

Department of Energy

Yucca Mountain Site Characterization Project Office P. O. Box 98608 Las Vegas, NV 89193-8608

WBS 1.2.11 QA: N/A

SEP 0 1 1993

William C. Kopatich Technical Project Officer for Yucca Mountain Site Characterization Project Raytheon Services Nevada 101 Convention Center Drive, Suite P-250 Las Vegas, NV 89109

EVALUATION OF RESPONSES TO CORRECTIVE ACTION REQUEST (CAR) YM-93-077 AND YM-93-079 THROUGH YM-93-083, RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION (YMQAD) AUDIT YMP-93-13 OF RAYTHEON SERVICES NEVADA (SCP: N/A)

The YMQAD staff has evaluated the responses to CARs YM-93-077 and YM-93-079 through YM-93-083. The responses have been determined to be satisfactory. Verification of completion of the corrective actions will be performed after the effective dates provided. Any extension to these dates must be requested in writing, with appropriate justification, prior to the date. Please send a copy of extension requests to Nita J. Brogan, YMQAD/QATSS, 101 Convention Center Drive, Suite 640, Las Vegas, Nevada 89109.

If you have any questions, please contact either Robert B. Constable at 794-7945 or John S. Martin at 794-7881.

Richard E. Spence, Director Yucca Mountain Quality Assurance Division

YMQAD:RBC-5852

Enclosures: CAR YM-93-077 CARs YM-93-079 through YM-93-083

cc w/encls: TK. R. Hooks, NRC, Washington, DC S. W. Zimmerman, NWPO, Carson City, NV D. J. Tunney, RSN, Las Vegas, NV

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

Add: Gen Hacker "11 NH03:11 WM-11

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YMP-5

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	OFFICE OF CI OACTIVE WASTE S. DEPARTMENT (WASHINGTON	MANAGEMENT OF ENERGY	CAR NO. <u>YM-93-077</u> DATE: 7/21/93 PAGE: 1 OF 1 QA
CC	RRECTIVE ACTIO	N REQUEST	
¹ Controlling Document AP-5.1Q, Rev. 3, Control & Transfer of Te	echnical Data on the YM		eted Report No. YMP-93-13
³ Responsible Organization	4 Discusse	ed With	- <u></u>
RSN ⁵ Requirement	<u>i</u>	W. Kopatich & D. 1	funney
* Adverse Condition: Contrary to the above requirement, a TDIF Geologic (NRG) 1 work that was completed		to the CRF for data a	cquired as part of the North Ramp
⁹ Does a significant condition adverse to quality exist? Yes No_X If Yes, Circle One: A B C		condition exist? Yes - Attach copy of One: A B C D	¹¹ Response Due Date: SWO 20 Working Days from Issuance
¹² Required Actions: A Remedial	Extent of Deficiency	Preclude Recurren	nce Root Cause Determination
¹³ Recommended Actions: Evaluate all data acquired by RSN as to a	ppropriateness for inclu	sion into the Technica	al Data Base
¹⁵ Response accepted R. Matras, OAR John R. Matr	Date 7/20/93 14 15 Date 7/20/93 14 15 Date 8/25/93 16 R	ADD 10 Approved by: ADD 10 Approved by: esponse Accepted	1/10 Date 7/27/9/
OAR CONCEPTED		ADD ACCEPTINE A	Ccepted Date 0/3//7
	1	ADD	Date
¹⁹ Corrective Actions Verified			
	2º C	osure Approved by:	

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CORRECTIVE ACTION REQUEST (Continuation Page)

A. <u>REMEDIAL</u>:

RSN shall complete the TDIF in accordance with AP-5.1Q for the North Ramp Geologic NRG-1 work and submit it to the Technical Database. This will be accomplished by September 7, 1993.

B. **INVESTIGATIVE ACTIONS**:

RSN will evaluate all data acquired as to its appropriateness for inclusion into the Technical Database. Upon completion of the investigation, the appropriate data shall be submitted to the Technical Database in accordance with AP-5.1Q. This investigative action shall be completed by September 30, 1993.

C. <u>ROOT_CAUSE_DETERMINATION</u>:

No response required.

D. <u>CORRECTIVE ACTION TO PRECLUDE RECURRENCE</u>:

A self-study shall be re-conducted with the understanding that the information supplied by the Survey Department is considered technical data, and must be transmitted to the Technical Database in accordance with AP-5.1Q. This self-study shall be completed by September 30, 1993.

Response Approved:	WCK	to for	Date	8/24/93
	Responsible	Manager		

PL Schreiner

			ORIGIN THIS IS A RED (
	OFFICE OF RADIOACTIVE WAS U.S. DEPARTME WASHING	CIVILIAN TE MANAGEMENT NT OF ENERGY	CAR NO. YM-93-079 DATE: 7/21/93 PAGE: 1 OF 2 QA
	CORRECTIVE AC	TION REQUEST	
¹ Controlling Document PP-06-01, Rev. 1, Control	led Document Distribution	² Related R	teport No. YMP-93-13
³ Responsible Organization RSN		ussed With W. Kopatich	
	h 6.3.3.1 states in part, "If the do tion (verbal or written) shall be ma		ed within the prescribe
⁶ Adverse Condition:	ocumented evidence could be pro		
-	21/93 - for technical review of De /93 - for PPs issued to Manual No		l Rig
Does a significant conditio adverse to quality exist? If Yes, Circle One: A 8	resNo_XYesNo_X CIr Yes, C	vork condition exist? _; If Yes - Attach copy of SWC Incle One: A B C D	from Issuance
	emedial Sextent of Deficienc		Root Cause Detem
	to be taken to correct the deficien ndition and the planned corrective		<u>Ci Date 7/2</u>
OAR AMARINA		OADD Charles Accepted	
QAR ¹⁹ Corrective Actions Verified	Date	QADD ²⁰ Closure Approved by:	Date
QAR	Date	QADD	Date

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CAR NO	YM-93-079
DATE:	8-23-93
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CORRECTIVE ACTION REQUEST (Continuation Page)

A. <u>REMEDIAL</u>:

Written notification was transmitted on 7/27/93 to Mr. A. Smith to return the completed transmittal forms or he would either be removed from the controlled distribution list or his manual decontrolled.

The document received by B. Gardella will be decontrolled.

B. **INVESTIGATIVE ACTIONS**:

An investigation will be done of all the controlled documents issued to date to determine the extent of the deficiency. Either follow-up notification will be transmitted or the individual will be removed from the controlled distribution list. This investigation will be completed by September 30, 1993.

C. <u>ROOT CAUSE DETERMINATION:</u>

No response required.

D. CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

The documents that require controlled distribution shall be monitored more closely to ensure that there is not a recurrence of this situation. A stricter adherence to the procedure shall be invoked.

Response Approved:	Responsible Manager	Date _	8/24/93
	Responsible Manager	_	•
	For RL Schreiner		

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		TE MANAGEMENT NT OF ENERGY	CAR NO. YM-93-080 DATE: 7/21/93 PAGE: 1 OF 2 QA
CC	RRECTIVE AC	TION REQUEST	
¹ Controlling Document PP-11-01, Rev. 1 & PP-01-02, Rev. 1		² R(elated Report No. YMP-93-13
³ Responsible Organization RSN	⁴ Dis	cussed With W. Kopatich & D.	
³ Requirement:			
PP-11-01, Rev. 1, "General Testing Procedu Initiation: All test work shall be authorized b PP-01-02, Rev. 1, "Work Initiation," paragra the YMP."	by the appropriate	supervisor in accordance	e with PP-01-02."
6 Adverse Condition:	·· <u></u>		<u></u>
RSN Material Test Laboratory (MTL) person	nnel performed te	sts requested by REECo	without a Wi.
Discussion PP-11-01, does not provide RSN MTL perso personnel to conduct tests without written a			
Tests requested by REECo:			
MTL Request No.	MTL Lab. No.	Requested by	Material
S-504	3283-3288	E. Mouser	Shotcrete
^a Does a significant condition adverse to quality exist? Yes <u>No X</u> If Yes, Circle One: A B C	Yes_ No X	work condition exist? ; If Yes - Attach copy Circle One: A B C I	
¹² Required Actions: 🖾 Remedial 🖾	Extent of Deficience	y Preclude Recurr	rence Root Cause Determination
¹³ Recommended Actions: Clarify in PP-11-01 that all test work initiate that test work requested by another particip			
⁷ Initiator <u>Source</u> ¹⁵ Response Accepted <u>QAR</u> ¹⁷ Amended Response Accepted	Date 7/21/93 Date 2/22/93	14 Issuance Approved b QADD 16 Response Accepted QADD 16 Amended Response	12/11-1 Date 7/27/97 BCC Date 8/21/93
	Date	QADD	Date
¹⁹ Corrective Actions Verified		²⁰ Closure Approved by	
QAR C	Date	QADD	Date

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DATE:	7/21/93
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CORRECTIVE ACTION REQUEST (Continuation Page)

Adverse	Condition (continued)			
	MTL Request No.	MTL Leb. No.	Requested by	<u>Material</u>
	S-503	3259-3270	E. Mouser	Shotcrete
	S-501	3213-3254	•	
	S-498	3277-3282	-	
	S-497	3271-3276	•	•
	S-472	2976-3011	•	*
	S-476	3038-3049		••
	S-490	3168-3173	-	Grout
	S-482	3077-3112	•	19
	S-481	3074-3076	-	M
	S-475	3035-3037		61
	S-464	2949-2957	•	84
	S-516	3387-3392	•	01
	GT-98	3182-3189	J. Constable	Rock bolts/chain link fence

CORRECTIVE ACTION REQUEST (Continuation Page)

CAR NO.	YM	<u>-93-0</u>	080
DATE:		8-23-	-93
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A. REMEDIAL:

The RSN/YMP Procedure PP-11-01 will be clarified and the work initiated by RSN departments will be in accordance with Procedure PP-01-02.

PP-11-01 will be revised by September 30, 1993.

B. **INVESTIGATIVE ACTIONS:**

Negligible. Work Initiations (WI) are an RSN internal work control document. No RSN/YMP quality affecting items or work were affected.

C. <u>ROOT CAUSE DETERMINATION</u>:

No response required.

D. CORRECTIVE ACTION TO PRECLUDE RECURRENCE:

The procedural changes in YMP Procedure PP-11-01, in reference to the Work Initiations, will be completed and issued. Also, all other YMP participants requesting the test work will be required to follow AP-5.390 procedural requirements.

Response Approved:

G.UResponsible Manager

Date 8/23/93

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	OFFICE OF C CTIVE WASTE DEPARTMENT WASHINGTO	MANAGEMENT OF ENERGY	* CAR NO. YM-93-081 DATE: 7/21/93 PAGE: 1 OF 1 QA
COR		ON REQUEST	
¹ Controlling Document PP-11-01, Rev. 1, General Testing Procedure		² Relate	ed Report No. YMP-93-13
³ Responsible Organization	* Discus	sed With	
⁵ Requirement	J	W. Kopatich & D. He	
⁶ Adverse Condition: MTL tests reports for: (1) Compression tests a reference the year of the standard test proced		9; and (2) Core Compres	ssion as per ASTM C-42 did not
adverse to quality exist? Yes No_X If Yes, Circle One: A B C		c condition exist? If Yes - Attach copy of S le One: A B C D & Preclude Recurrence	from Issuance
¹³ Recommended Actions: Identify the remedial action to be taken to corr Identify the extent of the condition and the pla			ce.
⁷ Initiator Date ¹⁵ Response Accepted <u>OAR</u> Date ¹⁷ Amended Response Accepted OAP Date	=7/21/93	ssuance Approved by: DADD Response Accepted DADD Amended Response Accepted	
QAR Date ¹⁹ Corrective Actions Verified		2ADD Closure Approved by:	Date
QAR Date			Date

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CAR NO	YM-93-081
DATE:	8-23-93
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CORRECTIVE ACTION REQUEST (Continuation Page)

A. <u>REMEDIAL</u>:

All MTL blank test report forms will be revised to include the procedure issue reference year. These blank report forms will be updated, as required, as per the specific test procedures used on various YMP projects by September 30, 1993.

All RSN/YMP MTL test reports were reviewed and the procedure issue reference year added where applicable. All affected MTL tests conducted in accordance with RSN/YMP Procedure PP-11-01 will be resubmitted as a revision to the YMP records by September 30, 1993.

B. **INVESTIGATIVE ACTIONS**:

Minor. No RSN/YMP quality affecting work was compromised by the omission of the procedure issue reference year.

All YMP MTL reports issued in the Geotechnical Section of the MTL contained procedure reference years. The procedure years were missing on some of the reports issued by the Soils, Asphalt, and Concrete Section.

C. <u>ROOT_CAUSE_DETERMINATION</u>:

No response required.

D. <u>CORRECTIVE ACTION TO PRECLUDE RECURRENCE</u>:

A memo was issued to all MTL employees re-stating the requirements of the procedure reference year on the reports, as per YMP Procedure PP-11-01.

The RSN/YMP Manager, Field Operations, will verify to ensure that the procedure issue reference year is included prior to submittal of MTL test reports to the YMP Records Center for all work conducted in accordance withg RSN/YMP Procedure PP-11-01.

Response Approved: $\mathcal{Y}_{e} \mathcal{C}. \mathcal{W}$ **Responsible Manager**

___ Date __ 8 /23/97

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	RADIOACTIVE WAS U.S. DEPARTME	F CIVILIAN STE MANAGEMENT INT OF ENERGY TON, D.C.	^a CAR NO. <u>YM-93-082</u> DATE: 7/21/93 PAGE: 1 OF 1 QA
	CORRECTIVE A	CTION REQUEST	
¹ Controlling Document PP-12-01, Rev. 1, Control	of Measuring & Test Equi		d Report No. YMP-93-13
³ Responsible Organization		cussed With	
RSN ⁵ Requirement		W. Kopatich & D. Tu	nney
Adverse Condition: The MTL has not established and	t therefore has not maint	ained a Calibration History I	og for the Measuring and Te
Equipment (M&TE) fisted below: 1. Mettier 2000, PTL No. W1 2. Dial Caliper, PTL No. W6 3. Tinus Olson, DOE No. 17 4. Orion ph/mv Meter M651	1063 189		og for die medouilly and te
Discussion: The M&TE listed above were used	to perform tests on YMP	samples.	
[•] Does a significant condition adverse to quality exist? Yes If Yes, Circle One: A B C	No X Yes No X	work condition exist? ; If Yes - Attach copy of S Circle One: A B C D	¹¹ Response Due Date: 20 Working Days from Issuance
¹² Required Actions: 🛛 Remedia	I Extent of Deficien	cy I Preclude Recurrence	e Root Cause Determinatio
¹³ Recommended Actions:			
Identify the remedial action to be to Identify the extent of the condition			æ.
'Initiator	Date 7/21/93	¹⁴ Issuance Approved by: QADD	hcl Date 7/27/9
¹⁵ Response Accepted <u>QAR</u> <u>Jour</u> ¹⁷ Amended Response Accepted	Date 8/27/93	16 Response Acceptor QADD/10 JJ/M 18 Amended Response Acc	Date 7/2//93
QAR	Date	QADD	Date
¹⁹ Corrective Actions Verified		²⁰ Closure Approved by:	
QAR	Date	QADD	Date

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CORRECTIVE ACTION REQUEST (Continuation Page)

A. <u>REMEDIAL</u>:

The MTL has prepared the history logs for all M&TE used at the MTL and all equipment used on YMP samples. It should be noted that there is no calibration history log for the Orion pH meter M-651, since this meter is accuracy checked against the standards every time it is used.

B. **INVESTIGATIVE ACTIONS**:

Minor. All MTL M&TE has been and is calibrated on a routine basis. However, a calibration history log was not prepared for all weapons owned M&TE. The four items cited in the CAR are weapons owned equipment. Calibration history logs for the items cited are now complete.

Calibration logs for all YMP owned M&TE was already existing.

No quality affecting work was compromised by the omission of calibration logs for these four items.

C. <u>ROOT_CAUSE_DETERMINATION</u>:

No response required.

D. <u>CORRECTIVE_ACTION_TO_PRECLUDE_RECURRENCE</u>:

Calibration history logs will be maintained for all M&TE used on RSN/YMP quality affecting work.

Response Approved: ____

Responsible Manager

Date 8/23/93

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OFFICE OF CIVILIAN RADIOACTIVE WASTE MANA U.S. DEPARTMENT OF EN WASHINGTON, D.C.		WASTE MANAGEME		CAR NO. YM- 93-083 DATE: 7/21/93 DAGE: 1 OF 1 QA	
		-	_		
	CORRECTIV	E ACTION REQUEST			
¹ Controlling Document QAP-16.1(Y), Rev. 1, Deficiency	Reporting		² Related R	eport No. Audit YMP-93-13	
³ Responsible Organization		⁴ Discussed With			
RSN ⁵ Requirement	·	W. Kopatich	& D. Tunney	, 	
satisfactorily completed, the individ Block 20.			···		
effective dates, annotated on the I when documentation showed that					
[*] Does a significant condition adverse to quality exist? Yes If Yes, Circle One: A B C	No_X_ Yes_ I	stop work condition exist? No_X_; If Yes - Attach c Yes, Circle One: A_B_	opy of SWC	"Response Due Dat 20 Working Days from Issuance	
¹² Required Actions: KRemedi	al Extent of Defi	iciency Preclude Re	currence	Root Cause Determin	
¹³ Recommended Actions:				<u></u>	
Identify the remedial action to be Identify the extent of the condition		•			
⁷ Initiator <i>Application</i> ¹³ Response Accepted 2045 ¹⁴ Amended Response Accepted	ter Date 7/1/	1 ⁴ Issuance Approv QADD 1 ⁶ Response Approv QADD 1 ⁶ Amended Respon	Leme Anne	Date 7	
QAR	Date	QADD		Date	
¹⁹ Corrective Actions Verified		²⁰ Closure Approve	a by:	-	
QAR	Date	QADD		Date	

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÷ د OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C. CORRECTIVE ACTION REQUEST (Continuation Page) PART 1 - EXTENSION REQUESTS SUBMITTED LATE

A. REMEDIAL ACTIONS

A letter will be issued to RSN management personnel advising them of the importance of meeting due dates for extension requests.

B. INVESTIGATIVE ACTIONS

The Deficiency Report files have been reviewed to determine the extent of the deficiency. The following deficiency reports had late extension(s) or no extension requests for responding to the deficiency report and/or completing the corrective action:

1.	91-S-001	9.	91-A-017	17.	92-S-006
2.	91-S-002	1.0.	91-0-027	18.	92-S-007
3.	91-S-003	11.	91-S-033	19.	92-0-014
4.	91-S-005	12.	91-S-035	20.	92-0-016
Б.	91-A-008	13.	91-A-036	21.	92-0-017
6.	91-A-012	14.	92-S-003	22.	93-A-003
7.	91-A-014	15.	92-0-004	23.	93-A-004
8.	91-A-016	16.	92-S-005		

D. CORRECTIVE ACTION TO PREVENT RECURRENCE

A letter will be issued to RSN management personnel advising them of the importance of meeting due dates for extension requests.

RESPONSIBLE INDIVIDUALS _____, J. Tunney and R. L. Schreiner____

COMPLETION DATE: September 10, 1993

PART 2 - MEMO ISSUED INDICATING UNSATISFACTORY AND NOT INDICATED AS SUCH ON THE DEFICIENCY REPORT

A. REMEDIAL ACTIONS

DR-92-S-003 has been annotated to show that the verification was unacceptable. This Deficiency Report has been resubmitted as a corrected record.

B. INVESTIGATIVE ACTION

The deficiency report files were reviewed and no other instances of this deficiency were detected.

D. CORRECTIVE ACTION TO PREVENT RECURRENCE

A letter has been issued to RSN YMP Quality Assurance personnel reminding them of the requirement for documenting intermediate corrective action verifications.

RESPONSIBLE INDIVIDUAL <u>D. J. Tunney</u>	COMPLETION DATE: 08/17/93
Response Approved: U)C/C	Date: 8/24/93