



DEPARTMENT OF ENERGY
Office of Civilian Radioactive Waste Management
Office of Geologic Disposal
Yucca Mountain Site Characterization Project Office
P.O. Box 98608
Las Vegas, NV 89193-8608
MAR 25 1994

WBS 1.2.11
QA: N/A

Les E. Shephard
Technical Project Officer
for Yucca Mountain
Site Characterization Project
Sandia National Laboratories
P.O. Box 5800
Organization 6302
Albuquerque, NM 87185

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST
(CAR) YM-93-097 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION
(YMQAD) AUDIT YMP-93-17 OF SANDIA NATIONAL LABORATORIES (SCP: N/A)

The YMQAD staff has verified the corrective action to CAR YM-93-097 and determined the results to be satisfactory. As a result, the CAR is considered closed.

If you have any questions, please contact either Robert B. Constable at (702) 794-7945 or Kenneth T. McFall at (702) 794-7280.

Richard E. Spence, Director
Yucca Mountain Quality Assurance Division

YMQAD:RBC-2733

Enclosure:
CAR YM-93-097

cc w/encl:
K. R. Hooks, NRC, Washington, DC
S. W. Zimmerman, NWPO, Carson City, NV
R. R. Richards, SNL, Albuquerque, NM, M/S 1333
J. F. Schelling, SNL, Las Vegas, NV
J. H. Hines, OQD, AL

cc w/o encl:
J. W. Gilray, NRC, Las Vegas, NV
N. J. Brogan, YMQAD/QATSS, Las Vegas, NV

010008

Add: Ken Hooks At: End
NH03
WM-11
102.7

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

8 CAR NO.: YM-93-097
DATE: 9-24-93
SHEET: 1 OF 2
QA

CORRECTIVE ACTION REQUEST

1 Controlling Document
QAIP 4-1, Revision 03

2 Related Report No.
YMP-93-17

3 Responsible Organization
SNL

4 Discussed With
D. Hawkinson/N. Ortiz

5 Requirement:

Paragraph 4.2.3, Step 6 states in part "The QA Procurement Coordinator shall review the PPC form. If the product or service is subject to the QA program, the QA Procurement Coordinator will review the PPC for correctness and the PR Statement-of-Work (SOW) for inclusion of applicable QA Standard Clauses and assure QA requirements are consistent with QA Grading Report/QA Control Specification Report for the stated WBS and Task activity".

Step 7 states in part that the "QA Procurement Coordinator shall initial the PR to indicate QA approval after all QA requirements have been incorporated into the procurement document".

6 Adverse Condition:

Contrary to the above requirements some contracts have been awarded without all the QA Requirements being incorporated into the pertinent procurement documents.

EXAMPLES ARE:

1) Grading Report for WBS No. 1.2.3.6.2.1.6, Revision 00, was used to award Contract No. AH-0563 to the National Center for Atmospheric Research (NCAR). The Grading Report requires the use of procedures for training and qualification of personnel performing the activities. However, the Work Agreement (WA) applicable to this contract, WA-0073, Revision 00, does not require the use of those procedures. Additionally, the contract requires a Readiness Review, to be performed but the pertinent procedure is neither mentioned in the Grading Report nor in the WA.

9 Does a significant condition adverse to quality exist? Yes ___ No X
If Yes, Circle One: A B C

10 Does a stop work condition exist? Yes ___ No X; If Yes - Attach copy of SWO
If Yes, Circle One: A B C D

11 Response Due Date:
20 working days from issuance

12 Required Actions: Remedial Extent of Deficiency Preclude Recurrence Root Cause Determination

13 Recommended Actions:

- 1) Correct the deficiencies identified or revise the activities dealing with procurement.
- 2) Investigate to determine if any other similar deficiencies exist.
- 3) Determine root cause.

7 Initiator
M. R. Diaz *Mario Diaz* Date 9-24-93

14 Issuance Approved by:
QADD *RC Spence* Date 9/28/93

15 Response Accepted
QAR *Kenneth McFall* Date 11/15/93

16 Response Accepted
QADD *RC Spence* Date 11/18/93

17 Amended Response Accepted
QAR Date

18 Amended Response Accepted
QADD Date

19 Corrective Actions Verified
QAR *Kenneth McFall* Date 3/23/94

20 Closure Approved by
QADD *RC Spence* Date 3/24/94

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5 Requirements (continued)

Paragraph 4.3.2, Step 5 states in part "The Delegated Representative (DR) shall identify documents in the RFQ at all tiers, that SNL YMP requires to be submitted for information, review or approval; and specify frequency and time of submittal. The DR shall specify SNL YMP record requirements or the including retention time and submittal requirements.

The DR shall define specific conditions/data required from the contractor to verify acceptability of the purchased product or service. As a minimum, one of the verification methods listed below shall be included as an "Acceptance Criteria"

- Certificate of Conformance
- Acceptance of Services

6 Adverse Condition (continued)

- 2) PPC for Contract No. AE-6737 awarded to J. F. T. Agapito and Associates, Inc., does not require any SNL procedure to be applied to the scope of work. However, the QA requirements attached to the Purchase Requisition (PR) requires the use of SNL YMP procedure 16-1. Additionally, the same document requires that documentation requirements and records transmittal to be in accordance with articles 1 to 9 of the SOW and applicable SNL YMP procedures. However, only on SNL procedure may apply and articles 1 to 9 do not contain documentation requirements and records transmittals during that phase of the procurement activities. Furthermore the requirements quoted above from QAIP 4-1, Revision 03, paragraph 4.3.2 Step 5 were not included in the RFQ.
- 3) PPC for Contract No. AE-6736 awarded to IT Corporation does not contain similar requirements to item 2) above.
- 4) The SOW for Contract No. AG-4079 awarded to Prof. Z. T. Bienawski establishes that the purpose of this contract is to make this individual a member of the Rock Mechanics Review Panel in order to provide technical expertise in the field of rock mechanics to demonstrate that performance objectives and design criteria described in 10CFR60 are met. As part of his function, he will review documents or preparation of documents. However, requirements for his training and qualification, related to the activities dealing with quality, are not part of the contract document.
- 5) Modify Grading Report for WBS No. 1.2.3.6.2.1.6 in order to identify the procedure to be used for Readiness Review.

13 Recommended Action(s) (continued)

- 4) Explain what kind of action needs to be taken to preclude recurrence.

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Corrective Action for Deficient Condition

A. Extent of Deficiency

A review will be performed of all current service contracts subject to the QA program to determine if any additional contracts have been awarded without incorporation of application QA requirements within procurement documents and/or Work Agreements. Any corrections deemed necessary will be documented on an SNL CAR.

B. Root Cause Determination

Investigation of the deficient conditions cited in this CAR (Examples 1 through 4) showed different root causes, as follows:

- 1) Oversight and lack of specificity on the part of the Work Agreement preparer, and oversight by the reviewers of the Work Agreement.
- 2) & 3) For both of these contracts, the preparer of the Statement of Work (SOW) was the same individual, and the QA review for both was done by the same QA staff member. Root causes are:
 - Inadequate incorporation of the agreed upon QA requirements from the Procurement Planning Checklist into the SOW by the preparer, and
 - lack of consistent, in-depth review of the SOW prior to QA approval of the procurement document.
- 4) Contract AG-4079 for Professor Z. T. Bieniawski was initially processed as an extension of the previous Contract 42-0092 and was classified by the Delegated Representative (DR) as an "Administrative Change Only." However, a change in contract number resulted in a new procurement document that should have received a complete reiteration of the QA Program requirements and specific qualification, training, and submittal requirements appropriate for his consulting role on the Rock Mechanics Review Panel.

Ltr. dtd 11/5/93 - Shephard to Spence

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(Since subparagraph 5 is somewhat redundant to subparagraph 1 in Block 6, and based on its grammatical construction, we assume this subparagraph is erroneously located and should follow 4 in Block 13.)

C. Remedial Action

The following Procurement Contract documents have already been, or will be, revised as follows:

- 1) NCAR Work Agreement WA-0073 has been revised to correct stated deficiencies. Revision 01 was issued by SNL PI (Joe Schelling) on 9/27/93 to add QAIPs 2-5/2-6 and clarify Readiness Review to be done to QAIP 2-9 at next scheduled audit (October 26-27, 1993).

QAGR 1236216 was also revised by SNL PI (Joe Schelling) and issued effective 9/27/93 to add QAIP 2-9 as the guidance for "Readiness Review" performance.

- 2) & 3) Contracts AE-6737 and AE-6736 will be revised by SNL Technical Staff PI (Ray Finley) to correctly identify the SNL QA requirements to be rolled-down to J.F.T. Agapito and IT Corporation.
- 4) Contract AG-4079 will be revised by SNL Technical Staff PI (John Pott) to correct stated deficiencies.

D. Corrective Actions to Prevent Recurrence

- 1) Recurrence of the deficiency related to Work Agreements will be prevented by actions specified in response to CAR YM-93-095.
- 2) & 3) The preparer of the subject contract Statements of Work is no longer associated with the Yucca Mountain Project, so no actions to prevent recurrence of deficiencies in his activities are appropriate. However, for the benefit of other contract SOW preparers, the lessons-learned from identification and evaluation of

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those deficiencies will be disseminated by means of an SNL YMP QA Advisory.

QA review of procurement documents will be improved by development of a "Procurement QA Review Checklist" for use by all such reviewers and by conduct of a training class on QA review of procurement documents for all potential QA reviewers.

- 4) The checklist, to be developed, and the training referred to directly above will prevent recurrence of the deficiency involving Contract AG-4079.

E. Corrective Action Completion Dates

Action A: 2/15/93 (D.R. Hawkinson)
Action C 2), 3), & 4): 11/30/93 (R. Finley, J. Pott)
Action D 2) & 3) (QA Advisory): 11/30/93 (R. Richards)
Action D 2), 3) & 4): 1/15/93 94 KTM 11/15/93 *
(Checklist and Training) (D. R. Hawkinson - Checklist)
(R. Richards - Training)

*changed per telephone
conference w/J. Friend of SNL on
11/15/93

Response Approved:

R. Richards
for TPO, SNL YMP

11/5/93
Date

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Verification of Corrective Action - CAR YM-93-097

On 3/22/94 Sandia National Laboratory faxed the final installment (#4 of 4) containing the last of the documentation needed for the closure of YM-93-097. The faxed documentation includes the following:

- A.) The procurement document screening matrix
- B.) Purchase Requisition AE-6737
- C.) Contract AE-6736
- E.) Contract AE-6736, Amendment No. 2
- F.) Quality Assurance Advisory, dated 1/13/94
- G.) Revised Procurement Review Checklist
- H.) Verification of training documentation for QA Review of Procurements
- I.) Procurement screening matrix for incorporation of QA requirements
- J.) SNL CARs 94-11, 94-12, and 94-13
- K.) Work Agreement WA-0073, Revision 1
- L.) Quality Assurance Grading Report #1.2.3.6.2.1.6, dated 9/27/93

The above documentation supported the corrective action committed to in the CAR response. This CAR is considered closed.

Verified by:

Kenneth A. McFall

Date:

3/23/94