



Department of Energy
Office of Civilian Radioactive Waste Management
Yucca Mountain Site Characterization Office
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QA: N/A

SEP 12 2001

OVERNIGHT MAIL

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TRANSMITTAL OF ROOT CAUSE ANALYSIS REPORTS ON CORRECTIVE ACTION
REPORTS (CAR) BSC-01-C-001 AND BSC-01-C-002, AND ON YUCCA MOUNTAIN
PROJECT TECHNICAL DOCUMENT DEFICIENCIES

Transmitted with this letter are two root cause reports. The first report (enclosure 1), *Root Cause Analysis Report for CAR BSC-01-C-001* (model validation) and *CAR BSC-01-C-002* (software process), *Revision 1* (August 8, 2001), addresses root causes for two CARs. This root cause analysis is being managed as a corrective action program activity in accordance with Office of Civilian Radioactive Waste Management's (OCRWM) procedure AP-16.1Q, *Management of Conditions Adverse to Quality*. The second report (enclosure 2), *Root Cause Analysis Report for Yucca Mountain Project Technical Document Deficiencies* (August 17, 2001), was a management initiative. The investigations and analyses conducted and reported in both enclosures were performed in accordance with OCRWM's procedure AP-16.4Q, *Root Cause Determination*.

A team of Bechtel SAIC Company, LLC (BSC) senior managers, BSC corporate managers, and senior nuclear industry consultants conducted the root cause analysis for the two CARs. The team investigated and analyzed the problems described in both CARs, evaluated previous CARs and corrective actions taken, and determined CAR specific root causes. For the model validation CAR, the team identified six root causes and ten corrective actions. The team identified three root causes and eight corrective actions for the software process CAR. The team also identified five common causes and one fundamental generic cause that was inherent to both CAR conditions. Recommendations for corrective actions to prevent recurrence were provided. The team recommended that BSC management develop and track performance measures for all recommended corrective actions and that senior management quarterly reviews be conducted.

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The root cause investigation and analysis for technical document deficiencies was conducted by a similarly constituted BSC team that focused on the Total System Performance Assessment for Site Recommendation (TSPA-SR) Model and Report. The team investigated and analyzed deficiencies identified by the U.S. Nuclear Regulatory Commission and the Yucca Mountain Technical Review Team in the TSPA-SR and other technical documentation. The team identified four root causes and one generic cause. The conditions that affected TSPA-SR and the quality of other technical documents were very similar to the 14 root causes identified by the Root Cause Analysis Report for CARs BSC-01-C-001 and 002.

Both of the reports transmitted with the letter are currently under DOE review; however, they are being transmitted to you for the purpose of expediency. After your staff has had the opportunity to review the enclosed material, we are available to answer any questions they may have regarding this matter. Please contact April V. Gil at (702) 794-5578 if you desire to have further discussion regarding this subject.



Stephan Brocoun
Assistant Manager, Office of
Licensing and Regulatory Compliance

OL&RC:TCG-1738

Enclosures:

1. *Root Cause Analysis Report for
CAR BSC-01-C-001 and CAR BSC-01-C-002*
2. *Root Cause Analysis Report for Yucca Mountain
Project Technical Document Deficiencies*

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