



Department of Energy  
Yucca Mountain Site Characterization  
Project Office  
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Las Vegas, NV 89193-8608

WBS 1.2.9.3  
QA

DEC 17 1990

Thomas E. Blejwas  
Technical Project Officer  
for Yucca Mountain  
Site Characterization Project  
Sandia National Laboratories  
Organization 6310  
P.O. Box 5800  
Albuquerque, NM 87185

ACCEPTANCE OF RESPONSES TO OBSERVATIONS RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) AUDIT 90-04 OF SANDIA NATIONAL LABORATORIES (SNL)

The YMQAD staff has evaluated the responses to Observations 90-04-01 through 06, 08, and 09, generated as a result of YMQAD Audit 90-04 of SNL. The responses to these observations are acceptable. Copies of the observations are enclosed for your information.

If you have any questions, please contact Catherine E. Hampton at (702) 794-7973 or FTS 544-7973, or Stephen R. Dana at (702) 794-7176 or FTS 544-7176.

  
Donald G. Horton, Director  
Yucca Mountain Quality Assurance Division

YMQAD:CEH-1187

Enclosure:  
Observations 90-04-01 thru 06, 08, and 09

cc w/encl:  
R. R. Richards, SNL, 6319, Albuquerque, NM  
N. J. Brogan, SAIC, Las Vegas, NV, 517/T-08  
S. W. Zimmerman, NWPO, Carson City, NV  
K. R. Hooks, NRC, Washington, DC

cc w/o encl:  
J. H. Hines, OGD, AL  
J. W. Gilray, NRC, Las Vegas, NV

YMP-5

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PDR WASTE  
WM-11 PDR

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**YUCCA MOUNTAIN PROJECT OFFICE**  
**1 YMPO OBSERVATION NO. 90-04-1**

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: Audit 90-04		3 Identified By: R. Powe A. Cocoros		4 Date: 8/24/90	
	5 Organization: SNL		6 Person(s) Contacted: R. Sandoval		7 Response Due Date is 20 Days from Date of Transmittal	
	<p>8 Discussion:</p> <p>The flow of QAIP 2-10 does not assure that cognizant personnel receive Quality Assurance (QA) Control Specification Records and that the QA Control Specification Records reflect approved Quality Assurance Grading (QAG) packages. For example,</p> <p>1. QAIP 2-10 Rev 00 requires:</p> <p>a) QA Control Specification Records to be sent to the Local Records</p>					
Completed by Respondee	9 QAE/Lead Auditor <i>S. Dana</i>		Date 9/19/90		10 Branch Manager <i>Thomas E. Blazius</i>	
					Date 9/19/90	
Completed by QA Org.	<p>11 Response:</p> <p>1) A change to QAIP 2-10 will be issued to require that cognizant personnel receive copies of QA Control Specification Records (CSR). Responsible Party: L. J. Klamerus; due date - November 30, 1990.</p> <p>2) ICN#1 of QAIP 2-10, dated August 23, 1990, requires approval of the QA CSR <u>after</u> QRB acceptance of QA grading packages.</p> <p>3) An approved (TPO and QA approval) Work Plan is Sandia's <u>basis</u> for QA grading packages and QA CSRs. Our procedures are written to reflect this relationship.</p>					
	<p>12 Signature: <i>Thomas E. Blazius</i> Date: 11-9-90</p>					
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>					
	Initiator <i>R. E. Powe</i> Date 11/4/90		QA/Lead Auditor <i>S. Dana</i> Date 10/3/90			
14 Remarks:						
						<p>Page 1 of 2</p>

ENCLOSURE

8 Discussion: ( continued )

Center (LRC) but not to cognizant personnel.

b) QA Control Specification Records to be approved prior to project approval of QAG packages.

2. Present SNL procedures allow Work Plans (WPs) to be approved and issued prior to completion of all planning, i.e., prior to approval of QAG Packages and approval of QA Control Specification Records. WPs should not be issued until QAG Packages and QA Control Specification Records are approved. QA Package Control Specification Records should not be approved until after the QAG Package approval.

YUCCA MOUNTAIN PROJECT OFFICE  
1 YMPO OBSERVATION NO. 90-04-2N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: Audit 90-04	3 Identified By: M.J. Mitchell	4 Date: 8/24/90
	5 Organization: SNL	6 Person(s) Contacted: A. Stevens	7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion:  The requirements for documentation of design analysis information are found in SNL-NWRT-QAPP, Section 3.12.2. The responsibility of ensuring that design information is documented is assigned to the Principal Investigator (PI) per SNL DOP 3-4, Section 7.2. However, the information is not required to be included in the Design Investigation Memo (DIM).  Not passing the requirements on for inclusion in the DIM, is in itself a weakness. Since the information is not included in the DIM, as a minimum,		
	9 QAE/Lead Auditor <i>Maureen J. Mitchell</i> 19 Sept 90	10 Branch Manager <i>Catherine Krystof</i> 9-20-90	
Completed by Respondee	11 Response:  At the time of the audit, QAIP 3-4 had just been approved; it became effective on September 5, 1990. QAIP 3-4 replaces DOP 3-4 as the procedure controlling the content and format of Design Investigation Memoranda (DIMs).  An assessment shows that it satisfactorily requires the inclusion in DIMs of the seven requirements from the SNL NWRT QAPP, Section 3, paragraph 3.12.2, Documentation of Design Analysis. It is the responsibility of the Principal Investigator to ensure that the design information is documented. Actions complete.		
	12 Signature: <i>Thomas E. Blejusz</i> Date: 11-9-90		
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>		
	Initiator <i>S. Jara</i> Date: 11/30/90	QA/Lead Auditor <i>S. Jara</i> Date: 11/30/90	
14 Remarks:			
Page 1 of 2			

8 Discussion: ( continued )

all PIs should be trained in the responsibilities delineated in DOP 3-4,  
Section 7.2.

**YUCCA MOUNTAIN PROJECT OFFICE**  
**1 YMPO OBSERVATION NO. 90-04-3**

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: Audit 90-04		3 Identified By: M.J. Mitchell		4 Date: 8/24/90		
	5 Organization: SNL		6 Person(s) Contacted: R. Sandoval		7 Response Due Date is 20 Days from Date of Transmittal		
	8 Discussion:  Work Plan 12611 and ITM-10 which control the ESF Alternatives Study, are inconsistent in their identification of task leaders and delineation of work activities. These documents should be evaluated and ICNs generated.						
	9 QAE/Lead Auditor <i>Mantia J. M. Schell</i>		Date <i>19 Sept 90</i>		10 Branch Manager <i>Catherine Harp</i>		Date <i>9-20-90</i>
Completed by Respondee	11 Response:  An assessment of inconsistencies between Work Plan 12611, ITM-10, and the implementing DIMs (DIMs 240 through 252, and DIM 254) has been completed. Revisions to the respective documents to remove inconsistencies is in progress.						
	12 Signature: <i>Thomas E. Blijer</i> Date: <i>11-9-90</i>						
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>						
	Initiator <i>S. Davis</i>		Date <i>11/30/90</i>		QA/Lead Auditor <i>S. Davis</i>		Date <i>11/30/90</i>
14 Remarks:							
<div style="text-align: right;">Page <u>1</u> of <u>1</u></div>							

YUCCA MOUNTAIN PROJECT OFFICE  
1 YMPO OBSERVATION NO. 90-04-4

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: Audit 90-04		3 Identified By: S.D. Harris <i>S.D. Harris</i>		4 Date: 8/24/90	
	5 Organization: SNL		6 Person(s) Contacted: F. Bingham/W. Miller		7 Response Due Date is 20 Days from Date of Transmittal	
	8 Discussion: QAIP 3-2 does not clearly delineate the detail necessary to determine that prescribed activities, relative to the implementation of computer software controls, have been satisfactorily accomplished.					
Completed by Respondee	9 QAE/Lead Auditor <i>S.D. Harris</i>		Date 9/19/90		10 Branch Manager <i>William H. ...</i>	
					Date 9/29/90	
Completed by QA Org.	11 Response: QAIP 3-2 will be revised to include the detail necessary to specify software quality assurance controls. Responsible Party: W. B. Miller; due by December 21, 1990.					
	12 Signature: <i>Thomas E. Bejor</i> Date: 11-9-90					
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/> SEE ACW-5151 letter & comments.					
	Initiator <i>S.D. Harris</i> Date 11-30-90		QA/Lead Auditor <i>S. Dura</i> Date 11/30/90			
14 Remarks: ACW-5151 Letter with comments must be addressed, comments resolved, and procedure(s) reviewed and accepted to close this observation. <i>S.D. Harris 11-30-90</i>						
						Page 1 of 1

# YUCCA MOUNTAIN PROJECT OFFICE

## 1 YMPO OBSERVATION NO. 90-04-5

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: SNL Audit 90-04		3 Identified By: R. Powe <i>REP</i> A. Cocoros		4 Date: 8/24/90	
	5 Organization: SNL		6 Person(s) Contacted: S. Edmund, C. Barnes, F. Cheek, J. Martin		7 Response Due Date is 20 Days from Date of Transmittal	
	8 Discussion:  QAIP 5-1, Para. 5.1 requires all appendices that are forms to be marked "Sample". In actual practice, the mark reads "SAMPLE, CONTACT THE CONTROLLED DOCUMENT CENTER STAFF TO OBTAIN THIS FORM". The forms (latest revision) are maintained per procedure, by the Controlled Document Center staff. There are no control ID numbers or dates on the forms. In order to effect better control of forms, it is recommended that form control numbers are tied to dates and which procedure describes the form.					
	9 QAE/Lead Auditor <i>REP S. Dana</i>		Date 9/19/90		10 Branch Manager <i>Arthur Chapter</i>	
Completed by Respondee	11 Response:  Although forms control and management is not a QA issue, it is a worthwhile practice. Therefore, effective November 5, 1990, a Forms Management System, which is described in detail in the attached memorandum, was formally implemented. Actions complete.					
	12 Signature: <i>Thomas E. Blanton</i> Date: 11-9-90					
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>					
	Initiator <i>R E Powe</i>		Date 11/30/90		QA/Lead Auditor <i>S. Dana</i>	
14 Remarks: ACTION TAKEN TO ESTABLISH A FORMS MANAGEMENT SYSTEM IS ACCEPTABLE EVEN THOUGH THE INITIATOR DISAGREES WITH SNL POSITION THAT "FORMS CONTROL AND MANAGEMENT IS NOT A QA ISSUE" <i>REP</i> 11/30/90						
						Page 1 of 2



8 Discussion: ( continued )

This was discussed with the document control staff and they indicated they had already begun to address better methods of controlling forms. The purpose of this Observation is to obtain SNLs written response as to planned improvements in forms control.

date: October 17, 1990

to: Distribution

  
from: Fran Cheek-Martin, 6318, 4-7810

subject: Implementation of the 6310 Forms Management System (FMS)

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**Background** NWRT Department 6310 forms are being standardized in appearance and formalized in usage because:

- o it is necessary in order to eliminate an audit observation
- o the number of forms used in our Yucca Mountain Project (YMP) activities has increased significantly
- o individuals tend to create and use various versions of the same form so that standardized forms do not exist

During the past six weeks, the forms currently being used have been collected, reformatted into a standard format, and assigned a distinct form number.

**FMS** A form's use must be required by a 6310 procedure to be  
**Criteria** included in the Forms Management System (FMS).

Forms used by an individual or a group to facilitate the performance of their job responsibilities are not subject to the requirements of the FMS.

**Example:** The procedure coordinator has developed and uses a form to track the status of procedures in process. The form's use is not required by any 6310 procedure and is used only by the procedure coordinator. This form is not subject to the forms management system.

**Forms** The forms currently included in the FMS are  
**Included** required by DOPs, QAIPs, and QAPs. Forms related to  
**in** other 6310 procedures will be incorporated into the  
**System** FMS as need dictates.

(RETAIN THIS PAGE FOR FUTURE REFERENCE)

**Transition Period**      **Definition of:** The period during which the use of existing forms will still be accepted.

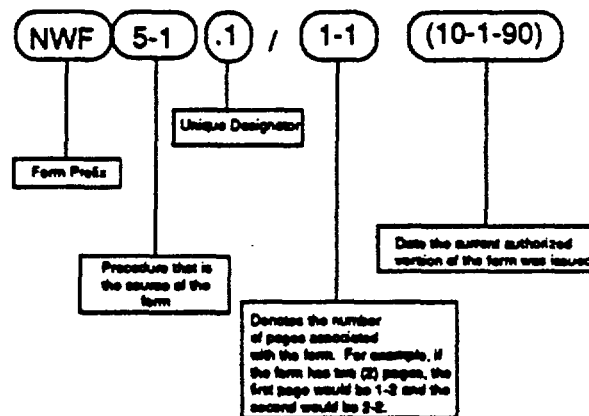
**Purpose of:** To avoid an overload in the Document Control Center caused by the demand for forms.

**Length of:** October 22 - November 5, 1990

**FMS Effective Date**      November 5, 1990. As of this date, only forms with a revision date of "10-1-90" and issued through the FMS will be acceptable for use.

**Form Numbering System**      An example of a form number is shown below.

NWF 5-1.1/1-1 (10-1-90)



**Location of Forms**      Copies of all forms will be located in the Document Control Center, SNL Albuquerque, Building 823, Room 4003.

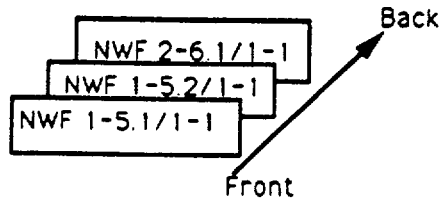
The forms will be in a file cabinet inside the door with drawers clearly marked, "Forms (number) - (number)."

(RETAIN THIS PAGE FOR FUTURE REFERENCE)

**Form  
File  
System**

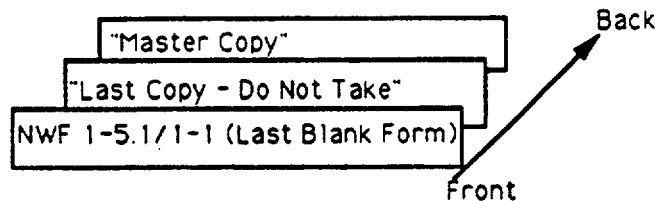
Forms will be filed in numerical order in individual folders.

**Example:**



Within the individual folder, there will be a copy of the form stamped "Last Copy - Do Not Take," and a "Master Copy" in a plastic slipcase.

**Example:**



**Cross-Index  
Reference**

A listing of all forms currently required by 6310's procedures will be in a wall-mounted pocket file near the cabinet containing the forms. The forms will be listed:

- numerically (the easiest way to identify the form you need if you know the procedure it is required by) and,
- alphabetically (in case you know the form's name but not the procedure number).

(RETAIN THIS PAGE FOR FUTURE REFERENCE)

Obtaining  
Forms  
Inside  
Building  
823

For those persons in Albuquerque who need forms, forms may be obtained from the Document Control Center staff, Building 823, Room 4003. If no one is there, you will be able to obtain the forms you require by using the information under "Location of Forms," "Form File System," and "Cross-Index Reference."

Replenishing the Forms Supply in Building 823

If the supply of the form you require is down to the "Last Copy - Do Not Take" copy, you may use the "Master Copy" to make copies however; you must:

- o make at least 25 additional "clean" copies of the form and place them in the form folder and,
- o return the "Master Copy" to the plastic slipcase in the form's folder

If the copy you take leaves the "Last Copy - Do Not Take" copy exposed, then you must:

- o add the form number to the "Replenish Supply" list that is in a wall-mounted pocket file near the file cabinet containing the forms.

Obtaining  
Forms  
Outside  
of  
Building  
823

If you are not in Building 823 in Albuquerque and need copies of the current forms, complete Attachment A, "Request for Forms" form and return it. (Please request only the forms you use in the performance of your job duties).

One copy of each requested form will be sent to you as soon as possible. Use this form as your "master copy."

Changing  
A Form

A "Form Change Request" form, number "NWF-FCR," is attached (Attachment B).

This form must be used to request a change to a form.

The form is self-explanatory.

Requests that address format, appearance, and the organization of information on a form will be accumulated and addressed when the form is revised.

Priority, however, will be given to requests that address a form's functionality and its most frequent users' ability to use it to meet their needs.

We are confident that with your cooperation this system can and will work.

SNL  
NWRT  
6310

## Request for Forms

YMP

To:

Date \_\_\_\_\_

Document Control Center  
 Organization 6318  
 Sandia National Laboratories  
 P. O. Box 5800  
 Albuquerque, NM 87185-5800

From:

Requester \_\_\_\_\_ Orgn \_\_\_\_\_ Phone \_\_\_\_\_  
 Mailing Address (if applicable) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

***Request ONLY the forms you need.***

Please send me the forms associated with the procedure numbers I have checked. (Do not use the procedure's prefix, e.g., DOP 2-1; 2-1 is sufficient). Requests from individuals marked "All" or with all procedure numbers checked will be returned unfilled. Please check appropriate boxes.

- ☐ 2.1 Task Definition Statements
- ☐ 2.4 Analysis, Control and Verification
- ☐ 2.5 Training and Familiarization Procedures
- ☐ 2.6 Qualification and Certification of Personnel
- ☐ 2.7 Qualification of Quality Assurance Program Audit Personnel
- ☐ 2.10 Determination of Applicable QA Controls
- ☐ 3.2 Software Quality Assurance Requirements
- ☐ 3.6 Design Change Control
- ☐ 3.7 Technical Data Base
- ☐ 3.8 Reference Information Base Change Process
- ☐ 3.11 Requirements for Submitting Data to the YMP Site and Engineering Properties Data Base (SEPDB)
- ☐ 3.12 Peer Reviews
- ☐ 3.13 Independent Technical and Management Reviews of Documents
- ☐ 4.1 Procurement Document Requirements
- ☐ 5.1 Requirements for Quality Assurance Implementing Procedures
- ☐ 5.2 Technical Procedure Requirements
- ☐ 5.4 Use of Quality-Related Administrative Procedures (APOs)
- ☐ 6.1 Document Control System
- ☐ 6.2 Reviewing, Approving, and Issuing Technical Information Documents
- ☐ 8.1 Sample Identification and Handling Requirements
- ☐ 16.1 Corrective Action
- ☐ 17.1 Records Management System
- ☐ 17.2 Operation of SNL YMP Data Records Management System (DRMS)

SNL  
NWRT  
6310

## Form Change Request

YMP

To: Procedure Coordinator, 6318

Date \_\_\_\_\_

From: \_\_\_\_\_ Orgn \_\_\_\_\_ Phone \_\_\_\_\_

To: \_\_\_\_\_ Orgn \_\_\_\_\_ Date \_\_\_\_\_

From: Procedure Coordinator, 6318 Phone \_\_\_\_\_

## Request to Change

Form Number: NWF \_\_\_\_\_

Form Name: (Optional) \_\_\_\_\_

*A marked up copy of the current form showing the proposed changes must be attached to this form for your request to receive proper consideration.*

Reason(s) for the requested changes:

The proposed change(s) has been:

☐ Accepted☐ Rejected☐ Other

Explain:

The change(s) will be made and a revised form will be issued with a revision date of \_\_\_\_\_

YUCCA MOUNTAIN PROJECT OFFICE  
1 YMPO OBSERVATION NO. 90-04-6N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: SNL Audit 90-04	3 Identified By: J. Martin/C. Prater	4 Date: 8/24/90
	5 Organization: SNL	6 Person(s) Contacted: J. Voigt	7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion:  Since January 1990, approximately 37 surveillances have been scheduled with only eleven being performed. The audit team is concerned that, due to manpower, an effective surveillance schedule cannot be maintained.		
	9 QAE/Lead Auditor <i>[Signature]</i> Date 9-19-90	10 Branch Manager <i>[Signature]</i> Date 9/26/90	
Completed by Respondee	11 Response:  For FY91, a surveillance schedule that focuses surveillances on the <u>important</u> work planned to be done, rather than <u>all</u> work, has been developed. This schedule will accomplish the purposes of graded QA by keeping verification activities directed toward the important work activities. Actions complete.		
	12 Signature: <i>Thomas E. Blejwas</i> Date: 11-9-90		
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/> Initiator <i>Jerry S. Martin</i> Date <i>11-30-90</i> QA/Lead Auditor <i>[Signature]</i> Date <i>11/30/90</i>		
	14 Remarks:  <div style="text-align: right;">Page 1 of 1</div>		



Disregard the & erroneously typed on this line 11/9/90

ORIGINAL  
THIS IS A RED STAMP

YUCCA MOUNTAIN PROJECT OFFICE 1 YMPO OBSERVATION NO. 90-04-8				N-QA-012 4/89	
Completed by Originating Organization	2 Noted During: SNL Audit 90-04		3 Identified By: C. Warren		4 Date: 8/24/90
	5 Organization: SNL		6 Person(s) Contacted: R. Price/R. Richards		7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion: SNL-NWRT-QAPP, Revision E, Section 11 requires specific information be specified on test records for engineered items (Section 11.4.2) and acceptance test personnel be qualified in accordance with Appendix C of the QAPP (Section 11.5). Although no testing of engineered items has been performed by SNL, QAIP 11-1, Revision 00 provides for preparation and approval of equipment test procedures (ETPs) without requiring that the above information be included in these procedures.				
	9 QAE/Lead Auditor C.C. Wan		Date 9-19-90	10 Branch Manager Catherine Humpfer	
Completed by Responder	11 Response: <del>A review of SNL NWRT Quality Assurance Procedure 18-1, "Quality Assurance Audits," against QA Program Plan requirements indicates that all such requirements are adequately met by the procedure as currently written. An additional review against NQA-1 (1989) and the OCRWM QA Requirements Document, Revision 4, also shows that the procedure meets all requirements of those documents for documenting and reporting audit results. Since no adverse condition is cited above (nor foreseen by SNL) resulting from not having the Audit Finding/Observation Report proceduralized, and since all requirements are met by the procedure as written, SNL concludes that no action is required in this case.</del> Disregard the material typed above, in error. See page 2 for response. PR 11/9/90				
	12 Signature: Thomas E. Clejous		Date: 11-9-90		
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>				
	Initiator C.C. Wan	Date 11-30-90	QA/Lead Auditor S. Davis	Date 11/30/90	
14 Remarks:					
Page 1 of 12 PR 11/9/90					

11. Response:

Because SNL is not currently planning to perform any equipment tests, QAIP 11-1 will be revised to delete all references to equipment test procedures. Should equipment tests be required in the future, a separate procedure will be written for such tests which will incorporate all pertinent requirements from the SNL-NWRT-QAPP (or equivalent). Responsible Party: F. B. Nimick; due date - December 14, 1990.

**YUCCA MOUNTAIN PROJECT OFFICE**  
**1 YMPO OBSERVATION NO. 90-04-9**

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: SNL Audit 90-04		3 Identified By: J. Martin/C. Prater		4 Date: 8/24/90	
	5 Organization: SNL		6 Person(s) Contacted: J. Voigt		7 Response Due Date is 20 Days from Date of Transmittal	
	8 Discussion:  Currently, no procedural guidelines exist other than what is listed within Paragraph 4.4 of QAP 18-1 to control audit findings and observations. However, during review of audit reports, it was ascertained that an "Audit Finding Observation Report" (AFOR) form existed but was not proceduralized. The AFOR should be added to QAP 18-1.					
Completed by Respondee	9 QAE/Lead Auditor <i>John S. Martin</i>		Date 9-19-90		10 Branch Manager <i>Catherine Hays</i>	
					Date 9-20-90	
Completed by Respondee	11 Response:  A review of SNL NWRT Quality Assurance Procedure 18-1, "Quality Assurance Audits," against QA Program Plan requirements indicates that all such requirements are adequately met by the procedure as currently written. An additional review against NQA-1 (1989) and the OCRWM QA Requirements Document, Revision 4, also shows that the procedure meets all requirements of those documents for documenting and reporting audit results. Since no adverse condition is cited above (nor foreseen by SNL) resulting from not having the Audit Finding/Observation Report proceduralized, and since all requirements are met by the procedure as written, SNL concludes that no action is required in this case.					
	12 Signature: <i>Thomas E. Blejwas</i>					
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>					
	Initiator <i>John S. Martin</i> <i>John S. Martin</i>		Date 11-30-90		QA/Lead Auditor <i>S. Davis</i>	
Completed by QA Org.					Date 11/30/90	
	14 Remarks:					
						Page 1 of 1