracking Numbers (DTNs) are being used in the development of Technical Product Outputs (TPOs), how will DOE/BSC assure that only qualified and verified data and software are used for high risk significant applications supporting license application?

**Response - AP-3.15Q, Managing Technical Product Inputs**, has been revised to remove “QVL2” as an input designation. The data that are used as direct input in products for the License Application will be qualified and confirmed. The qualification of unqualified data is performed to AP-SIII.2Q, Qualification of Unqualified Data. This procedure implements the four qualification methods of NUREG 1298. The confirmation of data involves the generation and review of a Records Road Map (AP-3.15Q, Attachment 4) as discussed with you in the January Quarterly QA meeting.

Issues related to the output of technical products are linked to the direct input for that product and are not propagated as an issue against the output. The Document Input Reference System provides the appropriate management controls through the AP-3.15Q process for the designation of inputs.

A Data Confirmation Project is underway to assure that the data and information used as direct input in products for the License Application are presented in a procedural compliant manner and are technically adequate. This Data Confirmation Project is being managed under BSC(B)-03-C-107.

Unqualified software was allowed to be used on an interim basis in Site Recommendation products, when appropriately tracked via a To-Be-Verified. The software procedures have been revised and only qualified software may be used in products for the License Application.

**AOI #2** – The audit team identified an instance where, apparently because of time and schedule pressure a BSC qualified checker and a BSC Quality Engineering Representative approved the Thermal Testing Measurement Report (U0220) without reviewing all of the associated data. How will DOE and BSC management create an environment to assure personnel performing checking and quality assurance assignments will be afforded adequate time to perform their assigned tasks as time and schedule become even more important leading up to license application? What metric will be developed and used to assure quality activities are not influenced by cost and schedule?

**Response - BSC Quality Assurance (QA)** conducted an investigation of events associated with checking of the Thermal Testing Measurement Report (U0220) which led to the perception that errors in the report were not identified/corrected due to time and schedule pressure. The investigation concluded that these errors were due to oversights on the part of the technical checker, not time and schedule pressure. Details are available on request.

DOE and BSC have established an environment to ensure that checking and quality assurance assignments are not unduly impacted by schedule pressure. Effort to support and strengthen this environment is applied on a daily basis in staff meetings and on a regular basis at the biweekly critical path meetings. The critical path meetings emphasize such strategies as application of additional resources and parallel performance of independent activities to accommodate schedule constraints. Reducing the time/resources allocated for quality assurance activities is not an approach considered to recover schedule. In addition, BSC Quality Engineering is developing a process to create a trending report for the results of in-process reviews of science, engineering, and procurement technical products. Results of this trending report will provide feedback to the originating organizations so the products can be improved before they enter the checking process. Submission of improved products will enhance the efficiency and effectiveness of checking and other quality assurance processes.