



**Department of Energy**

Yucca Mountain Project Office  
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Las Vegas, NV 89193-8608

WBS 1.2.9.3  
QA

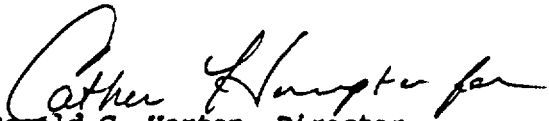
NOV 20 1990

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Technical Project Officer  
for Yucca Mountain Project  
Fenix and Scisson of Nevada  
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Las Vegas, NV 89109

ACCEPTANCE OF RESPONSES TO OBSERVATIONS RESULTING FROM YUCCA MOUNTAIN PROJECT OFFICE (PROJECT OFFICE) QUALITY ASSURANCE (QA) AUDIT 90-07 OF FENIX & SCISSON OF NEVADA (FSN)

The Project Office QA staff has evaluated the responses to Observations 90-07-01 through 04, generated as a result of Project Office QA Audit 90-07 of FSN. The responses to these observations are acceptable. Copies of the observations are enclosed for your information.

If you have any questions, please contact either Catherine E. Hampton at 794-7973, or Frank J. Kratzinger at 794-7163 of the Yucca Mountain Project QA staff.

  
Donald G. Horton, Director  
Quality Assurance  
Yucca Mountain Project Office

QA:CEH-850

Enclosure:  
Observations 90-07-01 thru 04

cc w/encl:  
K. R. Hooks, NRC, Washington, DC  
M. J. Regenda, FSN, Las Vegas, NV  
S. W. Zimmerman, NWPO, Carson City, NV  
N. J. Brogan, SAIC, Las Vegas, NV, 517/T-08

cc w/o encl:  
J. W. Gilray, NRC, Las Vegas, NV

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EDR WASTE  
WM-11 EDR

YUCCA MOUNTAIN PROJECT OFFICE  
1 YMPO OBSERVATION NO. 90-07-01

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: FSN Audit 90-07	3 Identified By: C.G. Walenga/R.L. Weeks	4 Date: 9/27/90
	5 Organization: FSN	6 Person(s) Contacted: R.L. Bullock	7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion:  QAPP, Revision 6, Section 2.1 addresses the criteria to be used to determine when a readiness review should be conducted. FSN has not conducted a readiness review nor has the first readiness review been scheduled. Discussions with FSN TPO revealed that while no readiness reviews have been scheduled, FSN management has intentions to conduct at least one readiness review prior to start of Title II ESF design.  Since it is a requirement of the QAPP to conduct readiness reviews, it is		
Completed by Respondee	9 QAE/Lead Auditor <i>Frank Meston</i>	Date 10/3/90	10 Branch Manager <i>Cathy Hampton</i>
	11 Response:  FSN will conduct a Readiness Review prior to the restart of Title II Engineering Design. Project Procedure PP-10-09 will be revised to require an annual readiness review schedule. This revision is scheduled to be completed by December 15, 1990.		
	12 Signature: <i>R.L. Bullock</i> Date: 11-2-90		
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>	Initiator <i>Richard L. Weeks</i>	Date 11/8/90
	QA/Lead Auditor <i>Frank Meston</i>	Date 11/9/90	QA/Lead Auditor <i>Cathy Hampton</i>
14 Remarks:			

8 Discussion: ( continued )

important to DOE in assessing the adequacy of the FSN QA program to know the specific major scheduled or planned activities where FSN will conduct an internal or external readiness review. These specific readiness reviews should be listed in the QAPP (or possibly the PP-10-09) to ensure that they are auditable for implementation purposes.

**YUCCA MOUNTAIN PROJECT OFFICE**  
**1 YMPO OBSERVATION NO. 90-07-02**

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: FSN Audit 09-07	3 Identified By: C.G. Walenga/R.L. Weeks	4 Date: 9/27/90
	5 Organization: FSN	6 Person(s) Contacted: J. Rue	7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion: <p>QAPP-002, Revision 6, Section 2.5.1.3 states in part, "Prior to assigning person to perform activities affecting quality, (personnel) will be indoctrinated as to the purpose, scope, methods of implementation, and applicability of the following documents (including changes thereto), as a minimum, as they relate to the work to be accomplished...."</p> <ul style="list-style-type: none"> <li>o Implementing Procedures and Work Instructions (applicable to the individual's responsibilities)..."</li> </ul>		
Completed by Respondee	9 QAE/Lead Auditor <i>Frank Heston</i>	Date 10/3/90	10 Branch Manager <i>Cathleen Heston</i>
	11 Response: <p>Quality Assurance will establish a list of Quality Assurance Procedures which identify responsibilities for technical personnel. Technical personnel will be given appropriate indoctrination or training prior to assigning them to perform activities described in the Quality Assurance Procedures.</p>		
Completed by QA Org.	12 Signature: <i>[Signature]</i>		Date: 11/2/90
	13 Response Receipt Acceptable <input checked="" type="checkbox"/>	Initiator <i>Richard L. Weeks</i>	Date 11/8/90
	QA/Lead Auditor <i>Cathleen Heston</i>	Date 11/9/90	
14 Remarks:			

8 Discussion: ( continued )

Several QAPs provide responsibility statements for and require action by line personnel. It was established that, at least for design engineers, these applicable QAPs were not identified as training requirements and training was not provided. Also, it is unclear as to how other line personnel training requirements are affected.

**YUCCA MOUNTAIN PROJECT OFFICE**  
**1 YMPO OBSERVATION NO. 90-07-03**

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: FSN Audit 90-07	3 Identified By: E. M. Cikanek	4 Date: 9-27-90
	5 Organization: FSN	6 Person(s) Contacted: J. Grenia, B. Stanley	7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion: FSN conducted an internal review of Study Plan 8.3.1.14.2 in accordance with FSN procedure DC-09 before this document was submitted to the Project Office. In spite of this review, the Study Plan's reference list contains national consensus standards that are not current, are no longer appropriate, or are incorrectly cited. In addition, the transmitted text contains errors introduced during the incorporation of resolved review comments. The quality of execution of this procedure for the review of the Study Plan was inadequate. Specific examples are provided on the continuation page.		
Completed by Respondee	9 QAE/Lead Auditor <i>Frank Westerman</i>	Date 10/3/90	10 Branch Manager <i>Catherine Harston</i>
	11 Response: The document audited was a review draft and should not be considered complete until review comments and the resolution of resulting comments have been incorporated. However, it was agreed during conversations between FSN and the auditors that the concerns stated in this observation would be answered during the resolution of review comments to the document. It is still the intent of FSN to make these corrections as agreed. The document review is expected to be completed by the DOE reviewers by the end of November, 1990.		
Completed by QA Org.	12 Signature: <i>Z L Bulluck</i>		Date: 11-2-90
	13 Response Receipt Acceptable <input checked="" type="checkbox"/>	Initiator <i>Frank Westerman</i>	Date 11/9/90
		QA/Lead Auditor <i>Catherine Harston</i>	Date 11/9/90
14 Remarks:			

8 Discussion: ( continued )

Reference List examples:

- ASTM D-1586-67 as listed is outdated. The current version is ASTM D-1586-84.
- ASTM D-421-58 as listed is outdated. The current version is ASTM D-421-85.
- ASTM D-2166-66 is listed twice. The second listing uses the title "Uniaxial Compressive Strength of Rock Materials" The current version of this standard, ASTM D-2166-85, is titled "Unconfined Compressive Strength of Cohesive Soils."
- 19 of the ASTM references listed have some form of error - typographical or other.

Text example:

- |                           |  |
|---------------------------|--|
| - Sections 2.2.2, para. 3 | In each of the referenced sections, there is mention of "sand cone penetration resistance" which does not exist. The reviewed draft mentioned "Dutch Cone Penetration Test" which is correct. Documentation of the review gives no indication that such a change was to be made. |
| 4.2.2, item 1             |  |
| 3.2.3, para. 3            |  |

**YUCCA MOUNTAIN PROJECT OFFICE**  
**1 YMPO OBSERVATION NO. 90-07-04**

N-QA-012  
4/89

Completed by Originating Organization	2 Noted During: FSN Audit 90-07	3 Identified By: K. McFall	4 Date: 9/29/90
	5 Organization: FSN	6 Person(s) Contacted: W. Straight	7 Response Due Date is 20 Days from Date of Transmittal
	8 Discussion: QAP-6.1(N), Rev. 3, Para. 6.1.1.6 requires the FSN QAPP to be distributed to the TPO and other interfacing organizations for review and comment. The TPO serves as the interfacing organization and his review is considered to cover both the TPO's and the interfacing organizations review responsibilities. This combination of reviews and responsibilities by the TPO is not stated in the FSN procedures. It would improve the clarity of the situation if the requirement for interfacing organizations review is modified and the dual review role of the TPO is plainly established.		
Completed by Respondee	9 QAE/Lead Auditor <i>Frank Westgate</i>	Date 10/3/90	10 Branch Manager <i>William W. ...</i>
	Date 10/3/90		
Completed by QA Org.	11 Response: Future revisions to the Quality Assurance Program Plan will be reviewed by the Project Manager/Technical Project Officer and the interfacing organizations impacted by the change.		
	12 Signature: <i>W. Straight</i>		
	Date: 11/2/90		
Completed by QA Org.	13 Response Receipt Acceptable <input checked="" type="checkbox"/>	Initiator <i>Kenneth McFall</i>	
	Date 11/8/90	QA Lead Auditor <i>Frank Westgate</i>	Date 11/9/90
14 Remarks:			