



QA: QA

Mark T. Peters, Manager  
Science & Engineering Testing  
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1180 Town Center Drive  
Las Vegas, NV 89144

**ISSUANCE OF DEFICIENCY REPORT (DR) BSC/USGS(B)-02-D-100 RESULTING  
FROM THE BECHTEL SAIC COMPANY, LLC (BSC) QUALITY ASSURANCE (QA)  
SURVEILLANCE BSCQA-02-S-02 OF BSC**

Enclosed is the subject DR generated as a result of BSC QA Surveillance BSCQA-02-S-02 to verify implementation of Test Plan SITP-02-02-EBS-02 Atlas Natural Convection Test. The condition adverse to quality deals with not completing the pre-test predictions.

Please provide an initial response to this DR within 10 working days from the date of this correspondence to Kenneth O. Gilkerson, Bechtel SAIC Company, LLC, 1180 Town Center Drive, Las Vegas, Nevada 89144. Also provide a copy of the response to Deborah G. Opielowski. NQS, P. O. Box 364629, Mail Stop 455, North Las Vegas, Nevada 89036-8629.

If you have any questions, please contact either Kenneth O. Gilkerson at (702) 295-2950 or Judith E. Gebhart (702) 295-4788.

A handwritten signature in black ink that reads "D. T. Krisha".

Donald T. Krisha, Manager  
Quality Assurance

4/4/02  
\_\_\_\_\_  
Date Signed

REP:jb-0403022079

Enclosure:  
DR BSC/USGS(B)-02-D-100

*Handwritten:* BMS367  
2/2/11

April 4, 2002  
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cc w/encl:

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**OFFICE OF CIVILIAN  
RADIOACTIVE WASTE MANAGEMENT  
U.S. DEPARTMENT OF ENERGY  
WASHINGTON, D.C.**

8. ☒ DEFICIENCY REPORT  
☐ CORRECTIVE ACTION  
REPORT  
NO. BSC(B)-02-D-100  
PAGE 1 OF  
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**DEFICIENCY REPORT/CORRECTIVE ACTION REPORT**

1. Controlling Document: (Document ID and Revision or Date)

AP-SIII.7Q, R-0

2. Related Report No.:

BSCQA-02-S-02

3. Responsible Organization:

S&E Testing Project

4. Discussed With:

Mark Peters, Cliff Howard, Hemi Kalia, Dan Thomas, N. Kramer

5. Requirement:

AP-SIII.7Q, R-0, 5.2 a) requires that the PI perform pre-test predictions (if required) prior to the start of the test. 5.2 b) requires that the pre-test prediction be documented in accordance with AP-3.10Q, AP-3.12Q or AP-SIII.3Q. Note: AP-3.10Q and AP-3.12Q were suprceded by AP-SIII.9Q.

Technical Work Plan TWP-MGR-MD-000015 R-01, FY02 EBS Modeling & Analyses specifically requires a pre-test calculation for the Atlas Natural Convection Test.

The Scientific Test Plan for the Atlas Natural Convection Test SITP-02-EBS-002 para 4.3/4.4 identifies the completion of the pretest predictive calculations and uncertainty analysis before January 2002. Para. 5.1 (of the SITP) requires a predictive analysis.

6. Description of Condition:

Contrary to the above, the Natural Convection Testing began on January 14, 2002 without the pre-test predictions (analysis) being documented and issued. While scoping data was submitted into the TDMS in accordance with AP-SIII.3Q (DTNs SN0112T0812301.001 & SN0112T0812301.002), the pre-test caculations (analyses) were not performed as required by the TWP and SITP. The "scoping data" submitted to the TDMS states that the data for the predictive analyses are presented in CAL-EBS-MD-000024 entitled "Two Dimensional Pretest Predictions for the Quarter and Half- Scale Natural Convection Tests" and CAL-EBS-MD-000026 titled "Two Dimensional Natural Convection Heat Transfer". These Pre-Test Calculations have not been completed.

Discussion: Although the SITP calls for an AP-SIII.9Q analyses, the submittal of data from scoping calculations were submitted into the TDMS. AP-SIII.7Q provides for using AP-SIII.3Q for documenting (submitting) pre-test predictions or AP-3.10Q or AP-3.12Q (now AP-SIII.9Q). The SITP specifically identifies what methods will be used to document the pre-test predictions. The data that was submitted for this SITP is unqualified and unverified. The Calculations that the DTN's reference were developed and submitted to checking in November/December per AP-3.12Q, but were abandoned when it was realized that AP-SIII.9Q would take effect before the review & checking could be completed. Consequently, there is no objective evidence that the data used for scoping have been reviewed and controlled. Also, the SITP states that AP-SIII.9Q (Analyses) would be used to document the predictive analyses.

Has work been stopped? ☐ Yes ☒ No

7. Initiator:

K.O. Gilkerson

Printed Name

Signature

Date

9. Does a stop work condition exist?

☐ Yes ☒ No ☐ N/A

If Yes, Check One: ☐ A ☐ B ☐ C ☐ D

10. Recommended Actions:

- 1) Complete calculations CAL-EBS-MD-000024 & 26 in accordance with AP-SIII.9Q and test plan. OR
- 2) Perform a documented review of scoping data in TDMS per requirements, correct references to calculations CAL-EBS-MD-000024 & 26 (if they are not going to be completed) and revise SITP to reflect methodology for documenting pre-test predictions.
- 3) Revise AP-SIII.7Q to add guidance and clarification for use of "scoping" data versus pre-test predictions (analyses).
- 4) Identify other SITPs with same or similar problems.

11. QA Review:

K.O. Gilkerson

Printed Name

Signature

Date

12. Response Due Date:

10 Working Days after Issuance

13. QAM Issuance Approval:

Printed Name Donald T. Krishna

Signature

Date

14. Corrective Actions Verified/Closure

15. QAM Closure Approval:

QAR Printed Name

Signature

Date

Printed Name

Signature

Date