



## Department of Energy

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WBS 1.2.9.3  
QA

OCT 19 1989

Carl P. Gertz, Project Manager, YMP, NV

CLOSURE OF STANDARD DEFICIENCY REPORT (SDR) 229, REVISION 0, RESULTING FROM YUCCA MOUNTAIN PROJECT OFFICE QUALITY ASSURANCE AUDIT 88-05 OF LAWRENCE LIVERMORE NATIONAL LABORATORY

SDR 229, Revision 0, has been closed based on satisfactory verification of completed corrective actions. A copy of the SDR is enclosed for your files.

If you have any questions, please contact James Blaylock of my staff at 794-7913, or Frank J. Kratzinger of Science Applications International Corporation at 794-7164.

Edwin L. Wilmot, Acting Director  
Quality Assurance Division  
Yucca Mountain Project Office

YMP:JB-378

Enclosure:  
SDR 229, Revision 0

cc w/encl:  
Ralph Stein, HQ (RW-30) FORS  
Dwight Shelor, HQ (RW-3) FORS  
J. J. Brogan, SAIC, Las Vegas, NV, 517/T-12  
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S. W. Zimmerman, NWPO, Carson City, NV  
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cc w/o encl:  
A. L. Temple, SAIC, Las Vegas, NV, 517/T-38  
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## WMPO STANDARD DEFICIENCY REPORT

N-QA-0  
3/87

Completed by Originating QA Organization	1 Date Nov 7, 1988		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 88-05		3a Identified By J. E. Clark		3b Branch Chief Concurrence Date	
	5 Organization YMP (Project Office)		6 Person(s) Contacted W. Glassley, H. Shaw, N. Voltura		4 SDR No. 229 Rev. 0	
	8 Requirement (Audit Checklist Reference, if Applicable) (Audit checklist item 3-9) SOP-02-01 Rev 1, ICN 5/9/86 Section 3A.6.1 states in part "Interfaces between scientific investigations, or between a scientific investigation and		7 Response Due Date is 20 Working Days from Date of Transmittal			
Completed by Organization in Block 5	9 Deficiency Contrary to the above requirement, the YMP (Project Office) has not established procedures for coordinating interfaces among participants, except for design of the ESF.					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective 1. Determine the impact of this procedural violation upon the scientific investigations completed and those in-process for the Yucca Mountain Project.					
	11 QAE/Lead Auditor Date J. C. Friend 11/14/88		12 Branch Manager Date H. H. Caldwell 11/14/88		13 Project Quality Mgr. Date James Blaylock 11/14/88	
	14 Remedial/Investigative Action(s) The cited deficiency no longer exists. Since 15 Effective Date 2/17/89 original issuance of the SDR, fifteen Yucca Mountain Project quality related Administrative Procedures (APQs) have been approved and issued for implementation. These APQs address various interfaces relating to scientific investigations, change control and configuration management, information flow into the RIB, assignment of QA levels, readiness reviews, design, review, application of graded QA (continued)					
Completed by Orig. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence The cause of this condition is attributed to the 17 Effective Date NA failure to identify, develop, and issue Yucca Mountain Project APQs in a timely manner. The evolution of the Yucca Mountain Project has matured greatly within the last year. As a result, the need for specific APQs have been identified, and these APQs have been developed and issued for implementation. As YMP activities increase and the need for future (continued)					
	18 Signature Date Edwin L. Wilmot, Deputy Project Manager 3/3/89					
	19 Response <input type="checkbox"/> Accept <input checked="" type="checkbox"/> Amended Response		QAE/Lead Auditor/Date J. C. Friend 5/24/89		Branch Manager/Date H. H. Caldwell 27 May 89	
	20 Amended Response <input checked="" type="checkbox"/> Accept <input type="checkbox"/> Reject		QAE/Lead Auditor/Date J. C. Friend 6/23/89		Branch Manager/Date H. H. Caldwell 22 Jun 89	
Comp. by Orig. QA Org.	21 Verification <input type="checkbox"/> Satisfactory <input checked="" type="checkbox"/> Unsatisfactory		QAE/Lead Auditor/Date J. C. Friend 8/1/89		Branch Manager/Date H. H. Caldwell 5-2-89	
	22 Remarks See Letter Ltr 8/10/89 Wilmot to Gertz - YMP:JB-5326 A VERIFICATION OF CORRECTIVE ACTION WAS CONDUCTED ON 10/5/89. RESULTS WERE ACCEPTABLE. SEE ATTACHED.					
Comp. by Orig. QA Org.	23 QA CLOSURE					
	QAE/Lead Auditor/Date J. C. Friend 10/5/89		Branch Manager/Date H. H. Caldwell 10-5-89		PQM/Date Cathy Hampton 10-11-89	

ENCLOSURE



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STANDARD DEFICIENCY REPORT  
CONTINUATION SHEETN-QA-038  
10/86

SDR No. 229

Rev. 0

Page 2 of 2

## 8 Requirement ( continued )

any other project activity including design activities, shall be coordinated among participants in accordance with procedures established by WMFO."

## 10 Recommended Actions ( continued )

2. Determine the interface controls required for Project coordination of scientific investigations
3. Develop and implement procedures to effect the required coordination and control.
4. Provide training for Project Management and Participants management on the procedures developed.

(continuation)

14. ESF design control, identification of items important to safety and waste isolation, etc.

Investigative actions indicated that prior to the development of SCP Study Plans, scientific investigations were performed in accordance with approved scientific investigation plans which required the identification of interfaces and application of results. It is important to note that scientific data used in the licensing process will be either obtained in a controlled and demonstrable manner or qualified in accordance with applicable regulations and procedures. As a result, negative impacts have not been noted. No further remedial action is required.

16. interface controls are identified, additional APQs will be developed and implemented. Additionally, training has and will be provided to appropriate Yucca Mountain Project personnel for existing and future APQs, when warranted. In as much as programmatic development and maintenance is an ongoing process, an effective date is not appropriate.

June 16, 1989  
Page 1 of 4

AMENDED RESPONSE TO SDR 229

This response supersedes the previous response transmitted on letter YMP:RDE-2222, dtd. 3/2/89.

SDR BLOCK 14. "Remedial/Investigative Action(s)"

The following responses are provided in order with the applicable recommended actions:

Recommended Action:

"1. Determine the impact of this procedural violation upon the scientific investigations completed and those in-process for the Yucca Mountain Project."

Response: Investigative actions indicated that prior to the development of Site Characterization Plan (SCP) Study Plans, scientific investigation were performed in accordance with approved scientific investigation plans which required the identification of interfaces and application of results. It is important to note that scientific data used in the licensing process will be either obtained in a controlled and demonstrable manner or qualified in accordance with applicable regulations and procedures. As a result, negative impacts have not been noted. No further remedial action is required.

Recommended Action:

"2. Determine the interface controls required for Project coordination of scientific investigations."

"3. Develop and implement procedures to effect the required coordination and control."

Response: This response is intended to address recommended actions 2 & 3.

The interface controls required for Project Coordination of scientific investigations involve various related activities. These activities are identified along with their respective controlling procedure as follows:

**ENCLOSURE**

**INTERFACE ACTIVITY**

**PROCEDURE CONTROLLING INTERFACE**

Records Management	AP-1.7Q (R-2) "Record Management" (issued 5/23/89)
SCP Study Plans	AP-1.10Q (R-0) "Preparation, Review, and (issued 12/14/88) Approval of SCP Study Plans"
Change Control	AP-3.3Q (R-1). "Change Control Process" (issued 1/17/89)
Configuration Management	AP-3.6Q (R-0) "Configuration Management" (issued 1/17/89)
Technical Information Flow & Engineering Properties Data Base	AP-5.2Q (R-0) "Technician Information Flow (issued 1/26/89) To and From the Site and Engineering Properties Data Base"
Reference Information Base	AP-5.3Q (R-0) "Information Flow into the (issued 1/11/89) Reference Information Base"
Exploratory Shaft Facility	AP-5.6Q (R-1) "Exploratory Shaft Facility (issued 12/27/88) Technical Element and Interface Control Procedure" (NOTE: This procedure included for informa- tion purposes only-it has been superseded by AP-5.19Q-see below.)
Readiness Review	AP-5.13Q (R-0) "Readiness Review" (issued 12/29/88)
Design Review	AP-5.14Q (R-0) "Design Review" (issued 12/29/88)
ESF Design Control	AP-5.18Q (R-0) "ESF Design Control" (issued 1/31/89)
Interface Control	AP-5.19Q (R-0) "Interface Control" (issued 6/15/89)

For the present level and scope of project activities the existing APQs are prepared to provide sufficient interface control. It should be noted that as the Yucca Mountain Project evolves, other interface controls will become necessary. These will be addressed as an ongoing process and APQs will be revised and or developed as necessary.

June 16, 1989

Page 3 of 4

Recommended Action:

"4. Provide training for Project Management and Participants management on the procedures

Response: Training has been provided for the APs listed in response to items 2 & 3 of this block with the exception of AP-5.19Q (Rev. 0). Training for AP-5.19Q (Rev. 0) will be provided within ten (10) working days following the effective date of 6/15/89.

SDR BLOCK 15. "Effective Date": 6/29/89

SDR BLOCK 16. "Cause of the Condition and Corrective Action to Prevent Recurrence."

Cause of the Condition

Response: The cause of this condition is attributed to the fact that AP-1.1Q (Rev. 1), (issued 6/3/97) "Preparation, Review, and Approval of Administrative Procedures", did not adequately address the primary role of APs as interface control procedures.

Corrective Action to Prevent Recurrence

Response: The NNWSI Project QA Plan (88/9-R-2) requires that Administrative Procedures control interfaces. This is outlined in Section I., paragraph 4.1, which states in part, "The NNWSI Project Administrative Procedures (APs) provide the implementing interface controls utilized by all of the NNWSI Project participants while Participating Organization and NTS Support Contractor implementing procedures describe the methods of conducting inter-organizational interfaces".

AP-1.1Q (Rev. 2), "Preparation, Review, and Approval of Administrative Procedures" has recently been revised to proceduralize interface control. This is evidenced in section 5.1.2 which states, "The quality related APs implement the QAP by assigning responsibility for and providing interface controls for quality affecting activities requiring interface between the participants. Quality-related APs provide for the appropriate Project Office or participant QA organization's involvement in the activities described." Also added, under section 5.7, "Performance Of Review", item 4., is a specific review criteria that addresses interfaces which requires a review for "Adequacy of interfaces between organizations and procedures".

June 16, 1989  
Page 4 of 4

Based on the fact that the role of Administrative Procedures for interface control is now clearly defined. And there are now review criteria that also specifically address interface control, "Corrective Action to Prevent Recurrence" will be completed with the issuance of AP-1.1Q (Rev. 2).

SDR BLOCK 17. "Effective Date": 7/07/89

AP-1.1Q (Rev. 2) has an effective date of 6/23/89. Training will be provided within ten (10) working days following the effective date.

Verification of Corrective Action to SDR No. 229

A verification was conducted on 10/5/89 of the training records for YMP Project Office personnel for training in the requirements of procedure AP-5.19Q.

The following individuals attended classroom instruction on the requirements of AP-5.19Q on 8/10/89:

A. Baca  
F. Hemmes  
J. Robson  
N. Moreley

The following individuals completed the reading assignment of AP-5.19Q assigned to them:

E. Petrie  
D. Boyer  
M. Valentine  
J. White

The results of the verification are considered acceptable and the SDR is closed.

*Frank J. Kelly*  
10/5/89

REVIEWED AND VERIFIED TRAINING LIST MAINTAINED BY  
TRAINING DEPT IDENTIFYING PERSONNEL AND THEIR  
RELEVANT TRAINING REQUIREMENTS.

*PHC*  
10/5/89