



Department of Energy

Nevada Operations Office

P. O. Box 98518

Las Vegas, NV 89193-8518

DEC 11 1989

WBS 1.2.9.3

QA

Richard J. Herbst
Technical Project Officer for Yucca Mountain Project
Los Alamos National Laboratory
University of California
N-5, Mail Stop J521
P.O. Box 1663
Los Alamos, NM 87545

ISSUANCE OF STANDARD DEFICIENCY REPORTS (SDRs) 460 THROUGH 471, REVISION 0, RESULTING FROM YUCCA MOUNTAIN PROJECT OFFICE (PROJECT OFFICE) QUALITY ASSURANCE (QA) AUDIT 89-07 OF LOS ALAMOS NATIONAL LABORATORY (LOS ALAMOS) (NNL-1990- 0661)

Enclosed are SDRs 460 through 471, Revision 0, generated as a result of Project Office QA Audit 89-07 of Los Alamos that was conducted on November 13-17, 1989, at Los Alamos and November 27-28, 1989, at the Las Vegas offices.

Please identify the corrective actions to be taken and implemented to correct the deficiencies by completing blocks 14 through 18, as appropriate, on each SDR.

Responses to the SDRs are due within 20 working days of the date of this letter. Any extension to these due dates must be requested in writing with appropriate justification prior to the due date. Please send the original of your responses to Juanita J. Brogan, Science Applications International Corporation (SAIC), 101 Convention Center Drive, Las Vegas, Nevada 89109, and a copy to Ralph W. Gray, U.S. Department of Energy, P.O. Box 98518, Las Vegas, Nevada 89193-8518.

Your cooperation and timely response is appreciated. If you have any questions, please contact James Blaylock of my staff at (702) 794-7913 or FTS 544-7913, or Stephen R. Dana of SAIC at (702) 794-7176 or FTS 544-7176.

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

YMP:JB-1088

Enclosure:
SDRs 460 thru 471, Revision 0

8912190045 891211
PDR WASTE
WM-11 PDC

FULL TEXT ASCII SCAN

ADD: JEKennedy

WM-11
102.7
N/A03

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/17/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 89-7		3a Identified By M. Diaz		4 SDR No. 460 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted R. Herbst, H. Nunes		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Item 1-1) NNWSI/88-9, Rev. 2, Para. 1.0, states "The organizational structure, lines of communication, authority, and duties of persons and organizations performing					
Completed by Organization in Block 5	9 Deficiency Contrary to the requirements in Item 8 above, the responsibility and authority of each subcontractor for interface controls are not defined and documented in a procedure. Additionally, TWS-QAS-QP-01.1, Rev. 0, does not provide suffi-					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Identify the cause of the condition and the planned action to					
	11 QAE/Lead Auditor/Date <i>S. Diaz</i> 11/30/89		12 Division Manager/Date <i>11/30/89</i>		13 Project Quality Mgr./Date <i>12/1/89</i>	
Completed by Org. QA Org.	14 Remedial/Investigative Action(s) <div align="right">15 Effective Date _____</div>					
	16 Cause of the Condition & Corrective Action to Prevent Recurrence <div align="right">17 Effective Date _____</div>					
	18 Signature/Date					
Comp. by Orig. QA Org.	19 Response Accepted	QAE/Lead Auditor/Date	Division Manager/Date	Project Quality Mgr./Date		
	20 Corrective Action Verif. Satisfactory	QAE/Lead Auditor/Date	Division Manager/Date	Project Quality Mgr./Date		
	21 Remarks					
22 QA CLOSURE		QAE/Lead Auditor/Date	Division Manager/Date	PQM/Date		

ENCLOSURE

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 460

Rev. 0

Page 2 of 2

8 Requirement (continued)

activities affecting quality shall be clearly established and delineated in writing. These activities affecting quality include both the performing functions of attaining quality objectives and the QA functions."

LANL QAPP, Rev. 4.4, Para. 1.4, states "When more than one LANL subcontractor organization is involved in activities affecting quality, the responsibility and authority of each organization for interface, as well as changes thereto, shall be clearly established and documented and any shared responsibilities shall be defined and documented. To support these interfaces, required interface documentation shall be defined in the administrative procedures. The YMP administrative procedures (APs) shall provide the implementing interface controls used by LANL. A LANL QP shall describe the methods of conducting and documenting interorganizational interfaces."

9 Deficiency (continued)

cient details describing the methods of conducting and documenting interorganizational interfaces.

10 Recommended Actions (continued)

prevent recurrence.

ORIGINAL

THIS IS A RED STAMP

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/16/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During AUDIT 89-7		3a Identified By S. L. Crawford		4 SDR No. 461 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted K. Foster		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Q#2-5) TWS-QAS-QP-02.1, Rev. 1, Para. 6.5, step 16, requires a record of personnel indoctrination and training to be entered on a Project Certification Form. Step 17 requires the individual to sign the					
Completed by Organization in Block 5	9 Deficiency An individual (Co-PI, Dynamic Transport Column experiments, and Technical Reviewer, Batch Sorption Studies) was certified 5/26/89 to four (4) Quality Procedures that do not exist:					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities, or documentation to					
	11 QAE/Lead Auditor/Date <i>S. Jones</i> 11/30/89		12 Division Manager/Date <i>Kate Hedges</i> 12-1-89		13 Project Quality Mgr./Date <i>W. H. Hedges</i> 12/1/89	
	14 Remedial/Investigative Action(s) 15 Effective Date _____					
Completed by Org. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence 17 Effective Date _____					
	18 Signature/Date					
	19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date		
21 Remarks						
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date		
				PQM/Date		

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 461

Rev. 0

Page 2 of 2

8 Requirement (continued)

certification acknowledging receipt and understanding of indoctrination and training. Step 19 requires the individual's supervisor to sign the certification accepting the indoctrination and training for the individual's qualification.

9 Deficiency (continued)

TWS-QAS-QP-03.10

TWS-QAS-QP-03.11

TWS-QAS-QP-03.12

TWS-QAS-QP-03.13

10 Recommended Actions (continued)

determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

ORIGINAL

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/16/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 89-7		3a Identified By A. I. Arceo, S. L. Crawford		4 SDR No. 462 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted L. Hersman, K. Foster		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Q #2-3). LANL-YMP-QAPP, Rev. 4.4, para. 2.5.1 provides "The initial capabilities of an individual shall be based on an evaluation of his education, experience, and training and compared to those established for the					
Completed by Organization in Block 5	9 Deficiency The qualification record files of the following two individuals did not satisfy the minimum education requirements identified in the applicable position descriptions nor had supervisors documented the basis for accepting					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities, or documentation,					
	11 QAE/Lead Auditor/Date S Dana 11/30/89		12 Division Manager/Date Walt Hedges 12-1-89		13 Project Quality Mgr./Date 12/1/89	
	14 Remedial/Investigative Action(s) 15 Effective Date _____					
Completed by Org. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence 17 Effective Date _____					
	18 Signature/Date					
	19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date		
21 Remarks						
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date		
				PQM/Date		

YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET

N-QA-038
12/88

SDR No. 462

Rev. 0

Page 2 of 2

8 Requirement (continued)
position."

TWS-QAS-QP-02.1, Rev. 1, Para. 6.2, Step 9, requires "Supervisors are responsible for determining and documenting that the personnel selected have relevant experience commensurate with the minimum requirements specified in the position description." Para. 6.3, Step 10, requires supervisors to "...verify resumes of employees or potential employees for accuracy and conformance to position description requirements, by reviewing the Project resume against the position description, and document verification of relevant education and experience by signing and dating the Project Resume Form...."

9 Deficiency (continued)

"equivalent experience" in lieu of the stated formal education requirements.

o Project Leader (EES-13)

Required: MS or equivalent
Actual: BS ChE

o Lab Technician (LS-2)

Required: BS or equivalent
Actual: No degree

10 Recommended Actions (continued)

to determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/27/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During LANL Audit 89-7		3a Identified By S. L. Crawford		4 SDR No. 463 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted R. Oblad, R. Morley		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Item 3-7) TWS-QAS-QP-03.15, para. 6.3 and 6.4 provide for review of design documents. LANL letter TWS-EES-1-09-89-16, 9/8/89 transmitted the Integrated Data System (IDS) Functional Requirements Document (FRD) for review					
Completed by Organization in Block 5	9 Deficiency 1. The FRD, as reviewed, and subsequently, as issued (10/04/89, TWS-EES-13-10-89-004) contained numerous errors and inconsistent structure in the logic elements of the IDS that was not identified by the					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Identify the cause of the condition and the planned action to					
	11 QAE/Lead Auditor/Date <i>S. J. Jones</i> 12/1/89		12 Division Manager/Date <i>R. Oblad</i> 12-1-89		13 Project Quality Mgr./Date <i>R. Morley</i> 12/1/89	
Completed by Org. QA Org.	14 Remedial/Investigative Action(s) 15 Effective Date _____					
	16 Cause of the Condition & Corrective Action to Prevent Recurrence 17 Effective Date _____					
	18 Signature/Date					
Comp. by Orig. QA Org.	19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
	20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date	
	21 Remarks					
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date		PQM/Date

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 463

Rev. 0

Page 2 of 2

8 Requirement (continued)

per QP-03.15, para. 6.3. The transmitted letter requested the reviewers to assure:

1. The FRD is correct.
2. The FRD is consistent with the ESF SDRD.
3. The FRD is concisely and logically structured.
4. The FRD fulfils its purpose adequately to start Title II design.
5. The FRD complies with the LANL QA plan.

9 Deficiency (continued)

design review process. (See attached List of Discrepancies)

2. The FRD referenced the design input source as the ESF SDRD, Benchmark #5 draft. Although, that was the issued version at the time of FRD preparation, Benchmark #6 changes had been approved by DOE/HQ (02/21/89) issued by YMPO (08/07/89) for incorporation into the SDRD. The changes of Benchmark #6 impacted the list of DOE orders in para. 2.2 of the FRD.
3. It is noted that QP-03.15, Rev. 0, was the correct procedure for design review at the time of FRD review; subsequently, QP-03.15, Rev. 1, 10/12/89 directs design reviews to be performed in accordance with QP-03.16, Rev. 0, 10/12/89.

10 Recommended Actions (continued)

prevent recurrence.

LANL AUDIT 89-7

LIST OF DISCREPANCIES
INTEGRATED DATA SYSTEM (IDS) FUNCTIONAL REQUIREMENTS DOCUMENT (FRD)

	<u>PAGE</u>	<u>REFERENCE</u>	<u>DISCREPANCY</u>
1.	2	para 2.2	DOE Order 1330 Draft is 1330.1B Draft per SDRD BM6.
2.	2	para 2.2	DOE Order 1450.1C, listed in SDRD BM5 and BM6, is not listed in the FRD.
3.	2	para 2.2	DOE Order 5310.1A is not listed in SDRD BM5 or BM6 and DOE Order 5300.1B, listed in SDRD BM6, is not listed in the FRD.
4.	11	fig. 3.2.1	Element 1.1.1.5 is identified as "IDS Installation Tests" on logic tree, but "IDS Installation Checks" on page 12.
5.	13	fig.3.2.1	Element 1.1.1.6 and 1.1.1.7 are identified as "System Configuration" and "Instrument Configuration" on logic tree, but "System Configuration Input" and "Instrument Configuration Input" on page 11 (fig. 3.2.1) and page 12.
6.	17	fig. 3.2.4	Element 1.2.1.2 is identified as "Verify" on logic tree, but "Protect" on page 15 (fig. 3.2.3) and page 16.
7.	19	fig. 3.2.5	Element 1.2.1.2 is identified as "Verify" on logic tree; same as comment 6 above.
8.	20	para 3.2.5	"Test Controls" is identified as element 1.1.3, a part of element 1.1, "ACQUIRE"; fig. 3.1.2 (page 5) and fig. 3.2.5 (page 19) show the elements as 1.2 "PROCESS" and 1.2.3 "Test Controls."
9.	22	para. 3.2.6	Paragraph "Store" is a 2nd level element; previous paragraphs and figures are 3rd level elements. The paragraph title should be "IDS Data Archive". A new paragraph 3.2.7, "On-Line" should be inserted.
10.	22	para. 3.2.6	"STORE" is identified as element 1; the correct element designation is 1.3.
11.	24	para. 3.2.7	Paragraph "Distribute" is a 2nd level element; same as comment 9.

- | | | | |
|-----|----|--------------|---|
| 12. | 25 | fig. 3.2.8 | Figure does not include 5th level elements 1.5.1.1.1, 1.5.1.1.2, 1.5.1.2.1, 1.5.1.2.2, 1.5.1.2.3; 5th level elements are presented on fig. 3.2.3 (page 15), fig. 3.2.4 (page 17), and fig. 3.2.5 (page 19). |
| 13. | 26 | para. 3.2.8 | "Malfunction Alarm" and subelements are identified as 1.5.1.4, 1.5.1.4.1, etc. The correct elements designations are 1.5.1.2, 1.5.1.2.1, etc. |
| 14. | 27 | fig. 3.2.9 | Figure does not include 5th level elements 1.5.2.3.1, 1.5.2.3.2; same as comment 12 above. |
| 15. | 28 | para. 3.2.9 | "Instrument Malfunction Alarm" subelements are identified as 1.5.2.4.1 and 1.5.2.4.2; the correct element designations are 1.5.2.3.1 and 1.5.2.3.2 |
| 16. | 29 | fig. 3.2.10 | Element 1.6.3.2 is identified as "Provide Data I/O Terminals"; para. 3.2.10 (page 30) identifies the element title as "Provide Data I/O Terminals and Remote Access." |
| 17. | 30 | para. 3.2.10 | Paragraph "Operate" is a 2nd level element; same as comment 9 above. |
| 18. | 30 | para. 3.2.10 | "Maintenance and Operations" and subelements are identified as 1.6.4, 1.6.4.1, etc. The correct element designations are 1.6.3, 1.6.3.1, etc. Also "Maintenance and Operations" should be italicized. |
| 19. | 49 | Appdx. B | "National Bureau of Standards" (NBS) should be "National Institute of Standards and Technology" (NIST). NIST was correctly identified on pages 12 and 16. |
| 20. | 52 | Appdx. E | "NBS" should be "NIST"; same as comment 19 above. |

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/14/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit-89-7		3a Identified By S.L. Crawford		4 SDR No. 464 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted R. Herbst, various PI's		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Q#3-1, 3-2) YMP AP-1.10Q, Rev. 0, paras. 5.1.2 and 5.1.5 require project participants to perform a technical review of SCP study plans prior to submittal to the Project Office. LANL TWS-QAS-QP-03.3, Rev. 0, para 6.2.1,					
Completed by Organization in Block 5	9 Deficiency Several study plans, submitted to the Project Office subsequent to the effective date of AP-1.10Q, had been technically reviewed in a different form and content than the version actually submitted to the Project Office. No					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action to be taken to correct the deficiencies noted in block 9. Identify the cause of the condition and the planned action to					
	11 QAE/Lead Auditor/Date <i>S. Jones 11/30/89</i>		12 Division Manager/Date <i>Stewart Hedges 12-1-89</i>		13 Project Quality Mgr./Date <i>W. [Signature] 12/1/89</i>	
	14 Remedial/Investigative Action(s) <div align="right">15 Effective Date _____</div>					
Completed by Org. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence <div align="right">17 Effective Date _____</div>					
	18 Signature/Date					
	19 Response Accepted					
Comp. by Orig. QA Org.	20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date	
			QAE/Lead Auditor/Date		Division Manager/Date	
	21 Remarks					
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date		PQM/Date

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 464

Rev.

Page 2 of 2

8 Requirement (continued)

requires study plans to be "...reviewed technically according to QPS-3.02..."

9 Deficiency (continued)

check or review was documented to assure that changes occurring between the technical review and submission to the Project Office either did not impact technical content of the study plan or that an additional review of the changes for technical adequacy was performed.

It is noted that all study plans having technical reviews performed prior to AP-1.10Q (and prior to QP-03.3) have already been submitted to the Project Office. Only three (3) LANL study plans remain to be submitted.

10 Recommended Actions (continued)

prevent recurrence.

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11-17-89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 89-7		3a Identified By M. J. Mitchell		4 SDR No. 465 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted R. Herbst, H. Nunes		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Item N/A) LANL-YMP-QAPP, Rev. 4.4, Para. 3.1.6.1, states in part "DPs used for scientific investigations shall provide for the following as appropriate:					
	9 Deficiency Many DPs do not address acceptance and rejection criteria or limits or the applicability of this subject to the work covered by the DP. Examples of this condition include:					
Completed by Organization in Block 5	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities, or documentation to					
	11 QAE/Lead Auditor/Date <i>S. Damm</i> 11/30/89		12 Division Manager/Date <i>N. H. Hedges</i> 12-1-89		13 Project Quality Mgr./Date <i>[Signature]</i> 12/1/89	
	14 Remedial/Investigative Action(s)					
	15 Effective Date _____					
	16 Cause of the Condition & Corrective Action to Prevent Recurrence					
Completed by Organization in Block 5	17 Effective Date _____					
	18 Signature/Date					
	19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
	20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date	
	21 Remarks		Project Quality Mgr./Date		Project Quality Mgr./Date	
Comp. by Orig. QA Org.	22 QA CLOSURE					
	QAE/Lead Auditor/Date		Division Manager/Date		PQM/Date	

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 465

Rev. 0

Page 2 of 2

8 Requirement (continued)

- o Acceptance and rejection limits and criteria, including required levels of precision and accuracy."

TWS-QAS-QP-05.2, Rev. 2, Para. 6.3.7.6 states in part "Include criteria (eg., postrequisites and final conditions) for ensuring that DPs have been performed correctly."

9 Deficiency (continued)

TWS-EES-DP-54, Rev. 1
TWS-EES-DP-102, Rev. 1
TWS-EES-DP-114, Rev. 1
TWS-EES-DP-124, Rev. 0
TWS-INC-DP-27, Rev. 0

10 Recommended Actions (continued)

determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify the deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization

Aprvl.

Completed by Organization in Block 5

Comp. by Orig. QA Org.

1 Date 11/17/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
3 Discovered During Audit 89-7		3a Identified By F. Ruth/ J. Hadden		4 SDR No. 466 Rev. 0	
5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted K. Foster		7 Response Due Date is 20 Working Days from Date of Transmittal	
8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Item 6-4) TWS-QAS-QP-06.1, Rev. 1, Para. 6.5, states "The holder of a controlled document removes and destroys obsolete documents in accordance with directions					
9 Deficiency A random sample of the 59 controlled manuals were reviewed in accordance with the latest revision of the table of contents, dated October 13, 1989, to determine if all appropriate procedures had been removed or marked superceded					
10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities or documentation, to					
11 QAE/Lead Auditor/Date <i>S. Dora</i> 11/30/89		12 Division Manager/Date <i>Robert Hedges</i> 12-1-89		13 Project Quality Mgr./Date <i>[Signature]</i> 12/1/89	
14 Remedial/Investigative Action(s)				15 Effective Date _____	
16 Cause of the Condition & Corrective Action to Prevent Recurrence				17 Effective Date _____	
18 Signature/Date					
19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date	
21 Remarks					
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date	
				PQM/Date	

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 466

Rev. 0

Page 2 of 2

8 Requirement (continued)

given in the receipt acknowledgement form. If the holder of a controlled document prefers to keep obsolete revisions, he may do so, but he must mark "superceded," "obsolete," or a similar expression on the cover page of the outdated version and note this action on the receipt acknowledgement form."

9 Deficiency (continued)

or obsolete as required. During the review, procedures were found which should have been removed or marked obsolete. In one case (#90), one procedure was missing from the manual.

Note: The following is a list of the controlled manuals that were reviewed and all discrepancies discovered during the review were corrected during the audit:

#4
#5
#27
#40
#48
#50
#85
#86
#90

10 Recommended Actions (continued)

determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/17/89		2 Severity Level <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 89-7		3a Identified By M. Diaz		4 SDR No. 467 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted P. Goulding		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Item 15-7) NNWSI/88-9, Rev. 2, Section XV, Para. 3.0, states "Nonconformance reports shall be periodically analyzed by the QAS organization to show quality trends"					
Completed by Organization in Block 5	9 Deficiency Contrary to the above requirements, there is no documentation to show that a trend report has been issued on NCRs since the effective date of 6/20/89 of the procedure.					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Investigative <input type="checkbox"/> Corrective Identify the remedial actions to be taken to correct the deficiency(ies) noted in block 9.					
	11 QAE/Lead Auditor/Date <i>J. Davis 11/30/89</i>		12 Division Manager/Date <i>P. Goulding 12-1-89</i>		13 Project Quality Mgr./Date <i>[Signature] 12/1/89</i>	
	14 Remedial/Investigative Action(s) <div style="text-align: right;">15 Effective Date _____</div>					
Completed by Org. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence <div style="text-align: right;">17 Effective Date _____</div>					
	18 Signature/Date					
	19 Response Accepted 20 Corrective Action Verif. Satisfactory 21 Remarks					
22 QA CLOSURE <div style="display: flex; justify-content: space-between;"> <div>QAE/Lead Auditor/Date</div> <div>Division Manager/Date</div> <div>PQM/Date</div> </div>						

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

N-QA-038
12/88

SDR No. 467

Rev. 0

Page 2 of 2

8 Requirement (continued)

and to help identify root causes of nonconformances. Results shall be reported to upper management for review and assessment." TWS-QAS-QP-16.2, Rev. 0, Para. 5.2, states "The Quality Assurance Support group generates trending data on a quarterly basis, beginning in January, and delivers these data to the QAPL." TWS-QAS-QP-16.2, Rev. 0, Para. 8.0, states "An approved quarterly trending report is the criterion that demonstrates satisfactory compliance with this QP."

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11-17-89		2 Severity Level <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 3
	3 Discovered During Audit 89-7		3a Identified By A. I. Arceo		4 SDR No. 468 Rev. 0
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted P. Goulding/H. Nunes		7 Response Due Date is 20 Working Days from Date of Transmittal
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Items 16-1, 16-2, 16-3, and 16-4) NNWSI/88-9, Rev. 2, Section XVI, Para. 1.0, and LANL-YMP-QAPP, Rev. 4.4, Para. 16.1, state "The corrective Action System shall ensure that conditions adverse or potentially adverse to				
Completed by Organization in Block 5	9 Deficiency Contrary to the requirements stated above: 1. Actions to prevent recurrence of significant conditions were not				
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities, or documentation to				
	11 QAE/Lead Auditor/Date 2 Jan 11/30/89		12 Division Manager/Date K. H. H. 12-1-89		13 Project Quality Mgr./Date 12/1/89
	14 Remedial/Investigative Action(s) 15 Effective Date				
Completed by Org. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence 17 Effective Date				
	18 Signature/Date				
	19 Response Accepted	QAE/Lead Auditor/Date	Division Manager/Date	Project Quality Mgr./Date	
Comp. by Orig. QA Org.	20 Corrective Action Verif. Satisfactory	QAE/Lead Auditor/Date	Division Manager/Date	Project Quality Mgr./Date	
	21 Remarks				
Comp. by Orig. QA Org.	22 QA CLOSURE	QAE/Lead Auditor/Date	Division Manager/Date	PQM/Date	

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

N-QA-038
12/88

SDR No. 468

Rev. 0

Page 2 of 3

8 Requirement (continued)

quality are identified promptly and corrected as soon as practical." NNWSI/88-9, Rev. 2, Section XVI, Para. 1.1, and LANL-YMP-QAPP, Rev. 4.4, Para. 16.2, state "For significant conditions adverse to quality, the identification, cause, and corrective action taken to prevent recurrence shall be documented and reported to immediate management and upper levels of management for review and assessment... Upon discovering or receiving notification that a significant condition adverse to quality or unusual occurrence exists, each NNWSI Project Participant shall ensure that:

- o Immediate actions have been taken to remedy the specific condition(s).
- o Causative factors have been determined.
- o Controls have been reviewed, implemented, monitored, and revised, if necessary.
- o Affected managers at all levels have been notified of adverse condition(s) and of lessons to be learned to improve conditions or avoid similar occurrences."

NNWSI/88-9, Rev. 2, Section XVI, Para. 1.2, and LANL-YMP-QAPP, Rev. 4.4, Para. 16.3, state "The QA organization shall document concurrence of the adequacy of proposed corrective actions to assure that QA requirements will be satisfied. Follow-up action shall be taken by the QA organization to verify proper implementation of this corrective action and to close out the corrective action. The organization responsible for implementing the corrective action shall assure that the corrective action is completed in a timely manner." NNWSI/88-9, Rev. 2, Sec. XVI, Para, 1.3, and LANL-YMP-QAP Rev. 4.4, Para. 16.4, state "The QA organization shall periodically analyze corrective action reports to establish quality trends. The results shall be reported to the TPO and QAPL for review and assessment." TWS-QAS-QP-16.1, Rev. 1, Para. 6.3, states "A copy of the CAR Log is sent to the RPC annually in the first quarter of the calendar year."

9 Deficiency (continued)

indicated on the CARs reviewed (CAR Nos. 043; 043, Rev. 1; 044; 046; 055, and 055, Rev 1).

2. Verification of corrective action implementation was not documented on the CAR other than the signature of the person who performed the verification. There were no references as to what was performed (survey, desk survey, or audit) or documents reviewed to verify corrective action implementation.
3. CARs were revised; however QP-16.1, Rev. 1, does not provide for revisions to CARs.
4. CARs and CAR Log do not provide information as to why the CARs were revised. The CAR Log showed that the CARs were voided, but in reality,

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

**N-QA-038
12/88**

SDR No. 468

Rev. 0

Page 3 of 3

9 Deficiency (continued)

the CARs were revised (CAR No. 043, 046, and 055).

5. The CAR Log was not sent to the RPC as required by QP-16.1, Rev. 1.
6. The form used for CAR does not reflect all the information required by the example form in QP-16.1, Rev. 1.
7. Some CARs (043, 044, and 055) were not completed in a timely manner.
8. CARs were not analyzed to establish quality trends.
9. Corrective Action Reports were issued to identify procedural noncompliance instead of "...significant breakdown in the QA Program or repeated nonconformances." Procedural noncompliance should be identified in another deficiency reporting system and when it becomes repetitive, then a CAR should be written.

10 Recommended Actions (continued)

determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

YMP STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/17/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 89-7		3a Identified By M. Diaz		4 SDR No. 469 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted E. Cole/P. Tillery		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Item 18-5-1) TWS-QAS-QP-18.1, Rev. 1, Para. 6.6.1, states in part "If any findings have been identified, a response is sent to the audit team leader within 20 working					
	9 Deficiency Contrary to the requirements cited above, audit report LANL-YMP-89-02 contains the following deficiencies:					
Completed by Organization in Block 5	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities or documentation to					
	11 QAE/Lead Auditor/Date <i>S. Davis</i> 11/30/89		12 Division Manager/Date <i>Kaleth Hedges</i> 12-1-89		13 Project Quality Mgr./Date <i>[Signature]</i> 12/1/89	
	14 Remedial/Investigative Action(s)					
	15 Effective Date _____					
	16 Cause of the Condition & Corrective Action to Prevent Recurrence					
Completed by Org. QA Org.	17 Effective Date _____					
	18 Signature/Date					
	19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
	20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date	
	21 Remarks		Project Quality Mgr./Date		Project Quality Mgr./Date	
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date		PQM/Date

**YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET**

N-QA-038
12/88

SDR No. 469

Rev. 0

Page 2 of 2

8 Requirement (continued)

days of the audit report." Para. 6.7.1 states in part "The status of audit findings for the current year shall be updated monthly by the QAS and reported to the QAPL." LANL-YMP-QAPP, Rev. 4.4, Para. 16.1, states in part "The corrective action system shall ensure that conditions adverse to quality shall be identified promptly, documented on corrective action reports, and corrected as soon as practical."

9 Deficiency (continued)

1. The audit report was issued on July 11, 1989. However, a response was not issued until October 6, 1989, 63 days after the due date.
2. Status of the audit findings was not reported to the QAPL as required.
3. A corrective action report was never issued. However, the affected audit team leader was aware of the situation but did not take any action to identify it nor to document it.

10 Recommended Actions (continued)

determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/17/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2	
	3 Discovered During Audit 89-7		3a Identified By M. Diaz		4 SDR No. 470 Rev. 0	
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted E. Cole/P. Tillery		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Checklist Items 18-2, 18-3-1) NNWSI/88-9, Rev. 2, Section XVIII, Para. 1.3.1, states in part "Audit plans shall identify organizations to be notified,...applicable documents."					
Completed by Organization in Block 5	9 Deficiency Contrary to the requirements cited above: 1. Audit plans do not identify organizations to be notified and the appli-					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Investigate the program, process, activities or documentation, to					
	11 QAE/Lead Auditor/Date <i>S. Dana</i> 11/30/89		12 Division Manager/Date <i>Glenn Helger</i> 11-1-89		13 Project Quality Mgr./Date <i>Glenn Helger</i> 12/1/89	
	14 Remedial/Investigative Action(s) <div style="text-align: right;">15 Effective Date _____</div>					
Completed by Org. QA Org.	16 Cause of the Condition & Corrective Action to Prevent Recurrence <div style="text-align: right;">17 Effective Date _____</div>					
	18 Signature/Date					
	19 Response Accepted		QAE/Lead Auditor/Date		Division Manager/Date	
20 Corrective Action Verif. Satisfactory		QAE/Lead Auditor/Date		Division Manager/Date		
21 Remarks						
22 QA CLOSURE		QAE/Lead Auditor/Date		Division Manager/Date		
				PQM/Date		

YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET

N-QA-038
12/88

SDR No. 470

Rev. 0

Page 2 of 2

8 Requirement (continued)

TWS-QAS-QP-18.1, Rev. 1, Para. 6.4.2, states in part "Auditors document their investigations, observations, and names of personnel interviewed on the audit checklist." NNWSI/88-9, Rev. 2, Section XVIII, Para. 1.4, states in part "Objective evidence shall be examined to the depth necessary to determine if these elements are adequate for effective control and to determine whether or not they are being implemented effectively."

9 Deficiency (continued)

cable documents to be used during the audit.

2. Numerous audit checklists do not contain the documented evidence reviewed during the audit.
3. Checklists do not contain qualitative or quantitative criteria to determine whether or not the objective evidence examined during the audit is acceptable to the scope and requirements of the audit.

10 Recommended Actions (continued)

determine the extent and depth of similar deficient conditions listed as examples on the SDR. Identify these deficiencies and provide the measures required to correct them. Identify the cause of the condition and the planned corrective action to prevent recurrence.

YMPO STANDARD DEFICIENCY REPORT

N-QA-038
4/89

Completed by Originating QA Organization	1 Date 11/16/89		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2
	3 Discovered During Audit 89-7		3a Identified By S.L. Crawford		4 SDR No. 471 Rev. 0
	5 Organization Los Alamos Nat'l Lab		6 Person(s) Contacted K. Foster		7 Response Due Date is 20 Working Days from Date of Transmittal
	8 Requirement (Audit Checklist Reference, if Applicable) (Q #2-2) LANL-YMP-QAPP, Rev. 4.4, para. 2.5 provides "Position descriptions shall establish minimum personnel qualifications and the necessary indoctrination or training or both before a person starts work on activities"				
	9 Deficiency TWS-QAS-QP-02.1, Rev.1, para. 4.2 and para 6.1, step 5, do not require position descriptions to identify needed indoctrination or training. Position descriptions do not generally identify training and indoctrination				
Completed by Organization in Block 5	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective Identify the remedial action(s) to be taken to correct the deficiencies noted in block 9. Identify the cause of the condition and the planned action to				
	11 QAE/Lead Auditor/Date <i>S. Dana 11/30/89</i>		12 Division Manager/Date <i>Richard H. ... 12-1-89</i>		13 Project Quality Mgr./Date <i>... 12/1/89</i>
	14 Remedial/Investigative Action(s)				
	15 Effective Date				
	16 Cause of the Condition & Corrective Action to Prevent Recurrence				
Comp. by Orig. QA Org.	17 Effective Date				
	18 Signature/Date				
	19 Response Accepted	QAE/Lead Auditor/Date	Division Manager/Date	Project Quality Mgr./Date	
	20 Corrective Action Verif. Satisfactory	QAE/Lead Auditor/Date	Division Manager/Date	Project Quality Mgr./Date	
	21 Remarks				
22 QA CLOSURE		QAE/Lead Auditor/Date	Division Manager/Date	PQM/Date	

YMPO STANDARD DEFICIENCY REPORT
CONTINUATION SHEET

N-QA-038
12/88

SDR No. 471

Rev. 0

Page 2 of 2

8 Requirement (continued)
that affect quality."

9 Deficiency (continued)
requirements; training matrices, per QP-02.2 are not attached to certifications,
resumes, or position descriptions, to show required training prior to annual
certification.

10 Recommended Actions (continued)
prevent recurrence.

Richard J. Herbst

-2-

DEC 11 1989

cc w/encl:

Ralph Stein, HQ (RW-30) FORS
D. E. Shelor, HQ (RW-3) FORS
H. P. Nunes, LANL, Los Alamos, NM
J. J. Brogan, SAIC, Las Vegas, NV, 517/T-12
S. R. Dana, SAIC, Las Vegas, NV, 517/T-06
K. A. Hodges, SAIC, Las Vegas, NV, 517/T-06
K. W. Moore, SAIC, Las Vegas, NV, 517/T-31
J. H. Nelson, SAIC, Las Vegas, NV, 517/T-04
S. W. Zimmerman, NWPO, Carson City, NV
J. E. Kennedy, NRC, Washington, DC

cc w/o encl:

H. E. Valencia, LAAO
J. W. Hines, NWQA, AL
A. R. Chernoff, MSD, AL
A. L. Temple, SAIC, Las Vegas, NV, 517/T-38
J. W. Gilray, NRC, Las Vegas, NV