



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

WBS 1.2.9.3  
QA

MAR 12 1991

John H. Nelson  
Technical Project Officer  
for Yucca Mountain  
Site Characterization Project  
Science Applications International Corporation  
The Valley Bank Center, Suite 407  
101 Convention Center Drive  
Las Vegas, NV 89109

VERIFICATION OF CORRECTIVE ACTION AND CLOSURE OF CORRECTIVE ACTION REQUEST  
(CAR) YM-91-016 RESULTING FROM YUCCA MOUNTAIN QUALITY ASSURANCE DIVISION  
(YMQAD) AUDIT 90-08 OF TECHNICAL AND MANAGEMENT SUPPORT SERVICES (T&MSS)

The YMQAD staff has verified the corrective action to CAR YM-91-016 and determined the results to be satisfactory. As a result, the CAR is considered closed.

If you have any questions, please contact either Catherine E. Hampton at (702) 794-7973 or FTS 544-7973, or Terry W. Noland at (702) 794-7212 or FTS 544-7212.

Donald G. Horton, Director  
Yucca Mountain Quality Assurance Division

YMQAD:CEH-2579

Enclosure:  
CAR YM-91-016

cc w/encl:  
K. R. Hooks, NRC, Washington, DC  
S. W. Zimmerman, NWPO, Carson City, NV  
W. V. Macnabb, SAIC, Las Vegas, NV, 517/T-04  
K. W. Moore, SAIC, Las Vegas, NV, 517/T-28  
N. J. Brogan, SAIC, Las Vegas, NV, 517/T-08

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

YMP-5

9103190422 910312  
PDR WASTE PDR  
WM-11

FULL TEXT ASCII SCAN

102.7  
wm-11  
NH03

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

14CAR NO.: YM-91-016  
DATE: 11/27/90  
SHEET: 1 OF 2  
QA  
WBS No.: N/A

**CORRECTIVE ACTION REQUEST**

1 Controlling Document SP 1.37, Revision 1		2 Related Report No. Audit 90-08
3 Responsible Organization SAIC	4 Discussed With J. Harper	
10 Response Due 12/27/90	11 Responsibility for Corrective Action J. Harper	12 Stop Work Order Y or N N

5 Requirement:  
SP 1.37, Paragraph 5.0, number 4, QA Manager, "Evaluate whether the finding constitutes a significant condition adverse to quality in accordance with criteria established below:  
  
a. A significant or serious breakdown in any portion of the quality assurance program.

6 Adverse Condition:  
  
QFR 90-001, Revision 0 and Revision 1, QFR 90-013, 90-014, and 90-015 identified conditions which fulfill the above cited definition but were not identified as significant conditions.  
  
NOTE:  
  
QFR 90-001, Revision 0 and Revision 1 was written to identify an average 39.1 failure rate for training records.  
  
Block 8 of the QFR stated, "Documentation deficiencies were noted in all surveilled departments. Files are incomplete and forms are inconsistently used." Response to QFR (Nelson 6/11/90) stated, "It can neither be satisfactorily demonstrated nor verified that T&MSS personnel are fully trained to perform quality affecting

7 Recommended Action(s):

8 Initiator Catherine Hampton	Date: <u>11/19/90</u>	9 Severity Level - 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/>	13 Approved By: <u>James Blaylock</u>	Date: <u>11/21/90</u>
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15 Verification of Corrective Action: Verification of 2/25/91 Amended Response Actions  
1. Verified that QFR 90-001, Rev 0 was closed out and reissued as MCAR 91-001, Rev. 0 on 1/18/91.  
2. SP 1.37, Rev. 3 became effective 3/5/91. Section 5.1.4 of this procedure contains criteria for evaluating deficiencies for "significant conditions adverse to quality".  
T.W. Noh  
3/7/91

16 Corrective Action Completed and Accepted: OAR <u>T.W. Noh</u> Date <u>3/7/91</u>	17 Closure Approved By: OAR <u>Catherine Hampton</u> Date <u>3/7/91</u>
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**ENCLOSURE**

**OFFICE OF CIVILIAN  
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WASHINGTON, D.C.**

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**CORRECTIVE ACTION REQUEST  
(continuation sheet)**

6 Adverse Condition (continued)  
activities."

QFR 90-013, 90-014, and 90-015 were written to document the deficiencies identified as a result of surveillance SR-90-006. The surveillance summary (dated 10/4/90) identified that the "overall program is insufficient to meet the requirements of the T&MSS QAPD."

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**CORRECTIVE ACTION REQUEST  
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**CORRECTIVE ACTION FOR DEFICIENT CONDITION NO. 1**

**A. EXTENT OF DEFICIENCY:**

The central issue with respect to this Corrective Action Request revolves around a difference of interpretation between the auditor and T&MSS management personnel on what constitutes a significant condition adverse to quality with respect to "a significant or serious breakdown in any portion of the quality assurance program." SP 1.37, Rev. 1, requires that significant conditions adverse to quality be documented on a Management Corrective Action Report (MCAR). In order to focus the concept of "significance" with respect to its intended meaning as used in SP 1.37, Section 1.0, PURPOSE, of the subject procedure is cited. It states: "This procedure describes the system to be used for identifying, documenting, and obtaining resolution of programmatic deficiencies, procedure violations and repetitive deficient conditions which are considered to be conditions adverse to quality. It also prescribes actions necessary to correct significant conditions which, if uncorrected, could have a serious effect on safety or operability of the Yucca Mountain Project." This is consistent with the definition of a significant condition adverse to quality which is contained in Para. 3.2.3 of the subject procedure. Although Para. 5.1.4 of SP 1.37 does contain specific criteria to be used when evaluating a deficiency for significance, these criteria are to be considered in terms of whether they represent a condition which may have a serious effect on safety or operability of the Yucca Mountain Project.

It should be noted that NQA-1, 1989, Section 16, "Corrective Action" states: "Conditions adverse to quality shall be identified promptly and corrected as soon as practical. In the case of a significant condition adverse to quality, the cause of the condition shall be determined and corrective action taken to preclude recurrence." In terms of the T&MSS QA Program, SP 1.37 requires that all conditions adverse to quality be evaluated for cause and corrective action to preclude recurrence regardless of whether they are documented on a Quality Finding Report (QFR) or MCAR. Documentation of a deficiency as a MCAR would simply provide a stronger basis for evaluation of the problem for stop work considerations per SP 1.22. Specific data to support the T&MSS management decision to not classify QFRs 001, 013, 014, and 015 as MCARs is as follows:

**QFR-001**

The auditor concluded that this QFR should have been classified as a MCAR based upon the fact that on average of 39.1% of the training documentation reviewed was deficient and part of the management response indicated that "It can neither be satisfactorily demonstrated nor verified that T&MSS personnel are fully trained to perform quality affecting activities."

It should be noted that QFR-001 also identified that 93% of the Qualification Evaluation forms reviewed were found to be satisfactory. This form is

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CORRECTIVE ACTION REQUEST  
(continuation sheet)

Response to CAR YM-91-016 (Cont)

the most important of the training/qualification documents since it meets the minimum qualifications as stated in the job position description and has verified completion of the prescribed qualification requirements per Form TMSS/027/4. The management response concerning the satisfactory demonstration and verification that T&MSS are fully trained to perform quality affecting work was intended to convey that investigative action would be necessary to determine the scope of the problems identified. This is supported by a subsequent memo, Nelson to Harper (JHN:WKF:dn:M90-238) dated 9/4/90 which states that while implementing corrective action to QFR-002, three instances of individuals who performed quality affecting activities without proper training on the governing procedures were discovered. This small number illustrates that the majority of the T&MSS personnel performing quality affecting work were properly trained in the procedures governing their activities.

Another important aspect of QFR-001 which supports the original classification of the deficiency as a QFR in lieu of an MCAR is contained in the Discussion section of this QFR. It clearly recognizes that the T&MSS organization was going through a transition from working under the Project Office QA program to the T&MSS QA program and that training/qualification documentation did exist in many cases but on Project Office forms. QFR-001 was issued on 6/4/90 which was shortly after initial issue of the T&MSS QAPD. As such, it is not unreasonable to expect to encounter some "start-up" problems when transitioning to a new program with new implementing procedures.

Based on the above, it is the T&MSS position that the management decision to document the problems with training documentation as a QFR in lieu of a MCAR was appropriate.

QFRs 013, 014, and 015

These QFRs were issued as a result of Surveillance SR-90-006 and are summarized as follows:

QFR 90-013 - Failure to implement SP 2.4

QFR 90-014 - Identification and tagging of equipment requiring calibration.

QFR 90-015 - Failure to perform Performance Audit checks on a quarterly basis.

The auditor concluded that these QFRs should have been MCARs based on a statement in the surveillance report summary which reads: "...it can be

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(continuation sheet)

Response to CAR YM-91-016 (Cont)

concluded that the overall program is insufficient to meet the requirements of the T&MSS QAPD." This, in the auditors view, represents a significant breakdown in a portion of the quality assurance program. We again have the "start-up" problem associated with implementing a new QA program. As such, the QA program is still evolving and has not yet reached maturity. This does not constitute a "breakdown."

The responses the the subject QFRs clearly mitigate the significance of these findings. The responses to QFRs 90-013 and 90-014 indicate that SP 2.4 was, in fact, being partially implemented and identified some procedural discontinuities between SP 2.4 and the work instructions being used by the environmental personnel as well as minor problems associated with resource allocation. Although the impact on quality is indeterminate until all investigative action has been performed, it is apparent that the deficiencies had no effect on safety or operability of the Yucca Mountain Project. The response to QFR-015 indicated that the identified deficiency had no adverse impact on quality. The fact that one quarterly performance audit had not been performed since the supplier of this service was not on the Qualified Suppliers List was determined to be a program start-up problem. The quarterly performance audits were resumed in October, 1990 and no further corrective action was deemed necessary. Again, this deficiency had no effect on safety or operability of the Yucca Mountain Project. The conclusion by the surveillance team during surveillance SR-90-006 that the overall program was insufficient to meet the requirements of the T&MSS QAPD was correct but was not intended to imply that there was a breakdown in the QA program since no such statement was made in the report and no MCARs were issued in this area. Again, it is the T&MSS position that the management decision to classify these deficiencies as QFRs was correct.

**B. ROOT CAUSE:**

The deficiency cited in CAR No. YM-91-016 did highlight the need to provide procedural clarification as to what constitutes a significant condition adverse to quality. This subject was discussed at the Project Quality Assurance Committee meeting which took place on November 30, 1990. The consensus among the Project participant and DOE QA managers was that in order for a deficient condition to be considered significant, there would have to be a direct affect on safety (worker or public) or on operability of the proposed repository. Additional clarification will be provided to SP 1.37 to reflect this consensus opinion and related the significance criteria to the limitations specified. This action will be completed by January 31, 1991.

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Response to CAR YM-91-016 (Cont)

**C. REMEDIAL ACTION:**

None Needed - The justifications for the existing actions are adequate.

**D. CORRECTIVE ACTION TO PREVENT RECURRENCE:**

None

RESPONSE APPROVED:

Kent B Johnson for JPH  
Responsible Manager

12/27/90  
Date

AMENDED RESPONSE TO YMPO CORRECTIVE ACTION YM-91-016

This amended response supersedes the original response to YMPO CAR YM-91-016 in its entirety. The original response was transmitted to the Project Office via letter JBH:KBJ:ci:017, Nelson to Horton, dated 12/27/90.

QFR-001

Upon further consideration and based on a meeting which took place with Jim Harper, T&MSS QA Manager and Project Office QA staff on January 15, 1991, we are in agreement that QFR No. 90-001 should have been classified as a MCAR when it was issued. Accordingly, QFR No. 90-001 has been closed out and reissued as MCAR No. 91-001. Since an acceptable response to the original deficiencies identified in QFR No. 91-001 has been developed and corrective action is presently pending completion by February 15, 1991, no additional management action is deemed necessary with respect to MCAR No. 91-001, at the present time. However, MCAR No. 91-001 will be the document used to track, verify corrective action and close-out the original deficiencies documented on QFR No. 91-001.

QFRs 013, 014, and 015

These QFRs were issued as a result of surveillance SR-90-006 and are summarized as follows:

QFR 90-013 - Failure to implement procedure SP 2.4.

QFR 90-014 - Identification and tagging of equipment requiring calibration.

QFR 90-015 - Failure to perform Performance Audit checks on a quarterly basis.

The auditor concluded that these QFRs should have been MCARs based on a statement in the surveillance report summary which reads: "...it can be concluded that the overall program is insufficient to meet the requirements of the T&MSS QAPD." These deficiencies were considered to be representative of "start-up" problems associated with implementing a new QA program. As such, the QA program is still evolving and has not yet reached maturity. This does not constitute a "breakdown", therefore, issuance of an MCAR was not required.

The responses to the subject QFRs clearly mitigate the significance of these findings. The responses to QFRs 90-013 and 90-014 indicate that SP 2.4 was, in fact, being partially implemented and identified some procedural discontinuities between SP 2.4 and the work instructions being used by the environmental personnel as well as minor problems associated with resource allocation. Although the impact on quality is indeterminate until all investigative action has been performed, it is apparent that the deficiencies had no effect on safety or operability of the Yucca Mountain Project. The response to QFR-015 indicated that the identified deficiency had no adverse impact on quality. The fact that one quarterly performance audit had not been performed since the supplier of this service was not on the Qualified Suppliers List was determined to be a program start-up problem. The quarterly performance audits were resumed in October, 1990 and no further corrective action was deemed necessary. Again, this deficiency had no effect on safety or operability of the Yucca Mountain Project. The conclusion formed by the surveillance team during surveillance

*Ltr dtd 1/17/91 - L91-6082*

SR-90-006 that the overall program was insufficient to meet the requirements of the T&MSS QAPD was correct but was not intended to imply that there was a breakdown in the QA program since no such statement was made in the report and no MCARs were issued in this area. It is T&MSS's position that the management decision to classify these deficiencies as QFRs was correct.

It should be noted that NQA-1, 1989, Section 16, "Corrective Action" states: "Conditions adverse to quality shall be identified promptly and corrected as soon as practical. In the case of a significant condition adverse to quality, the cause of the condition shall be determined and corrective action taken to preclude recurrence." In terms of the T&MSS QA Program, SP 1.37 requires that all conditions adverse to quality be evaluated for cause and corrective action to preclude recurrence regardless of whether they are documented on a Quality Finding Report (QFR) or a MCAR.

However, the deficiency cited in CAR No. YM-91-016 did highlight the need to provide procedural clarification as to what constitutes a significant condition adverse to quality. To summarize, the following actions either have been, or will be taken:

#### Remedial Action

QFR No. 90-001 was closed out based upon the issuance of MCAR No. 91-001. This action was completed on January 18, 1991.

#### Corrective Action to Preclude Recurrence

The root cause of this deficiency is that SP 1.37 can presently be interpreted to limit significant conditions adverse to quality to those deficiencies that have a serious effect on safety or operability of the Yucca Mountain Project. As such, this limitation is inappropriate for this phase of the Project. SP 1.37 will be revised to remove the limitation and clarify the criteria for determining whether a deficiency represents a "significant" condition adverse to quality. This action will be completed by 2/28/91.

Response Accepted

Richard A. Manak  
QAR

Date 02-25-91

Response Accepted

Catherine L. Langstaffer  
OQA

Date 2-25-91

RESPONSIBLE ORGANIZATION

DATE

PROJECT MANAGEMENT

1/17/91

☐ QFR No. \_\_\_\_\_ Rev. \_\_\_\_\_ ☒ MCAR No 91-001 Rev 0

Based upon Yucca Mountain Project Office Corrective Action Request YM-91-016 which was issued as a result of external audit No. 90-08 of T&MSS activities, and as agreed upon during a meeting with Project Office QA staff on January 15, 1991, QFR 90-001, Rev. 1 has been reclassified as MCAR 91-001, Rev. 0. Since an acceptable response to QFR 90-001, Rev. 1 has been developed and QFR 90-001, Rev. 1 is pending completion of corrective action, no additional response to MCAR 91-001 is presently required. Blocks 7, 8, 14, 15, 16, 17, 18, 19, 20, 21, and 26 are as documented on QFR 90-001, Rev. 1 (see attachment):



Science Applications International Corporation

JEN:HHC:js:M90-11442  
NBS #1.2.9  
QA

**T&MSS QA**

**INTEROFFICE MEMO**

**NOV 08 1990**

**DATE:** November 7, 1990

**TO:** J. B. Harper, Manager, 517/T-38  
T&MSS Quality Assurance

**FROM:** J. H. Nelson, 517/T-04  
Project Manager

**SUBJECT:** Response to Quality Finding Report (QFR) 90-001, Revision *2/1*

*YPAH 11/9/90*

Enclosed please find our response to the subject QFR. If you have any questions regarding this response, please call Henry Caldwell of my staff at extension 4-7740.

**Enclosure:**  
**As stated**

**cc w/encl:**

H. H. Caldwell, T-29  
D. K. Chandler, T-29  
K. O. Gilkerson, T-22  
K. A. Hodges, T-22

RESPONSE TO QFR 90-001, REVISION 1  
NOVEMBER 6, 1990

14. IMPACT ON IN-PROCESS OR COMPLETED WORK

At this time, the impact on in-process or completed work is indeterminant for the three recurring deficiencies cited.

15. ROOT CAUSE OF THE ADVERSE CONDITION

Failure to fully implement the committed to corrective actions outlined in Revision 0 of the QFR

16. REMEDIAL CORRECTIVE ACTION

The following are our proposed remedial corrective actions for the three recurring deficiencies cited:

A. Issue a revised SP 1.31 which addresses the clarified use of forms, procedure revisions, approval of lesson plans, and time limits on training.

B. Hold a formal indoctrination meeting for all T&MSS managers and training coordinators on Revision 2 of the procedure and require reading by all affected T&MSS personnel.

C. Perform a review of all T&MSS Participant training files and resolve all deficiencies identified. Those deficiencies that cannot or are not corrected within the course of this review will be documented on a QFR/MCAR.

EXPECTED COMPLETION DATE: 12/30/90

17. CORRECTIVE ACTION TO PREVENT RECURRENCE

We concur that the recurring deficiencies cited are indicative of a broader root cause. As such we propose to establish and operate a system to monitor and update the training requirements for all T&MSS personnel. This system would be established at the APM/Department level and would be modeled after the one outlined in OP 1.13, Revision 0 (currently in production).

EXPECTED COMPLETION DATE:

Establishment of a tracking/monitoring system 12/30/90

Review and update of training files for T&MSS personnel; on-going



Science Applications International Corporation

JHN:HHC:js:MS0-11904  
NBS #1.2.9  
QA

INTEROFFICE MEMO

**T&MSS QA**

DEC 26 1990

DATE: December 20, 1990

TO: J. B. Harper, Manager  
T&MSS Quality Assurance, T-38

FROM: J. H. Nelson *JHN*  
Project Manager, T-04

SUBJECT: Request For Extension - Corrective Actions QFR 90-001, Revision 1,  
and QFR 90-009, Revision 1

This is to request an extension to the time limits outlined in the corrective actions statements of the referenced QFRs.

A number of reasons serve as the basis for this request. Primary among these is the need to make further revisions to Standard Practice Procedure SP 1.31, Revision 2, based on operating experience. Input provided from using organizations indicated that an amplification of the qualification and proficiency review processes and clarification of forms usage is warranted.

By copy of this memo, it is requested that an extension be granted for the corrective actions stipulated in QFR 90-001 and QFR 90-009 until February 15, 1991.

cc:

D. K. Chandler, T-29  
H. H. Caldwell, T-29  
K. O. Gilkerson, T-22  
K. A. Hodges, T-22  
A. L. Temple, T-38

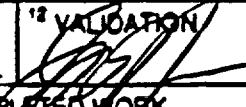
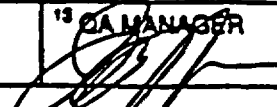
TMS50572

8/90

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# TECHNICAL AND MANAGEMENT SUPPORT SERVICES QA DEFICIENCY REPORTING SYSTEM QUALITY FINDING/MANAGEMENT CORRECTIVE ACTION REPORT

WBS 1.2.9.3QA: DA

1 RESPONSIBLE ORGANIZATION Project Management		2 DATE 1/17/91		3 <input type="checkbox"/> QFR No. _____ Rev. _____ <input checked="" type="checkbox"/> MCAR No. <u>91-001</u> Rev. <u>0</u>	
4 IDENTIFIED DURING SR-90-1		5 PERSONS CONTACTED See QFR 90-001, Rev. 0		6 MANAGER J. Nelson	
7 NOTIFIED/DATE 1/17/91					
8 REQUIREMENT  SEE CONTINUATION PAGE					
9 FINDING/CONDITION ADVERSE TO QUALITY  SEE CONTINUATION PAGE					
10 SIGNIFICANT CONDITION ADVERSE TO QUALITY <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
11 STOP WORK ORDER REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SWO NO. _____					
12 INITIATOR J.W. Estrella		13 DATE 1/17/91		14 VALIDATION  1-18-91	
				15 QA MANAGER  1-18-91	
16 IMPACT ON IN-PROCESS OR COMPLETED WORK SEE CONTINUATION PAGE					
17 ROOT CAUSE OF THE ADVERSE CONDITION SEE CONTINUATION PAGE					
18 REMEDIAL CORRECTIVE ACTION SEE CONTINUATION PAGE					
COMPLETION DATE: <u>2/15/91</u>					
19 CORRECTIVE ACTION TO PREVENT RECURRENCE  SEE CONTINUATION PAGE					
COMPLETION DATE: <u>2/15/91</u>					
20 RESPONSE PREPARED BY SIGNATURE: _____ DATE: _____ SEE CONTINUATION PAGE			21 MANAGEMENT APPROVAL SIGNATURE: _____ DATE: _____ SEE CONTINUATION PAGE		
22 RESPONSE EVALUATION <input type="checkbox"/> ACCEPT <input type="checkbox"/> REJECT COMMENT <u>SEE CONTINUATION PAGE</u>			23 SEE CONTINUATION PAGE QA STAFF _____ DATE _____ QA MANAGER _____ DATE _____		
24 VERIFICATION OF CORRECTIVE ACTION <input type="checkbox"/> ACCEPT <input type="checkbox"/> REJECT COMMENT _____			25 QA STAFF _____ DATE _____		
26 CLOSURE QA STAFF _____ DATE _____			27 QA MANAGER _____ DATE _____		
28 TRENDING CODE: _____ SEE CONTINUATION PAGE					

TMSS0572 8/90 Page 1 of 1		<b>TECHNICAL AND MANAGEMENT SUPPORT SERVICES</b> <b>QA DEFICIENCY REPORTING SYSTEM</b> <b>QUALITY FINDING/MANAGEMENT CORRECTIVE ACTION REPORT</b>		WBS: 1.2.9.3 QA: X	
1 RESPONSIBLE ORGANIZATION Project Management		2 DATE 10/24/90		3 <input checked="" type="checkbox"/> QFR No. 90-001 Rev. 1 <input type="checkbox"/> MCAR No. _____ Rev. _____	
4 IDENTIFIED DURING SR-90-1		5 PERSONS CONTACTED See attached Rev. 0		6 MANAGER NOTIFIED/DATE J. Nelson    10/24/90	
7 REQUIREMENT See attached QFR 90-001, Rev. 0					
8 FINDING/CONDITION ADVERSE TO QUALITY Incomplete committed corrective action to QFR 90-001, Rev. 0. See attached QFR 90-001, Rev. 0 for original finding.					
9 SIGNIFICANT CONDITION ADVERSE TO QUALITY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
10 STOP WORK ORDER REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO    SWO NO. _____					
11 INITIATOR    DATE <i>K. A. Hodge</i> 10/24/90		12 VALIDATION    DATE <i>K. A. Hodge</i> 10/24/90		13 QA MANAGER    DATE <i>K. A. Hodge</i> 10/24/90	
14 IMPACT ON IN-PROCESS OR COMPLETED WORK  SEE ATTACHED RESPONSE					
15 ROOT CAUSE OF THE ADVERSE CONDITION  SEE ATTACHED RESPONSE					
16 REMEDIAL CORRECTIVE ACTION  SEE ATTACHED RESPONSE <span style="float: right;">COMPLETION DATE: 12/30/90</span>					
17 CORRECTIVE ACTION TO PREVENT RECURRENCE  SEE ATTACHED RESPONSE <span style="float: right;">COMPLETION DATE: 12/30/90</span>					
18 RESPONSE PREPARED BY SIGNATURE: <i>[Signature]</i> DATE: 7/1/90			19 MANAGEMENT APPROVAL SIGNATURE: <i>[Signature]</i> DATE: 11/9/90		
20 RESPONSE EVALUATION <input checked="" type="checkbox"/> ACCEPT <input type="checkbox"/> REJECT COMMENT _____			21 QA STAFF <i>[Signature]</i> DATE 11/9/90 QA MANAGER <i>[Signature]</i> DATE 11/9/90		
22 VERIFICATION OF CORRECTIVE ACTION <input type="checkbox"/> ACCEPT <input type="checkbox"/> REJECT COMMENT <u>NIA - REISSUED AS MCAR 91-001.</u>			23 QA STAFF <i>[Signature]</i> DATE 1/18/91		
24 CLOSURE QA STAFF <i>[Signature]</i> DATE 1/18/91			25 QA MANAGER <i>[Signature]</i> DATE 1-18-91		
26 TRENDING CODE: <u>2-3</u> <span style="float: right;">Note: This QFR is closed based upon issuance of MCAR No. 91-001.</span>					