

Department of Energy

Office of Civilian Radioactive Waste Management Yucca Mountain Site Characterization Office P.O. Box 98608 Las Vegas, NV 89193-8608

JAN 23 1995

Les E. Shephard Technical Project Officer for Yucca Mountain Site Characterization Project Sandia National Laboratories P.O. Box 5800, Mail Stop 1333 Albuquerque, NM 87185

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST (CAR) YM-94-091 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION'S (YMQAD) AUDIT YMP-94-09 OF SANDIA NATIONAL LABORATORIES (SCPB: N/A)

The YMQAD staff has verified the corrective action to CAR YM-94-091 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 Richard L. Maudlin at (702) 794-7290.

> Richard E. Spence, Director Yucca Mountain Quality Assurance Division

YMOAD: RBC-1799

Enclosure: CAR-YM-94-091

cc w/encl:

J. H. Hines, OQD, AL Apraul, NRC, Washington, DC

S. W. Zimmerman, NWPO, Carson City, NV

R. R. Richards, SNL, Albuquerque, NM, M/S 1333

M. C. Brady, SNL, Las Vegas, NV

cc w/o encl:

W. L. Belke, NRC, Las Vegas, NV

D. G. Sult, YMQAD/QATSS, Las Vegas, NV

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OFFICE OF CIVILIAN

B	CAR NO.: YM-94-091				
	PAGE: _	1	OF	_1	
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U.S. DEPARTMENT OF ENERGY					
WASHINGTON, D.C.					
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CORRECTIVE	ACTION REQUE	ST			
1 Controlling Document		2 Related	Report No.		
QAIP 16-01, Revision 2, Corrective Action		YMP-94	-09	•	
3 Responsible Organization	4 Discussed With				
SNL	R. Richards				
5 Requirement:					
OATP 16.01, Section 6.1, Step 1 states in paidentify deviationsand initiate the corrective Action Request (CAR)" (Seconditions as deviations, failures, malfunctions)	ective action process Section 3.1, Defines a	by comple dverse	ting		
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				•	
shalls); however, this CAR has been classificationed in QAIP 16-01, Section 3.4 as an obsadverse condition. QAIP 16-01, Section 3.5 adverse conditions are conditions which if ladverse condition (i.e., deviation).	served and documented further defines that	potential potential		·	
	stop work condition exist? No x : If Yes - Attach co		13 Response Du		
Adverse to Quality exist? YesNox Yes	stop work condition exist? No_x; If Yes - Attach co	ppy of SWO	•	ys .	
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Adverse to Quality exist? YesNoxYes If Yes, Check One: ABCDDE If Yes, Commended Actions: Remedial Extent of Definition Take action to review all observations. If from an approved procedure, document the deprocedures. Include in your response the correspondence.	Nox; If Yes - Attach co Check One: A B Iciency Preclude Re the observation ident viation in accordance ause and actions to preclude Approximation in the preclude Re 14 Issuance Approximation identification in the preclude Re 15 Issuance Approximation identification in the preclude Representation in the pre	opy of SWO C ecurrence ifies a d with appr reclude	20 Working Da From Issuance Root Cause De eparture oved	termination	
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OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT U.S. DEPARTMENT OF ENERGY WASHINGTON, D.C.

B CAR NO YM-94-07 PAGE 1 OF 2 RAZ 1011/94 QA

CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

CORRECTIVE ACTION RESPONSE FOR CAR # YM-94-091

A. Remedial

No actions are necessary to correct the identified condition since all three CARs, even though reported as "Observations," addressed "Remedial Actions," "Root Cause," and "Actions to Prevent Recurrence" (see attached copies). These CARs were all issued as a result of SNL YMP Audit CU-A93-1 of the University of Colorado.

It appears the only discrepancy made was marking a box "observation" rather than "deviation" since all other corrective action criteria were met.

B. <u>Extent of Deficiency</u>

No other examples of this type of deficiency were found after reviewing 1993 (CARs after the last YMPSCO Audit) and 1994 CARs. This deficiency has no impact on any SNL YMP work performed. This was documented in the responses to the subject CARs.

C. Root Cause Determination

The following are the results of the investigation to determine causes for the identified deficiency.

CAR 94-02

- The lack of signature by the SNL YMP Manager on the QAIP 2-6 forms was determined to be an isolated instance and therefore was not documented as a deviation (Auditor judgement).
- The lack of updating training assignments to include QAIP 16-1 was issued as an observation since the contract scope of work had not been updated, and was identified as a "Deviation" in CAR 94-01 during the same audit. The QAIP had not been imposed on University of Colorado at this point as described in CAR 94-01.

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Exhibit QAP-16.1.2
/0/13/94

Rev. 06/27/94

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8 CAR NO. YM-94-01 PAGE 2 OF 2 PACE 100

CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

CORRECTIVE ACTION RESPONSE FOR CAR #YM-94-091

CAR 94-04

This CAR was issued as an observation since the equipment in question was no longer in use and no further work involving the equipment was planned. As previous stated, a deviation was issued in CAR 94-01 which documented the fact that QAIP 12-1 used for calibration had not been addressed in procurement documents.

CAR 94-05

This CAR was issued as an observation since the work in question had been completed. The submittal of Scientific Notebooks for review had not been adequately addressed in procurement documents. Inadequate procurement documents was addressed in CAR 94-01 as a deviation.

D. Corrective Action to Preclude Recurrence

The QA staff will review CARs more stringently in the future to assess whether the reported condition is a "deviation" or an "observation."

Corrective Action Completion Dates:

All actions above are considered complete.

R. R. Richards

QA Department Manager

SNL

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	MP			-	•	1
Ļ				440/03	Page 4 of	
		No.: 94-02 tor and Organization: D. Hawkinson/6319	Date:	11/12/93 Nd:: _r12.4.1		
2.	Initia	onsible Organization: 12. navames/19313				
					SNL YMP	
		ussed With: <u>R Price/J. lung</u> t Stoppage: [X] No [] Yes		lzation:	<u></u>	
		ed Report NoAudit Report CU-A93-1 _				
7	ident	ified During: [M] Audit [] Trend []	Mamt Ass	est I 1 Surve	illance [] Other	
		irement (Reference Documents):	MALLIS MOO			
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		2-5, Section 5.3, Step I, SNL YMP Manager oh				•
9.		ation [] or Observation [X] (Describe in		•	•	
	• 6	U personnel M. Parashkovova and Y.T. Lin Certi		s have not been i	approved by SNL	
		MP Manager.	بأمية مدده	. da Yesaaduus 10	i.	
40	QI1	U personnel (all) training assignment lacks upd ficant Condition Adverse to Quality? (S	CAOL IVI R CAOL IVI R	in [] Vac (N	r. Intifysni ywd ton H	(Yes)
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44.	Mana	gement Responsible for Developing Res	sponse:	L.S. Coatin	Response Due Date	:: _12/10/93
•••		osed Corrective Actions (12.1 and 12.3 n	ot required	for Observation	on. Use 12.2 to resp	ond to
	Opse	rvations.)				2
	121	Root Cause (Mandatory for Significant C	onditions ar	nd CARs from A	Audits)	<u> </u>
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		Remedial Actions (Mandatory for All De	5 west	- compce	ic propries	अन्य सम्बद्धाः जन्म
	12.2	Remedial Actions (Mandatory for All De	viations) [T	o be used for N	onconforming Sample	h. a.
		Disposition(s)] HO adverse (npact o	n work	being performa	אוטיא האוף
		- Complete quairficat	ios fou	sfor subj	ect personne	L.'
		- LANGATP Had to DI	recu	in-2 CUT	Carring	•
	12.3	Actions to Prevent Recurrence (Manda	tory for Sign	nificant Condition	ons and CARs from AL	ıdits)
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	12.4	Estimated Corrective Action Completio	n Date:			
		1 /02/01	_	_		
		1/28/94	49 11	1.1.		
	12.5	Responsible Management Sign/Date:	Llsh	ill	12-10-93	
						
	.					
	12.6	Department Manager or Delegated Auti	iority (For	External CARs)	N/A	
		Sign/Date:			- ~/~	
		•				
	12.7	SNL YMP QA Concurrence With Propos	sed Correct	tive Actions (M	andatory for All Devia	tions.
		Optional for Observations) SNL YMP QA			L-Hauluum	12/10/93
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	Kesp	onsible management SignUate:	/		1-26-/	7
			,			
14.	Verifi	cation of Corrective Action Implementat	ion. Includ	e or Reference	Documented Oblec	tive Evidence
	SNL	MP QA Sign/Date: <u>J.C.FRyen</u>	DD	N. P.	ue 1/26/	94
		See Art	meho) (.)	1	

NNF 16-1.1M-2(11/0/193)

CAR 94-02

Verified that the following actions have been completed and that this CAR can be considered closed:

- 1) Verified that QAIP 2-6 Certificates of Qualification had been completed and were in the SNL YMP Local Records Center for M. Parashkevova and C.T. Lin.
- 2) Verified that training assignment sheets had been generated and reading assignments made for all CU personnel for QAIP 16-1.

Verified by

Date: __1/2

	CORRECTIVE ACTION REQUEST
1.	CAR No.: 94-04 Date: 11/12/93 Page 1 of 2
2.	Initiator and Organization: D. Hawkinson/6319 WBS No.: 12.4.2.1.2
3.	Responsible Organization-SNL: or Contractor:University of Colorado
4.	Discussed With: B. Amadei/S. Sture Organization: University of Colorado
	Work Stoppage: [X] No [] Yes
R	Related Report No. Audit Report CU-A93-1
7.	Identified During: [X] Audit [] Trend [] Mgmt. Assess. [] Surveillance [] Other
8.	Requirement (Reference Documents):
	See Page 2
9.	Deviation [] or Observation [X] (Describe in Detail): See Page 2
10.	Significant Condition Adverse to Quality? (SCAQ) [X] No [] Yes (Notify SNL YMP TPO if Yes) SNL YMP QA Sign/Date:
11.	Management Responsible for Developing Response:
12.	Proposed Corrective Actions (12.1 and 12.3 not required for Observation. Use 12.2 to respond to Observations.)
	12.1 Root Cause (Mandatory for Significant Conditions and CARs from Audits)
	CU and task leaders did not follow the requirements of QAIP 12-1.
	12.2 <u>Remedial Actions</u> (Mandatory for All Deviations) [To be used for Nonconforming Sample Disposition(s)]

of the conditions identified in this CAR

12.3 <u>Actions to Prevent Recurrence</u> (Mandatory for Significant Conditions and CARs from Audits)

If any future work is performed that requires calibrated M & TE then the task leader will assure it is conformed to the requirements of QAIP 12-1.

No further work involving calibration equipment is planned. There is no apparent impact on work performed by CU because

12.4 Estimated Corrective Action Completion Date:

January 31, 1994

12.5 Responsible Management Sign/Date:

January 28, 1994

12.6 Department Manager or Delegated Authority (For External CARs) | 94 | Sign/Date: Vonall | 1/31/94

12.7 SNL YMP QA Concurrence With Proposed Corrective Actions (Mandatory for All Deviations.

Optional for Observations) SNL YMP QA Sign/Date: 13194

13. Corrective Action Completion
Responsible Management Sign/Date:

Ronald H Price

1/31/94

12/10/93

File Cod

NWF 18-1.1/1-2(11/04/83)

94/1.2.4.2.1.2/IMP/1.3/94-04/QA

X-000 VILD OOF

SNL YMP

CORRECTIVE ACTION REQUEST Continuation Sheet

CAR NO.: 94-04

Page 2 of __2_

Block 8: REQUIREMENT

QAIP 12-1, Revision OI and:

- Section 4.2, Step 2, states in part:
 - "All M&TE used by...SNL Contractors in establishing parameters in support of YMP shall be identified and labeled to indicate calibration status..."
 - "M&TE shall be Identified and/or labeled to indicate by whom it was calibrated and when the next calibration is due."
- Section 4.2, Step 3, states in part:
 - "M&TE shall be calibrated, adjusted and maintained at prescribed intervals..."
- Section 4.2, Step 4, states in part:
 - "M&TE ... a documented recall system shall be used to ensure that M&TE in expired calibration status are not used."

QAIP 4-1, Revision 03, Section 4.3.2 and Step 5 for QA Program including sub-tier states in part:

 "QA requirements shall be extended to the sub-tier suppliers through either options...supplier's to have an SNL QA approved program that implements YMP QARD requirements prior to start of any work..."

Block 9: DEVIATION

- CU procured the calibration services of MTS Corporation without SNL QA approval of MTS QA Program for compliance to YMP QARD requirements for sub-tier suppliers.
- M&TE had no labels affixed to Load Cells/profilometer to indicate calibration status or when next recalibration was due.
- M&TE was not controlled by a "RECALL" system that identified the required frequency of recalibration and/or due date of next calibration.

Recommended Corrective Actions:

- 1. CU needs to provide technical justification/evaluate the impact of above conditions upon the credibility of data obtained for Tasks 1 and 2.
- 2. Provide a statement that assures any future sub-tier procurement actions of CU that will be preapproved by SNL PI and M&TE will be controlled in the future to QAIP 12-1.

NWF 18-1.1/1-2(11/04/93)

SNL	
YMP	

YMP	CORRECT	IVE AC	TION RE	QUEST	• .
1. CAR No.: 94-05 2. Initiator and Organization: 3. Responsible Organization- 4. Discussed With:R.Fr. 5. Work Stoppage: [X] No 6. Related Report NoAud 7. Identified During: [X] Aud 8. Requirement (Reference Do	D. Hawkinson/6319 SNL:6313 ice/B. Amadei [] Yes It Report CU-A93-1 it [] Trend [] N	WBS N or Con Organ	zation:	2 iversity of Colorado _SNL and CU	· · · · · · · · · · · · · · · · · · ·
9. Deviation [] or Observation See Page 2 10. Significant Condition Advention SNL YMP QA Sign/Date:	rse to-Quality? (SC	AQ) DXI N	o [] Yes (No	ify SNL YMP TPO if	Yes)
11. Management Responsible	for Developing Resp		3. Amadei _S. Coetin R	esponse Due Date:	_12/10/93
12. Proposed Corrective Action Observations.)	ns (12.1 and 12.3 no	t required (or Observation	. Use 12.2 to respo	nd to
12.1 Root Cause (Mandat				•	
12.2 Remedial Actions (A	landatory for All Devi	ations) (To	be used for Non	conforming Sample	
SN's for EP-44 and EP-45 have apparent impact on previous CU issued to document the condition	been submitted to the work. If the review re	task leader i	or review and sub	mital to the record ce	nter. There is no R's will be
12.3 Actions to Prevent R Task leaders will specify in work a be used. The task leader for CU w results, the CU personnel are more 12.4 Estimated Corrective	greements and/or procures ork will assure that docum aware of the importance	ment document tents assigned of document o	ts the submittal requito CU are maintaine	irements of QAIP 20-2 if d current. Additionally, I	future SN's are to
January 31, 199		Blu	D Jan	. 28 , 1994	
12.6 <u>Department Manager</u> Sign/Date:	or Delegated Author	ority (FO) E	xternal CARs)	131/94	
12.7 SNL YMP QA Concus Optional for Observati			ve Actions (Man	datory for All Deviati	ons.
13. Corrective Action Complete Responsible Management		Ponsl	OH Pri	1/31/94	
14. Verification of Corrective A SNL YMP QA Sign/Date: _	ction Implementation	on. Include	or Reference D	ocumented Objecti	ve Evidence.

HWF 16-1.1/1-2(11/04/93)

94/1.2.4.2.1.2/IMP/1.3/94-05/QA File Code: Prumary

SNL YMP

CORRECTIVE ACTION REQUEST **Continuation Sheet**

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CAR NO.: 94-05 Page 2 of _2_

Block 8: REQUIREMENT

QAIP 20-2, Section 4.1, General Requirements for Scientific Notebooks (SNs) states:

1

- "SNs shall be reviewed by a competent independent individual to...." Technical reviewe may be performed periodically-or as a minimum when the SN is complete.
- Section 5.0, Records Management states in part, "QA Records generated as a result of this procedure shall be prepared and submitted to SNL YMP Records Center in accordance with SNL YMP Procedures 17-1 and 17-2."

Block 9: OBSERVATION

Contrary to the above requiremente, the SNe for Taeke 1, 2, and 3, have been reported in SAND Reporte; SAND92-1853, SAND92-2247 already published in September 1993 and SAND93-7079 in current 2nd-level of review and need the following retroactive completions for the following:

- Test logbooks for EP-44 and EP-45 have not received an independent technical review and these tasks have been completed.
- 2. Test logbooks for Tasks 1, 2, and 3 need to be finalized per QAIP 20-2, Sections 4.1 and 5.0 and submitted to the SNL YMP Local Records Center.

BLOCK 14 Verification

- LAB BOOKS For: Normar Compression and Shear Test on Rock Joint Proficementer on Joint Durfaces !
- Rotational Test

were submitted to SNL and reviewed by R. Price on 12/14/93.

Bookwere CroseD and Submitted to

PDA = LRC on 12/14/93.

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

}	CAR NO.: YM-94-091				
	PAGE: _				
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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

1. CORRECTIVE ACTION AMENDED RESPONSE FOR CAR #YM-94-091

A. Remedial

No actions are necessary to correct the identified condition since all three CARs, even though reported as "Observations," addressed "Remedial Actions," "Root Cause," and "Actions to Prevent Recurrence" (see attached copies), as a "deviation" would require. These CARS were all issued as a result of SNL YMP Audit CU-A93-1 of the University of Colorado.

B. <u>Extent of Deficiency</u>

A review of 1993 CARs (subsequent to the last YMQAD audit) and 1994 CARs showed a single other apparently similar case ("observation" CAR 94-23). Comparison of that situation with the adverse condition cited on this CAR, however, showed that the cases are only superficially similar: initiators of the CARs are different and the rationale for identifying them as observations differed markedly. In any case, the response to CAR 94-23 specified remedial action, impact, and extent, as a "deviation CAR" would. Therefore, no action concerning the extent of the deficiency is needed.

C. Root Cause Determination

The following are the results of the investigation to determine causes for the identified deficiency.

CAR 94-02

- 1) The lack of signature by the SNL YMP Manager on the QAIP 2-6 forms was determined to be an isolated instance and therefore was not documented as a deviation (Auditor judgment).
- 2) The lack of updating training assignment to include QAIP 16-1 was issued as an observation since the contract scope of work had not been updated to include that procedure in the contract requirements (i.e., no deviation from existing contract requirements had occurred on the part of the contractor, so there was no basis for a "deviation CAR" to be issued to them). The deviation on the part of SNL (in not including that QAIP in the contract requirements) was identified as a "Deviation" in CAR 94-01 during the same audit. The QAIP had not been imposed on University of Colorado at this point, as described in CAR 94-01, attached.

12/5/94 LTR. SHEPHARD TO SPENCE

Rin 00/27/44

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8 CAR NO.:	YM-94-091		
PAGE: _			
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CORRECTIVE ACTION REQUEST (CONTINUATION PAGE)

CAR 94-04

This CAR was issued as an observation since the cited requirements had not been imposed on the contractor (so there was no basis for claiming that a <u>deviation</u> from requirements had occurred on the part of the contractor). Additionally the equipment in question was no longer in use and no further work involving the equipment was planned. As previously stated, a deviation was issued in CAR 94-01, against SNL, which documented the fact that QAIP 12-1, for control of M&TE, had not been addressed in procurement documents.

CAR 94-05

This CAR was issued as an observation since the work in question had been completed and, again, there was no deviation by the contractor. The submittal of Scientific Notebooks for review had not been adequately addressed in procurement documents. As above, inadequate procurement documents were addressed in CAR 94-01 as a deviation on the part of SNL.

D. Corrective Action to Preclude Recurrence

The investigation into the causes of the adverse condition described in block 6, above, shows that there is no clear root cause. In fact, the use of "observation CARs" to point out to a contractor adverse conditions which SNL, rather than the contractor, was responsible for creating, appears to be an appropriate mechanism. However, the existence of observations in the SNL YMP QA corrective action system has created confusion on the part of QA staff, technical staff, and management. Therefore, QAIP 16-1 will be revised to remove "observations" as a mechanism to be documented by means of a Corrective Action Report.

2. Responsible individuals and Anticipated Action Completion Dates:
1D, above. Responsible - John Friend; anticipated completion date - 12/20/94.

L. E. Shephard

Date

SNL	
YMP	

CORRECTIVE ACTION REQUEST

<u></u>		·		
		No.: 94-01		Page 1 of2
2.	Initia	ator and Organization: D. Hawkinson/6319	WBS No.:	124.21.2/1.24.23.1
3,	Resp	ponsible Organization-SNL:6313	or Contractor:	
4.	Discu	ussed With:R. Frice/.llung		
5.	Work	k Stoppage: M No [] Yes		
6.	Relat	ited Report No. Audit Report CIFA93-1		
7.	ident	tified During: [X] Audit [] Trend []	Mgmt. Assess. []	Surveillance [] Other
8.	Requ	ulrement (Reference Documents): See Page 2		
9.	Devis	ation [X] or Observation [] (Describe in I See Page 2	Detail):	
10.	Signi SNL	ificant Condition Adverse to Quality? (Si YMP QA Sign/Date: <u>Beard & Haul</u>	CAQ) M No [] Y	es (Notify SNL YMP TPO If Yes)
11.	Mans	agement Responsible for Developing Res	sponse:J. <u>S.Cost</u>	in Response Due Date: 12/10/93
449		osed Corrective Actions (12.1 and 12.3 no	-A serviced for Obs	Has 42 9 to reprosed to
14.	•	losed Corrective Actions (12.1 and 12.3 no ervations.)	Ot required for Jou-	AVATION. USG 14.4 to respond to
	12.1	Root Cause (Mandatory for Significant C FAILURE OF DELEGATED K OA requirements.	conditions and CARs to ECPS. to FOL	from Audits)
	12.2	Pamedial Actions (Mandaton for All De	-dational ITa be used	fire Hannanfroming Rample
	lása	Disposition(s)] Therehas he Performed by CU. A revision will be issue	ork agree work agree	ror Nonconforming Sample 275e in pact on work nest on Contract y current OA requirements,
	12.3	Actions to Prevent Recurrence (Mandat	ton Significant Cr	opditions and CARs from Audits)
		WORK Agreements wi	LL DE 1850	ad whon required
	12.4	to MAINTAIN CU WORK U Estimated Corrective Action Completion	INDER OUTTE	at QA requirements.
		1/28/94		. 1
	12.5	Responsible Management Sign/Date: _	LEShyl	l 12-10-93
		Department Manager or Delegated Auth Sign/Date:	hority (For External C	
			•	•
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13.	Corre Resp	ective Action Completion consible Management Sign/Date:	Ely/ l	1-28-94
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CORRECTIVE ACTION REQUEST <u>Continuation Sheet</u>

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CAR NO.: <u>94-01</u>		Page 2 of

Block 8: REQUIREMENT

QAIP 1-5, "ESTABLISHING WORK AGREEMENTS"

- 2.0 Scope, identifies this procedure is applicable for activities subject to the QA Program, where scientific investigation is being conducted without a Technical Procedure (TP. e Work Agreement (WA) shall be used as the required training document.
- 4.1 <u>Preparing a WA</u>, Note 1 states "Contracts issued to suppliers in accordance with Procedure 4-1 may be used instead of a WA as long as the Contract addresses the 18 WA Elements.

Block 9: DEVIATION

Contrary to the above requirements and the Quality Assurance Grading Report (QAGR) "Rolled-Down" of recedure 1-5 to both WBS No.'s 1.2.4.2.1.2 and 1.2.4.2.3.1, SNL has not controlled University of Colorado (CU) writies by WAs to either WBS.

ne procurement document task descriptions within "Statements-of-Work" (SOWs) do not address required WA Elements (5), (7), (8), (10), (11), (12), (15), (16), (17), and (18), as an acceptable alternative to issuing WAs.

Note: WA-0063 and WA-0070 were issued to SNL Organizations to do work to WBS 1.2.4.2.3.1 but did not consider the same degree of work control for CU.

WF 18-1-11 STUDIOS

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CORRECTIVE ACTION REQUEST

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1	CAR	No.: 94-02	Date:	11/12/93	Page 1 of	$\overline{\chi}$
		tor and Organization: D. Hawkinson/6319			124.212/124.231	
		onsible Organization-SNL: 6313		ntractor:		
		ssed With: R. PriceLl. Jung	Orga	nization:		
		Stoppage: [X] No [] Yes		1 } H	•	
		ed Report NoAudit Report CU-A93-1			·	
7.	ident	fied During: [X] Audit [] Trend []	Mgmt. Ass	ess. [] S	Burveillance [] Other	
8.	Requ	Irement (Reference Documents):	•	·;; -		
	QAIP 2	2-6, Section 4.1, Step 5, Department Manager	shall eign co	rtification f	orm to	
	QAIP 2	2-5. Section 5.3. Step I, SNL YMP Manager oh	all determina	e if addition	al training is required	
9.		tion [] or Observation [X] (Describe in		•	•	
İ		U personnel M. Parashkevova and Y.T. Lin Certi	fication form	ne have not	been approved by SNL	
		MP Manager.				
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	40.0	Remedial Actions (Mandatory for All De				
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		Disposition(s)] No adverse (wheel a	ייסטי אלי	at being paronne	4 .
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l	12.3	Actions to Prevent Recurrence (Manda	tory for Sig	nificant Co	nditions and CARs from Aud	its)
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	12.7	SNL YMP QA Concurrence With Propo	sed Correc	tive Action	ns (Mandatory for All Deviation	ons .
		Optional for Observations) SNL YMP QA			Ed L- Sauluum 1	2/10/93
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	J.,.L	See Arg	noho	5/1	1 201	

CAR 94-02

Verified that the following actions have been completed and that this CAR can be considered closed:

1 - 1 - 1

- 1) Verified that QAIP 2-6 Certificates of Qualification had been completed and were in the SNL YMP Local Records Center for M. Parashkevova and C.T. Lin.
- 2) Verified that training assignment sheets had been generated and reading assignments made for all CU personnel for QAIP 16-1.

Verified by

Date:

SNL
YMP

CORRECTIVE ACTION REQUEST

YMP
1. CAR No.: 94-04 Date: 11/12/93 Page 1 of
10. Significant Condition Adverse to Quality? (SCAQ) [X] No [] Yes (Notify SNL YMP TPO if Yes) SNL YMP QA Sign/Date: Day R Hawkum 11/22/13
11. Management Responsible for Developing Response:B. Amadei Response Due Date:12/10/93
12. Proposed Corrective Actions (12.1 and 12.3 not required for Observation. Use 12.2 to respond to Observations.)
12.1 Root Cause (Mandatory for Significant Conditions and CARs from Audits)
CU and task leaders did not follow the requirements of QAIP 12-1.
12.2 Remedial Actions (Mandatory for All Deviations) [To be used for Nonconforming Sample Disposition(s)]
No further work involving calibration equipment is planned. There is no apparent impact on work performed by CU because of the conditions identified in this CAR
12.3 Actions to Prevent Recurrence (Mandatory for Significant Conditions and CARs from Audits)
If any future work is performed that requires calibrated M & TE then the task leader will assure it is conformed to the requirements of QAIP 12-1.
12.4 Estimated Corrective Action Completion Date:
January 31, 1994 12.5 Responsible Management Sign/Date: January 28, 1994
12.6 Department Manager or Delegated Authority (For External CARs) / Sign/Date: Vonally Pf (Full 1/31/94
12.7 SNL YMP QA Concurrence With Proposed Corrective Actions (Mandatory for All Deviations. Optional for Observations) SNL YMP QA Sign/Date:
13. Corrective Action Completion Responsible Management Sign/Date: Pond H Pric 1/31/94
14. Verification of Corrective Action Implementation. Include or Reference Documented Objective Evidence. SNL YMP QA Sign/Date: 13194

WF 16-1,1/1-2/11/04/931

File Code: 94/1.2.4.2.1.2/IMP/13/14-04/QA

SNL YMP

CORRECTIVE ACTION REQUEST <u>Continuation Sheet</u>

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CAR	NO.:	94-04
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Block 8: REQUIREMENT

QAIP 12-1, Revision O1 and:

- Section 4.2, Step 2, states in part:
 - "All M&TE used by...SNL Contractors in cetablishing parameters in support of YMP shall be identified and labeled to indicate calibration status...."
 - "M&TE shall be identified and/or labeled to indicate by whom it was calibrated and when the next calibration is due."
- · Section 4.2, Step 3, states in part:
 - "M&TE shall be calibrated, adjusted and maintained at prescribed intervals..."
- Section 4.2, Step 4, states in part:
 - "M&TE ... a documented recall eyetem shall be used to ensure that M&TE in expired calibration status are not used."

QAIP 4-1, Revision 03, Section 4.3.2 and Step 5 for QA Program including sub-tier states in part:

 "QA requirements shall be extended to the sub-tier suppliers through either options...supplier's to have an SNL QA approved program that implements YMP QARD requirements prior to start of any work..."

Block 9: DEVIATION

- CU procured the calibration services of MTS Corporation without SNL QA approval of MTS QA Program for compliance to YMP QARD requirements for sub-tier suppliers.
- M&TE had no labels affixed to Load Cells/profilometer to indicate calibration status or when next recalibration was due.
- M&TE was not controlled by a "RECALL" system that identified the required frequency of recalibration and/or due date of next calibration.

Recommended Corrective Actions:

- 1. CU needs to provide technical justification/evaluate the impact of above conditions upon the credibility of data obtained for Tasks 1 and 2.
- 2. Provide a statement that assures any future sub-tier procurement actions of CU that will be preapproved by SNL PI and M&TE will be controlled in the future to QAIP 12-1.

NWF 16-1.111-2(11/04/93)

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2. 3. 4. 5.	Initiat Resp Discu Work Relat	No.:94-05_ tor and Organization: D. Hawkineon/6319 onsible Organization-SNL:6313_ ussed With:	WBS No.:1 or Contractor: Organization:	University of Colorado SNL and CU	
8.	Requ	ined During: [X] Addit [] Frend [] irement (Reference Documents): See Page 2 Ition [] or Observation [X] (Describe in See Page 2			
10.	Signi SNL 1	ficant Condition Adverse to Quality? (So YMP QA Sign/Date: <u>David R</u>	CAQ) [X] No [], Ye.	s (Notify SNL YMP TPO if Yes /フェ /イ 3	;) ————————————————————————————————————
11.	Mana	gement Responsible for Developing Res		Response Due Date: _12	<u>/10/93</u>
12.		osed Corrective Actions (12.1 and 12.3 n rvations.)	ot required for Observ	ration. Use 12.2 to respond	to
		Root Cause (Mandatory for Significant C		•	
	Fa	illure of task leader to require CU to submit S	N's to be reviewed and	ubmitted as QA records.	
	SN's fo	Remedial Actions (Mandatory for All Der or EP-44 and EP-45 have been submitted to that impact on previous CU work. If the review to document the conditions.	e task leader for review a	and submital to the record center	. There is no will be
	Task le be used results,	Actions to Prevent Recurrence (Manda: aders will specify in work agreements and/or procust. The task leader for CU work will assure that document the CU personnel are more aware of the importance Estimated Corrective Action Completion	rement documents the submit ments assigned to CU are made of document control for Y	tal requirements of QAIP 20-2 if fun aintained current. Additionally, base	ure SN's are to
		January 31, 1994	RAD	T	
		Responsible Management Sign/Date:	18 WE	Jan. 28, 1994	
	12.6	Department Manager or Delegated Auth Sign/Date:	pority, (For External CA	Rs) 1/31/94	
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NWF 16-1.1/1-2(11/04/93)

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SNL YMP

CORRECTIVE ACTION REQUEST Continuation Sheet

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Page 2 of 2

Block 8: REQUIREMENT

QAIP 20-2, Section 4.1, General Requirements for Scientific Notebooks (SNs) states:

- "SNs shall be reviewed by a competent independent individual to...." Technical reviews may be performed periodically-or as a minimum when the SN is complete.
- Section 5.0, Records Management states in part, "QA Records generated as a result of this procedure shall be prepared and submitted to SNL YMP Records Center in accordance with SNL YMP Procedures 17-1 and 17-2."

Block 9: OBSERVATION

Contrary to the above requiremente, the SNs for Tasks 1, 2, and 3, have been reported in SAND Reports; SAND92-1853, SAND92-2247 already published In September 1993 and SAND93-7079 in current 2nd-level of review and need the following retroactive completions for the following:

- Test logbooks for EP-44 and EP-45 have not received an independent technical review and these tasks have been completed.
- 2. Test logbooks for Tasks 1, 2, and 3 need to be finalized per QAIP 20-2, Sections 4.1 and 5.0 and submitted to the SNL YMP Local Records Center.

BLOCK 14 Verification

LAB BOOKS For:
- Normar Compression and Shear Test on Rock Joint
- Profilometer on Joint Durfaces !

Rotational Test

were submitted to SNL and reviewed by

R. Price on 12/14/93.

Bookwere croses and submitted to PDA 5 LRC on 12/4/93.

NWF 16-1.1/1-2(11/04/93)

VERIFICATION AND CLOSURE STATEMENT

CAR YM-94-091

SANDIA procedure No. QAIP 16-1, Corrective Action, was revised and approved for issue 1/6/95, with an effective date of 1/23/95. The procedure was reviewed by the undersigned and found to be in full compliance with Sandias response commitment and requirements of the QARD. Based on this review , this CAR is considered closed.

Signed Const Caudable (17.95