

QA: QA

**U.S. DEPARTMENT OF ENERGY  
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT  
OFFICE OF QUALITY ASSURANCE**

**REPORT FOR AUDIT OQAC-BSC-03-13  
OF BECTHEL SAIC COMPANY, LLC  
IN LAS VEGAS, NEVADA**

**SEPTEMBER 22 - 26, 2003**

**Prepared by:** \_\_\_\_\_

**John R. Doyle  
Audit Team Leader  
Navarro Quality Services**

**Date:** \_\_\_\_\_

**Approved by:** \_\_\_\_\_

**R. Dennis Brown  
Director  
Office of Quality Assurance**

**Date:** \_\_\_\_\_

## EXECUTIVE SUMMARY

Auditors representing the Office of Civilian Radioactive Waste Management (OCRWM) conducted a compliance-based audit of the quality-affecting activities performed by the Bechtel SAIC Company, LLC (BSC). The audit was conducted from September 22 to 26, 2003. The audit scope focused on BSC procedural compliance. From this review, the audit team evaluated the BSC effectiveness in implementing the Quality Assurance (QA) Program.

The audit team concluded that the procedural implementation was satisfactory and that BSC is adequately and effectively implementing the QA Program.

The audit team identified the following 13 conditions adverse to quality (CAQ):

1. Condition Report (CR) 795: The DOE/RW-0333P, Revision 13, *Quality Assurance Requirements and Description* (QARD), Section 1.2, One CAQ was identified regarding the approval of LP-1.0Q-BSC. The QARD Section 1.2, requires that LP-1.0Q-BSC be accepted by the OCRWM OQA. LP-1.0Q-BSC, Section 5.5, paragraph b), requires only that the approved revisions of this procedure be sent to the Director of the OQA. This does not meet the requirements of the QARD.
2. CR 796: AP-2.12Q, Revision 0, ICN 4, *Peer Review*, Section 5.3.4, item 4, requires that the content of an individual peer review report (as opposed to a consensus peer review report) contain statements from the individual peer review panelists presenting their advice and recommendations. Item 6 requires that the peer review report contain the biographies of the peer review panelists. The Peer Review Report on Igneous Consequences did not meet these requirements.
3. CR 797: AP-2.12Q, Revision 0, ICN 4, Section 6.1, requires that the peer review report and the peer review evaluation report be identified as QA: QA. The Peer Review Report and The Peer Review Evaluation Report for the Igneous Consequences Peer Review were incorrectly identified as QA: N/A.
4. CR 798: AP-2.20Q, Revision 1, ICN 1, *Self-Assessments*, Section 5.5.1, paragraph a), and Section 6.1 require that the reports of self-assessments that evaluate quality-affecting activities be identified as QA: QA. The following self-assessments were incorrectly identified as QA: N/A:
  - SA-RDP-2003-007, *Document Management-Review of the Records and Documentation Supporting Technical Products for Compliance with Applicable Procedure AP-6.1Q*
  - SA-SOP-2003-011, *Self-Assessment Surveying for Safety Analysis Related Data Acquisition*

5. Deficiency Report (DR) BSC(O)-03-D-280: (Note: This DR was documented per Revision 6 of AP-16.1Q, *Management of Conditions Adverse to Quality*. It was initiated, verified, and closed before the end of the audit.) AP-2.26Q, Revision 0, ICN 0, *Quality Assurance Surveillance*, Section 5.4, requires that the Quality Verification Manager (QVM) forward the surveillance report to the Responsible Manager of the surveilled organization. The BSC QA surveillance report BQA-SI-03-009 was not forwarded to the Records Management Responsible Manager, even though the surveillance report did cover Records Management responsibilities and activities.
6. CR 799: AP-6.1Q, Revision 7, ICN 1, *Document Control*, Section 5.3.2, requires that Document Control verify the completion of the Document Submittal form for documents submitted into the controlled document repository. The Document Submittal forms were not completed as required for the National Spent Nuclear Fuel Program (NSNFP) documents in the OCRWM Program Documents Database (OPDD) [identified as Idaho National Engineering and Environmental Laboratory (INEEL) documents].
7. CR 800: AP-6.1Q, Revision 7, ICN 1, Section 5.3.2, requires that Document Control verify the completion of the Document Submittal form for documents submitted into the controlled document repository. There was no objective evidence that the Document Submittal form for the *Procedure Responsibilities Matrix* was completed, yet Document Control accepted the *Procedure Responsibilities Matrix* into the controlled document repository.
8. CR 801: LP-7.1Q-BSC, Revision 0, ICN 1, *Technical Bid Evaluation*, Sections 5.4.1, 5.4.2, and 5.4.4, requires that a Bid Tabulation form (L71-1) be used to document the required approvals from the Requestor, Discipline Lead Engineer/ Responsible Manager, and the Project Manager/Functional Manager. There was no objective evidence that the required form was used for the subcontract associated with Purchase Order Number 004223, "Weld Filler Material and Base Metal Composition Test, Wah Chang," from Allegheny Technologies, Inc. A graphical representation was used in lieu of the required Bid Tabulation Form and the Requestor, Discipline Lead Engineer/Responsible Manager, and the Project Manager/Functional Manager did not approve that graphical representation as required by the procedure.
9. CR 802: This condition report documents five processing violations of AP-16.1Q, Revision 5 and Revision 6.
  - A. In accordance with AP-16.1Q, Revision 6, Section 2.0, transition of open deficiency documents from Revision 5 to Revision 6 required the addition of a CR cover page for each open deficiency. BSC(V)-03-D-117 did not have the required cover page. This condition was observed on only 1 of 16 documents reviewed for this attribute.

- B. AP-16.1Q, Revision 5, Section 5.7.2, paragraph c), Revision 6, Attachment 6, blocks 3 and 11, and Revision 6, Section 5.5.3, paragraph b), require the re-evaluation of the significance of a deficiency. The response for 1 of 24 deficiencies, BSC(B)-03-D-233, did not have the significance box checked as part of the Extent of Condition. The following 12 of 24 deficiency documents did not have the QA re-evaluation for significance completed: BSC(V)-02-D-163, BSC(B)-02-D-142, BSC(B)-03-D-029, BSC(B)-03-D-079, BSC(B)-03-D-119, BSC(V)-03-D-180, BSC(B)-03-D-193, BSC(B)-03-D-233, BSC(B)-03-D-224, BSC(B)-03-D-188, BSC(B)-03-D-231, BSC(B)-03-D-235.
- C. Block 3 on BSC(B)-03-D-158 for Extended Processing Applicability was not addressed as required by Revision 5, Attachment 11, response instruction for block 3. This condition was noted for 1 of 21 documents reviewed.
- D. BSC(B)-02-D-169 void documentation does not have the signature of the Quality Assurance Representative (QAR) nor request for acknowledgement by the initiator as required by AP-16.1Q, Revision 5, Section 5.3.1, paragraph c). The void documentation requested initiator concurrence, but the initiator indicated a preference to not sign the concurrence for the void documentation. This condition represents only one of six voided documents reviewed.
- E. As required by Revision 5, Attachment 10, block 9 instructions, the QAR did not identify the Stop Work evaluation results or applicability on BSC(B)-03-D-170. The team reviewed 24 documents.
10. CR 803: AP-16.1Q, Revision 5, Attachment 7, Section 3.0, requires that a log be used to maintain the status of each condition, including if a stop work condition exists. The DR/Corrective Action Report (CAR) database on Lotus Notes was used as the CAQ log. Two CARs, USGS(V)-02-C-161 and USGS(V)-03-C-095, both reflect a stop work condition. However, the DR/CAR database indicated "NO" in the field for Stop Work. The Corrective Action Coordinator changed both fields to the correct "Yes" status. The issue was isolated to two of the four CARs that were reviewed during the audit.
11. CR 805: AP-16.1Q, Revision 6, Section 5.3.1, paragraph i), requires the assigned QAR to identify (in block 13 of the deficiency document) the need for additional information to be included in the response. The documentation for BSC(B)-03-D-188 indicated a request for Impact and Action to Preclude Recurrence. The response indicated that these responses were not required based on the nature of the CAQ. Discussion with the QAR indicated that the boxes were inadvertently checked shortly after the response was prepared. Because the QAR was satisfied with all provided information, the QAR had closed BSC(B)-03-D-188. The QAR corrected the cover page as the records package of BSC(B)-03-D-188 had not been submitted. This condition was isolated to 1 of the 24 deficiency documents reviewed.

12. CR 807: AP-17.1Q, Revision 2, ICN 5, Section 5.2, paragraph c), item 3, requires that the first page of each record contain a QA designator of either a "QA: QA" for a QA record or a "QA: N/A" for a non-QA record. There were no quality designators for the following records:
  - A) BSC Supplier Document No. V0M00Z-QPA0-05391-00023-001, General Arrangement Cask & WP Receipt Buildings Plan View & Sections
  - B) BSC Supplier Document No. V0M00Z-QPA0-05391-00021-001, Cask Handling System Block Flow Diagram Level 2
13. CR 808: AP-18.2Q, Revision 0, ICN 1, Section 5.3.1, paragraph c), requires that the Supplier Survey/Audit Team Leader develop a notification and audit plan that identifies work activities being surveyed/audited. The Notification and Audit Plan for BQA-AS-03-06 of Westbay Instruments, Inc. did not include the supplier activities to be audited. This condition was found for one of the of the six notification and audit plans that were reviewed out of a total population of approximately 50 Fiscal Year 2003 external audits.

The team made the following recommendations:

1. Field Work Package (FWP) documents are not numbered consistently. The current numbering method is governed by AP-5.2Q, Revision 1, ICN 0, Section 5.1, paragraph b). Examples include:

- FWP-SBT-PA-000001, Revision 0, Inyo County Drilling and Testing Program
- FWP-ESF-PA-001, Revision 0, Geological Mapping
- FWP-ESF-PA-002, Revision 0, Consolidated Sampling

Given the inconsistent use of zeroes, the audit team recommends that the current numbering method be consistent, as is the new numbering process in AP-5.1Q, Attachment 5.

2. Revision 4 of AP-5.1Q defines "Revision" and "ICN" as follows:

- "Revision - A method of changing a procedure to make changes other than ICNs or editorial changes to fulfill a need to improve a procedure."
- "Interim Change Notice (ICN) - A method of changing a procedure where the changes are typically of a narrower scope than a revision."

The audit recommends that AP-5.1Q should have more precise definitions to "Revision" and "ICN."

The audit team identified one best practice: The subcontract administrators (Gwen Jacquet & Ron Butturini) for contract No. QA-HC4-0001, New England Research, Inc., should be recognized for this contract's excellent documentation package. This package was the best of those audited and should be used as the standard to other subcontract documentation packages.

## **1.0 INTRODUCTION**

### **1.1 PURPOSE AND SCOPE**

Representatives of the OCRWM conducted a compliance-based audit from September 22 to 26, 2003, of BSC activities and processes in Las Vegas, Nevada. The audit team assessed BSC compliance with their implementing procedures through personnel interviews and documentation reviews. In a follow-up to a previous audit, the audit team determined the effectiveness of corrective actions from closed BSC deficiency documents.

The audit team examined the implementation of the following QARD sections:

Section 1.0	Organization
Section 2.0	QA Program
Section 4.0	Procurement Document Control
Section 5.0	Implementing Documents
Section 6.0	Document Control
Section 7.0	Control of Purchased Items and Services
Section 15.0	Nonconformances
Section 16.0	Corrective Action
Section 17.0	QA Records
Section 18.0	Audits (limited to external)
Appendix C	Monitored Geologic Repository

### **1.2 AUDIT TEAM MEMBERS AND OBSERVER**

#### Audit Team Members

John R. Doyle, Navarro Quality Services (NQS)/Audit Team Leader

William J. Glasser, NQS/Auditor

Joseph R. Miller, BSC/Auditor

Christian M. Palay, NQS/Audit Team Leader in Training

Robert A. Toro, NQS/Auditor

Stephen F. Schuermann, BSC/Auditor

Attachment A, "Summary of Audit Results," details audit team member assignments.

#### Observer

Jack D. Parrot, U.S. Nuclear Regulatory Commission, On-Site Representative in Las Vegas, Nevada

## **2.0 AUDIT SUMMARY**

### **2.1 AUDIT MEETINGS AND PERSONNEL CONTACTED**

A pre-audit meeting was held on September 22, 2003, in Las Vegas, Nevada. Afternoon team caucuses identified the progress of the audit and discussed audit status, including potential

CAQs. The Audit Team Leader held morning meetings with BSC management that discussed the audit issues and status. The audit concluded with a post-audit meeting on September 26, 2003, in Las Vegas, Nevada.

Attachment B, "Personnel Interfaces," lists the personnel contacted during the audit, including those who attended the pre-audit and post-audit meetings.

## **2.2 PROGRAM DISCUSSION**

### **2.2.1 LP-1.0Q-BSC, Revision 3, ICN 0, *Organization***

BSC implements this procedure to describe the BSC responsibility for quality, delegation of work, and resolution of quality requirements disputes. The procedure also provides a description of the BSC general organization and relationships and describes the BSC organizational restructuring process. The audit team reviewed the organizational charts and documentation (see Attachment C for reviewed objective evidence) and determined that they were in compliance with the procedure with one exception. One CAQ was identified regarding the approval of LP-1.0Q-BSC. The QARD Section 1.2, requires that LP-1.0Q-BSC be accepted by the OCRWM OQA. LP-1.0Q-BSC, Section 5.5, paragraph b), requires only that the approved revisions of this procedure be sent to the Director of the OQA. This does not meet the requirements of the QARD. This noncompliance of LP-1.0Q-BSC with the QARD was documented in CR 795.

### **2.2.2 AP-2.1Q, Revision 2, ICN 2, *Indoctrination and Training of Personnel***

BSC implements this procedure to ensure that personnel are indoctrinated and trained, as necessary to achieve initial proficiency; to maintain proficiency; and to adapt to changes in technology, methods, or job responsibilities in order to perform their work. The audit team evaluated four Training and Requirements Matrices, and eight employee transcripts to verify procedural compliance (see Attachment C). Based on this review, the audit team concluded that BSC implementation satisfactorily complied with the procedure.

### **2.2.3 AP-2.2Q, Revision 1, ICN 2, *Establishment and Verification of Required Education and Experience of Personnel***

BSC is required to verify the education and experience of employees in relation to their position description in accordance with this procedure. BSC implementation was reviewed by visual inspection of a sample of employee position descriptions against the documented education and experience verifications. Attachment C lists the verification records evaluated by the audit team. The Verifications of Education and Experience (VoEE) of BSC staff were in compliance with the procedure.

#### **2.2.4 AP-2.12Q, Revision 0, ICN 4, *Peer Review***

BSC implements this procedure to plan, conduct, and document peer reviews. The audit team reviewed the one peer review activity that occurred since the last compliance audit of BSC. This was the Igneous Consequence Peer Review. Attachment C lists the relevant documents associated with the peer review that the audit team examined for compliance with the procedure. The audit team interviewed the Responsible Manager of the peer review for additional information regarding the development and approval of the peer review.

Although two CAQs were identified, the audit team concluded that the overall peer review package was in compliance with the procedure. The first noncompliance pertains to the content of the Peer Review Report on Igneous Consequences, which did not contain:

1. Individual statements by the panelists presenting their advice and recommendations
2. Biographies of the Peer Review Panelists

This is a violation of Section 5.3.4, paragraph c) from AP-2.12Q, Revision 0, ICN 4. This was documented in CR 796.

The second noncompliance is that the Peer Review Report and the Peer Review Evaluation Report for the Igneous Consequences Peer Review were incorrectly identified as QA: N/A. This was documented in CR 797.

#### **2.2.5 AP-2.19Q, Revision 0, ICN 0, *Quality Assurance Requirements and Description Matrix and Impact Evaluation***

This procedure is used by BSC to develop and periodically evaluate the Quality Assurance Requirements and Description Requirements Matrices (QRM). In addition, this procedure details the process for BSC to determine the impact to BSC procedures when the QARD is revised. BSC did perform an impact review for the latest revision to the QARD (Revision 13). The audit team reviewed the impact and its associated review records in the RISweb and verified that they were complete and adequate.

#### **2.2.6 AP-2.20Q, Revision 1, ICN 1, *Self-Assessments***

BSC implements this procedure to oversee, schedule, prepare, perform, and report self-assessments. The audit team reviewed 10 self-assessment reports (see Attachment C) out of 150 self-assessments performed through August 31, 2003. The audit team identified a CAQ from two self-assessment reports that involve quality-affecting activities designated as non-quality affecting (QA: N/A). This condition violates Section 5.5.1, paragraph a) and Section 6.1 of the procedure. This was documented in CR 798. Overall BSC implementation of this procedure was found to be satisfactory and well managed by the Self-Assessment Coordinator for BSC.

### **2.2.7 AP-2.22Q, Revision 1, ICN 0, *Classification Analyses and Maintenance of the Q-List***

This procedure is used by BSC to prepare, revise, and approve the classification analyses used as references for the *Q-list* of structures, systems, or components (SSC) that are determined to be important to safety and waste isolation. In addition, this procedure also establishes the responsibilities, criteria, and process for the revision and approval of the *Q-List*. At the time of the audit the interdisciplinary review of the Safety Classification of SSCs and Barriers was complete. Based on the review of the documentation (see Attachment C) and interviews with cognizant personnel (see Attachment B), the audit team concluded that implementation of this procedure was satisfactory.

### **2.2.8 AP-2.26Q, Revision 1, ICN 0, *Quality Assurance Surveillance***

BSC implements this procedure to conduct and document QA surveillances. The audit team reviewed 12 surveillance reports and their associated records packages for compliance with the procedure (see Attachment C). The total population was 117 internal BSC QA surveillances for Fiscal Year 2003. The audit team reviewed each surveillance report to ensure that the required content had been included, and to ensure that the surveillance report was appropriately processed. Based on this review, one noncompliance was identified and corrected during the audit. Given the nature of the one noncompliance and how easily it was corrected, the audit team concluded that implementation of this procedure was satisfactory.

The audit team identified a CAQ for one surveillance report that was not transmitted to the surveilled organization as required by Section 5.4, paragraph d) of AP-2.26Q. The QVM is supposed to forward the report to the Responsible Manager of the surveilled organization. BSC QA Surveillance Report, BQA-SI-03-009, was not forwarded to the Responsible Manager of BSC Records Management. The scope of this surveillance report covered BSC Records Management responsibilities. This condition was considered isolated as no other occurrences of this condition were observed during the audit. This condition was corrected and was documented in BSC(O)-03-D-280 per Revision 6 of AP-16.1Q. The BSC QVM forwarded the report via e-mail to the Responsible Manager of BSC Records Management. A cross-reference between this CR and the records for the surveillance report BQA-SI-03-009 (MOL.20030206.0226) was created on the transmittal of the CR BSC(O)-03-D-280 to the Records Processing Center (RPC). These actions were verified as complete and satisfactory by the audit team.

### **2.2.9 AP-2.27Q, Revision 1, ICN 1, *Planning for Scientific Activities***

BSC implements this procedure to prepare, review, approve, revise, cancel, and distribute work plans for activities subject to QARD Supplement III. Such activities include modeling, testing in the laboratory and field, documenting scientific analysis, and producing other science-related documents and technical products. The audit team reviewed the records packages for three work plans (see Attachment C). The audit team determined that the document identification and preparation, reviews of the plans and the impacts, and the approvals were done in compliance with procedure.

**2.2.10 LP-SA-001Q-BSC, Revision 0, ICN 0, *Determination of Importance and Site Performance Protection Evaluations***

This procedure is used by BSC to evaluate activities for adverse impacts and to establish appropriate QA controls to prevent or minimize such potential impacts at the Yucca Mountain Project site. With this procedure, BSC can also identify permanent items and direct, as necessary, classification (via AP-2.22Q) to be performed for inclusion of items in the *Q-List*. Few determinations of importance have been documented because there is very little activity at the site. The audit team did review the two determinations (see Attachment C) of importance completed in the past year. The audit team concluded that both packages were in compliance with the procedure.

**2.2.11 LP-4.3Q-BSC, Revision 0, ICN 4, *Subcontracts***

BSC implements this procedure to prepare Subcontracts for Engineering/Science, Procurement, and/or Construction of Facilities or the support of other project objectives. The audit team reviewed five subcontracts (see Attachment C) out of population of 33 available quality-affecting subcontracts excluding the contracts that BSC has with the National Laboratories. The audit team concluded that the five reviewed subcontracts satisfactorily implemented the requirements of the procedure. The audit team did discover a best practice associated with the subcontract QA-HC4-00001, New England Research, Inc. The BSC administrators for that subcontract have assembled an excellent example of a procurement contract documentation package. This package is exceptionally well organized, contains all required information, and complies with all procedural requirements. This package was the best observed from the procurement department files and the responsible administrators. This package should be considered as a model for procurement contract package format and assembly.

**2.2.12 LP-4.4Q-BSC, Revision 0, ICN 4, *Technical Service Agreements***

This procedure is implemented by BSC to prepare Technical Service Agreements (TSA) for analysis of discrete scopes of work, independent verification, peer review, computer program development or application, surveying, and testing or calibration services. The audit team evaluated eight procurement documents (see Attachment C). These documents provided a description and scope of the desired technical services, deliverables, duration of the agreement, delineation of responsibilities, technical qualifications, and quality requirements. Reviews of the eight procurement documents were conducted in accordance with AP-2.14Q, Revision 3, *Document Review*. Approvals of the eight procurement documents were conducted in accordance with LP-4.5Q-BSC, Revision 3, ICN 0, *Purchase Requisitions and Procurement Documents*. The audit team determined the eight procurements documents were satisfactorily in compliance with LP-4.4Q-BSC, AP-2.14Q, and LP-4.5Q-BSC.

### **2.2.13 LP-4.5Q-BSC, Revision 3, ICN 0, *Purchase Requisitions and Procurement Documents***

BSC implements this procedure to assist in the preparation of requisitions and procurement documents to procure items or services. The audit team evaluated nine procurement documents (see Attachment C). A unique requisition number is provided electronically through the Automated Procurement System database. The Statements of Work for these nine procurement documents contained technical and quality requirements. The Requester/Formation Team performed a final review of the Request for Proposal (RFP)/Technical Bid Evaluation and Award package along with management review and approval (Project Procurement Representative, Subcontracts Manager, Compliance Manager, and Procurement Manager). The Requester/Responsible Manager, authorized Procurement Representative, and an independent technical reviewer provided RFP approval/concurrence for quality-affecting procurements. Modifications, changes, or revisions, including alternates or exceptions, to the original procurement document indicated the same level of review and approval as the original. Based on the review of the nine procurement documents, the audit team concluded that BSC implementation of this procedure was satisfactory.

### **2.2.14 AP-5.1Q, Revision 4, ICN 2, *Procedure Preparation, Review, and Approval***

This procedure is used by BSC to prepare, review, approve, maintain, and cancel OCRWM Administrative Procedures and Line Procedures. BSC implementation of this procedure was not assessed in this audit. The compliance of this procedure will be covered in the future OCRWM audit of BSC procedural adequacy and BSC implementation of AP-5.1Q to prepare, review, and approve procedures. The audit team does have one recommendation for BSC Management consideration.

In the current revision of AP-5.1Q, the definitions of "Revision" and "ICN" are stated as follows:

- "Revision - A method of changing a procedure to make changes other than ICNs or editorial changes to fulfill a need to improve a procedure."
- "Interim Change Notice (ICN) - A method of changing a procedure where the changes are typically of a narrower scope than a revision."

The audit recommends that AP-5.1Q should have more precise definitions to "Revision" and "ICN."

### **2.2.15 AP-5.2Q, Revision 1, ICN 0, *Testing Work Implementation and Control***

BSC implements this procedure to initiate, develop, review, approve, issue, revise, and implement FWP for testing activities. The audit team reviewed three FWPs (see Attachment C). The audit team satisfactorily verified the procedural compliance of the FWPs development,

review, and approval. The audit team did note that FWP documents are not numbered consistently. The current numbering method is governed by AP-5.2Q, Revision 1, ICN 0, Section 5.1, paragraph b). Examples include:

- FWP-SBT-PA-000001, Revision 0, Inyo County Drilling and Testing Program
- FWP-ESF-PA-001, Revision 0, Geological Mapping
- FWP-ESF-PA-002, Revision 0, Consolidated Sampling

Given the inconsistent use of zeroes, the audit team recommends that the current numbering method be consistent, as is the new numbering process in AP-5.1Q, Attachment 5.

#### **2.2.16 AP-6.1Q, Revision 7, ICN 1, *Document Control***

This procedure is used by BSC to identify, release, receive, distribute, disposition, and maintain controlled documents and changes thereto. The audit team reviewed the Master Control Document Maintenance Report from September 22, 2003. In addition, the audit team reviewed the Document Submittal forms for 21 controlled documents. The audit team also attempted to determine how the *Procedure Responsibilities Matrix*, Revision 2, was put into the OPDD. The OPDD is the electronic repository where controlled documents can be found electronically via Lotus Notes.

The audit team could not find any objective evidence of a completed Document Submittal form for the *Procedure Responsibilities Matrix*. This document had been processed by Document Control, which violates Section 5.3.2 of the procedure. Item 1 of this section requires that Document Control verify that the document agrees with the Document Submittal form and the form is administratively complete. Because there was no Document Submittal form, there is no objective evidence that Document Control complied with item 1. This CAQ was documented as CR 800.

During the review of the controlled documents that were identified as having come from INEEL, the audit team discovered that the Document Submittal forms for these documents were not completed by Document Control as required by Section 5.3.2 of the procedure. These documents are from the NSNFP, although the OPDD indicates these documents were from INEEL. This CAQ was documented as CR 799.

Despite the two noncompliances, the audit team determined that BSC procedural implementation was satisfactory based on the overall effectiveness of current controlled document tracking, the compliance of the controlled document holders, and the awareness of personnel interviewed with the current document control system.

#### **2.2.17 LP-7.1Q-BSC, Revision 0, ICN 1, *Technical Bid Evaluation***

BSC implements this procedure to prepare, review, and control technical bids and proposal evaluations for Materials or Subcontracts. The audit team reviewed five subcontracts (see Attachment C) out of population of 33 available quality-affecting subcontracts excluding the

contracts that BSC has with the National Laboratories. Through interviews with cognizant personnel (see Attachment B) and reviews of the documentation associated with those five subcontracts, the audit team was able to evaluate procedural compliance. The overall compliance of those five subcontracts was determined by the audit team to be satisfactory with one exception.

The audit team identified a CAQ regarding the approval of one subcontract bid tabulation. There was no objective evidence of the required review and approval for the subcontract associated with Purchase Order Number 004223, "Weld Filler Material and Base Metal Composition Test, Wah Chang," from Allegheny Technologies, Inc. A graphical representation was used in lieu of the required Bid Tabulation Form and the Requestor, Discipline Lead Engineer/Responsible Manager, and the Project Manager/Functional Manager did not approve that graphical representation as required by Sections 5.4.1, 5.4.2, and 5.4.4 of the procedure. This CAQ was documented in CR 801.

#### **2.2.18 LP-7.2Q-BSC, Revision 0, ICN 2, *Engineering Review of Supplier Submittals and SDDR***

This procedure is used by BSC to track and technically review supplier engineering documents, supplier quality verification documents, subcontractor documents, and supplier deviation disposition requests (SDDRs). These activities are a direct result of specifications or procurement requisition documents required, developed, and processed by AP-3.19Q, LP-4.3Q-BSC, LP-4.4Q-BSC, and LP-4.5Q-BSC. Supplier submittals are a primary source of technical information required for detailed design. These activities form an integral part of the design development and documentation process defined in AP-3.13Q, *Design Control*. Each submittal or SDDR from the supplier or subcontractor is assigned a unique project tracking number, which includes the contract number, and is tracked into a database. Supplier documents other than SDDRs have a Supplier Document Status Stamp affixed to either the hard copy or electronic version. A Responsible Engineer is assigned to conduct a technical review of engineering-requested documents and deviation request submitted by the supplier or subcontractor. Results of the audit team's evaluation indicate satisfactory compliance to LP-7.2Q-BSC.

#### **2.2.19 AP-7.4Q, Revision 5, ICN 3, *Supplier Evaluation and Qualified Supplier List (QSL) Maintenance***

This procedure is implemented by BSC to perform supplier evaluations and maintain the QSL. A QAR performs an evaluation of suppliers not currently listed on the QSL, suppliers currently listed on the QSL who require changes to the approved scope of work, or changes in the approved supplier QA Program. The QAR documents the results of the supplier QA records evaluation, supplier history evaluation, or supplier survey/audit on a Supplier Evaluation Report (SER). An annual evaluation is also performed and documented. SERs were reviewed, including the QSL review and submittal to the RPC. The audit team reviewed 17 SERs, 1 Supplier Audit Report, and the last hard copy of the QSL submitted to the RPC. The audit team concluded that BSC implementation of this procedure was satisfactory.

**2.2.20 AP-7.7Q, Revision 2, ICN 0, *Acceptance of Items and Services***

BSC implementation of this procedure was not evaluated during this audit. The audit team determined that the BSC Site audit, OQAC-BSC-03-04, and the National Laboratory audits (BQAC-LANL-03-08, BQAC-LBNL-03-15, BQAC-SNL-03-16, BQAC-BSC-03-12) previously covered BSC implementation of this procedure.

**2.2.21 LP-PMM-006Q-BSC, Revision 0, ICN 2, *Shipping Notices***

Evaluation of LP-PMM-006Q-BSC implementation involved the process for packaging, marking, shipping, and administration of non-quality, quality, hazardous, or radioactive property, equipment, or materials to ensure that shipments and returns are properly authorized and documented. An on-site evaluation of the Arville Warehouse was conducted. The warehouse maintains a current listing of those authorized to sign Shipping Notices. Shipping Notices and Register numbers have a prefix to indicate the originating location (i.e., ARV for Arville Warehouse). A bill of lading accompanies the Shipping Notice. Materials to be shipped are packed in accordance with the appropriate method of shipment. Shipments of hazardous materials are not combined with non-hazardous personal property. The Supervisor and Materials Specialist at the warehouse meet the training and certification requirements for handling and packaging hazardous material shipments. However, there has been no transport of hazardous material off the site. The audit team concluded BSC was satisfactorily in compliance with the procedure.

**2.2.22 AP-15.3Q, Revision 0, ICN 0, *Control of Technical Product Errors***

This procedure is used by BSC to identify, document, evaluate, and disposition technical errors in approved scientific or performance assessment products. When a technical error in an approved product is discovered, a Technical Error Report (TER) is the document created as a result of the procedure. TERs are tracked on a locally available database and are dispositioned by technically competent individuals. A BSC Quality Engineering Representative then verifies the completed disposition results. The audit team reviewed 11 TERs and verified that the TERs were in compliance with the procedure. The audit team also verified that errata sheets were adequately and appropriately posted to the applicable approved documents as specified per the procedure.

There was a previous BSC QA surveillance to evaluate the effectiveness of adequacy of the TER process. A CAQ, BSC(B)-03-D-116, was documented to address the timeliness of TER closure as a result of the surveillance. The audit team did not find a recurrence of this condition.

**2.2.23 AP-16.1Q, Revision 5 and Revision 6, *Management of Conditions Adverse to Quality***

BSC implements this procedure to identify and correct CAQs. The audit team had two objectives in evaluating BSC compliance with this procedure. The first objective was to determine that BSC has processed corrective action documentation in accordance with the

procedure. The second objective was to determine the effectiveness of corrective actions for the deficiency reports that have been closed during the calendar year before this audit.

The audit team reviewed randomly sampled deficiency documents in various stages of the process. The clarity of the deficiency documents and the adequacy of the identified responses were reviewed by the audit team to confirm that the accepted actions appropriately addressed the identified CAQs. In addition, the audit team reviewed closed deficiency documents that identified CAQs in areas under the scope of this audit to determine corrective action effectiveness.

The total sample size was 62 deficiency documents that were reviewed for appropriate processing. The audit team identified three CAQs relative to processing errors. None of these processing errors rendered the deficiency identification and resolution indeterminate. Therefore, the audit team concluded that implementation of the procedure was satisfactory.

CR 802 documents five processing violations of AP-16.1Q, Revision 5 and Revision 6.

1. In accordance with AP-16.1Q, Revision 6, Section 2.0, transition of open deficiency documents from Revision 5 to Revision 6 required the addition of a CR cover page for each open deficiency. BSC(V)-03-D-117 did not have the required cover page. This condition was observed on only 1 of 16 documents reviewed for this attribute.
2. AP-16.1Q, Revision 5, Section 5.7.2, paragraph c); Revision 6, Attachment 6, blocks 3 and 11, and Revision 6, Section 5.5.3, paragraph b), requires the re-evaluation of the significance of a deficiency. The response for one of 24 deficiencies, BSC(B)-03-D-233, did not have the significance box checked as part of the Extent of Condition. The following 12 of 24 deficiency documents did not have the QA re-evaluation for significance completed:  
  
BSC(V)-02-D-163, BSC(B)-02-D-142, BSC(B)-03-D-029, BSC(B)-03-D-079, BSC(B)-03-D-119, BSC(V)-03-D-180, BSC(B)-03-D-193, BSC(B)-03-D-233, BSC(B)-03-D-224, BSC(B)-03-D-188, BSC(B)-03-D-231, BSC(B)-03-D-235.
3. Block 3 on BSC(B)-03-D-158 for Extended Processing Applicability was not addressed as required by Revision 5, Attachment 11, response instruction for block 3. This condition was noted for 1 of 21 documents reviewed.
4. BSC(B)-02-D-169 void documentation does not have the signature of the QAR nor request for acknowledgement by the initiator as required by AP-16.1Q, Revision 5, Section 5.3.1, paragraph c). The void documentation requested initiator concurrence, but the initiator indicated a preference to not sign the concurrence for the void documentation. This condition occurred in only one of six voided documents reviewed.
5. In accordance with Revision 5, Attachment 10, block 9, instructions, the QAR did not identify the stop work evaluation results or applicability on BSC(B)-03-D-170. The team reviewed 24 documents.

CR 803 documents a CAQ for which the corrective actions have been completed and verified by the audit team. AP-16.1Q, Revision 5, Attachment 7, Section 3.0 requires that a log be used to maintain the status of each condition, including if a stop work condition exists.

The DR/CAR database on Lotus Notes is used as the CAQ log. Two CARs, USGS(V)-02-C-161 and USGS(V)-03-C-095, both reflect a stop work condition. However, the DR/CAR database indicated “NO” in the field for Stop Work. The Corrective Action Coordinator changed both fields to the correct “Yes” status. The issue was identified for two of the four Corrective Action Reports that were reviewed during the audit.

CR 805 documents a CAQ for which all corrective actions have been completed and verified by the audit team. AP-16.1Q, Revision 6, Section 5.3.1, paragraph i), requires the assigned QAR to identify (in Block 13 of the deficiency document) the need for additional information to be included in the response. The documentation for BSC(B)-03-D-188 indicated a request for Impact and Action to Preclude Recurrence. The response indicated that these responses were not required based on the nature of the CAQ. Discussion with the QAR indicated that the boxes were inadvertently checked shortly after the response was prepared. Because the QAR was satisfied with all provided information, the QAR had closed BSC(B)-03-D-188. The QAR corrected the cover page because the records package for BSC(B)-03-D-188 had not been submitted. This condition was isolated to 1 of the 24 deficiency documents reviewed.

#### **2.2.24 AP-17.1Q, Revision 2, ICN 5, *Record Source Responsibilities for Inclusionary Records***

This procedure is used by BSC to create, complete, protect, correct, and submit inclusionary records and reporting record problems. Attachment C lists the records that were reviewed by the audit team to ascertain BSC procedural compliance with this procedure. There was one specific noncompliance with this procedure noted by the audit team.

AP-17.1Q, Revision 2, ICN 5, Section 5.2, paragraph c), item 3, requires that the first page of each record have a QA designator. There are no quality designators noted for the following drawings submitted to document control:

1. BSC Supplier Document No. V0M00Z-QPA0-05391-00023-001, General Arrangement Cask & WP Receipt Buildings Plan View & Sections
2. BSC Supplier Document No. V0M00Z-QPA0-05391-00021-001, Cask Handling System Block Flow Diagram Level 2

This CAQ was documented in CR 807.

The audit determined that the compliance of the overall record creation, completion, protection, correction, and submission was found to be satisfactory. This determination was based on the limited sample size of records created in the other procedures covered in this audit (see Attachment C).

#### **2.2.25 LP-17.1Q, Revision 1, ICN 1, *Processing Inclusionary Records***

BSC Records Management implements this procedure to process the inclusionary records of OCRWM from receipt at the RPC to long-term storage. The audit determined that compliance with this procedure was satisfactory. This determination was based on the review of records created in the other procedures covered in this audit and some additional documents (see Attachment C) and the interview of records management personnel (see Attachment B).

#### **2.2.26 AP-18.2Q, Revision 0, ICN 1, *Supplier Surveys/Audits***

BSC implements this procedure to perform QA supplier surveys or audits. The audit team reviewed six supplier survey/audit reports (see Attachment C). The total population of supplier surveys/audits was approximately 50 Fiscal Year 2003 external audits. The audit team identified one noncompliance with the procedure that was documented as CR 808. The procedure requires the Supplier Survey/Audit Team Leader to develop a notification and audit plan that identifies the Supplier work activities being surveyed/audited. The notification and audit plan for BQA-AS-03-06 of Westbay Instruments, Inc., did not include the supplier activities to be audited. This CAQ was documented in CR 808.

#### **2.2.27 AP-AC.1Q, Revision 0, ICN 2, *Expert Elicitation***

This procedure has not been implemented on the Yucca Mountain Project since 1998. No assessment is therefore made on the implementation of expert elicitation.

### **3.0 AUDIT RESULTS**

#### **3.1 PROGRAM ADEQUACY, IMPLEMENTATION, AND EFFECTIVENESS**

The audit team determined that BSC was in compliance with programmatic procedures except for the 13 isolated or minor CAQs. The audit team concluded that, overall, BSC was effective in implementation of the QA Program.

#### **3.2 AUDIT ACTIVITIES**

In summary, the audit team reviewed the BSC activities related to organization, training, personnel qualifications, self-assessments, classification of items, determinations of importance, procurement, field work packages, technical error reports, corrective actions, record source responsibilities, and external surveys/audits of suppliers.

#### **3.3 SUMMARY OF AUDIT RESULTS**

The audit team identified 13 CAQs that were documented in accordance with the appropriate revisions of AP-16.1Q. The audit team made two recommendations for BSC management consideration. The audit team identified one best practice for BSC management recognition.

### 3.3.1 Condition Reports

CR 795: The QARD Section 1.2, requires that LP-1.0Q-BSC be accepted by the OCRWM OQA. LP-1.0Q-BSC, Section 5.5, paragraph b), requires only that the approved revisions of this procedure be sent to the Director of the OQA. This does not meet the requirements of the QARD.

CR 796: AP-2.12Q, Revision 0, ICN 4, Section 5.3.4, item 4, requires that an individual peer review report (as opposed to a consensus peer review report) contain statements from the individual peer review panelists presenting their advice and recommendations. Item 6 requires that the peer review report contain the biographies of the peer review panelists. The Peer Review Report on Igneous Consequences did not meet these requirements.

CR 797: AP-2.12Q, Revision 0, ICN 4, Section 6.1, requires that the peer review report and the peer review evaluation report be identified as QA: QA. The Peer Review Report and The Peer Review Evaluation Report for the Igneous Consequences Peer Review were incorrectly identified as QA: N/A.

CR 798: AP-2.20Q, Revision 1, ICN 1, Section 5.5.1, paragraph a), and Section 6.1, requires that the reports of self-assessments that evaluate quality-affecting activities be identified as QA: QA. The following self-assessments were incorrectly identified as QA: N/A:

1. SA-RDP-2003-007, *Document Management-Review of the Records and Documentation Supporting Technical Products for Compliance with Applicable Procedure AP-6.1Q*
2. SA-SOP-2003-011, *Self-Assessment Surveying for Safety Analysis Related Data Acquisition*

DR BSC(O)-03-D-280: (Note: This DR was documented per Revision 6 of AP-16.1. It was initiated, verified, and closed before the end of the audit.) AP-2.26Q, Revision 0, ICN 0, Section 5.4, requires that the QVM forward the surveillance report to the Responsible Manager of the surveilled organization. The BSC QA Surveillance Report, BQA-SI-03-009, was not forwarded to the Records Management Responsible Manager, even though the surveillance report did cover Records Management responsibilities and activities.

CR 799: AP-6.1Q, Revision 7, ICN 1, Section 5.3.2 requires that Document Control verify the completion of the Document Submittal form for submitted documents into the controlled document repository. The Document Submittal forms were not complete as required for the NSNFP documents on OPDD (identified as INEEL documents).

CR 800: AP-6.1Q, Revision 7, ICN 1, Section 5.3.2, requires that Document Control verify the completion of the Document Submittal form for documents submitted into the controlled document repository. There was no objective evidence that the Document Submittal form for the

Procedure Responsibilities Matrix was completed, yet Document Control had accepted the Procedure Responsibilities Matrix in the controlled document repository.

CR 801: LP-7.1Q-BSC, Revision 0, ICN 1, Sections 5.4.1, 5.4.2, and 5.4.4, require that a Bid Tabulation form (LP71-1) be used to document the required approvals from the Requestor, Discipline Lead Engineer/Responsible Manager, and the Project Manager/Functional Manager. There was no objective evidence that the required form was used for the subcontract associated with Purchase Order Number 004223, "Weld Filler Material and Base Metal Composition Test, Wah Chang," from Allegheny Technologies, Inc. A graphical representation was used in lieu of the required Bid Tabulation Form and the Requestor, Discipline Lead Engineer/Responsible Manager, and the Project Manager/Functional Manager did not approve that graphical representation as required by the procedure.

CR 802: This condition report documents five processing violations of AP-16.1Q, Revision 5 and Revision 6.

1. In accordance with AP-16.1Q Revision 6, Section 2.0, transition of open deficiency documents from Revision 5 to Revision 6 required the addition of a CR cover page for each open deficiency. BSC(V)-03-D-117 did not have the required cover page. This condition was observed on only 1 of 16 documents reviewed for this attribute.
2. AP-16.1Q, Revision 5, Section 5.7.2, paragraph c); Revision 6, Attachment 6, blocks 3 and 11; and Revision 6, Section 5.5.3, paragraph b), require the re-evaluation of the significance of a deficiency. The response for 1 of 24 deficiencies, BSC(B)-03-D-233, did not have the significance box checked as part of the Extent of Condition. The following 12 of 24 deficiency documents did not have the QA re-evaluation for significance completed:  
  
BSC(V)-02-D-163, BSC(B)-02-D-142, BSC(B)-03-D-029, BSC(B)-03-D-079, BSC(B)-03-D-119, BSC(V)-03-D-180, BSC(B)-03-D-193, BSC(B)-03-D-233, BSC(B)-03-D-224, BSC(B)-03-D-188, BSC(B)-03-D-231, BSC(B)-03-D-235.
3. Block 3 on BSC(B)-03-D-158 for Extended Processing Applicability was not addressed as required by Revision 5, Attachment 11, response instruction for block 3. This condition was noted for 1 of 21 documents reviewed.
4. BSC(B)-02-D-169 void documentation does not have signature of QAR nor request for acknowledgement by the initiator as required by AP-16.1Q, Revision 5, Section 5.3.1, paragraph c). The void documentation requested initiator concurrence, but the initiator indicated a preference to not sign the concurrence for the void documentation. This observation represents only 1 of 6 voided documents reviewed.
5. In accordance with Revision 5, Attachment 10, block 9 instructions, the QAR did not identify the stop work evaluation results or applicability on BSC(B)-03-D-170. The team reviewed 24 documents.

CR 803: AP-16.1Q, Revision 5, Attachment 7, Section 3.0 requires that a log be used to maintain the status of each condition, including if a stop work condition exists. The DR/CAR database on Lotus Notes is used as the CAQ log. Two CARs, USGS(V)-02-C-161 and USGS(V)-03-C-095, both reflect a stop work condition. However, the DR/CAR database indicated “NO” in the field for Stop Work. The Corrective Action Coordinator changed both fields to the correct “Yes” status. The issue was isolated to the two of the four CAR that were reviewed during the audit.

CR 805: AP-16.1Q, Revision 6, Section 5.3.1, paragraph i) requires the assigned QAR to identify (in block 13 of the deficiency document) the need for additional information to be included in the response. The documentation for BSC(B)-03-D-188 indicated a request for Impact and Action to Preclude Recurrence. The response indicated that these responses were not required based on the nature of the CAQ. Discussion with the QAR indicated that the boxes were inadvertently checked shortly after the response was prepared. Because the QAR was satisfied with all provided information, the QAR had closed BSC(B)-03-D-188. The QAR corrected the cover page since the record package of BSC(B)-03-D-188 had not been submitted. This condition was isolated to 1 of the 24 deficiency documents reviewed.

CR 807: AP-17.1Q, Revision 2, ICN 5, Section 5.2, paragraph c), item 3, requires that the first page of each record contain a QA designator of either a “QA: QA” for a QA record or “QA:NA” for a non-QA record. There were no quality designators for the following records:

1. BSC Supplier Document No. V0M00Z-QPA0-05391-00023-001, General Arrangement Cask & WP Receipt Buildings Plan View & Sections
2. BSC Supplier Document No. V0M00Z-QPA0-05391-00021-001, Cask Handling System Block Flow Diagram Level 2

CR 808: AP-18.2Q, Revision 0, ICN 1, Section 5.3.1, paragraph c), requires that the Supplier Survey/Audit Team Leader develop a notification and audit plan that identifies work activities being surveyed/audited. The Notification and Audit Plan for BQA-AS-03-06 of Westbay Instruments, Inc. did not include the supplier activities to be audited. This condition was found for one of the six notification and audit plans were reviewed out of a total population of approximately 50 Fiscal Year 2003 external audits.

### **3.3.2 Recommendations**

1. FWP documents are not numbered consistently. The current numbering method is governed by AP-5.2Q, Revision 1, ICN 0, Section 5.1, paragraph b). Examples include:
  - FWP-SBT-PA-000001, Revision 0, Inyo County Drilling and Testing Program
  - FWP-ESF-PA-001, Revision 0, Geological Mapping
  - FWP-ESF-PA-002, Revision 0, Consolidated Sampling

Given the inconsistent use zeroes, the audit team recommends that the current numbering method be consistent, as is the new numbering process in AP-5.1Q, Attachment 5.

2. In the current revision of AP-5.1Q, the definitions of “Revision” and “ICN” are stated as follows:
- "Revision - A method of changing a procedure to make changes other than ICNs or editorial changes to fulfill a need to improve a procedure."
  - "Interim Change Notice (ICN) - A method of changing a procedure where the changes are typically of a narrower scope than a revision."

The audit team recommends that AP-5.1Q should have more precise definitions.

### **3.3.3 Best Practices**

The subcontract administrators (Gwen Jacquet & Ron Butturini) for contract No. QA-HC4-0001, New England Research, Inc., should be recognized for this contract’s excellent documentation package. This package was the best of those audited and should be used as the standard for other subcontract documentation packages.

### **3.3.4 Follow-Up of Previously Issued Deficiency Documents**

- BSC(B)-03-D-197: This DR was closed on 7/21/2003. The subject of this deficiency was that the Bid/Proposal Tabulation was completed prior to the performance and acceptance of the required AP-7.4Q governed Supplier Evaluation. The audit team observed no recurrences of this condition.
- BSC(B)-03-D-150: This DR was closed on 08/07/2003. The subject of this deficiency was that Technical Work Plans lacked the required clear statements regarding standards and criteria and QA applicability. The audit team observed no recurrences of this condition.
- BSC(B)-03-D-224: This DR was closed on 08/26/2003. The subject of this deficiency was that required training to a specific procedure was not taken. The audit team observed no recurrences of this condition.
- BSC(B)-03-D-040: This DR was closed on 03/11/2003. The subject of this deficiency was that personnel training for the procurement process was not sufficiently addressed by Functional Managers. The audit team observed no recurrences of this condition.
- BSC(B)-03-D-074: This DR was closed on 04/25/2003. The subject of this deficiency was that verification of qualifying experience for personnel was not done in accordance with procedure. The audit team observed no recurrences of this condition.
- BSC(B)-02-D-159: This DR was closed on 05/14/2003. The subject of this deficiency was that there was no required verification of education and experience of personnel. The audit team observed no recurrences of this condition.

#### **4.0 ATTACHMENTS**

Attachment A - Summary of Audit Results

Attachment B - Personnel Interfaces

Attachment C - Objective Evidence Examined

**Attachment A - Summary of Audit Results**

QARD Section	Implementing Documents	Auditor	Condition Reports	Recommendations	Best Practices	Compliance	Overall
1.0	LP-1.0Q-BSC, REV 3 ICN 0	J. D.	#795			Satisfactory	Effective
2.0	AP-2.1Q REV 2 ICN 2	C. P.				Satisfactory	Effective
	AP-2.2Q REV 1 ICN 2	C. P.				Satisfactory	
	AP-2.12Q REV 0 ICN 0	S. S.	#796, #797			Satisfactory	
	AP-2.19Q REV 0 ICN 0	J. D.				Satisfactory	
	AP-2.20Q REV 1 ICN 1	J. D.	#798			Satisfactory	
	AP-2.22Q REV 0 ICN 1	C. M.				Satisfactory	
	AP-2.26Q REV 1 ICN 0	C. P.	DR BSC(O)-03-D-280			Satisfactory	
	AP-2.27Q REV 1 ICN 1	J. D.				Satisfactory	
4.0	LP-SA-001Q-BSC REV 0 ICN 0	J. D.				Satisfactory	Effective
	LP-4.3Q-BSC REV 0 ICN 4	C. M.			1	Satisfactory	
	LP-4.4Q-BSC REV 0 ICN 4	B. T.				Satisfactory	
	LP-4.5Q-BSC REV 3 ICN 0	B. T.				Satisfactory	
5.0	AP-5.2Q REV 1 ICN 0	S. S.		#1, #2*		Satisfactory	Effective
6.0	AP-6.1Q REV 7 ICN 1	J. D.	#799, #800			Satisfactory	Effective
7.0	LP-7.1Q-BSC REV 0 ICN 1	C. M.	#801			Satisfactory	Effective
	LP-7.2Q-BSC REV 0 ICN 2	B. T.				Satisfactory	
	AP-7.4Q REV 5 ICN 3	B. T.				Satisfactory	
	AP-7.7Q REV 2 ICN 0	B. T.				Satisfactory	
	LP-PMM-006Q-BSC REV 0 ICN 2	B. T.				Satisfactory	
15.0	AP-15.3Q REV 0 ICN 0	J. D.				Satisfactory	Effective
16.0	AP-16.1Q REV 5 and REV 6	B. G.	#802, #803. #805			Satisfactory	Effective
17.0	AP-17.1Q REV 2 ICN 5	S. S.	#807			Satisfactory	Effective
	LP-17.1Q-BSC REV 1 ICN 1	S. S.				Satisfactory	
18.0	AP-18.2Q REV 0 ICN 1	C. P.	#808			Satisfactory	Effective
Appendix C	AP-AC.1Q REV 0 ICN 2	C. M.				Satisfactory	Effective

\* AP-5.1Q recommendation resulted from AP-5.2Q

**Attachment B - Personnel Interfaces**

Name	Organization	Pre-Audit Meeting	Contacted During Audit	Post-Audit Meeting
Bonna Savarise	BSC/Administrative and Technical Support		X	
Melinda D'Ouille	BSC/Administrative and Technical Support		X	
James Hollins	BSC/Safety Assurance		X	
Howard Rael	BSC/Safety Assurance		X	
Shellie Rucinski	BSC/Quality Assurance	X	X	
Gordon Pedersen	BSC/Repository Development		X	
James Hayes	BSC/Repository Development		X	
Denise Pernini	BSC/Records Management and Document Control		X	
Philip Daquino	BSC/Records Management and Document Control		X	
Emmanuel Perez	BSC/Records Management and Document Control		X	
John Clark	BSC/Methods and Procedures		X	
Darrell Von Der Linden	BSC/Procurement and Property,	X	X	X
Mike Eldred	BSC/Subcontracts/Purchasing		X	x
Dawn Perry	BSC/Procurement and Property		X	
Carolyn Makaena	BSC/Subcontracts/Purchasing		X	
Robert Oliver	BSC/Subcontracts/Purchasing		X	
Gerald Piscitelli	BSC/Procurement/Property Compliance		X	
John Timmons	BSC?Procurement Engineering		X	X
Martha Pendleton	BSC/Natural Barriers Group		X	
Chuck Taylor	BSC/Quality Assurance		X	
E.K. (Willie) Williams	BSC/Quality Assurance		X	
Venkataraman Pasupathi	BSC/Waste Package Modeling and Materials		X	
Robert Hartstern	BCC/Quality Assurance	X	X	X
Michael Goyda	BSC/Quality Assurance		X	

**Attachment B- Personnel Interfaces (Continued)**

Name	Organization	Pre-Audit Meeting	Contacted During Audit	Post-Audit Meeting
Kathleen Thompson	BSC/Records Management and Document Control		X	
Scott Bowlinger	BSC/Records Management and Document Control		X	
Marty Johnson	BSC/Records Management and Document Control		X	
Bobbie Calcote	BSC/Records Management and Document Control		X	
Alan Mitchell	BSC/Test Coordination Office		X	
Mark Esp	BSC/Test Coordination Office		X	
Doug Weaver	BSC/Test Coordination Office	X	X	
Jean Younker	BSC/Chief Science Officer	X	X	X
Thomas Rodgers	BSC/Management Systems		X	
Carol Passos	BSC/Engineered Systems		X	
Dennis Richardson	BSC/Preclosure Safety Analysis		X	
Jo Ziegler	BSC/Preclosure Safety Analysis		X	
Rob Garrett	BSC/Preclosure Safety Analysis		X	
Ron Berlien	BSC/Quality Assurance		X	
Charles Beach	BSC/Management Systems		X	
Marco Lee	BSC/Performance Assessment and Improvement		X	
Fred Walden	BSC/Records Management and Document Control		X	X
Kathy Steel	BSC/Records Management and Document Control		X	
Qiana Johnson	BSC/Records Management and Document Control		X	
Dennis Jerome	BSC/Records Management and Document Control		X	
Novella Chaffin	BSC/Records Management and Document Control		X	
Andre Matson-Morse	BSC/Records Management and Document Control		X	
Danilo Garcia	BSC/Arville Warehouse		X	

**Attachment B - Personnel Interfaces (Continued)**

Name	Organization	Pre-Audit Meeting	Contacted During Audit	Post-Audit Meeting
Kenneth Hall	BSC/Arville Warehouse		X	
J.D. Eldred	BSC/Arville Warehouse		X	
Robb Keele	BSC/Quality Assurance		X	
Roxanna VanDillen	BSC/Quality Assurance			X
Jim H	BSC/Records Management & Document Control	X		X
F. R. Baldwin	BSC/QA Management Assessment, Team Member			X
Bobbie Cacote	BSC/Records Managment & Document Control			
Charles Bartley	BSC/Methods & Procedures			
Jeffrey Smith	BSC/Procurement Compliance Manager			X
Ed Brumfield	BSC/Quality Assurance			X
Paul Turner	BSC/Training	X		
James E. Clark	BSC/Quality Assurance	X		
Floyd H. Dove	Navarro Quality Services			X
Marilyn Kavchak	Navarro Quality Services	X		X
Robert Hasson	Navarro Quality Services	X		X
Robert Latta	Nuclear Regulatory Commission			X
Kerry Grooms	Office of Quality Assurance			X

## Attachment C – Objective Evidence Examined

### PROCEDURE

### OBJECTIVE EVIDENCE

- LP-1.0Q-BSC Letters of Delegation from R. Keele MOL.20020422.0082, A. Orrell Mol.200030206.0004, M. Jaguar MOL.20030320.0049, J. Witchcraft MOL.200305022.0287, R. Craig. MOL.20030611.0235, AP-5.1Q, AP-2.14Q, AP-10.1Q and AP-10.4Q, DIR-GEN-004 Rev. 00 “BSC Organizational Structure, Interfaces, Requirements and Responsibilities.”
- AP-2.1Q The following employee training transcripts (identified by TrainServe ID) were reviewed: 6012, 2688, 13716 (Dual Functional Matrices), 12145, 11047.
- AP-2.2Q The following employee VoEes (identified by TrainServe ID) were reviewed: 6012, 2688, 13716 (Dual Functional Matrices), 12145, 11047.
- AP-2.12Q Peer Review Panel Selection for the Igneous Consequences Peer Review (MOL.20020806.0079), Peer Review Plan for the Igneous Consequences Peer Review (MOL.20020806.0081), Final Report of the Igneous Consequences Peer Review Panel (MOL.20030730.0162), Igneous Consequences Peer Review Panel Evaluation Report (MOL.20030730.0164).
- AP-2.19Q Records Package for Revision 13 to the QARD , MOY-030521-14-01. Verified BSC QARD revision impact to existing procedures, dtd. 2/24/03. (MOL.20030662.0154) Deficiency Report BSC(B)-03-D-159.
- AP-2.20Q Self-Assessments: SA-RMP-2003-008, “Self-Assessment on the Effectiveness of the BSC Configuration Management Program”; SA-RDP-2003-007, “Document Management - Review of the Records and Documentation Supporting Technical Products for Compliance with Applicable Procedure AP-6.1Q”; SA-RMP-2003-001, “Self-Assessment of the Technical Requirements Assignment Process as Outlined by the Configuration Management Plan”; SA-PAP-2003-014, “Self-Assessment of Natural Barriers Testing Process for Submitting Data to the Technical Management System”; SA-ENG-2003-003, “Processing of Supplier Submittals”; SA-SOP-2003-011, “Self-Assessment Surveying for Safety Analysis Related Data Acquisition”; SA-PAP-2003-011, “Self-Assessment of Whether Technical Product Authors are Aware of Programmatic Issues Beyond the Scientific Scope of Technical Products”; SA-PAP-2003-020, “Natural Barriers Testing M&TE Calibration Systems.”
- AP-2.22Q Project Q-List, TDR-MGR-RL-000005, dated September 2003; Safety Classification of SSCs and Barriers, document identifier, CAL-MGR-RL-000001, Revision 00A, dated August 2003.
- AP-2.26Q BQA-SI-03-001 (MOL.20030227.0214); BQA-SI-03-009 (MOL.20030206.0226); BQA-SI-03-020 (MOL.20030609.0449); BQA-SI-03-030 (MOL.20030521.0373); BQA-SI-03-044 (MOL.20030802.0116); BQA-SI-03-052 (CCU 0314036452); BQA-SI-03-063 (MOL.20030909.0256); BQA-SI-03-081 (MOL.20030728.0014); BQA-SI-03-089 (MOL.20030718.0154); BQA-SI-03-113 (MOL.20030730.0267); BQA-SI-03-116 (MOL.20030825.0282); BQA-SI-03-118 (MOL.20030903.0259).
- AP-2.27Q TWP-MGR-MD-000015 Revision 04, ICN 01, Technical Work Plan For: “Engineered Barrier System Department Modeling and Testing FY03 Work Activities”; TWP-WI-MD-000007, Revision 03, “Technical Work Plan – Igneous Activity Analysis for Disruptive Events”; TWP-MGR-PA-000011, Revision 02, “Technical Work Plan for: TSPA-LA Model Analysis TSPA Documentation: LA – Technical Report TRB Issue Resolution KTI Resolution.”

### Attachment C – Objective Evidence Examined (Continued)

#### PROCEDURE

#### OBJECTIVE EVIDENCE

LP-SA-001Q-BSC

DIEs BABEAF000-01717-2200-00011, “Determination of Importance Evaluation for the Enhanced Characterization of the Repository Block Cross Drift,” Revision 05, ICN 03; BAA000000-01717-2200-00101, “Determination of Importance Evaluation for Surface-Based Testing Activities,” Revision 02, ICN 3.

LP-4.3Q Technical Service Agreement, TA003632, Structural Integrity Associates; Subcontract No. PA-005391, Plant Operational Design Services, COGEMA; Purchase Order No. 004223, Weld Filler Material and Base Metal Composition Test, Wah Chang – Allegheny Technologies, Inc.; Agreement No. QA-HC4-00001, Analytical Services for Time Dependent Properties of Welded Tuff, New England Research Inc.; Subcontract No. NN-SRA-00004, Subsurface Mechanical Engineering Design Services, Colorado School of Mines.

LP-4.4Q PO# PA001381, R00, Technical Professional Service Agreement for K. Stokoe II; PO# PA-005391, Subcontract for Operational Design Services (COGEMA); TSA Subcontract # 24540-930-TA-00645, Professional Analysis, Inc. (PAI); Subcontract # NN-SRA-00004 for Subsurface Mechanical Design Services (Colorado School of Mines); Subcontract # NER QA-H04-00001, Analytical Services for True-Dependent Properties of Welded Tuff (New England Research Inc.); PO# 003882, Fabrication of Metal Specimens; PO# 24540-160-PO-01195, Testing and Fabrication Services (Laboratory Testing Inc); TSA TA-003036, Analytical Services (MIDI Labs, Inc.).

LP-4.5Q PO# 004223, Volume I, Weld Filler and Base Metal Composition Test, Weh Chang, a subsidiary of Allegheny Technologies Co.; Statement of Work (SOW) for Quality Affecting Direct Support Seismic Velocity Surveys, Revision 01, 10/13/2000; Request for Proposal LV.SC.RB03/03-0037 – Analytical Services for Time-Dependent Properties of Welded Tuff, Revision 00, 04/15/03 (New England Research, Inc.); PO# PO003882, Fabrication of Metal Specimens (Laboratory Testing, Inc.) with Modifications 0-6); PO# 24540-160-PO-01195, Testing and Fabrication Services (Laboratory Testing, Inc.); PO# 24540-100-PO-20122, Technical Support Services for Dr. Kenneth H. Stokoe II, with Modification 03, A20122YSOT; TSA TA-003036, Analytical Services (MIDI Labs, Inc.), with Modification 03, 5/7/03; Subcontract No. PA-005391, Plant Operational Design Services (COGEMA), Addendum #1 to Summary and Justification for Technical Professional Services Subcontract, 5/1/03; Subcontract # NN-SRA-00004 for Subsurface Mechanical Design Services (Colorado School of Mines); Procurement PR-5.10, Documentation for Awards, Revision 0.

AP-5.2Q Field Work Package FWP-ESF-PA-001, “Geologic Mapping,” Revision 0 (SIT.20030721.003); Field Work Package FWP-SBT-PA-000001, “Inyo County Drilling and Testing Program,” Revision 0, (SIT.20030430.002); Field Work Package FWP-ESF-96-009, “Consolidated Sampling,” Revision .0, (SIT.20030811.0003).

AP-6.1Q Master Control Document Maintenance Report dated 9/22/03; Controlled Document Issuance Forms for FWP-SB-00-002 “Disruptive Events Field Investigations,” Revision 1; Controlled Document Issuance Forms for FWP-SBT-PA-00001 “Inyo County Drilling and Testing Program” Revision 0; Controlled Document Issuance Forms for DIE BAB0000000-01717-2200-00011 “Determination of Importance Evaluation for the Exploratory Studies Facility (ESF) Subsurface Testing Activities,” Revision 3, ICN 2; Controlled Document Issuance Forms for DIR-GEN-004 “BSC Organizational Structure, Interfaces, Requirements, and Responsibilities,” Revision 00; Controlled Document Issuance Forms for AP-SI.4Q “Independent Verification and Validation of Legacy Code,” Revision 0, ICN2; Controlled Document Issuance Forms for AP-2.14Q “Review of Technical Products and Data,” Revision 3, ICN 0; Controlled Document Issuance Forms for TSPA-NO-005002-MOD 1; Controlled Document.

### Attachment C – Objective Evidence Examined (Continued)

#### PROCEDURE

#### OBJECTIVE EVIDENCE

- AP-6.1Q  
continued Issuance Forms for LP-PMM-012-BSC, “Property Inventory at Contract Closure,” Revision 0, ICN 0; Controlled Document Issuance Forms for AP 6.1Q, “Document Control,” Revision 7, ICN 1; Controlled Document Issuance Forms for DOE/SNF/REP-065, “Conditional Probability Estimate for a Standardized DOE SNF Canister Breach Given Drop”; Controlled Document Issuance Forms for DOE/SNF/REP-046 “DOE Spent Fuel Grouping in Support of Critically, DBE, TSPA-LA”; Controlled Document Issuance Forms for DOE/SNF/REP-047 “DOE Spent Nuclear Fuel Information in Support of TSPA-SR”; Controlled Document Issuance Forms for DOE/SNF/REP-035 “Fermi (U-Mo) Fuel Characteristics for Disposal Criticality Analysis”; Controlled Document Issuance Forms for DOE/SNF/REP-060 “Fort Saint Vrain HTGR (TH/U Carbide) Fuel Characteristics for Disposal Criticality Analysis”; Controlled Document Issuance Forms for DOE/SNF/REP- 073 “Review of DOE Spent Nuclear Fuel Release Rate Test Results”; Controlled Document Issuance Forms for DOE/SNF/REP-054 “Review of Oxidation Rates of DOE Spent Nuclear Fuel”; Controlled Document Issuance Forms for DOE/SNF/REP-068 “Review of Oxidation Rates of DOE Spent Nuclear Fuel Part 2, Nonmetallic Fuel”; Controlled Document Issuance Forms for DOE/SNF/REP-040 “Shippingport PWR (HEU Oxide) Fuel Characteristics for Disposal Criticality Analysis”; Controlled Document Issuance Forms for DOE/SNF/REP-032 “FFTF (MOX) Fuel Characteristics for Disposal Criticality Analysis”; Controlled Document Issuance Forms for DOE/SNF/DSN-002 “High Integrity Can Materials Selection & Design Data”; Controlled Document Issuance Forms for DOE/SNF/DSN-018 “Environmental Management Spent Nuclear Fuel Transportation System Design and Licensing Specifications”, Procedure Responsibility Matrix dated 2/28/03.
- LP-7.1Q-BSC Technical Service Agreement, TA003632, Structural Integrity Associates Subcontract No. PA-005391, Plant Operational Design Services, COGEMA; Purchase Order No. 004223, Weld Filler Material and Base Metal Composition Test, Wah Chang – Allegheny Technologies, Inc.; Agreement No. QA-HC4-00001, Analytical Services for Time Dependent Properties of Welded Tuff, New England Research Inc.; Subcontract No. NN-SRA-00004, Subsurface Mechanical Engineering Design Services, Colorado School of Mines.
- LP-7.2Q-BSC Supplier Document Review Status Transmittal Form, Repository Design Project, BSC Job No.24540, Subcontract Number PA-005391; RDP-XMTL-SDR-PA005391-00018; Document No: VO-MOOZ-QPAO-05391-00023-001 (COGEMA Document No. YMP-C0115-0161), General Arrangement Cask & WP Receipt Building Plan View & Sections; 9/22/03; Supplier Document Review Status Transmittal Form, Repository Design Project, BSC Job No.24540, Subcontract Number PA-005391; RDP-XMTL-SDR-PA005391-00018; Document No: VO-MOOZ-QPAO-05391-00021-001 (COGEMA Document No. YMP-C0115-0502), Cask Handling System Block Flow Diagram Level 2; 9/22/03; Comment/Disposition Summary sheet for General Arrangement Cask & WP Receipt Building Plan View & Sections, Document No: VO-MOOZ-QPAO-05391-00023-001 (COGEMA Document No. YMP-C0115-0161); 9/19/03; Comment/Disposition Summary sheet for Cask Handling System Block Flow Diagram Level 2, Document No: VO-MOOZ-QPAO-05391-00021-001 (COGEMA Document No. YMP-C0115-0502); 9/17/03; Deficiency Report BSC(B)-03-D-279; 9/22/03.
- AP-7.4Q Records Package Table of Contents for OCRWM Qualified Supplier List, Supplier Evaluation Report, and QARD Matrices (MOL.20030421.0001; MOL.20030811.0324; MOL.20030811.0325); Supplier Audit Report BQA-AS-03-23 of COGEMA, Inc.; 9/2/03; Supplier Evaluation Report for COGEMA, Inc.; 6/3/03 (MOL.20030811.0331) Supplier Evaluation Report for COGEMA, Inc.; 9/5/03; Supplier Evaluation Report for CoorsTek; 7/2/03 (MOL.20030811.0333); Supplier Evaluation Report for Micro Precision Calibration, Inc.; 3/25/03; Supplier Evaluation Report for MIDI Labs, Inc.; 3/26/03; Supplier Evaluation Report for Beta Analytic., Inc.; 12/11/02; Supplier Evaluation Report for Westbay Instruments, Inc.; 9/4/03; Supplier Evaluation Report for Lawrence Livermore National Laboratory, Inc.; 10/9/02; Supplier Evaluation Report for Laboratory Testing, Inc.; 1/23/03; Supplier Evaluation Report for New England Research, Inc.; 5/2/03; Supplier Evaluation Report for Pacific Northwest National Laboratory; 3/6/03.

### Attachment C – Objective Evidence Examined (Continued)

#### PROCEDURE

#### OBJECTIVE EVIDENCE

- AP-7.4Q continued Supplier Evaluation Report for Anter Laboratories, Inc.; 7/1/03; Supplier Evaluation Report for Framatome ANP, Inc.; 8/26/03; Supplier Evaluation Report Environmental Resource Associates; 7/28/03; Supplier Evaluation Report for Atomic Energy of Canada, Ltd., (AECL) Technologies; 2/18/03; Supplier Evaluation Report (SER) of Geokon, Inc., 1/9/00, 8/24/01.
- AP-7.7Q Receipt Inspection Plan (RIP), Revision 1 for PO# 24540-830-PO-002112, Revision 0 (MOL.20030718.0159); YMP/BSC Work Order #14992 for RIP # PO-002112, C.S.S. Rockbolts; Impact Review for Document No. YMP-025-1-7008-PL101, Booster Pump Station Bldg. 7008 Piping Plan, Revision 04 (SIT.20030903.0026); Supplier Documentation Review Results for PD No. 002112, RIP Revision 1, Shipment #1 of 1; RIP, Revision 0 for PD No. 004909 (MOL.20030607.0132).
- LP-PMM-006Q-BSC Shipping Notice No. ARV-0183, Job No. 11.DPWY01F500, Mock-up 21 PWR Weld; Framatome ANP Purchasing Authorization Release for Ship, PA No. 83-5031690-00 for Contract No. 6992003, Alloy-22 Base Plate (HT #2277-0-3183) and Shaker Table Specimen (HT #057904LL1), with Shipping Notification/Receipt Acknowledgement Form and Justification of Storage; 8/1/03; Material Credit Request No. ARV-0069 for Alloy-22 Seismic Shaker Table Testing Equipment with Freight Bill Receipt; 8/5/03; Shipping Notice No. ARV-0121, Job No. 11.DPEY02F200, Alloy-22 test sample from PO TA002805 from Ajax Magnethermic including Bill of Lading and Freight Bill Receipt; 2/12/03; Shipping Notification/Receipt Acknowledgement Form for Lot #32555-2B, Heat Slabs with Test Certificate, Final Inspection Report; 7/2/01; Shipping Notice No. ARV-0228, Job No. BN Fedex Account; InfoWorks Database.
- AP-15.3Q Technical Error Reports: TER-03-0026, TER-03-0043, TER-03-0026, TER-03-0011, TER-02-0044, TER-03-0012, TER-02-0033, TER-03-0032, TER-02-0094, TER-02-0028 and TER-02-0027. Surveillance Report BQA-SI-03-030 and Deficiency Report BSC(B)-03-D-116.
- AP-16.1Q DIR-03-015; DIR-03-011; DIR-03-012; DIR-03-014; BSC(B)-02-D-169; BSC(B)-02-D-138; BSC(B)-02-D-114; BSC(B)-03-D-025; BSC(B)-03-D-069; BSC(B)-03-D-045; BSC(V)-03-D-101; BSC(V)-03-D-103; BSC(B)-03-D-105; BSC(B)-03-C-107; BSC(V)-03-D-117; BSC(B)-03-D-120; BSC(B)-03-D-141; BSC(B)-03-D-163; BSC(B)-03-D-164; BSC(V)-03-D-182; BSC(V)-03-D-183; BSC(V)-03-D-184; BSC(V)-03-D-185; BSC(V)-03-D-186; BSC(V)-03-D-186; BSC(B)-03-D-196; USGS(B)-03-D-201; USGS(V)-02-C-161; USGS(V)-03-C-195; BSC(B)-02-C-129; BSC(B)-02-C-107; BSC(B)-03-C-243; BSC(B)-02-C-169; BSC(B)-02-D-130; BSC(B)-02-D-175; BSC(V)-03-D-020; BSC(B)-02-D-175; BSC(B)-03-D-090; BSC(V)-03-D-251; BSC(V)-03-D-252; BSC(V)-03-D-253; BSC(B)-03-D-170; BSC(V)-02-D-112; BSC(B)-02-D-163; LANL(B)-02-O-061; BSC(B)-02-O-057; BSC(B)-02-D-142; BSC(B)-02-O-039; BSC(B)-03-D-088; BSC(B)-03-D-129; BSC(B)-03-D-079; BSC(B)-03-D-093; BSC(B)-03-O-078; BSC(B)-03-D-119; BSC(B)-03-D-158; BSC(V)-03-D-180; BSC(B)-03-D-193; BSC(B)-03-D-217; BSC(B)-03-D-233; BSC(B)-03-D-224; BSC(B)-03-D-188.
- AP-17.1Q The four documents related to the Igneous Consequences Peer Review discussed in the summary for AP-2.12Q and the three documents related to the review of Field Work Packages discussed in the summary for AP-5.2Q were also reviewed for compliance to AP-17.1Q requirements. In addition, BSC Supplier Document No. V0M00Z-QPA0-05391-00023-001, General Arrangement Cask & WP Receipt Buildings Plan View & Sections and BSC Supplier Document No. V0M00Z-QPA0-05391-00021-001, Cask Handling System Block Flow Diagram Level 2 were reviewed for AP-17.1Q issues.

**Attachment C – Objective Evidence Examined (Continued)**

**PROCEDURE**

**OBJECTIVE EVIDENCE**

LP-17.1Q-BSC	CRWMS M&O Contingency Operations Acquisition Support Procurement Plan, Rev. 00, (MOV.19960730.0079); Records Package TOC for Supplement Field Records for Perched-Water Testing in the ESF, FWP-ESF-96-011 (MOL.20030925.0072); Data for Updated General Corrosion Model and Analysis of Waste Package Outer Barrier (3 1/12 disk) (MOL.20030922.0206); Checker and Final QER Check Copy / AP-2.14Q Additional Concurrence Copy Re. 00D of Model Report U0240, MDL-NBS-HS-000015, Drift Scale...Birkholzer (MOL.20030917.0055); Computer Documentation Data, CD-R Verification CD-R L0173 (MOV.19990406.0008); BSC Record Processing Center (RPC) Corrections Log (Entry number 082003856).
AP-18.2Q	BQA-AS-03-06; BQA-AS-03-03; BQA-AS-03-08; BQA-AS-03-10; BQA-AS-03-20; BQA-FS-03-08.
AP-AC.1Q	N/A