Department of Energy
Washington, DC 20585

WBS 1.2.11
QA

SEP 0 2 1993

Roland L. Robertson, General Manager
Civilian Radioactive Waste Management Systems
Management and Operating Contractor
TRW Environmental Safety Systems, Inc.
2650 Park Tower Drive, Suite 800
Vienna, VA 22180

CIVILIAN RADIOACTIVE WASTE MANAGEMENT SYSTEM MANAGEMENT AND OPERATING CONTRACTOR (CRWMS M&O) MONITORED GEOLOGICAL DISPOSAL SYSTEM (MGDS) DESIGN CONTROL IMPROVEMENT PLAN, CONTRACT DE-AC01-91-RW00134

Reference: Ltr, Foust to Horton, dtd 8/13/93

Per the referenced letter from the CRWMS M&O Technical Project Officer (TPO), CRWMS M&O requested confirmation that the U.S. Department of Energy (DOE) agreed that the action items identified in the subject plan fundamentally and sufficiently addressed the problems, and requested identification of any additional comments or concerns. This letter is a response and is being sent to the CRWMS M&O General Manager in order to address the overall CRWMS M&O Quality Assurance (QA) Program.

The DOE offers the following:

1. The subject Plan deals with improving the CRWMS M&O Design Control process used to control the design of the MGDS. The Plan is a positive start toward improving that process; however, the CRWMS M&O Design Control process must also be used to control the design of the Monitored Retrieval System and multipurpose canisters. The methods being used for improving the MGDS Design Control process could be used to improve the overall CRWMS M&O Design Control process.

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ACTION: The CRWMS M&O is hereby requested to provide DOE with a plan that addresses improvement in the overall CRWMS M&O Design Control process.

2. Specific comments regarding the subject plan are included in this letter as Enclosure 1.

ACTION: The CRWMS M&O TPO is hereby requested to take the actions necessary to address these comments.

3. During discussions with CRWMS M&O representatives held in July and August 1993, DOE focused attention on four areas within the CRWMS M&O QA Program that needed improvement:

a. Design Control Process
b. Field Control Process
c. Procedure System
d. Audit and Surveillance System

Except for the comments detailed in Items 1 and 2 above, the subject plan addresses the problems identified; however, there is no known plan that addresses the actions being taken to improve the audit and surveillance system. For information regarding needed improvement in this area, please review the following:

1993 QA Management Assessment Report (Ref: VA.GM.RLR.8/93.039, dated August 10, 1993)

Observation Report of Civilian Radioactive Waste Management System Audit 93-NSA-02 (Ref: OQA:DGH-5057, dated July 15, 1993)

ACTION: The CRWMS M&O is hereby requested to provide the DOE with a plan for improving the CRWMS M&O Audit and Surveillance System that addresses the issues discussed in the above referenced reports.

4. The Office of Quality Assurance has established a Quality Improvement Team to assist the CRWMS M&O in improving the CRWMS M&O QA Program in the areas discussed in Item 3 above. The team charter and action plan are included as Enclosure 2. In order to implement the action plan, the Team will need to become actively involved in the activities of the CRWMS M&O. Some of the involvement will be by observation/surveillance, and some will be by direct participation in the CRWMS M&O process.

ACTION: The CRWMS M&O is hereby requested to instruct their personnel to give the team their full cooperation as we work together in improving the CRWMS M&O QA Program.

The requested actions discussed above should be completed on or before September 30, 1993

Should you have any questions regarding this matter, please contact me at (702) 794-7576.

Donald G. Horton, Director
Office of Quality Assurance

OQA:DGH-5870

Enclosures: on the shelf
1. OQA Comments
2. OQA Quality Improvement Team

ENCLOSURE 1 Rec'd with letter dtd. 9/2/93

OFFICE OF QUALITY ASSURANCE (OQA) COMMENTS REGARDING THE MANAGEMENT AND OPERATING (M&O) CONTRACTOR DESIGN CONTROL IMPROVEMENT PLAN

Reference: Ltr, Foust to Horton, dtd 8/13/93

NOTE: The involvement of the QQA Quality Improvement Team in monitoring implementation of this plan, is reflected in (bolded) NOTES in the comments provided below. These comments are keyed to the Plan's "Problem" and "Recommended Solution" numbering system.

1. The Plan should be revised to indicate if there are Corrective Action Requests (CAR) associated with each identified Problem/Recommended Solution, e.g., Under Problem A, Recommended Solution (RS) No. 5, refer to CAR YM-93-075.

2. Problem A (RS No. 3) should refer to Problem L (RS No. 2) and explain the relationship between the Quality Assurance (QA) Procedure Working Committee and the Procedure Review Team.

3. Problem A (RS No. 5) should be expanded to include classroom training on procedure implementation.

   Also the M&O should review Quality Assurance Procedure (QAP) 3-4, Paragraph 5.4.4 for consistency since Paragraph 5.4.4 and the letter issued as action to complete RS No. 5, both refer to initiating a CAR if the deficiency (in Change Package) is significant and adverse to quality while the Deficiency Report form (ATTACHMENT V to QAP 3-4) indicates a CAR should be initiated if the deficiency is significant or adverse to quality. QAP 3-4 does not define nor establish criteria for determination of what is to be considered "significant."

4. Problem B (RS No. 1) calls for completion of an Implementing Line Procedure (ILP) for revising the Raytheon Services Nevada (RSN) Basis for Design (BFD). The ILP was completed; however it should to be revised to provide guidance regarding the expected content of the BFD.

5. Problem D (RS No. 1) calls for completion of an ILP for documenting and tracking To be Determined/To be Verified (TBD/TBV) and begin tracking activities. The ILP should also address adding existing RSN initiated TBDs/TBVs to the tracking system.

6. Problem F (RS No. 1) states, "Ensure that QAP-2-3 is completed and approved by DOE." The statement should be revised to clarify the method to be used to obtain DOE approval since DOE does not normally "approve" Civilian Radioactive Waste Management System (CRWMS) M&O procedures. Specifically, who will be the responsible Division Director?

102.7

7. Problem G should be revised to add an RS to "complete the M&O BFD traceability matrix to demonstrate traceability." The correspondence generated to implement RS Nos. 1 and 2 (LV.SER.MSR.8/93-556, dated August 12, 1993) was well written and addresses areas within the M&O Design Control process that have been consistently weak. If the M&O implements the actions described in this correspondence for traceability of design input and identification and traceability of configuration items, the M&O Design Control process will be greatly improved.

8. Problem I (RS No. 1) should be revised to reflect that the tabulation matrix will include a cross reference, where appropriate, from the CAR to the specific Problem/RS of this Plan.

   NOTE: K. Wolverton, OQA Quality Improvement Team, will be involved in monitoring progress in resolving Problem I.

9. Problem J (RS No. 2) should be revised to clarify: a) how the DOE will be invited (formal letter/telephone call); b) the type of involvement e.g., management review, procedure review; and c) how comments will be resolved.

   NOTE: Steve Dana, OQA Quality Improvement Team, will be involved in monitoring progress in resolving Problem J (RS No. 2)

10. Problem K (RS) still reads TBD. This Plan needs to be revised to resolve the TBD.

11. Problem L. The evaluation done for RS No. 1 is comprehensive and implementation of the recommendations should result in an improved Procedure System. This evaluation identifies needed improvement in the M&O procedures QAP 5-1 and 5-2. This evaluation should be used by the M&O when responding to OQA CAR YM-93-070. Establishment of the Procedure Review Team (RS No. 2) is an excellent idea.

    NOTE: J. Schmit, OQA Quality Improvement Team, should be placed on this Procedure Review Team as an active member.

12. Problem M (RS No. 1). The Plan needs to be clarified regarding the use of the "Design Manual". Will this "Design Manual" be a guideline document used as a training aid regarding how the design control process works? Care must be used to assure that this proposed document does not create direction that may conflict with procedures.

    Problem M (RS No. 2) discusses a Field Change Request/Change Request working group. The Plan needs to be revised to clarify the charter of this working group.

    NOTE: Steve Dana/Marc Meyer/Robb Howard of the OQA Quality Improvement Team will be involved in monitoring progress in resolving Problem M. Mr. Dana has Lead responsibility.

13. Problem N. The Configuration Management process and the Design Control process should be "mapped" separately.

NOTE: G. Heaney, OQA Quality Improvement Team, will be involved in monitoring progress in resolving Problem N.

ENCLOSURE 2

OFFICE OF QUALITY ASSURANCE (OQA) QUALITY IMPROVEMENT TEAM FOR IMPROVING THE MANAGEMENT AND OPERATING (M&O) CONTRACTOR QUALITY ASSURANCE (QA) PROGRAM

CHARTER

PURPOSE: To assist the M&O in improving the M&O QA Program in the following areas:

a. Design Control Process
b. Field Control Process
c. Procedure System
d. Audit and Surveillance System

TEAM MEMBERS:

R. E. Powe, Team Lead
S. R. Dana
Gerard Heaney
R. L. Howard
Marc Meyer
J. T. Schmit
K. M. Wolverton

ASSIGNMENTS:

Design Control Process - S. R. Dana, Marc Meyer, R. L. Howard

Field Control Process - Gerard Heaney

Procedure System - J. T. Schmit

Audit and Surveillance System - R. E. Powe

Focal point for Corrective Action Request (CAR) status - K. M. Wolverton

ACTION PLAN: See attached

OQA QUALITY IMPROVEMENT TEAM ACTION PLAN FOR IMPROVING THE M&O QA PROGRAM

	AUG	SEP	OCT	NOV	DEC
DESIGN CONTROL PROCESS - S. R. Dana/Marc Meyer/R. L. Howard					
Flow Chart the present process	XX	XX			
Evaluate for improvements		XXX			
Establish required procedural changes			XXXX		
Provide input to M&O regarding needed changes				XXXX	
Follow-up to assure changes are made					XXXX
Review how the M&O makes use of the data in the Reference Information Base and Technical Data Base		XXX			
Provide input to M&O regarding needed changes			XXXX		
Follow-up to assure changes are made				XXXX	
FIELD CONTROL PROCESS - Gerard Heaney					
Review Submittals Required by Specification Process	X	XX			
Review Nonconformance Report process	X	X			
Follow-up and Close Field Related CARs (includes Field Change Request process)		XXXX	XX		
PROCEDURE SYSTEM - J. T. Schmit					
Status CARs concerning Procedure System (Quality Assurance Procedures and Implementing Line Procedures)	XX				
Flow chart the present process	X	XX			
Evaluate for improvements		XXXX			
Establish required procedural changes		XXX			
Provide input to M&O regarding needed changes			XXX		
Follow-up to assure changes are made			X	XX	

ENCLOSURE 2

	AUG	SEP	OCT	NOV	DEC
AUDIT AND SURVEILLANCE SYSTEM - R. E. Powe					
Evaluate the present process to identify improvements		XXX			
Develop a two-day work shop that deals with the audit process and the lessons learned by the Office of Civilian Radioactive Waste Management Audit Program		X	XXX		
Conduct Workshop				X	
Develop a comprehensive audit and surveillance plan and schedule at the Yucca Mountain Site Characterization Project.			XX		
Establish an estimate of the amount of resources needed to implement the comprehensive audit and surveillance plan and schedule.			XX		
CAR STATUS - K. M. Wolverton					
Obtain status of all open CARs issued by OQA/M&O against the M&O	XX				
Review responses to CARs and evaluate to assure responses are consistent		XXX			
Recommend improvements in processing of CAR responses and assure assigned OQA CAR QA Representatives are kept informed regarding potential overlapping corrective action		XXXX	X		

Environmental Systems Inc.
101 Convention Center Drive, Suite 527
Las Vegas, NV 89109
702.794.1800

WBS: 1.2.6
QA: N/A

Contract # DE-AC01-91-RW00134
LV.SED.PSH.8/93-036

August 27, 1993

Mr. Don Horton
Director, Office of Quality Assurance
U. S. Department of Energy
101 Convention Center Drive, Ste. 660
Las Vegas, Nevada 89109

Subject: Update of M&O Design Control Improvement Plan

This letter will constitute this week's update of the M&O Design Control Improvement Plan. A single action item was due to be completed this week: the processing of any changes as a result of a previous review of drawings revised from the original Job Package 92-20. The purpose of this review was to determine in any errors similar to that documented in CAR YM-93-072, wherein a hand-written note on a drawing was not transferred during CAD generation of a drawing, had occurred elsewhere. The changes to correct these errors are currently in progress, as indicated on the attached. One FCR has been prepared and is in the process of being reviewed/approved; another is in the process of preparation. Both should be completed by next week's update.

Based on several meetings this week and last, a change to the plan is currently underway to reflect follow-up comments from yourself, DOE, and NRC. We anticipate the completion of these revisions within the next week or so.

If you have any comments or questions, please contact Peter Hastings at 794-1946.

Sincerely,

Robert M. Sandifer
MGDS Development Manager
Management and Operating Contractor

Enclosures:

(1) Action Item update

xc (w/attachments):

R. V. Barton, YMPO, Las Vegas, NV
M. B. Blanchard, YMPO, Las Vegas, NV
R. J. Brackett, M&O/Duke, Vienna, VA
B. G. Cruz, M&O/TRW, Las Vegas, NV
J. R. Dyer, YMPO, Las Vegas, NV
L. G. Engwall, M&O/FD, Las Vegas, NV
L. D. Foust, M&O/TRW, Las Vegas, NV
T. C. Geer, M&O/Duke, Las Vegas, NV
C. P. Gertz, YMPO, Las Vegas, NV
J. Gilray, NRC, Las Vegas, NV
P. S. Hastings, M&O/Duke, Las Vegas, NV
N. W. Hodgson, M&O/TRW, Las Vegas, NV
J. A. Jackson, M&O/TRW, Las Vegas, NV
W. J. Leonard, M&O/FD, Las Vegas, NV
P. W. McKie, M&O/MK, Las Vegas, NV
J. L. Naaf, M&O/MK, Las Vegas, NV
M. F. Penovich, M&O/B&W, Las Vegas, NV
J. W. Peters, M&O/MK, Las Vegas, NV
E. H. Petrie, YMPO, Las Vegas, NV
P. A. Pimentel, M&O/FD, Las Vegas, NV
J. M. Replogle, YMPO, Las Vegas, NV
M. S. Rindskopf, M&O/TRW, Las Vegas, NV
R. L. Robertson, M&O/TRW, Venna, VA
W. B. Simecka, YMPO, Las Vegas, NV
C. T. Statton, M&O/WCFS, Las Vegas, NV
R. G. Vawter, M&O/TRW, Las Vegas, NV
J. H. Verdery, M&O/TRW, Las Vegas, NV
J. L. Younker, M&O/TRW, Las Vegas, NV

Design Control Improvement Plan
Progress Update

Action item: C.2 Process necessary changes to resolve any findings as a result of review (i.e., C1).
Deliverable(s): 1. Change requests 2. 3. 4.
Proposed resolution: Prepare change request to make changes as a result of review in C1
Update: FCR processed for four of six required changes (attached); to TPO for concurrence on 27 August Additional FCR in progress for remaining changes; anticipated 3 Sep 93
Complete? ☐ Yes ☒ No ☐ Deferred: _____ Attachments? ☒ Yes ☐ No
By: J. L. Naaf Date: 27 Aug 93

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YMP-072-R3
10/16/92

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
FIELD CHANGE REQUEST

FCR # ____
Page 1 of ___

SECTION I - IDENTIFICATION OF CHANGE

[1] [ ] JP [✓] Dwg. [ ] Spec. [ ] One-Time Change (Block 3 is N/A) [ ] Other ____
[ ] WP [ ] *Minor [ ] *Cost/Schedule Only (*No QA review required)

[2] Title of Change Reinstatement of TBV and UNVERIFIED notes on MG 121, MG122, MG123 & MG125.

[3] Document Number	Rev.	Page	Change From	Change To
YMP-025-1-MING-MG121	1	N/A	as drawn	Attach Attachment 1 to drawing.
YMP-025-1-MING-MG122	1	N/A	as drawn	Attach Attachment 2 to drawing.
YMP-025-1-MING-MG123	2	N/A	as drawn	Attach Attachment 3 to drawing.
YMP-025-1-MING-MG125	2	N/A	as drawn	Attach Attachment 4 to drawing.

[4] Document to be changed is QA [✓] Yes [ ] No or N/A [5] Priority [ ] Urgent (Process <24 hrs) [✓] Routine

[6] Other documents affected by change [ ] Yes [✓] No If Yes, please list on Change Documentation Continuation Page

[7] Reason for change: These changes are made to reinstate TBV and UNVERIFIED notes on drawing that were erroneously omitted during revision of the drawing. (the pre-construction approval note are not being reinstated as they were made obsolete by the Acceptance for construction).

[8] Attachments: (please list) Attachment 1 - B size corrected drawing MG 121, 1 page. Attachment 2 - B size corrected drawing MG 122, 1 page. Attachment 3 - B size corrected drawing MG 123, 1 page. Attachment 4 - B size corrected drawing MG 125, 1 page. Attachment 5 - Tech. Eval. I.O.C., 1 page.

SECTION II - TECHNICAL EVALUATIONS

[9] Change impacts [✓] Design [ ] Scientific Investigation [ ] Non-QA, non-technical [ ] Other ____

[10] Approval of FCR will result in [ ] decrease [ ] increase [✓] no change in task price of $ ____.

[11] Approval of FCR will result in [ ] decrease [ ] increase [✓] no change in task completion time of ____ calendar days.

[12] Design/scientific internal Participant technical evaluation performed per procedure: AP 3.5Q AND NLP 3-10

with reviews by (list organizations) CRWMS M & O

[13] Impacts identified JP 92-20

[14] Submitted by (TPO/DD): ____ Date ____

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT
FIELD CHANGE REQUEST

SECTION III - FCCB APPROVAL

All signatures listed below constitute procedural compliance. I have read, understood, and complied with Procedure _____ Rev ___ ICN # ___, in accomplishing my responsibilities in this procedure.

15 A/E recommendation for DESIGN RELATED changes listed on this change paper
[ ] Approve [ ] Disapprove [ ] Not required

Signature	Title of designated A/E (print)	Date

16 Scientific recommendation for SCIENTIFIC INVESTIGATION RELATED changes listed on this change paper
[ ] Approve [ ] Disapprove [ ] Not required

Signature	Title/org of designated representative (print)	Date

17 QA concurrence, if required by Blocks 1 and 4 [ ] Not required

Signature	Title/org of designated representative (print)	Date

18 Changes listed on this request are [ ] approved [ ] disapproved

Signature	Title (FCCB Chairman)	Date

SECTION IV - IMPLEMENTATION INSTRUCTIONS

19 Each individual/organization shall complete the actions identified below. Drawings and specifications are required to be revised when five changes have been posted against the document.

Applicable (Yes/No)	Responsible Individual/Org	Action to be Taken
_____	A/E	Incorporate this change in the next revision of the documents identified in Block 3.
_____	_____	As document originator, incorporate this change in the next revision to documents identified in Block 3.
_____	Field DCC	Provide controlled distribution of this approved FCR per distribution lists used for documents identified in Block 3.
_____	Field DCC	Instruct controlled copyholders of documents listed in Block 3 to post this FCR against their controlled copies of the documents.
_____	Field DCC	When distribution is completed, please return a copy of this FCR, signed by Field DCC personnel, to the Field Change Control Board Secretary, YMP Field Operations Center, A&E Building #4015, Area 25, NTS.
_____	All above	If this Implementation Instruction requires further clarification, contact FCCB Secretary at 295-7941.

20 _____ _____
FCCB Secretary — Date

21 _____ _____
DISTRIBUTION CONFIRMATION (Field DCC signature) — Date

Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW Environmental
Safety Systems Inc.

Attachment 5 - Page 1 of 1

WBS: 1.2.6
QA: QA

Subject	Date	From
Reinstatement of TBV and UNVERIFIED Notes on MG121, MG122, MG123, and MG125	August 23, 1993 LV.ESSB.JWK.893-205	J.W. Keifer

To	cc	Location/Phone
C. J. Houston		TES3/530L 794-1999

The change was prepared by: Jerald W. Keifer Date: 8/26/93 FCR#____

The change was verified by: Jim C. Becem Date: 8/26/93

QA reviewed by: N/A Date: _____

REASON FOR CHANGE: These changes are made to reinstate TBV and UNVERIFIED notes on drawing that were erroneously omitted during revision of the drawing. (The Pre-Construction Approval notes are not being reinstated as they were made obsolete by the Acceptance for Construction.

These changes were evaluated in accordance with Attachment 4 of AP.3.5Q and NLP-3-10 as follows:

1. These changes are urgent.
2. Category is engineering.
3. These changes do not involve an item on list of items important to Radiological Safety.
4. These changes do not involve an item on list of items important to waste isolation.
5. These changes do not disturb a natural barrier.
6. These changes do not impact specific conditions or controls imposed by the applicable QA grading reports.
7. These changes are necessary for reliability.
8. These changes impact Job Package 92-20.
9. These changes do not exceed the thresholds in JP 92-20.
10. These changes should be implemented immediately.
11. These changes do not violate safety and waste isolation including site characterization or test interference.
12. These changes do not violate any program requirements from the current Basis for Design (BFD) Document.
13. The material dedication changes do not violate any program requirements of the "Determination of Importance Evaluation" (DIE), B00000000-AA-09-00005, Rev. 5.

Reference: FCR

JWK:tmcg

Environmental
Safety Systems Inc.

101 Convention Center Drive, Suite 527
Las Vegas, NV 89109
702.794.1800

WBS: 1.2.6
QA: N/A

Contract # DE-AC01-91-RW00134
LV.SED.PSH.8/93-033

August 20, 1993

Mr. Don Horton
Director, Office of Quality Assurance
U. S. Department of Energy
101 Convention Center Drive, Ste. 660
Las Vegas, Nevada 89109

Subject: Update of M&O Design Control Improvement Plan

Please find attached this week's status update of actions associated with the M&O Design Control Improvement Plan. Three action items were due this week: a draft Implementing Line Procedure (ILP) for Interdisciplinary (ID) Reviews, a draft ILP for performing Waste Isolation Evaluations, and a similar procedure for performing Test Interference Evaluations. All three procedures are in various stages of review, and will be made available for your staff's informal review and comment at your request.

There are also various action items that are still ongoing efforts. One that requires some minor clarification of the plan is the QA Working Committee (action item A3). This committee was incorrectly designated in the plan as a "procedure working committee." A procedure improvement team was formed in response to action item L1-L2 and works in concert with the QA Working Committee, but the QA Working Committee's scope is much broader than simply procedures.

As another point of clarification, please note that the schedules provided as part of our weekly updates are dynamic and will reflect changes to dates (if any) as well as any additional action items that are identified over the course of our improvement process. We will notify you when and if changes occur as part of the weekly update, and the schedule will thenceforth reflect these changes. We do not intend to re-issue the improvement plan with revised dates unless a fundamental component of the plan itself changes.

We are on schedule for timely completion of our near-term commitments, and would like to schedule a meeting with you and your staff early next week for an interim review of the implementation of our plan. Someone from my staff will be in touch with you soon to schedule this meeting. In the meantime, if you have any comments or questions, please contact Peter Hastings at 794-1946.

Sincerely,

Robert M. Sandifer
MGDS Development Manager
Management and Operating Contractor

Enclosures:

(1) Status update
(2) Design Control Improvement Schedule

xc (w/attachments):

R. V. Barton, YMPO, Las Vegas, NV
M. B. Blanchard, YMPO, Las Vegas, NV
R. J. Brackett, M&O/Duke, Vienna, VA
J. R. Dyer, YMPO, Las Vegas, NV
L. D. Foust, M&O/TRW, Las Vegas, NV
C. P. Gertz, YMPO, Las Vegas, NV
J. A. Jackson, M&O/TRW, Las Vegas, NV
E. H. Petrie, YMPO, Las Vegas, NV
J. M. Replogle, YMPO, Las Vegas, NV
R. L. Robertson, M&O/TRW, Venna, VA
W. B. Simecka, YMPO, Las Vegas, NV
C. T. Statton, M&O/WCFS, Las Vegas, NV
R. G. Vawter, M&O/TRW, Las Vegas, NV
J. L. Younker, M&O/TRW, Las Vegas, NV

P. Hastings

M&O MGDS Design Control Improvement Plan

20 August Status Update

Action	Status	Notes
E.1	Draft in review	Evaluation of need completed 6 Aug; draft ILP in review; anticipate approval 3 Sep
H.1	Draft in review	ILP draft in review; anticipate approval 10 Sep
H.2	Draft in review	NLP draft in review; anticipate approval 10 Sep

Note: C3, I3, J1, J2, and L.2 are continuing ongoing efforts.

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **E.1**

Evaluate the need to an MGDS ILP based on the new QAP for documenting ID reviews.

Deliverable(s):

1. Evaluation
2. ILP
3.
4.

Proposed resolution:

Evaluate need for ILP, and if needed, begin draft

Develop draft for review

Update:

Evaluation complete - ILP drafted
Draft in review 20 Aug 93
Anticipate approval 3 Sep 93

Complete? ☐ Yes ■ No ☐ Deferred: _____

Attachments? ☐ Yes ■ No

By: J. L. Naaf Date: 20 Aug 93

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QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **H.1**

Develop ILP to formalize guidance on waste isolation evalutations.

Deliverable(s):

1. ILP
2.
3.
4.

Proposed resolution:

Develop ILP

Update:

Draft ILP in review 20 Aug 93

Complete? ☐ Yes ■ No ☐ Deferred: _____

Attachments? ☐ Yes ■ No

By: J. L. Younker Date: 20 Aug 93

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QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **H.2**

Develop ILP to formalize guidance on test interference evaluations.

Deliverable(s):

1. ILP (NLP)
2.
3.
4.

Proposed resolution:

Develop NLP

Update:

NLP draft in review 20 Aug 93

Complete? ☐ Yes ■ No ☐ Deferred: _____

Attachments? ☐ Yes ■ No

By: C. T. Statton Date: 20 Aug 93

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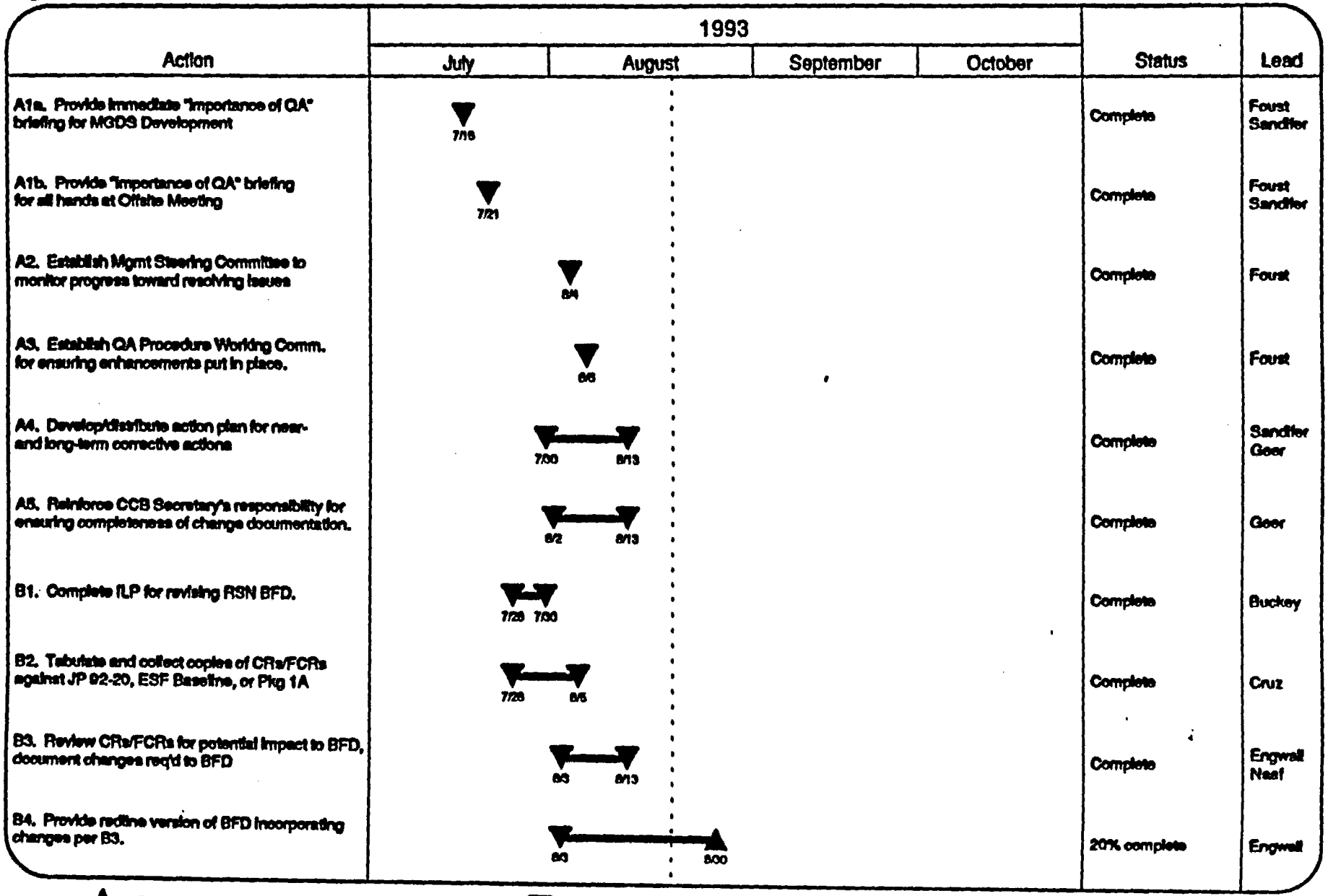
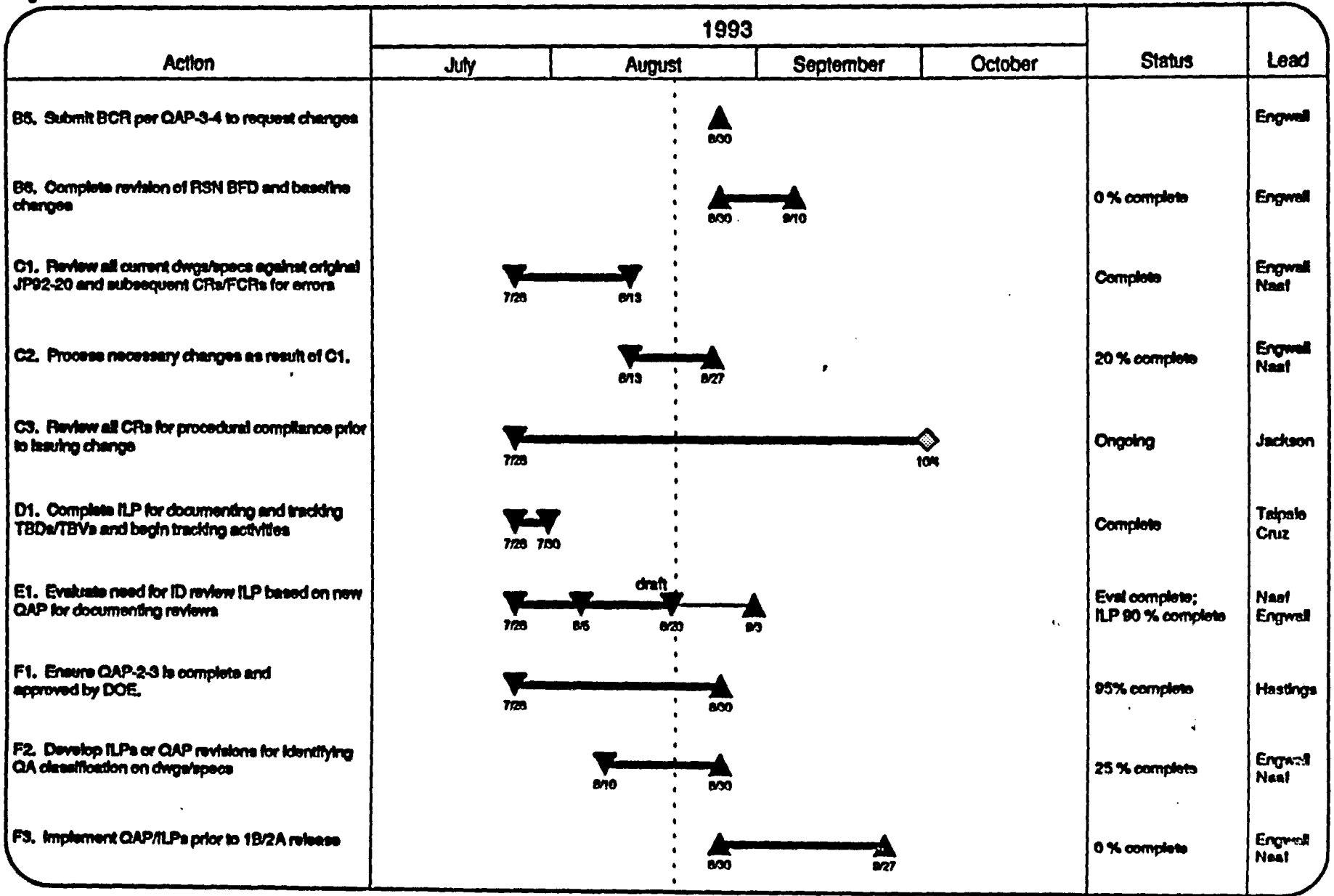
MGDS Design Control Improvement Plan

8/20/1993



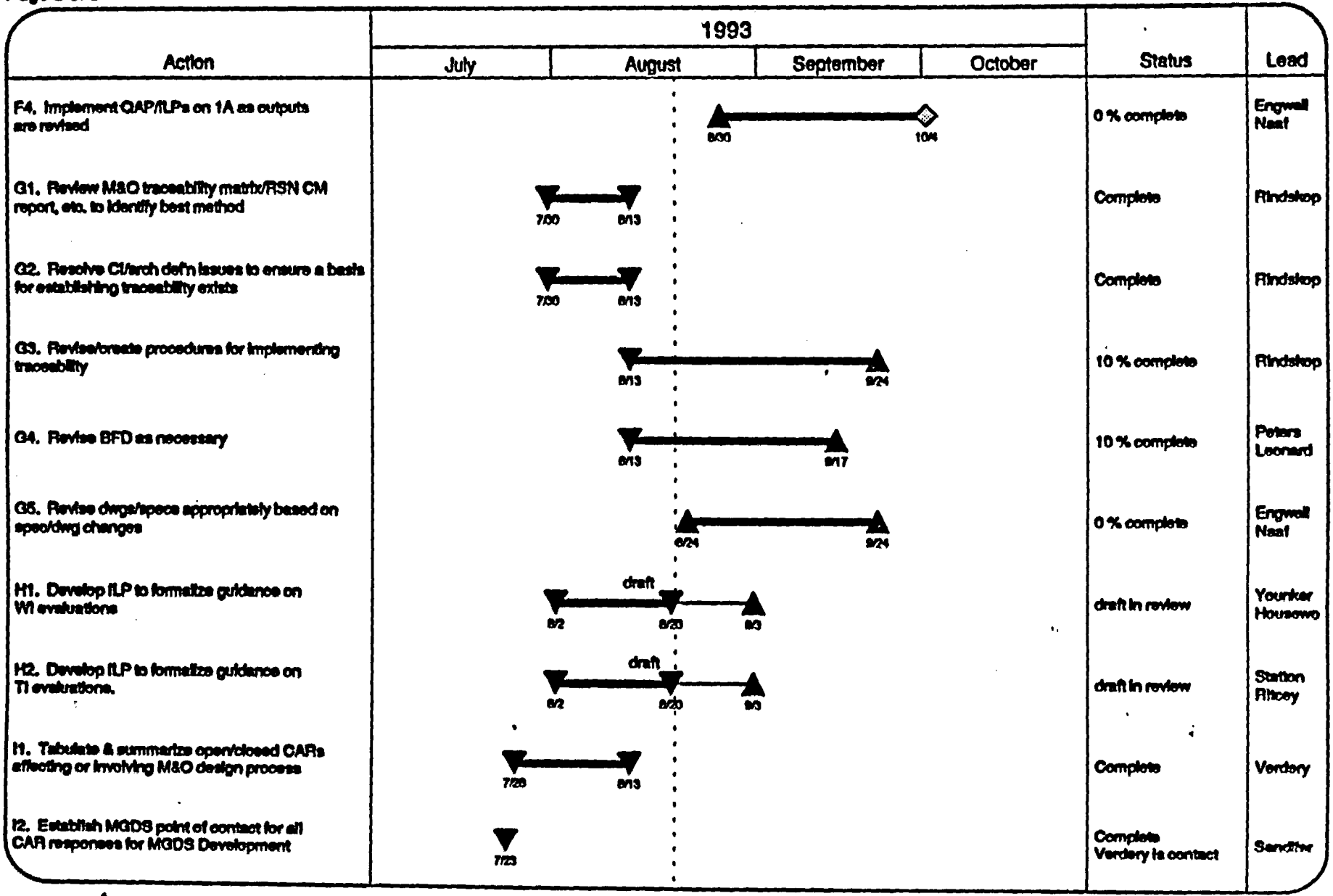
MGDS Design Control Improvement Plan

8/20/1993



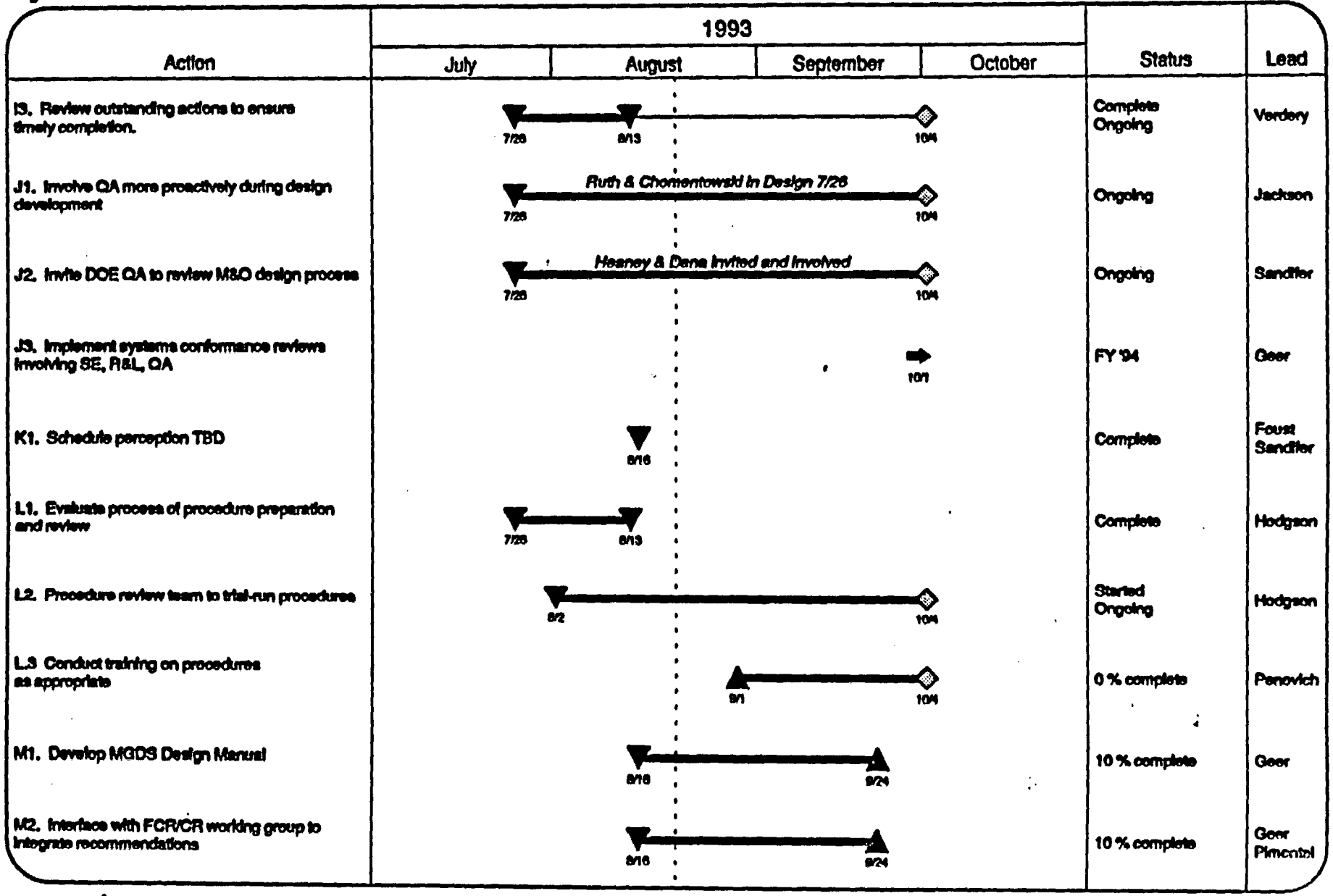
MGDS Design Control Improvement Plan

8/20/1993



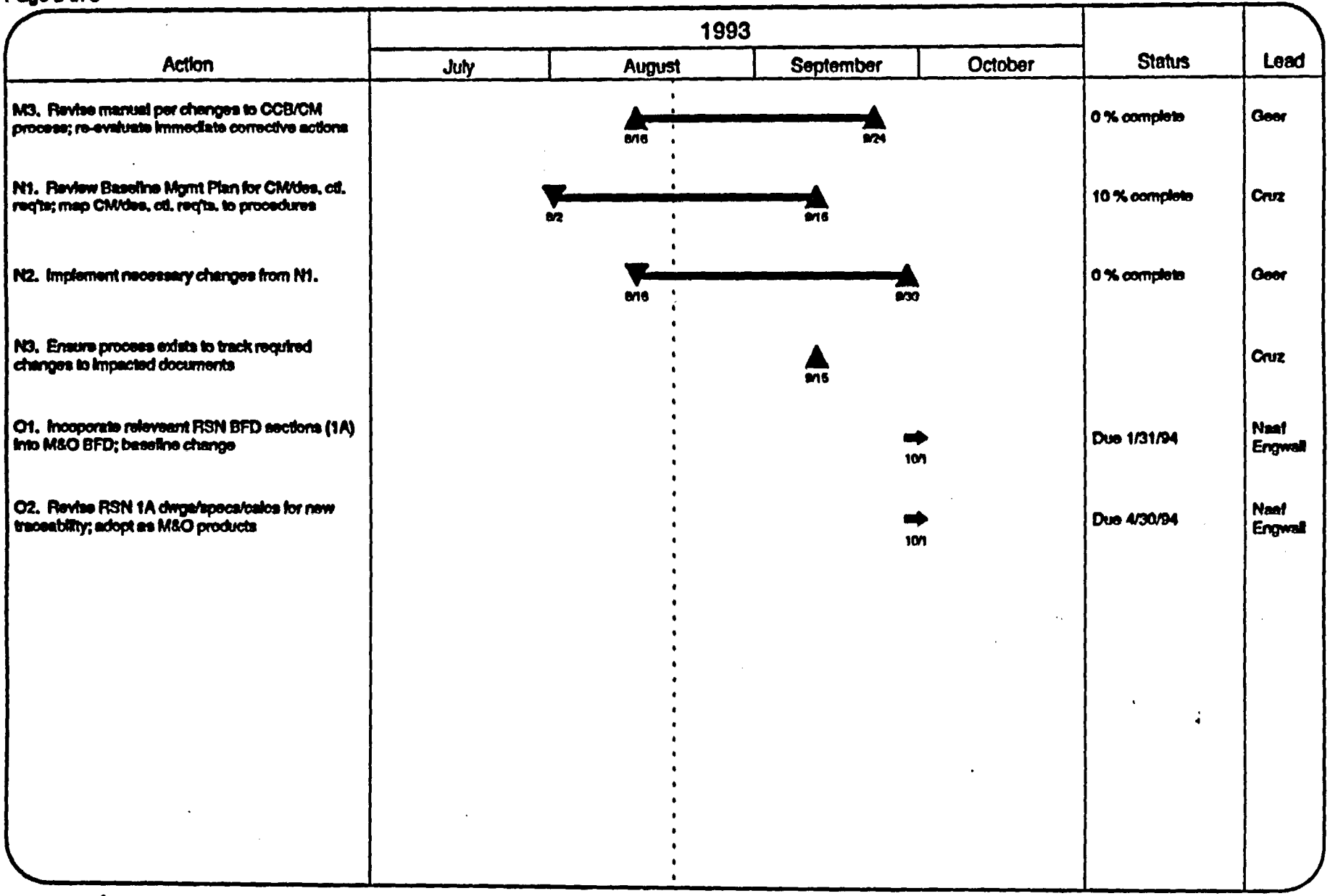
MGDS Design Control Improvement Plan

8/20/1993



MGDS Design Control Improvement Plan

8/20/1993



▲ Pending ▼ Complete ◇ Ongoing

8-19176

Ken: This is a status of implementing Action Plan. Jerry

TRW Environmental
Safety Systems Inc.

101 Convention Center Drive, Suite 527
Las Vegas, NV 89109
702.794 1800

WBS: 1.2.6
QA: N/A

Aug 17 3 22 PM '00

Contract # DE-AC01-91-RW00134
LV.SED.PSH.8/93-031

August 13, 1993

Mr. Don Horton
Director, Office of Quality Assurance
U. S. Department of Energy
101 Convention Center Drive, Ste. 660
Las Vegas, Nevada 89109

ATTN: Richard Spence

Subject: Update of M&Q Design Control Improvement Plan

Please find attached this week's status update of actions associated with the M&O Design Control Improvement Plan. Notable among this week's completed actions are: M&O approval of the plan, a copy of which is being submitted for your formal review under separate cover; review of changes to date for impact to the RSN Basis for Design document (BFD); and concurrence on establishment of a configuration identifier list and traceability matrix for Packages 2A and 1B.

We are still on schedule for timely completion of our near-term action items, and are making good progress toward definition and implementation of our long-term process improvements. If you have any comments or questions, please contact Peter Hastings at 794-1946.

Sincerely,

Robert M. Sandifer
MGDS Development Manager
Management and Operating Contractor

DIVISION Horton
CC: Spence
CC: Horton
CC: Blanchard
CC: Lyle
CC: Patrel
CC: Bespolka
CC: Tucker
CC:

I-345852

Enclosure
(1) Status Update
(2) Design Control Improvement Schedule

cc (w/attachment):

R. V. Barton, YMPO, Las Vegas, NV
M. B. Blanchard, YMPO, Las Vegas, NV
R. J. Brackett, M&O/Duke, Vienna, VA
J. R. Dyer, YMPO, Las Vegas, NV
C. P. Gertz, YMPO, Las Vegas, NV
J. A. Jackson, M&O/TRW, Las Vegas, NV
E. H. Petrie, YMPO, Las Vegas, NV
J. M. Replogle, YMPO, Las Vegas, NV
R. L. Robertson, M&O/TRW, Vienna, VA
R. M. Sandifer, M&O/TRW, Las Vegas, NV
W. B. Simecka, YMPO, Las Vegas, NV
C. T. Statton, M&O/WCFS, Las Vegas, NV
R. G. Vawter, M&O/TRW, Las Vegas, NV
J. L. Younker, M&O/TRW, Las Vegas, NV

M&O MGDS Design Control Improvement Plan

13 August Status Update

Action	Status	Notes
A.4	Complete	Plan approved 12 August and provided to Don Horton for review and concurrence 13 August
A.5	Complete	Letter to CCB Secretary staff transmitted 13 August (letter attached)
B.3	Complete	CRs and FCRs reviewed for impact to BFD; one CR and one FCR have potential impact and are being addressed by ESF Design
C.1	Complete	Changes reviewed against for errors; deficiencies identified and being addressed by ESF Design
G.1-G.2	Complete	CI identifiers requested and traceability matrix format established for Packages 2A and 1B
I.1	Complete	Summary of CARs attached; additional action opened to review Vienna CARs for applicability as well
I.3	Ongoing	Verdery has reviewed open CARs and will continue to do so on ongoing basis
K.1	Complete	Follow-up letter issued to further reinforce necessity of QA program compliance
L.1	Complete	Potential improvements identified (attached); additional action item opened to resolve issues

Note: C3, I3, J1, J2, and are continuing ongoing efforts.

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **A.4**

Develop and distribute for concurrence the action plan for near-term and long-term corrective actions.

Deliverable(s):

1. Action Plan (Design Control Improvement Plan)
2.
3.
4.

Proposed resolution:

Develop and distribute plan for concurrence

Update:

Plan distributed - QA DOE comments incorporated - M&O approval anticipated 13 August 1993

Plan approved and distributed to DOE QA 13 August

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☒ No _____

By: P. S. Hastings Date: 13 Aug 1993

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **A.5**

Reinforce CCB Secretary's responsibility (at both Level 2 and 3) for ensuring completeness of change documentation.

Deliverable(s):

1. Letter to CCB Secretary staff
2.
3.
4.

Proposed resolution:

Provide clarification to staff on responsibility of CCB Secretary in ensuring completeness of packages

Update:

Letter transmitted 13 August

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☐ No

By: B. G. Cruz Date: 13 Aug 1993

Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW Environmental
Safety Systems Inc.

WBS: 1.2.9.3
QA: N/A

Subject	Date	From
Configuration Management Staff Members Responsibilities	August 13, 1993 LV.SES.BGC.8/93-729	T. C. Geer

To:	cc	Location/Phone
Distribution	P. Hastings M. McGrath	TES3/9256/X4-7868

Change control operations are focused through two CCB Secretariats, the M&O CCB and YMP CCB. Each CCB operates in accordance with its corresponding procedures. The Configuration Management Staff Members who are processing changes have the responsibilities to review each and every change request for completeness, legibility, and that they are technically correct before processing the change thru the CCB's .

(Reference QAP-3-4 paragraph 5.4.4) For the M & O CCB the Secretariat, if the change package is incomplete, the Secretariat shall stamp Hold and complete a Deficiency Report. Incomplete change documents shall be reworked with the originating organization as necessary to resolve the Deficiency. If the resolution of the deficiency requires a design change , a BCP shall be issued to close the Deficiency Report. If the deficiency is significant and adverse to quality, a Corrective Action Report shall be initiated in accordance with QAP-16-1, Corrective Action. For the YMP CCB the Secretariat fills out a Configuration Management Transmittal Notice for and Deficiencies. For both CCB's the deficiencies have to be resolved before any action can be completed.

(Reference AP-3.3Q paragraph 5.1.2 The CCB Secretary) If the CR is incomplete, return it with a justification for rejection to the originating TPO/DD for additional input or further action. Note: Justification for rejection may be formally or informally addressed at the discretion of the CCB Secretary. If the CR is complete, process it in accordance with Quality Management Procedure (QMP) QMP-03-09, Project Change Control Process.

(Reference AP-3.5Q paragraph 5.0 step 9) Review FCR for completeness, If the FCR is incomplete, return the FCR with a justification for rejection to the originating organization for additional input or further action. Note: Justification for rejection may be formally or informally addressed at the discretion of the FCCB Secretary. If the FCR is complete, then process in accordance with AP-3.5Q.

If you have questions about the change request review/approval process, please contact your CCB Secretary. Your continued support and contributions to our change control operations are appreciated.

/jhk

Distribution

G. Bowman
N. Cerjanic
B. G. Cruz
E. Dembowski
R. Dunphy
C. J. Houston
R. Jiu
M. Leitner
D. Mikkelson
T. Myette
M. Thompson
S. Wright

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: B.3

Review all CRs/FCRs for potential impact to RSN BFD; document results

Deliverable(s):

1. Documentation of results
2.
3.
4.

Proposed resolution:

Provide documentation (letter) of review

Update:

Surface and Subsurface provided concurrent review; two impacts identified as part of review - ESF Design has action to resolve

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☒ No _____

By: R. Clark
E. F. Fitch

Date: 12 Aug 93

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Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW Environmental
Safety Systems Inc.

WBS: 1.2.6
QA: NA

Subject
FCR Adherence to RSN BFD

Date
August 12, 1993
LV.ESSD.RDC.8/93-243

From
Roy Clark

To
Peter Hastings, 760

cc
see below

Location/Phone
TES3/530D
(702) 794-5372

Edward Fitch and I reviewed the below listed Field Change Requests (FCRs) and compared these documents against the Raytheon Services Nevada (RSN) Basis For Design (BFD). These FCRs do not affect or contradict the BFD except for FCR 93/251. This FCR is contrary to the BFD, therefore Ed will revise the BFD.

93/071	93/072	93/077	93/078	93/081	93/083
93/097*	93/101	93/103	93/107	93/113	93/116
93/105	93/118*	93/122	93/115	93/123	93/135
93/136	93/124	93/128	93/147	93/159	93/160
93/146	93/132	93/130	93/137	93/138	93/140
93/143	93/144	93/145	93/131	93/163	93/164
93/166	93/167	93/168	93/169	93/170	93/171
93/174	93/182	93/188*	93/191	93/192	93/193
93/194	93/195	93/196	93/197	93/198	93/189
93/232	93/230	93/173	93/226*	93/227	93/238
93/245	93/246	93/247	93/248	93/208	93/209
93/210	93/211	93/212	93/228	93/213	93/214
93/215	93/216	93/217	93/218	93/219	93/220
93/221	93/222	93/223	93/224	93/225	93/266
93/261	93/267	93/268	93/269	93/270	93/271
93/273	93/274	93/275	93/276	93/277	93/280
93/239	93/251	93/278	93/279	93/249	93/250
93/288	93/290	93/165	93/237	93/254	93/255
93/190	93/199	93/236	93/259	93/258	93/257
93/202	93/303	93/314	93/306	93/297	93/318
93/304	93/305	93/296	93/321	93/320	93/298
93/299	93/300	93/301	93/325	93/326	93/327
93/328	93/330	93/331	93/324	93/315	93/308
93/346	93/349	93/347*	93/376	93/375	93/383*
93/391	93/392	93/396	93/401	93/402	93/404
93/400	93/408	93/409*	93/412	93/416	93/421
93/417	93/423	93/421	93/435	93/415	

*These FCRs have been marked obsolete, however they were reviewed for affect on the BFD.

I reviewed the below listed change requests (CRs) and compared these documents against the RSN BFD . These Crs do not affect or contradict the BFD.

93/104	93/313	93/378	93/379	93/380
93/381	93/382	93/384	93/385	93/393
93/394	93/420	93/425	93/429**	93/430**

**These CRs were cancelled.

CR93/405 page 2 indicates that the BFD has been affected by this change. There is an outstanding Corrective Action Report (CAR) on this CR that is being addressed by Subsurface design management.

cc:
John Clark, 546
Larry Engwall, 515
Ed Fitch, 530H
Hector Montalvo, 512A
Jerry Naaf, 550
David Parker, 554A
Bob Wemheuer, 757

RDC:tmcg

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **C.1**

Review all current drawings and specifications against original JP 92-20 and subsequent CRs/FCRs for similar error (dropping hand-written information during CAD generation).

Deliverable(s):

1. Documentation of review
2.
3.
4.

Proposed resolution:

Provide documentation (letter) of review

Update:

Reviews performed and various problems identified, to be resolved by ESF Design

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☒ No

By: M. DeLeon
E. F. Fitch

Date: 13 Aug 93

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Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW Environmental
Safety Systems Inc.

WBS: 1.2.6
QA: N/A

Subject	Date	From
Engineering Drawings with TBVs	August 13, 1993 LV.ESSD.MDL.8/93-250	Manny DeLeon
To	**cc**	**Location/Phone**
Peter Hastings, 760	Larry Engwall, 515 Paul Pimentel, P131	TES3/4-5311

After having a team look through all surface related FCRs, HOLDs, TBVs and TBDs, our findings are as follows:

A HOLD, H-14, was found against YMP-025-STRU-ST106. The HOLD is not identified on the drawing either physically or by FCR. The HOLD was issued on February 2, 1993, and Procedure AP-5.20 was not in effect till February 18, 1993 for posting HOLD with FCRs. The HOLD originator "TPO" was notified with recommendations to issue HOLD via FCR to post on the drawing. A FCR will be in process to place a HOLD on the drawing.

The following drawings were inspected to verify that no information was accidently deleted.

Drawing Number	TBV or TBD	HOLD
YMP-025-1-STRU-ST106-0	TBV-3	H-14
YMP-025-1-STRU-ST107-0	TBV-3	H-20
YMP-025-1-STRU-ST108-0	TBV-3	
YMP-025-1-STRU-ST109-0	none	H-20
YMP-025-1-STRU-ST110-0	none	
YMP-025-1-STRU-ST111-0	TBV-3	
YMP-025-1-STRU-ST112-0	TBV-3	
*YMP-025-1-CIVL-GP101-2	TBV-1 & TBV-4 TBD-89 & TBD-90	H-1 & H-16
YMP-025-1-CIVL-GP102-2	TBV-1	
YMP-025-1-CIVL-PR117-0	TBV-5	
YMP-025-1-CIVL-PR118-0	TBV-5	
YMP-025-1-CIVL-PR120-0	TBV-5	
YMP-025-1-CIVL-PR121-0	TBV-5	
YMP-025-1-CIVL-PR122-0	TBV-5	
YMP-025-1-CIVL-PR124-0	TBV-5	

*TBV-3 was removed by RSN on Rev 2 and replaced by TBV-1 & TBV-4.

It is understood that the information in our computer files is not identical to the baseline drawing originals. Due to the fact that drawings may be marked-up after being CAD generated, what is left on CAD is no longer a duplication. Another problem is that in some cases, computer files sent from RSN had been altered after baselining. The controlled version of a drawing will always be the vellum print; to revise these drawings, CAD files will need to be verified between the original and a copy generated from CAD when appropriate.

MD:mct

Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW Environmental
Safety Systems Inc.

WBS: 1.2.6
QA: NA

Subject	Date	From
Corrective Action Item C-1 of the M&O MGDS Design Improvement Plan findings	August 13, 1993 LV.ESSB.EFF.8/93-188	Ed Fi[illegible]F

To	cc	Location/Phone
Peter Hastings, 760	see below	TES3/530H (702) 794-1969

In response to Immediate Corrective Action Item C-1 of the M & O MGDS Design Control Improvement Plan the findings are as follows:

A comparison of specification packages YMP-025-1-SP01 - SP10 was made earlier this year and the electronic specification copies received from Raytheon Services Nevada (RSN) were corrected to match the Baselined Controlled Specifications.

A comparison examination of electronic drawing copies provided to the M & O by Raytheon Service Nevada (RSN) and the Baselined Controlled Copies submitted by RSN were preformed. The following list references the drawing number and describes the information deficiencies of the electronic copies to the Baselined drawings.

Two electronic drawing copies have not been provided to the M & O by RSN. An examination will be preformed on these drawing when the copies are provided. These drawings are, YMP-025-1-MING-MG136 Rev. 0 & YMP-025-1-MING-MG137 Rev. 0.

Drawings indicated with an * are drawings changed by M&O (MK) that need to be upgraded to be consistent with the baseline documents.

Other drawings listed have deficiencies, but were not changed since issued by RSN. These drawings need to be upgraded.

*	YMP-025-1-MING-MG121 Rev. 1	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] TBV -3
*	YMP-025-1-MING-MG122 Rev. 1	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] TBV -3 UNVERIFIED [stamp]
*	YMP-025-1-MING-MG123 Rev. 2	TBV -3 UNVERIFIED [stamp]
*	YMP-025-1-MING-MG125 Rev. 2	TBV -3 UNVERIFIED [stamp]
	YMP-025-1-MING-MG129 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [Stamp] TBV -3 UNVERIFIED [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
	YMP-025-1-MING-MG130 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] TBV -3 UNVERIFIED [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION

YMP-025-1-MING-MG131 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG132 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG133 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG134 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG143 Rev. 2	TBV -3 UNVERIFIED [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG148 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG101 Rev. 0	NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG102 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG106 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG108 Rev. 0	NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1]
YMP-025-1-MING-MG109 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG110 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG111 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]

YMP-025-1-MING-MG113 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG114 0 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] TBV -3 NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG115 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG116 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG117 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG118 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [TBV-1] [TBV-4] [TBV-4 NOTE] [TBD 90]
YMP-025-1-MING-MG120 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] TBV -3 NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG124 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] TBV -3 UNVERIFIED [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION
YMP-025-1-MING-MG127 Rev. 0	DOE/YMP ACCEPTED FOR PRE-CONSTRUCTION PLANNING [stamp] NOTICE OF OPEN CHANGE DOE/YMP ACCEPTED FOR CONSTRUCTION [HOLD 3]

* YMP-025-1-MING-MG147 [TBD 94]
[TBD 95]

* YMP-025-1-MING-MG142 NOTICE OF OPEN CHANGE, TBV-3
Rev. 2 DOE/YMP ACCEPTED FOR CONSTRUCTION

CC:
John Clark, 546
Larry Engwall, 515
Ed Fitch, 530H
Hector Montalvo, 512A
Jerry Naaf, 550
David Parker, 554A
Bob Wemheuer, 757

EFF:tmcg

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **G.1-G.2**

Review M&O traceability matrix and RSN CM report to identify most effective method of ensuring traceability.

Resolve CI/architecture definition issues to ensure basis for establishing traceability exists.

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Evaluate potential traceability methods, reach concurrence

Reach concurrence on CI architecture

Update:

Evaluation complete - traceability matrix format identified (design requirements to design criteria to CI) for BFD. Matrix will also describe which documents (specs/drawings) describe each CI. In addition, Requests for Assignment of CI Identifiers will be submitted for Package 2A and 1B in accordance with QAP-3-6.

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☐ No

By: M. S. Rindskopf Date: 13 Aug 93

Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW Environmental
Safety Systems Inc.

WBS: 1.2.1.2.
QA: N/A

Subject:
Basis For Design (BFD)
Traceability

Date:
August 12, 1993
LV.SER.MSR.8/93-556

From:
M. S. Rindskopf

To:
R. M. Sandifer

cc:
Distribution

Location/Phone
TES3/P240
702.794.7628

This correspondence is being developed to respond to the action items assigned in the M&O MGDS Design Control Improvement Plan. These actions address the problem that the M&O process for demonstrating traceability of requirements is not explicit.

Action Item G. 1. Review M&O BFD traceability matrix and RSN CM report to identify most effective method of ensuring traceability. (Due 8/13/93)

This item was evaluated in 2 steps. Step 1 was to review the BFD traceability matrix. The results of this step were the identification of the following 4 traceability requirements:

1. All ESFDR requirements must be traced to the BFD design criteria.
2. All ESFDR requirements must be allocated to the appropriate Configuration Item.
3. BFD design criteria (grouped by CI) must be traceable to the design products (drawings, calculations or specifications)
4. All of this information must be captured in the BFD traceability matrix in a consistent, accurate and controlled manner.

Step 2 required the review of the RSN CM report to determine if this approach to traceability would be more effective than the BFD approach or other approaches currently in use by the M&O. The following conclusions were reached as a result of this review:

1. Only limited documentation is available on the details of the RSN database
2. The report is an output product from a database (DBase IV) developed by RSN
3. There exists a lack of M&O operators that could run this software
4. The input to the database appears to be uncontrolled and the report produced by the database is also uncontrolled
5. The real value of the RSN approach was the use of an electronic tool for tracking their BFD requirements

The conclusions based on this 2 step approach was to develop a matrix to be included in the BFD that addresses requirements 1 through 4 of step 1 above and to utilize an electronic database type tool for the development of the matrix. This approach will allow automated handling of the trace data, permit the users (the design organization) to select software for which they have operators, and

for which adequate documentation already exists or may be procured. The matrix will become a part of a controlled document. The approach will also use the existing M&O tool for documenting and electronically controlling the requirements associated with the new document hierarchy documents (which includes the ESFDR). The Automated Requirements Management System (ARMS) is this tool. Once the matrix has been developed and the BFD approved the traceability data will be entered into ARMS. A sample of the BFD traceability matrix is provided in Table 1 (Attachment 1).

Action Item G. 2. Resolve Configuration Item/Architecture definition issues to ensure that a basis for establishing traceability exists.(Due 8/13/93)

This item requires the resolution of Configuration Item (CI)/Architecture definition issues to ensure that a basis for establishing traceability exists. The primary issue that was addressed by this action was to evaluate the differences that currently exist between the preliminary CI structure and the system architecture. The evaluation focused only on the ESF and primarily on the areas applicable to the packages 2A and 1b. The resultant CI structure represents a structure that is now consistent with the architecture and will serve as the basic key to traceability. The BFD traceability matrix will be structured to address this requirement and the BFD and ESFDR (rev 1) structures will be modified to be consistent with these CIs . Attachment 2 provides a graphic representation of this structure.

Action Item G. 3. Revise or create procedures for implementation as appropriate.(Due 9/24/93)

This task will require serious consideration of the need to develop an Implementing Line Procedure for the continued development of the BFD. This evaluation has begun and will be complete (including the revision or development of procedures) by the due date.

Action Item G. 4. Revise BFD as neccessary.(Due 9/17/93)

This task is in process and appears to be on schedule. The completion of the development of the trace matrix will serve to identify the scope to work required to insure all ESFDR requirements have been addressed in the BFD.

Distribution
S. Bannout
G. A. Carruth -SEE ATTACHED-
B. Cruz
L. Engwall for LGE
T. Geer IG
P. Hastings
J. Jackson
R. Jiu
W. Law
W. J. Leonard
P. Mckie
J. Naaf 8/13/93
J. W. Peters
P. Pimentel
S. Robinson
G. Rogers
A. Rust
G. Teraoka
C. Thom
S. Willis

Distribution
S. Bannout
G. A. Carruth GAC 8/13/93
B. Cruz
L. Engwall _____
T. Geor _____
P. Hastings
J. Jackson
R. Jiu
W. Law
W. J. Leonard
P. Mckie
J. Nasf _____
J. W. Peters
P. Pimentel
S. Robinson
G. Rogers
A. Rust
G. Terasoka
C. Thom
S. Willis

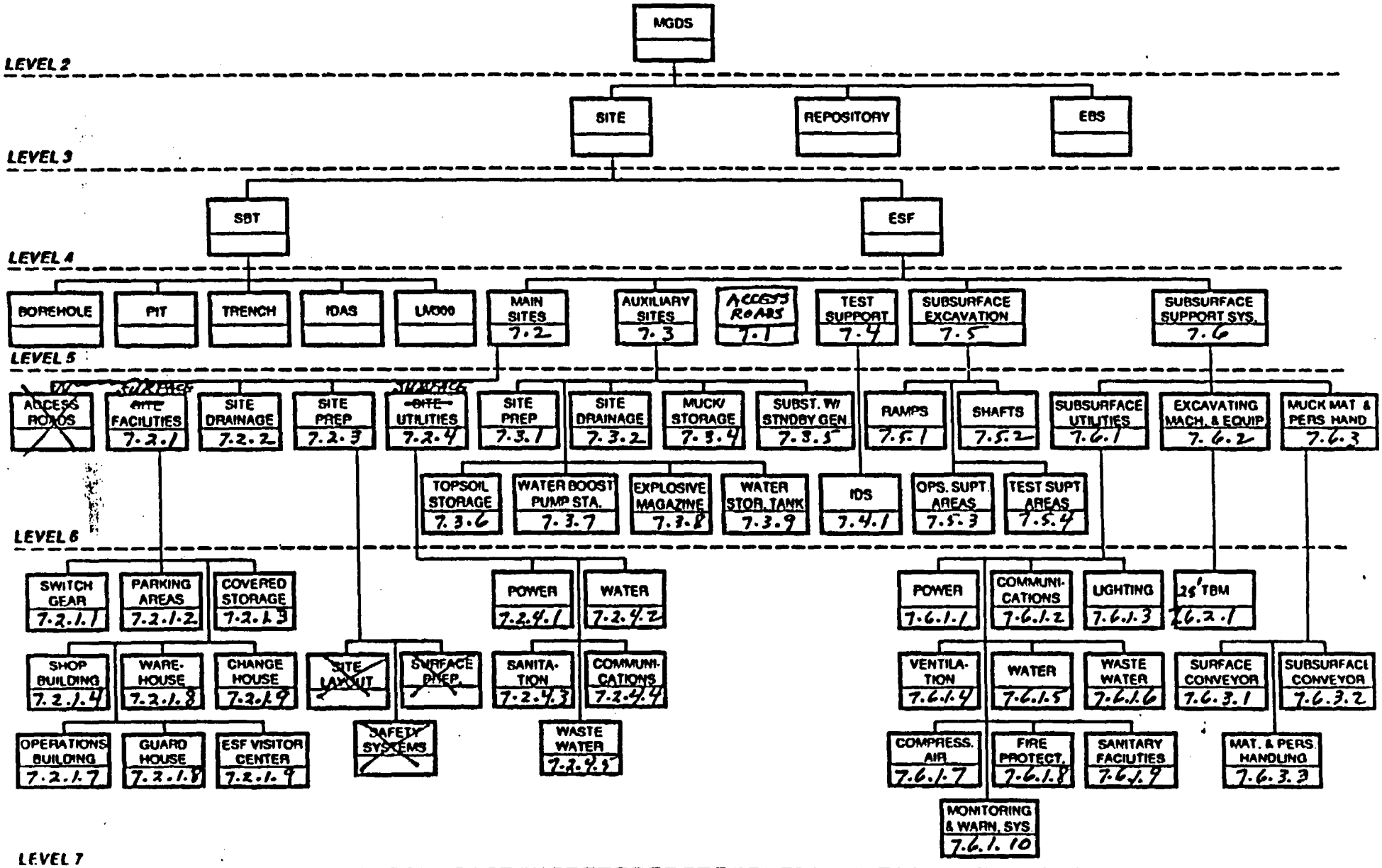
Attachment 1

Table 1
Sample only

CI Title	CI Identifier	ESFDR Requirement	BFD Design Criteria	Drawing Number	Specification Number	Calculation Number
Subsurface - Power System	BABBBA000	3.2.6.5.1.A	7.7.1.V.1	48901	52001 52002	84321
			7.7.1.V.2			
			7.7.1.V.3			
			7.7.1.V.4			
			7.7.1.V.5			
			7.7.1.V.6			
			7.7.1.V.7			
		3.2.6.5.1.B	7.71X.1		52001	
Subsurface - Water System	BABBBB000	3.2.2.5.6.A	7.7.6.V.6	56999		87404
		3.2.2.5.6.B	7.7.6.V.10			
Subsurface - Ventilation System	BABBBC000	3.2.6.3.1	7.7.4.1.X.1	41001	32001 32002	44321
			7.7.4.1.X.2			
			7.7.4.1.X.3			
			7.7.4.1.X.4			

BFD SECTIONS
NEW NUMBERS

STRUCTURE FOR BOTH
BFD AND CI's



ESF-MGDS 1074-12-93

ESF/MGDS DESIGN STRUCTURE

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **I.1**

Tabulate & summarize open and closed CARs affecting or involving M&O design process.

Deliverable(s):

1. Summary
2.
3.
4.

Proposed resolution:

Summarize those CARs associated with design control

Update:

Summary attached and being tracked per I.3. First pass at summary addresses only YMP CARs (DOE adn M&O); new action item will be opened to evaluate Vienna CARs as well for applicability.

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☐ No

By: P. G. Jones Date: 13 Aug 93

CAR ACTION STATUS LOG
(DOE GENERATED)

CAR#	ISSUE	RESPONSE DUE DATE	RESPONSIBLE INDIVIDUAL	CORRECTIVE ACTION	RESPONSIBLE INDIVIDUAL	DUE DATE
YM-93-040	Procedures do no provide criteria for determining design verification. Various ILPs not in place. Violation: M&O QAPD, Rev. 3	Complete	R.M. Sandifer	See attached IOC (LV.SI.JHV.07/93-061) dtd. July 30,1993 from J.H. Verdery to R.M. Sandifer. Writing ILP for inter-disciplinary transfer of data.	R.M. Sandifer	08/31/93
YM-93-062	1) No program in place for commercial grade procurements and subsequent upgrade for quality affecting application 2) (a) SPEC YMP-025-1-SP09 sections 1400, 2165, 2310, 3361 do not address traceability (b) FCR 93/321 removed traceability rqm'ts for ITS/ITWI for commercial grade products	Complete	E. Fitch	Review Specification YMP-025-1-SP09, Section 1400 and Item Specifications 02165, 02310, and 03361 as well as all other Quality Affecting subsurface activities to identify those materials which are commercial grade and used in quality affecting applications. Revise the specifications to implement the requirements of QARD Section 3.0, Para. 3.2.2 and Section 8.0, Para. 8.2.3. To ensure commercial grade materials to be used in quality affecting applications are identified and traceability established an engineering analysis The Material Dedication Analysis for Commercial Grade Items (B0000000-01717-0200-00100) is being written. Conclusions of this analysis will identify actions necessary to meet appropriate requirements. To implement the conclusion of the analysis a FCR will be written to establish the traceability and the critical attributes of affected materials.	E. Fitch	09/03/93

CAR ACTION STATUS LOG
(DOE GENERATED)

YM-93-063	1) NCR's were dispositioned without technical justification for "USE-AS-IS" 2) NCR's were dispositioned based on supplier submittals of data from unqualified suppliers and used as basis of "use-as-is" disposition.	Complete	E. Fitch	1) Institute refresher briefing classes on QARD Section 15 for affected procurement, QA/QC, and Title III personnel with emphasis on meeting the requirements of the section. 2) Initiate procurement measures in conjunction with the appropriate QA organization to perform source evaluation in accordance with QAP-7-1.	E. Fitch	09/17/93
YM-93-064	SPEC YMP-025-1-SP09,section 3361, does not require an NCR to be generated when shotcrete tests do not meet rqm'ts.	Complete	A.J. Watkins	With knowledge gained from this CAR by the engineers, such inclusion in the future to the specifications should not occur.	A. Watkins	09/17/93
YM-93-065	A) Test results for Fibercrete accepted by A/E but were not traceable to indicate material was Fibercrete B) Grout used for rockbolts accepted by A/E with no lithium bromide listed for mix design.	Complete	A.J. Watkins	All submittal packages to the A/E are reviewed in their entirety as a collective package.	A. Watkins	09/17/93
YM-93-072	TBV identifiers omitted from drawings.	08/19/93	Saunders			

CAR ACTION STATUS LOG
(DOE GENERATED)

YM-93-073	Drawings associated with Change Directive 93/405 do not list all quality-affecting design inputs (eg. BFD nor DIE are listed)	08/19/93	Saunders			
YM-93-074	Change Request 93/405 did not explain items marked with an "X" on the Change Impact Checklist.	08/19/93	Saunders			
YM-93-075	1) No evidence of CCB secretary direction for review method or organizations on CR-93/405 2) CCB secretary did not send Change Doc Pkg to all TPD's.	08/19/93	Saunders			

CAR ... ON STATUS LOG
(M&O GENERATED)

CAR#	ISSUE	RESPONSE DUE DATE	RESPONSIBLE INDIVIDUAL	CORRECTIVE ACTION	RESPONSIBLE INDIVIDUAL	DUE DATE
93-MG-C-002	Drawing YMP-025-1-CIVL-GP101, R2 was "Accepted for Construction" on 15 Dec. 1992 with Hold H1 and issued. This hold covered the construction of the North Portal Pad and Box Cut.	Complete	P.Pimentel	Hold H1 was placed on the drawing on 11/02/92 due to design changes to the highwall, starter tunnel & pad configuration. Hold H1 was modified on 01/11/93 by Change Request 93/104 to allow construction of the items listed above as long as drill and blast techniques were not used. The modified Hold H1 removes the conflict discussed. No further action is required.	P. Pimentel	Complete (02/22/93)
93-QL-C-005	The ESF BFD was received by the M&O, but was not submitted to the LRC.	Complete	B. Cruz	After processing the BFD IAW QAP-3-4, the BFD will be submitted to the LRC.	B. Cruz	Complete (03/30/93)
93-QL-C-006	FCRs 93/094 and 93/095 contained specification sections that were added to YMP specifications YMP-025-1-SP01, YMP-025-1-SUPT-GE11. QA did not review or approve these sections. No signature/objective evidence.	Complete	R. Sandifer	Reinforce requirements of QAP-3-11 with all affected personnel. This will be accomplished by the following managers for their respective organizations as follows: Surface Design, ESF & ACD Pimentel Subsurface design, ESF & ACD McKie Waste Package ACD Benton	R. Sandifer	Complete (03/29/93)
93-QL-C-007	The ESF BFD was not "Accepted" by the M&O design CCB in LV and placed under configuration control.	Complete	B. Cruz	1) Submit the BFD to the CCB. 2) Provide written notification to the M&O organization that the M&O ESF/MGDS Baseline Change Control Board (BCCB) is operational. 3) Process BFD.	B. Cruz	Complete (03/30/93)

CAR A[illegible]ON STATUS LOG
(M&O GENERATED)

93-QL-C-008	Once BFD accepted, BFD would become M&O Level III controlled document. FCRs written against the ESF design package 1A BFD should have been evaluated against the BFD through some procedural process and changes to the BFD should have been submitted to the M&O Design CCB.	Complete	J. Nesbitt	1) Develop ILP to include evaluation of the baselined BFD for FCRs. 2) Evaluate all FCRs issued as to compliance with baselined BFD using ILP developed in step 1. 3) If a discrepancy is found between approved FCR and baselined BFD, develop revision to baselined BFD per QAP-3-5 or FCR to bring it into compliance.	J. Nesbitt	Complete (05/13/93)
93-MG-C-009	Submittal transmittals were approved by an unathorized individual.	Complete	R. Ackaret	1) Letter delegating signature authority. 2) Issue ILP "M&O Review and Approval of Submittals" (MGP-7-1) 3) Provide training on MGP-7-1	R. Ackaret	Complete (03/10/93)
93-TM-C-011	No objective evidence that QAP-5-1 was trained to before performing quality affecting work.	Complete	P. Pimentel	Training form had been completed, but, had not been signed and authenticated by the supervisor.	P. Pimentel	Complete (03/26/93)
93-MG-C-012	Two specifications and one drawing had more than five changes against them without revisions being initiated.	Complete	P. Pimentel	1) Review all baselined Design Package 1A drawings and specifications to determine those that have had 5 or more FCRs. 2) Revis ethe 2 specs and 1 drawing specifically listed on the CAR. Revise any found during the review in 1 above.	P. Pimentel	Complete (05/19/93)
93-QN-C-013	A/E removed hold tags before verification of corrective action	Complete	P. McKie	1) Tags were replaced and material was not used. 2) Individual involved will be retrained to the requirements of AP 5.27Q & MGP 15-1.	P. Mckie	Complete (05/13/93)
93-QN-C-014	A/E accepted vendor submittal with submittal not in compliance with Spec YMP-025-1-SP-09.	Complete	P. McKie	Review the Lattice Girder submittal with respect to specification YMP-025-1-SP09 section 02310 to show that it does meet all the requirements of item 4.01, except 4.01 C3. A change shall be submitted to delete this requirement and any impacts will be identified.	P. McKie	Complete (05/27/93)

CAR ACTION STATUS LOG
(M&O GENERATED)

93-QN-C-015	Document Transmittal/Acknowledgement Record dated 02/26/93, directions not complied with.	Complete	B. Cruz	Inspect all YMP documents assigned to recipient number 101423 to identify document recipient number deficiences and where corrections are required implement the DTAR instructions dated 02/26/93.	B. Cruz	Complete 05/25/93
93-QN-CC-018	Quality affecting work was performed using QAP-3-4 and no objective evidence is present to show documentation of training prior to performing the work.	Complete	P. Pimnetel	CAR voided because the individual had a signed and verified Reading/Self-Study form on March 3, but, was not submitted to training until May 14.	P. Pimentel	Complete (Voided on 05/18/93)
93-QN-C-019	Specification standard for application of shotcrete was not used. QAP-3-11	Complete	J. Naaf	Specification YMP-025-1-SP09 section 03361 Shotcrete shall be changed to correct the conflicting requirements for nozzlemen certification and testing, and the appropriate method will be specified. The qualification of nozzlemen shall be reexamined in accordance with the new criteria for acceptability. Failure of nozzlemen to meet certification will require their work to be identified and identified for acceptability. Until the specification is changed to resolve the conflicting requirements, nozzlemen will meet the most consertive requirements of the specification.	J. Naaf	Complete (07/29/93)
93-QN-C-022	A CR was submitted to revise YMP-025-1-SP09 in response to CAR 93-MG-C-012. Prior to release of revision 1, five additional FCRs were submitted without an additional CR for a subsequent revision.	Complete	R. Sandifer	CR 385 has been completed. It incorporated FCRs against YMP-025-1-SP09 and created revision 1 of the documnet. CR 425 is in process and in R. Spence's office for signature. It incorporates all remaining FCRs into the spec. No further action is required to satisfy Ap 3.5Q and NLP 3-10. Additionally, an internal self-evaluation of all FCRs up to and including FCR 93/323 was performed to find and correct any other discrepancies associated with FCRs. Informal training was given and guidlines were established to help avoid recurrence of the problem.	R. Sandifer	Complete (07/29/93)

CAR A. .ON STATUS LOG
(M&O GENERATED)

93-QN-C-023	No documentary evidence that MGP-3-8 was read prior to signing drawings.	Complete	R. Sandifer	1) J. Gill originally signed the referenced drawings, but after notification of lack of training, his name was lined out and another engineer verified the drawing. T. Bui originally signed drawing MECH-GE-107 on 5/24/93; but after notification of lack of training, read MGP-3-8 to fulfill that requirement, then went back and signed the drawing on 6/23/93 as hown on the attached copy of the title block. J. Steinhoff read QAP-3-10, but the other one did. Therefore his name should be removed from the adverse condition. A. Tuma and T. Sinderman signed the referenced drawings on 5/20/93, but did not read MGP-3-8 until 6/16/93 and 5/23/93, respectively. This fact does not create an impact to the quality of the work performed because after they were trained to this procedure, they reviewed these drawings again and re-signed them. 2) Chris Mellen has been removed as verifier of drawing YMP-025-1-MECH-GE107 and Don Vanica, who meets the verifier qualifications, has verified and signed the drawing. 3) drawing YMP-025-1ELEC-GE102 was generated on 5/20/93 with the preparers name printed inthe proper block by the CAD system, but was inadvertently not signed with a "wet" signature. The drawing was sent to the engineer and task leader for signature. It was then sent back to the preparer for a "wet" signature on 05/24/93. This should not create a condition adverse to quality as the drawing was obviously prepared prior to review and signature by the engineer and task leader, even though the dates don't indicate that. 4) Drawing YMP-025-1-MECH-GE107 was signed by T. Bui in the wrong block. This drawing has since been corrected. Three other drawings had similiar problems, which have been corrected.	R. Sandifer	Complete (07/29/93)

CAR ACTION STATUS LOG
(M&O GENERATED)

93-QN-C-024	Interdisciplinary reviewers of drawings (YMP-025-1-ELEC-GE102,R1; GE105,R2; GE106,R2; GE107,R1) signed a marked up copy of drawings instead of the original. Violation: QAP-3-10	Complete	P. Pimentel	Incorrectly interpreted the requirement within QAP-3-10, section 5.5.2 as allowing us to sign an in-process review print as opposed to the final drawing. The interdiscipline review is meant only to develop concurrence from all other disciplines that may be affected by the design of one discipline. They are not, however, required to sign that disciplines final drawings. Our solution to this problem is to write an expedited PCN to revise section 5.5.2 of QAP-3-10 to allow us to do just that.	P. Pimentel	09/10/93
93-QN-C-025	Drawings YMP-025-1-MING-MG151 through 154, YMP-025-1-ELEC-GE102, GE105, GE106, MECH-GE107 are not QA classified. Violation: QAP-3-10	Complete	R.M. Sandifer	We propose to revise MGP-3-8 to take exception to this requirement. We need to be able to not indicate the QA classification on these Package 1A drawings at this time because QAP-2-3, Classification of Items and Determination of Quality Affecting Activities, has not yet been approved for use on the Yucca Mountain Project.	R.M. Sandifer	09/10/93
93-QN-C-029	Test Interference Evalutions, Waste Isolations, and other documents were not transmitted to the Determination of Importance Evaluations Group in accordance with procedures. Violation: QAP-3-12	Complete	R.W. Kirk	Corrective Action sent to QA by Younker was not accepted. Arth says that resolution is very close.	R.W. Kirk	07/14/93
93-QN-C-030	Design organizations have not prepared or submitted the "Request for CI Identifiers Approval" sheets to CM. Violation: QAP-3-6	Complete	R.M. Sandifer	Corrective Action plan sent 07/28/93	R.M. Sandifer	11/30/93

CAR ACTION STATUS LOG
(M&O GENERATED)

93-QN-C-050	As a result of conversations between M&O and the construction contractor, the North Portal Starter Tunnel was drilled and blasted from stations 1:00 to 1=23 without the proper controlled implementing document (YMP-025-1-MING-MG-123, Rev 2) being in place to reflect the correct grade change of the back of the tunnel. NCR-93-030 was issued on 06/25/93 identifying the nonconforming condition above.	~~08/13/93~~ COMPLETE	R.M. Sandifer	The Construction Manager has evaluated this occurrence and has determined that it was caused by the issuance of verbal instruction by the CMO to the contractor. It was also determined to be an isolated incident. The drawing was issued to reflect the correct grade change and there was no impact on quality. The Construction Manager's staff has been instructed in the use of QA procedures and it was emphasized that all work be performed in accordance with approved procedures and documents.	Renegar	8/20/93
93-QN-C-051	Contrary to AP-3.3Q, 13 CRs between May 18, 1993 and July 8, 1993 were signed by individuals who did not have delegated signature authority from the TPO or YMP Division Director.	Complete	E. Dembowski	The remedial action is to generate a standing Delegation of Specified Signature Authority as M&O TPO letter to delegate sequential authority for YMP from the TPO to his Deputy, or in the absence of the Deputy to the MGDS Development Manager. A review of the 13 CRs concluded no impact was caused to the program/project by the individuals who did not have delegated signature authority.	E. Dembowski	08/20/93

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **K.1**

Address perception that schedule pressures are impacting quality of work.

Deliverable(s):

1. Letter
2.
3.
4.

Proposed resolution:

Prepare follow-up letter stressing impartance of QA program and indicating management support of priority of QA and 100% compliance.

Update:

Letter distributed 13 August

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☐ No

By: L. D. Foust Date: 13 Aug 93

h:\hastings\qa_plan.upd

Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW

TRW Environmental
Safety Systems Inc.

WBS: 1.2.1
QA: N/A

Subject:
Quality Assurance Program
Compliance

Date:
August 13, 1993
LV.MG.RMS.8/93-133

From:
L. D. Foust

To:
All Nevada Site Personnel

cc:
Local Records Center

Location/Phone
TES3/LV-112
(702)794-1869

As a follow up to our recent discussions at our off-site, I want to reiterate the importance of 100% compliance with our Quality Assurance Program. For each and every one of us it must be our highest priority. It is simply too important to the ultimate success of our Program to be treated otherwise.

Neither schedule pressures or any other work place drivers should ever result in our being less than 100% compliant with all requirements of our Quality Assurance Program. We must of course manage our work assignments such that the highest quality work possible is completed within the scheduled constraints placed on us. However, if the choice is <u>any</u> level of non-compliance with our Quality Assurance Program versus any other work place objective, then we must always opt for 100% Quality Assurance Program compliance. Please be assured your Management will stand fully behind you in these decisions.

I appreciate your recent efforts in developing and initiating improvements in our Program, and I look forward to us having an NQA-1 quality assurance program that is recognized both for its rigor and full compliance with all requirements.

LDF:RMS;lcg

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **L.1**

Evaluate the process by which M&O procedures are reviewed in the field to identify potential improvements.

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Review processes and procedures

Update:

QA reviewing existing procedures as of 26 July; evaluation of current process has identified problems with current process - need to open new action item (L.1b) to establish plan and schedule for addressing and resolving problems

Complete? ☒ Yes ☐ No ☒ Deferred: *New action item opened (L.1b for continuation of issue resolution)*

Attachments? ☒ Yes ☐ No

By: N. W. Hodgson Date: 13 Aug 93

Action L1 8/13/93 Nat Hodgson

Task: Evaluate the process by which the M&O procedures are reviewed in the field to identify potential improvements.

Game plan: Review the process of how procedures are reviewed in Las Vegas.

Interview people involved in the process.

Review the procedures that prescribe how procedures are generated, reviewed and approved.

The following people were interviewed:

Gail Abend
Kal Bhattacharyya
Lynn Bradley
Jim Frank
Jerry Naaf
Jon Reed
Ron Wagster

The following procedures were reviewed:

QAP-5-1
QAP-5-2
NSP-6-2

As a result of interviews the following procedure review thread was developed:

All QAPs to be reviewed are received by Jim Frank. (Jim is the designated Las Vegas QAP Review Board (QRB) representative. He is the link that Las Vegas has with the QRB. Robert Justice is the QA representative for Las Vegas.)

Jim Frank forwards the procedure package to the Document Review Tracking (DRT) team consisting of Lynn Bradely and Jon Reed. The DRT determines the Las Vegas due date for comments and the distribution for the procedure for comments. The normal distribution is Office Managers, Document Control, Publications and QA. The time allowed for reviewers to review the procedure is determined by the due date on the PRR minus one day for DRT to collect all the comments, send them to Jim Frank, get his feedback, and send the mandatory comments to the author.

Mandatory comments are resolved between the QRB member and the author. If they cannot agree the problem is escalated.

The final version of the procedure is reviewed/discussed at the next scheduled QRB meeting which normally takes place during video-conference of phone-conference. Consensus is reached and the procedure is approved, returned to the author or deferred. Once the procedure is approved it goes to Publications who formats it for release by DCC.

Problems uncovered in the above process are:

The call as to who reviews the procedure is left up to the DRT. The DRT may not know who is the proper or best person to review the procedure. The procedure is sent to the Office Managers, Document Control (in the form of Hans Ebner), Publications (Ruth Heidt) and QA (Gail Abend). These people determine who in their area should review the procedure. Work-load of individuals in each area determine who is assigned the task and how much time can be spent on the review.

One common complaint from all areas was not enough timeis given to review the procedure. The usual amount of time was five days. Ten working days was mentioned several times as probably sufficient. That would allow for transmission time, review time, consolidation time by the QRB member and time for the DRT to transmit the comments back to the author.

One of the people interviewed said he has never received a QAP for review. This person is identified in a box on the ESF organizational chart.

Some problems uncovered while looking into the ILP process are:

With ILPs there is no equivalent to the QRB. There is no focal point for ILP processing. The QA Manager and the responsible manager determine if one is to be written and who the author should be but that as far as it goes.

When the DRT finds the ILP in their mail, it is not always obvious where it came from and who should review it. They use the same process as with QAPs.

Directions received with ILPs are sometimes presented on Post-Its with phrases such as "MUST BE DONE BY 8/16/93" or "QA has seen these IRRs". IRRs and PRRs for that matter have no provision for QA acknowledgement that they have reviewed the IRRs/PRRs prior to the

author sending them out for review.

Again review time is too short. In the case of ILPs, most of them are in response to CARs so the turn-around time is short.

During the review of the procedures themselves the following problems were identified:

Neither QAP-5-1 nor QAP-5-2 recognize the DRT which is an integral part of the Las Vegas review process. A previous revision of QAP-5-1 did instruct the author of a procedure for review to send it to the DRT. That was removed when the QRB came into being.

The flow of comments is not clear in QAP-5-1. Mandatory comments are resolved, but with who? Is it the author or the responsible manager? The feedback to the originator of the comment is not identified.

Las Vegas needs more representation on the QRB. One vote, when we will be the primary user of a set of procedures does not seem enough. In the case of the 3-Series procedures we should have a heavy impact. In the area of training we may not need so much. In QA we have a lot of responsibility and should have a weighted say in the procedure.

Potential improvements:

Identify additional members in Las Vegas to participate in the QRB. One person is not enough. Possibly first line manager type.

Identify the function of the DRT in both QAP-5-1 and QAP-5-2.

A complete file of in-process and final procedures should be maintained at all three locations. When something is agreed to and approved at a QRB meeting, everyone needs to know what it was.

Meet with Department Managers and Section Heads to determine one or more people that would be good candidates to review a certain procedure. These people would be put on a list of reviewers for that procedure anytime it comes up for review. The list would include all procedures and be sent to the DRT for their use. When a procedure comes in to be reviewed it would be handled immediately by the designated people. It would be a priority item from them.

The time allowed for review of a procedure should be regulated. A routine review would be 15 working days and an urgent review would be 7 working days. This allows for mail and coordination between reviewers. We would continue to use the QRB as described in QAP-5-1.

We should consider establishing an IRB for ILPs that would follow the philosophy of the QRB but at the Las Vegas level. We need to make sure we have continuity between procedures. QA should be an integral part of this process, as they get involved in everything.

Establish a Procedure Review Team to focus on tuning the QAPs and ILPs. While not a full time job it would be a focused, high priority task. Procedure Review Team would work each of the identified problems and fold the solutions into a draft procedure, revision or PCN. The proposed procedure or revision would be exercised by a "tiger team" with real work to test the improvement. If it worked it would be processed as a change. If not work would continue.

Unresolved Issues should be brought to a committee made up of Office Manager from Systems, Support Operations, MGDS Development and Site Characterization and their Department Managers.

Most of the problems identified as a result of this evaluation can be addressed in QAP-5-1 and QAP-5-2. Developing a new philosophy and revising these procedures accordingly would be the first step. This could be accomplished in two to three weeks by the Procedure Review Team.

The Procedure Review Team would focus on the 3-Series procedures. The procedures would be prioritized to attack the most critical ones first. This activity would begin 8/16 and continue until the team considers the procedures tuned.

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **L.2**

Procedure review team to trial-run existing procedures and upcoming revisions.

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Establish plan for trial runs consistent with improvements from L.1

Update:

QA reviewing existing procedures as of 26 July; plan in development for comprehensive review and process improvement - trial-run and review team work ongoing per plan provided 6 Aug

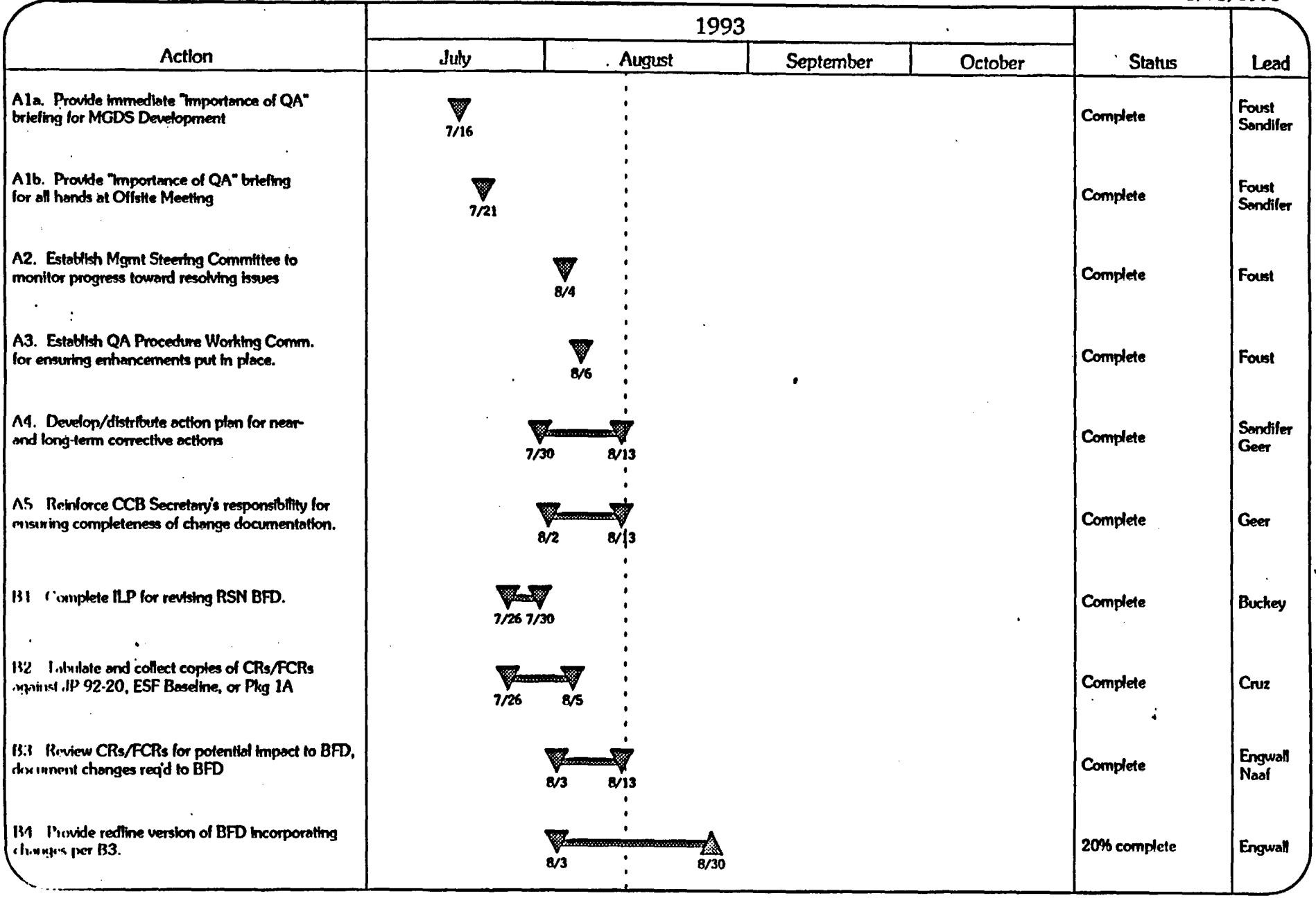
Complete? ☐ Yes ☒ No ☐ Deferred: ___(Ongoing)_____

Attachments? ☐ Yes ☒ No

By: N. W. Hodgson Date: 13 Aug 93

MGDS Design Control Improvement Plan

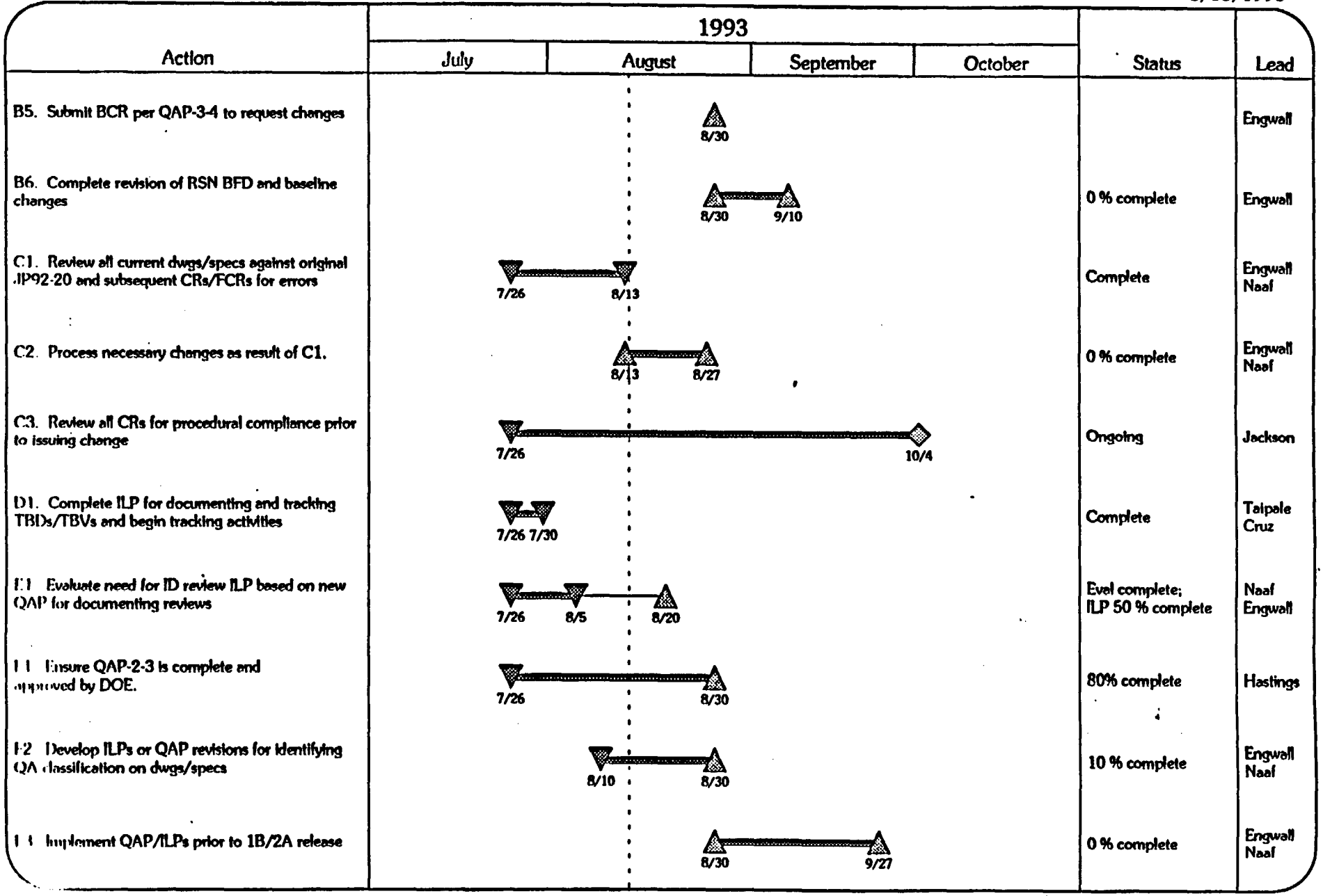
8/13/1993



△ Pending ▽ Complete ◇ Ongoing

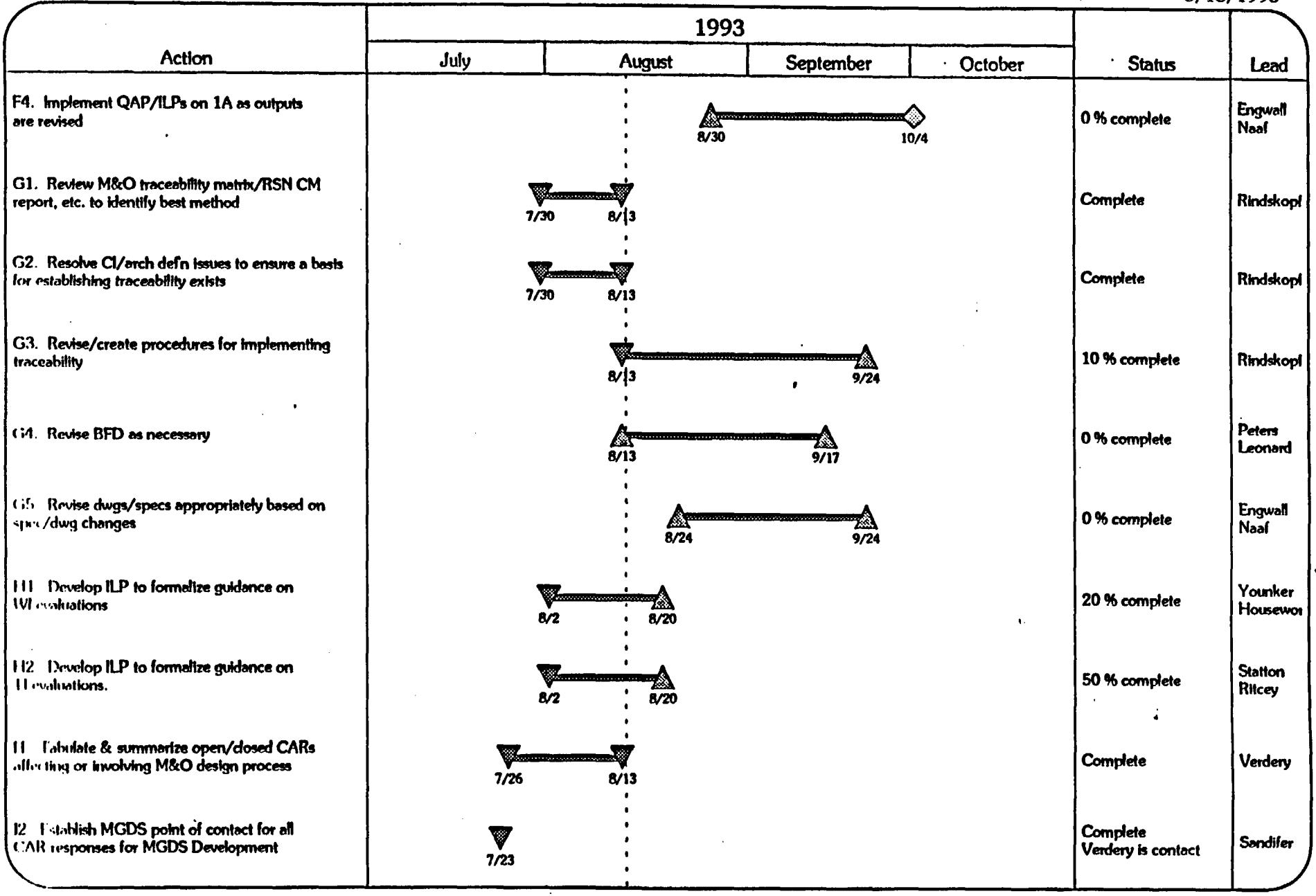
MGDS Design Control Improvement Plan

8/13/1993



MGDS Design Control Improvement Plan

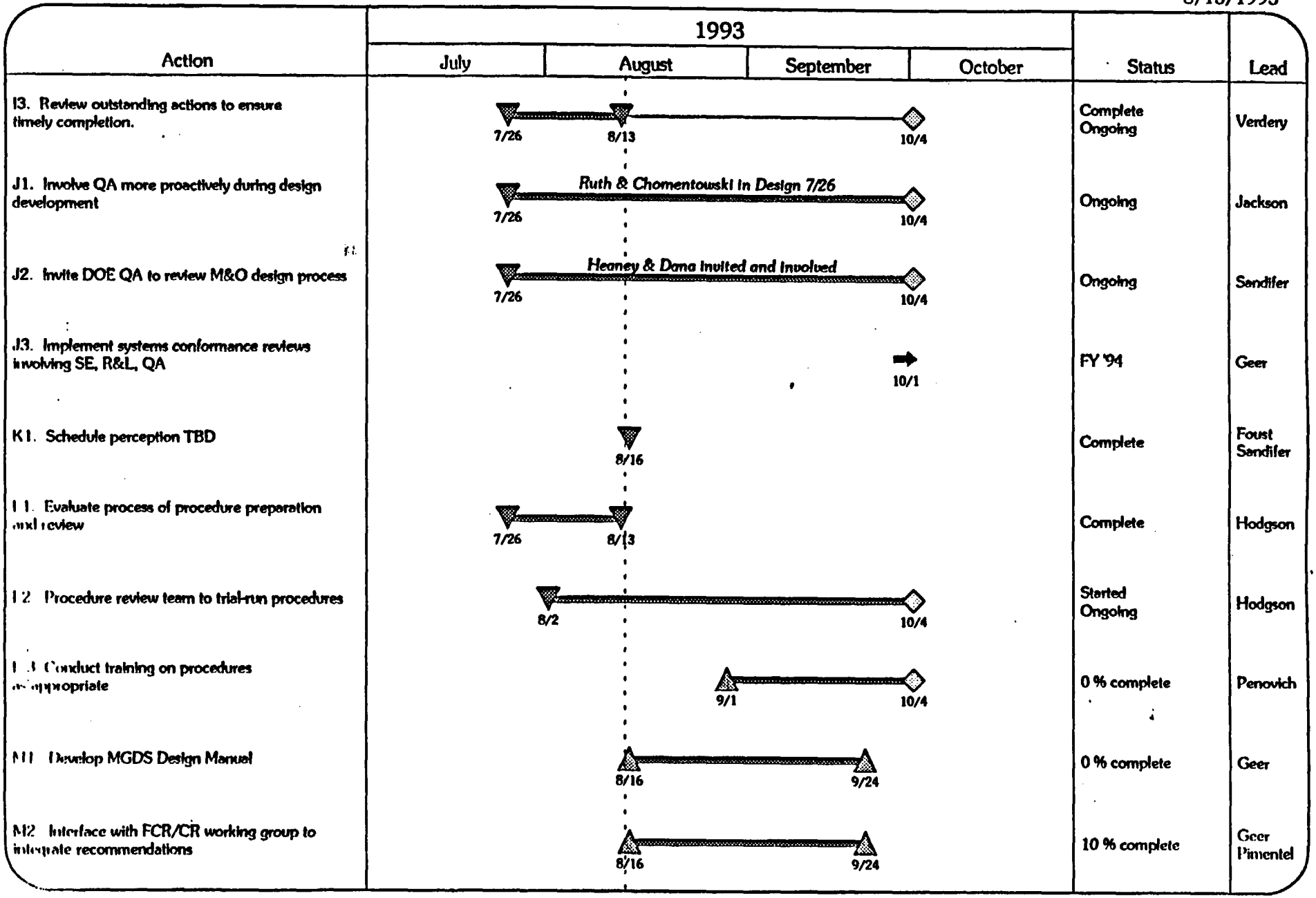
8/13/1993



Pending Complete Ongoing

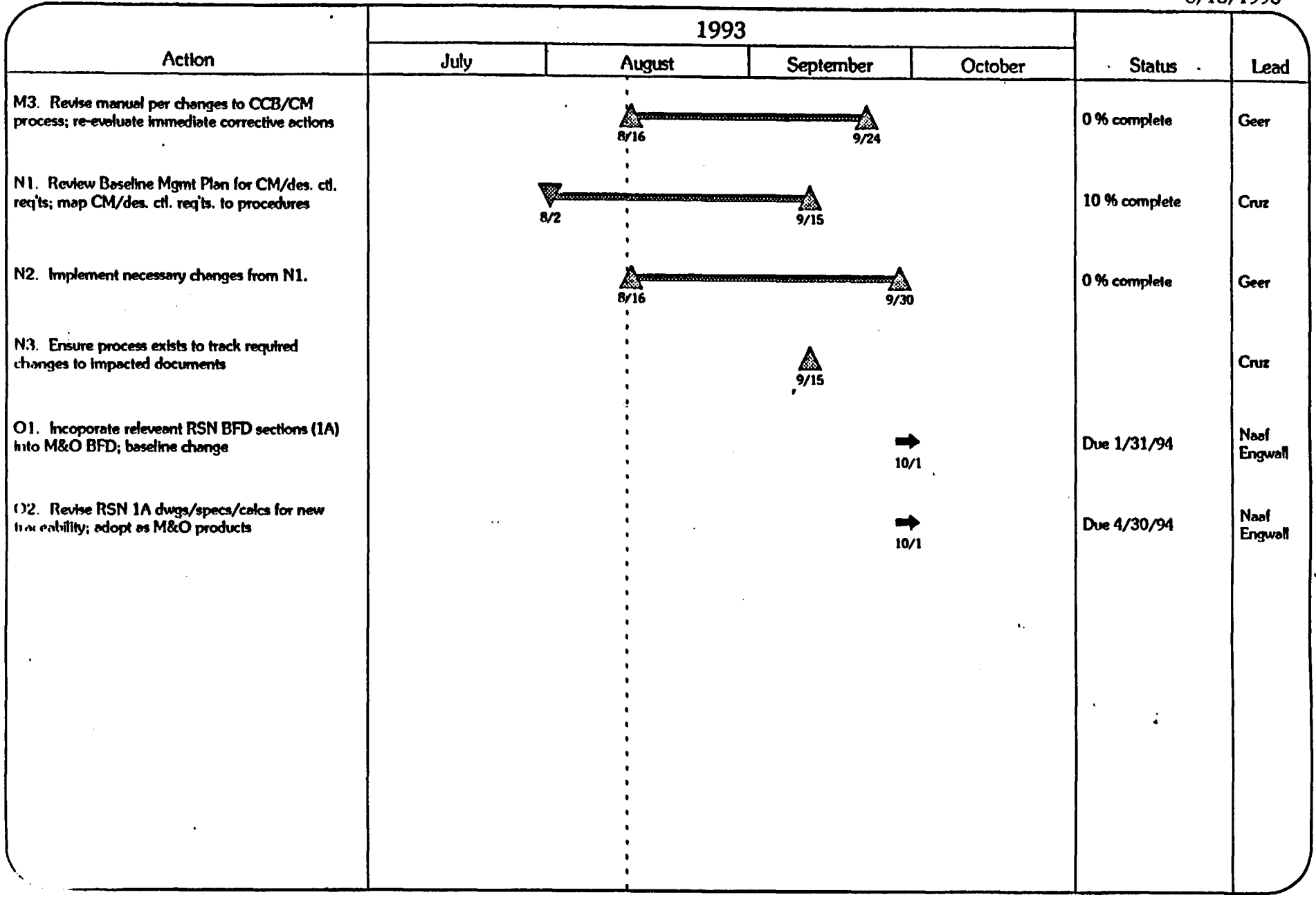
MGDS Design Control Improvement Plan

8/13/1993



MGDS Design Co...ol Improvement Plan

8/13/1993



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Attention

TRW

TRW Environmental Safety Systems Inc.
101 Convention Center Drive, Suite 527
Las Vagas, NV 89109
702.794.1800

AUG 17 2 07 PM '93

WBS: 1.2.6
QA: N/A

Contract # DE-AC01-91-RW00134
LV.SED.PSH.8/93-032

August 13, 1993

Mr. Don Horton
Director, Office of Quality Assurance
U. S. Department of Energy
101 Convention Center Drive, Ste. 660
Las Vegas, Nevada 89109

1-345824

Subject: M&O MGDS Design Control Improvement Plan

Please find attached the completed and approved M&O MGDS Design Control Improvement Plan. Your staff has provided informal comments, which have been incorporated. This plan describes our planned actions necessary to resolve the problems identified with the M&O's design process by recent QA audits and surveillances. As you know, we have begun weekly status updates on the specific action items identified within this plan. We expect to be able to demonstrate marked improvement in future audits and surveillances as these action items are completed.

We would like to get confirmation from you that you agree that the action items identified in this plan fundamentally and sufficiently address the problems which have been identified. If you have any additional comments or concerns, please let us know these as well.

We appreciate the support we have received thus far from you and your staff. Please contact Peter Hastings at 794-1946 with any comments or questions.

Sincerely,

L. D. Foust, Manager, Nevada Site
Management and Operating Contractor
Technical Project Officer

Concurrence:
J. A. Jackson

DIVISION: Horton
CC: Barton
CC: Blanchard
CC: Dyer
CC: Petrie
CC: Replogle
CC: Simecka
CC: Gertz/Smith, L.
CC: Johnson, S.

Specie

Enclosure
(1) M&O MGDS Design Control Improvement Plan

cc (w/attachment):

R. V. Barton, YMPO, Las Vegas, NV
M. B. Blanchard, YMPO, Las Vegas, NV
R. J. Brackett, M&O/Duke, Vienna, VA
J. R. Dyer, YMPO, Las Vegas, NV
C. P. Gertz, YMPO, Las Vegas, NV
J. A. Jackson, M&O/TRW, Las Vegas, NV
E. H. Petrie, YMPO, Las Vegas, NV
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R. L. Robertson, M&O/TRW, Vienna, VA
R. M. Sandifer, M&O/TRW, Las Vegas, NV
W. B. Simecka, YMPO, Las Vegas, NV
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R. G. Vawter, M&O/TRW, Las Vegas, NV
J. L. Younker, M&O/TRW, Las Vegas, NV

CIVILIAN RADIOACTIVE WASTE MANAGEMENT
SYSTEM M&O CONTRACTOR

Document Title:	M&O MGDS Design Control Improvement Plan
Document Number:	N/A
Revision:	0
Date:	30 July 1993
QA Classification:	N/A

Concurrence:

8/12/93
M&O Systems Integration Manager

8/11/93
M&O QA Manager

Approvals:

MGDS Systems Engineering Manager

MGDS Development Manager

M&O Nevada Site QA Manager

M&O Nevada Site Manager

Introduction

This plan has been developed in order to document corrective actions planned in response to Quality Assurance verification and deficiency documents dated from January 1993 to the present. The purpose of these actions is to:

(a) provide immediate response to open Corrective Action Reports (CARs);
(b) ensure that conditions immediately adverse to quality (if any) are identified and corrected;
(c) provide for the development of a series of improvements to the design control process to preclude similar future incidents; and
(d) increase the confidence of external agencies and DOE in the M&O's ability to properly control our design procedures and processes.

Background

Since January, a number of Corrective Action Reports (CARs), have been generated which are associated with M&O design control procedures or processes being employed for design of the Exploratory Studies Facility (ESF). As a result of these CARs, the M&O has committed to developing an action plan for addressing these issues. This plan has been generated as a result of that commitment, and serves to document immediate and longer-term actions and the parties responsible for implementing these actions.

Actions identified in response to CARs that are still open, as well as those to improve the design control process, are documented in the form of tables as a part of this plan. The tables indicate the problems identified by the CARs and related discussions, the proposed solutions, the responsible parties, and the anticipated dates of completion.

Near-Term Response Actions

The response actions found in the "Immediate Corrective Actions" section of the action plan (Table 1) are those necessary to provide prompt assurance that any conditions immediately adverse to quality are identified and corrected. These problems include primarily procedural errors and inadequate M&O control over some specific elements of design control. Most of the immediate corrective actions are scheduled to be addressed by mid-August.

Process Improvement Actions

The corrective actions found in the "Process Improvement" section (Table 2) are somewhat broader in scope, and imply a longer-term approach to improving the overall design control process for MGDS. The issues addressed in this section include: resolution of conflicts between the systems engineering/configuration management control and design control processes; enhanced understanding of and personnel training in the appropriate processes; improvement of our design products and associated procedures; and promotion of constructive attitudes toward the design control and other QA processes. The activities discussed in this section will take place over the next several months.

Implementation of Design Control Improvement Plan

Among the first steps in this action plan is approval of the plan itself. This plan is approved by the responsible managers from Systems Engineering, MGDS Development, M&O Nevada Site QA, and the M&O Nevada Site Manager; the M&O Systems Engineering Manager and M&O QA Manager provide concurrence.

The MGDS Development Manager has overall responsibility for ensuring that the improvement process described is properly executed in order to ensure that acceptable design control practices are in place for MGDS design activities. The MGDS Systems Engineering Manager has been designated the responsible manager for monitoring progress on the tasks detailed in this plan as well as ensuring that additional activities are undertaken if any are identified as necessary.

As part of the immediate corrective actions, a management steering committee will be established to ensure that a long term commitment to verbatim compliance with QA requirements is maintained. This steering committee will be supplemented by a working level QA committee.

The working level committee will be comprised of responsible individuals from the engineering and interfacing organizations. This working committee will principally be responsible for ensuring that self-identification of procedural compliance problems is achieved by identifying procedural ambiguities or inadequacies, and recommending appropriate revisions to the procedures. As the representatives of the direct users of the procedures, these individuals will be uniquely qualified to ensure that the procedure set is sufficient to control the work activities. The working level committee will report, on a regular basis, to the steering committee, who will in turn have authority to enact recommendations provided by the working level committee.

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
A. MGDS Development is experiencing continuing difficulties complying with QA requirements	1. Provide immediate "importance of QA" briefing for MGDS Development.	Foust Sandifer	Complete
	2. Establish a Management Steering Committee to monitor progress toward resolving issues.	Foust	Start 8/6
	3. Establish a QA Procedure Working Committee to act as a focal point for ensuring that necessary procedure enhancements are put in place on an ongoing basis. All affected line organizations should be represented.	Foust	Start 8/6
	4. Develop and distribute for concurrence the action plan for the near-term and long-term corrective actions.	Sandifer Geer	Complete
	5. Reinforce CCB Secretary's responsibility (at both Level 2 and 3) for ensuring completeness of change documentation.	Geer	8/13

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
B. The RSN BFD has not been evaluated to determine if changes are necessary as a result of M&O-generated Package 1Adesign changes.	1. Complete ILP for revising RSN BFD. get copy	Buckey	Complete
	2. Tabulate and collect copies of all change requests (CRs) or Field Change Requests (FCRs) processed against Job Package 92-020, the ESF Baseline, or Package 1A drawings or specifications.	Cruz	8/13
	3. Review all CRs/FCRs for potential impact to the BFD; document results of review and categorize as follows: a. No change required. b. Editorial change recommended. c. Technical change required. Basis for decision	Engwall Naaf	8/13
	4. Provide redline version of BFD incorporating the changes required and recommended by item 3.	Engwall	8/30
	5. Submit Baseline Change Request per QAP-3-4 to request changes.	Engwall	8/30
	6. Complete the revision of RSN BFD and baseline the new document.	Engwall	9/10

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
C. Change Request 93/405 resulted in a hand-written "TBV" being dropped from a drawing; problems with completeness of CR submittals.	1. Review all current drawings and specifications against original Job Package 92-020 products and subsequent CRs & FCRs for similar error; document review and results as part of CAR response.	Engwall Naaf	8/13
	2. Process necessary changes to resolve any findings as a result of review.	Engwall Naaf	8/27
	3. Review all CRs for procedural compliance prior to issuing the change request.	Jackson	Ongoing
D. There is no M&O procedure for formal documentation and tracking of TBVs/TBDs on design inputs/outputs.	1. Complete the ILP for documenting and tracking TBDs/TBVs and begin tracking activities.	Taipale Cruz	Complete (Approved 7/30)
E. There is no process for documenting interdisciplinary (ID) design reviews.	1. Evaluate the need for an MGDS ILP based on the new QAP for documenting ID reviews.	Engwall Naaf Jackson SI rep.	8/6

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
F. QA requirements are described in specifications, but QA classification is not shown on drawings.	1. Ensure that QAP-2-3 is completed and approved by DOE.	Hastings	8/30
	2. Develop ILPs or QAP revisions for identifying QA classification on design outputs (including drawings and specs which contain QA and Non-QA components) in accordance with DIE results and QAP-2-3. Consult with MRS and Vienna on methodology.	Engwall Naaf Hastings	8/30
	3. Implement QAP/ILPs prior to final verification for 1B & 2A.	Engwall Naaf	9/27
	4. Begin incorporating into package 1A as design outputs are revised.	Engwall Naaf	8/30

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
G. Design inputs are not consistently shown on drawings and the M&O process for demonstrating traceability of requirements is not explicit.	1. Review M&O BFD traceability matrix and RSN CM report to identify most effective method of ensuring traceability.	Rindskopf Peters Leonard SI rep.	8/13
	2. Resolve Configuration Item/Architecture definition issues to ensure that a basis for establishing traceability exists.	Rindskopf Peters Leonard Robinson	8/13
	3. Revise or create procedures for implementation as appropriate.	Rindskopf Robinson	9/24
	4. Revise BFD as necessary.	Rindskopf Peters Leonard	9/17
	5. Revise drawings & specifications appropriately based on changes to BFD.	Engwall Naaf	9/24
H. Generic procedures are used for waste isolation and test interference evaluations, but line procedures specific to these evaluations are needed.	1. Develop ILP to formalize guidance on waste isolation evaluations.	Younker	8/20 (draft)
	2. Develop ILP to formalize guidance on test interference evaluations.	Statton	8/20 (draft)

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
I. Review all design-related CARS to ensure corrective actions are being accomplished.	1. Tabulate & summarize all open and closed CARS affecting or involving the M&O design process.	Verdery	8/13
	2. Establish MGDS point of contact for all CAR responses for MGDS Development.	Sandifer	Complete (Verdery is contact point)
	3. Review outstanding actions to ensure timely completion.	Verdery	8/13

M&O MGDS Design Control Improvement Plan
Table 2 - Process Improvement Actions

Problem	Recommended Solution	Responsible	Due
J. Recurrent instances of non-compliance with procedural requirements.	Develop "Culture of Compliance".		
	1. Involve M&O QA more proactively during design development. - Increase consultation - Increase surveillances	Jackson	Ongoing
	2. Invite DOE QA to review M&O design process.	Sandifer	Start 8/6
	3. Implement systems conformance reviews involving Systems Engineering, Regulatory & Licensing, QA.	Geer	FY 94
K. Perception exists that schedule pressures are impacting quality of work.	TBD (for example: Evaluate FY 94 schedule against FY 93 experience, foster culture of not being afraid to stop construction when appropriate).	Foust Sandifer	8/15
L. Perception persists that the design procedures are overly complex and difficult to follow; not developed or maintained by those performing work; feedback mechanism (to authors) is inadequate; revisions and improvement are not easily facilitated.	1. Evaluate the process by which M&O procedures are reviewed in the field to identify potential improvements.	Hodgson Geer Carruth	8/13
	2. Procedure review team to trial run the existing procedures and upcoming revisions to ensure that the procedures are adequate and to generate the necessary revisions and/or ILPs.	Hodgson Geer	Start 8/6
	3. Conduct formal training on appropriate procedures.	Penovich	Start 9/1

M&O MGDS Design Control Improvement Plan
Table 2 - Process Improvement Actions

Problem	Recommended Solution	Responsible	Due
N. Change Control and Configuration Management (CM) processes are overly cumbersome.	1. Review OCRWM Baseline Management Plan (DOE 4700.1 and QARD) for CM and Design Control requirements. Map CM/design control requirements to procedures.	Cruz Naaf Engwall Benton Jackson Penhaker	9/15
	2. Implement any necessary changes resulting from review in 1.	Geer	9/30
	3. Ensure a process exists to track required changes to impacted documents.	Cruz Penhaker	9/15
O. M&O needs to incorporate RSN BFD & design products into M&O baseline.	1. Incorporate relevant RSN BFD sections for 1A into M&O BFD; prepare baseline change for combined BFD.	Naaf Engwall	1/31/94
	2. Revise drawings, specifications, calculations for new traceability; adopt fully as M&O products.	Naaf Engwall	4/30/94

M&O MGDS Design Control Improvement Plan

Appendix A
Acronym List

1A - Design Package 1A (primarily ESF surface facilities)

1B - Design Package 1B (additional ESF surface facilities)

2A - Design Package 2A (beginning of ESF excavation of North Ramp)

BFD - Basis for Design document

CAR - Corrective Action Request

CCB - Change Control Board

CI - Configuration Identifier

CM - Configuration Management

CR - Change Request

DIE - Determination of Importance Evaluation

DOE - Department of Energy

ESF - Exploratory Studies Facility

FCR - Field Change Request

ID - Interdisciplinary (as in "interdisciplinary review")

ILP - Implementing Line Procedure

M&O - Management & Operating Contractor

MGDS - Mined Geologic Disposal System

OCRWM - Office of Civilian Radioactive Waste Management

QA - Quality Assurance

QAP - QA Procedure

Appendix A (continued)

QARD - DOE Quality Assurance Requirements and Description document

REECo - Reynolds Electrical & Engineering Company, Inc. (construction contractor)

RIB - Reference Information Base

RSN - Raytheon Services Nevada

SE - M&O Systems Engineering

TBD -To Be Determined

TBV - To Be Verified

TRW Environmental Safety Systems Inc.

101 Convention Center Drive, Suite 540
Las Vegas, NV 89109
702 794 1800

WBS: 1.2.6
QA: N/A

Contract # DE-AC01-91-RW00134
LV.SED.PSH.8/93-026

August 6, 1993

Mr. Don Horton
Director, Office of Quality Assurance
U. S. Department of Energy
101 Convention Center Drive, Ste. 660
Las Vegas, Nevada 89109

ATTN: Richard Spence

Subject: Update of M&O Design Control Improvement Plan

As a part of our Design Control Improvement Plan, we will be providing you with a weekly status report on the action items associated with the plan. This is the first of these updates, and includes the latest draft of the plan itself. An earlier version of this plan was transmitted to NRC, and this version reflects comments from your staff, as well as minor revisions to dates and specific action items. We expect M&O formal approval of the plan within the next week.

Future updates will not include a copy of the plan, but will summarize status of specific action items. We have initiated or completed action on each item listed below. Attached are individual status reports for each item listed. Any comments on the format of these status reports are welcome.

Action	Status	Notes
A.1	Complete	Briefing provided at M&O "All Hands" meeting and reinforced at Nevada M&O Offsite Meeting
A.2-A.3	Complete	Steering Committee formed 3 August; working committee to be named 6 August (letter attached)
A.4	Complete	Plan distributed; comments/dates being resolved, expect M&O formal approval by 13 August

Action	Status	Notes
B.1	Complete	ILP approved 30 July (attached)
B.2	Complete	Summary to ESF Design 30 July; in use for B.3
C.3	Ongoing	Ongoing effort
D.1	Complete	ILP approved 30 July (attached)
E.1	Complete	Evaluation completed; draft ILP anticipated 20 August
I.2	Complete	Howard Verdery (MGDS Systems Engineering) is contact
J.1	Ongoing	Ongoing effort - two people (Ruth and Chomentowski) assigned to ESF Design; evaluating new surveillance schedule (see attached)
J.2	Ongoing	Ongoing effort - two DOE QA contacts established (see attached)
L.1-L.2	Ongoing	QA representative reviewing existing procedures as of 26 July; plan in development for comprehensive review and process improvement (see attached)

As you can see, we are on schedule with our draft plan. We are absolutely committed to resolving these issues, and appreciate your continued support and cooperation. If you have any questions or concerns about our process, please contact Peter Hastings at 794-1946.

Sincerely,

Robert M. Sandifer
MGDS Development Manager
Management and Operating Contractor

xc (w/attachments):

C. P. Gertz, YMPO, Las Vegas, NV
W. L. Petrie, M&O/FD, Las Vegas, NV
M. B. Blanchard, YMPO, Las Vegas, NV
W. B. Simecka, YMPO, Las Vegas, NV
J. R. Dyer, YMPO, Las Vegas, NV
R. J. Brackett, M&O/Duke, Las Vegas, NV
J. A. Jackson, M&O/TRW, Las Vegas, NV
R. G. Vawter, M&O/TRW, Las Vegas, NV
L. D.Foust, M&O/TRW, Las Vegas, NV
M&O/LV Office and Department Managers

CIVILIAN RADIOACTIVE WASTE MANAGEMENT
SYSTEM M&O CONTRACTOR

Document Title:	**M&O MGDS Design Control Improvement Plan**
Document Number:	**N/A**
Revision:	**0**
Date:	**30 July 1993**
QA Classification:	**N/A**

Concurrence:

_____
M&O Systems Engineering Manager

_____
M&O QA Manager

Approvals:

_____
MGDS Systems Engineering Manager

_____
MGDS Development Manager

_____
M&O Nevada Site QA Manager

_____
M&O Nevada Site Manager

version: Friday - 06Aug93 - 1642 hrs

Preliminary Draft - Information Only

Process Improvement Actions

The corrective actions found in the "Process Improvement" section (Table 2) are somewhat broader in scope, and imply a longer-term approach to improving the overall design control process for MGDS. The issues addressed in this section include: resolution of conflicts between the systems engineering/configuration management control and design control processes; enhanced understanding of and personnel training in the appropriate processes; improvement of our design products and associated procedures; and promotion of constructive attitudes toward the design control and other QA processes. The activities discussed in this section will take place over the next several months.

Implementation of Design Control Improvement Plan

Among the first steps in this action-plan is approval of the plan itself. This plan is approved by the responsible managers from Systems Engineering, MGDS Development, M&O Nevada Site QA, and the M&O Nevada Site Manager; the M&O Systems Engineering Manager and M&O QA Manager provide concurrence.

The MGDS Development Manager has overall responsibility for ensuring that the improvement process described is properly executed in order to ensure that acceptable design control practices are in place for MGDS design activities. The MGDS Systems Engineering Manager has been designated the responsible manager for monitoring progress on the tasks detailed in this plan as well as ensuring that additional activities are undertaken if any are identified as necessary.

As part of the immediate corrective actions, a management steering committee will be established to ensure that a long term commitment to verbatim compliance with QA requirements is maintained. This steering committee will be supplemented by a working level QA committee.

The working level committee will be comprised of responsible individuals from the engineering and interfacing organizations. This working committee will principally be responsible for ensuring that self-identification of procedural compliance problems is achieved by identifying procedural ambiguities or inadequacies, and recommending appropriate revisions to the procedures. As the representatives of the direct users of the procedures, these individuals will be uniquely qualified to ensure that the procedure set is sufficient to control the work activities. The working level committee will report, on a regular basis, to the steering committee, who will in turn have authority to enact recommendations provided by the working level committee.

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

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A. MGDS Development is experiencing continuing difficulties complying with QA requirements	1. Provide immediate "importance of QA" briefing for MGDS Development.	Foust Sandifer	Complete
	2. Establish a Management Steering Committee to monitor progress toward resolving issues.	Foust	Start 8/6
	3. Establish a QA Procedure Working Committee to act as a focal point for ensuring that necessary procedure enhancements are put in place on an ongoing basis. All affected line organizations should be represented.	Foust	Start 8/6
	4. Develop and distribute for concurrence the action plan for the near-term and long-term corrective actions.	Sandifer Geer	Complete
	5. Reinforce CCB Secretary's responsibility (at both Level 2 and 3) for ensuring completeness of change documentation.	Geer Penhaker	8/13

M&O MGDS Design Control Improvement Plan
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B. The RSN BFD has not been evaluated to determine if changes are necessary as a result of M&O design changes.	1. Complete ILP for revising RSN BFD.	Buckey	Complete
	2. Tabulate and collect copies of all change requests (CRs) or Field Change Requests (FCRs) processed against Job Package 92-020, the ESF Baseline, or Package 1A drawings or specifications.	Cruz	8/13
	3. Review all CRs/FCRs for potential impact to the BFD; document results of review and categorize as follows: a. No change required. b. Editorial change recommended. c. Technical change required.	Engwall Naaf	8/13
	4. Provide redline version of BFD incorporating the changes required and recommended by item 3.	Engwall	8/30
	5. Submit Baseline Change Request per QAP-3-4 to baseline changes.	Engwall	8/30
	6. Complete the revision of RSN BFD and baseline the new document.	Engwall	9/10

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

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C. Change Request 93/405 resulted in a hand-written "TBV" being dropped from a drawing; problems with completeness of CR submittals.	1. Review all current drawings and specifications against original Job Package 92-020 products and subsequent CRs & FCRs for similar error; document review and results as part of CAR response.	Engwall Naaf	8/13
	2. Process necessary changes to resolve any findings as a result of review.	Engwall Naaf	8/27
	3. Review all CRs for procedural compliance prior to issuing the change request.	Jackson	Ongoing
D. There is no M&O procedure for formal documentation and tracking of TBVs/TBDs on design inputs/outputs.	1. Complete the ILP for documenting and tracking TBDs/TBVs and begin tracking activities.	Taipale Cruz	Complete (Approved 7/30)
E. There is no process for documenting interdisciplinary (ID) design reviews.	1. Evaluate the need for an MGDS ILP based on the new QAP for documenting ID reviews.	Engwall Naaf Jackson SI rep.	8/6

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

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	2. Develop ILPs or QAP revisions for identifying QA classification on design outputs (including drawings and specs which contain QA and Non-QA components) in accordance with DIE results and QAP-2-3. Consult with MRS and Vienna on methodology.	Engwall Naaf Hastings	8/30
	3. Implement QAP/ILPs prior to final verification for 1B & 2A.	Engwall Naaf	9/27
	4. Begin incorporating into package 1A as design outputs are revised.	Engwall Naaf	8/30

M&O MGDS Design Control Improvement Plan
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G. Design inputs are not consistently shown on drawings and the M&O process for demonstrating traceability of requirements is not explicit.	1. Review M&O BFD traceability matrix and RSN CM report to identify most effective method of ensuring traceability.	Rindskopf Peters Leonard SI rep.	8/13
	2. Resolve Configuration Item/Architecture definition issues to ensure that a basis for establishing traceability exists.	Rindskopf Peters Leonard Robinson	8/13
	3. Revise or create procedures for implementation as appropriate.	Rindskopf Robinson	9/24
	4. Revise BFD as necessary.	Rindskopf Peters Leonard	9/17
	5. Revise drawings & specifications appropriately based on changes to BFD.	Engwall Naaf	9/24

M&O MGDS Design Control Improvement Plan
Table 1 - Immediate Corrective Actions

Problem	Recommended Solution	Responsible	Due
H. Generic procedures are used for waste isolation and test interference evaluations, but line procedures specific to these evaluations are needed.	1. Develop ILP to formalize guidance on waste isolation evaluations.	Younker	8/20 (draft)
	2. Develop ILP to formalize guidance on test interference evaluations.	Statton	8/20 (draft)
I. Review all design-related CARS to ensure corrective actions are being accomplished.	1. Tabulate & summarize all open and closed CARS affecting or involving the M&O design process.	Verdery	8/13
	2. Establish MGDS point of contact for all CAR responses for MGDS Development.	Sandifer	Complete (Verdery is contact point)
	3. Review outstanding actions to ensure timely completion.	Verdery	8/13

M&O MGDS Design Control Improvement Plan
Table 2 - Process Improvement Actions

Problem	Recommended Solution	Responsible	Due
J. Recurrent instances of non-compliance with procedural requirements.	Develop "Culture of Compliance".		
	1. Involve M&O QA more proactively during design development. - Increase consultation - Increase surveillances	Jackson	Ongoing
	2. Invite DOE QA to review M&O design process.	Sandifer	Start 8/6
	3. Implement systems conformance reviews involving Systems Engineering, Regulatory & Licensing, QA.	Geer	FY 94
K. Perception exists that schedule pressures are impacting quality of work.	TBD (for example: Evaluate FY 94 schedule against FY 93 experience, foster culture of not being afraid to stop construction when appropriate).	Foust Sandifer	8/15
L. Perception persists that the design procedures are overly complex and difficult to follow; not developed or maintained by those performing work; feedback mechanism (to authors) is inadequate; revisions and improvement are not easily facilitated.	1. Evaluate the process by which M&O procedures are reviewed in the field to identify potential improvements.	Geer Carruth	8/13
	2. Procedure review team to trial run the existing procedures and upcoming revisions to ensure that the procedures are adequate and to generate the necessary revisions and/or ILPs.	Geer	Start 8/6

M&O MGDS Design Control Improvement Plan
Table 2 - Process Improvement Actions

Problem	Recommended Solution	Responsible	Due
M. M&O design process is not universally understood within the M&O and is not well documented from an overall standpoint.	1. Develop detailed MGDS engineering processes document (Design Manual); include methodology policy statements on use of procedures and verbatim compliance with Quality Assurance requirements. Include topics such as: generic schedule/process chart; Annual Engineering Plans; organization interfaces, responsibilities, and authority (SE, Design, QA, CM, DOE, REECO, QA Working Committee); requirements; CIs; BFDs; RIB, Technical Database; drawings, specifications, calculations (incl. DIEs); reviews; QA; transmittal of design outputs; changes (CRs/FCRs); non-conformance Map design control process to DOE's process to ensure consistency. Clarify resolution of CM and design processes; train all MGDS development staff to manual.	Geer	9/24 (draft)
	2. Interface with FCR/CR working group to ensure recommendations and followup actions are appropriately integrated.	Geer Pimentel	9/24
	3. Revise manual per changes to CCB/CM processes; re-evaluate immediate corrective actions for compliance with manual.	Geer	9/24 (draft)

M&O MGDS Design Control Improvement Plan
Table 2 - Process Improvement Actions

Problem	Recommended Solution	Responsible	Due
O. Change Control and Configuration Management (CM) processes are overly cumbersome.	1. Review OCRWM Baseline Management Plan (DOE 4700.1 and QARD) for CM and Design Control requirements. Map CM/design control requirements to procedures.	Cruz Naaf Engwall Benton Jackson Penhaker	9/15
	2. Implement any necessary changes resulting from review in 1.	Geer	9/30
	3. Ensure a process exists to track required changes to impacted documents.	Cruz Penhaker	9/15
P. M&O needs to incorporate RSN BFD & design products into M&O baseline.	1. Incorporate relevant RSN BFD sections for 1A into M&O BFD; prepare baseline change for combined BFD.	Rindskopf	1/31/94
	2. Revise drawings, specifications, calculations for new traceability; adopt fully as M&O products.	Naaf Engwall	4/30/94

M&O MGDS Design Control Improvement Plan

Appendix A
Acronym List

1A - Design Package 1A (primarily ESF surface facilities)

1B - Design Package 1B (additional ESF surface facilities)

2A - Design Package 2A (beginning of ESF excavation of North Ramp)

BFD - Basis for Design document

CAR - Corrective Action Request

CCB - Change Control Board

CI - Configuration Identifier

CM - Configuration Management

CR - Change Request

DIE - Determination of Importance Evaluation

DOE - Department of Energy

ESF - Exploratory Studies Facility

FCR - Field Change Request

ID - Interdisciplinary (as in "interdisciplinary review")

ILP - Implementing Line Procedure

M&O - Management & Operating Contractor

MGDS - Mined Geologic Disposal System

OCRWM - Office of Civilian Radioactive Waste Management

QA - Quality Assurance

QAP - QA Procedure

Appendix A (continued)

QARD - DOE Quality Assurance Requirements and Description document

REECo - Reynolds Electrical & Engineering Company, Inc. (construction contractor)

RIB - Reference Information Base

RSN - Raytheon Services Nevada

SE - M&O Systems Engineering

TBD -To Be Determined

TBV - To Be Verified

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **A.1**

Provide immediate "importance of QA" briefing for MGDS Development

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Conduct briefing for MGDS Development: reinforce at Nevada M&O Offsite Meeting

Update: Briefing was conducted by L. D. Foust and R. M. Sandifer to the entire MGDS Development organization on 17 July 1993. This was further reinforced in a Nevada M&O Offsite meeting discussion conducted by R. L. Robertson on 21 July 1993.

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☐ Yes ☒ No

By: R. M. Sandifer Date: 4 Aug 93

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **A.2-A.3**

Establish Management Steering Committee to monitor progress toward resolving issues.

Establish QA Procedure Working Committee.

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Establish Steering Committee provide direction for Steering Committee to name Working Committee

Update:

Steering Committee established 3 Aug; Working Committee to be established 6 Aug

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☐ No

By: L. D. Foust Date: 3 Aug 93

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Interoffice Correspondence
Civilian Radioactive Waste Management System
Management & Operating Contractor

TRW

TRW Environmental
Safety Systems Inc.

WBS: 1.2.1
QA: N/A

Subject:
Quality Assurance Program Compliance
M&O Steering Committee
& M&O QA Working Committee

Date:
August 3, 1993
LV.MG.RMS.8/93.126

From:
L. D. Foust

To:
Distribution

cc:

Location/Phone
TES3/LV-112
(702)794-1869

It is imperative that each of us does everything within our control to assure 100% compliance with our QA Program. This Program clearly includes not only the M&O portion but also the YMPO portion. To further facilitate the compliance of this Program, it is appropriate at this point to put the subject Steering and Working Committees in place with the following basic charge:

- Continuously assess our compliance with the QA Program
- Assure full compliance with any improvement activities including the design control improvement plan currently in draft form
- Modify or make recommendations to modify our QA Program as may be appropriate
- Act as the focal point for resolving QA issues identified by the M&O Team, Audits, Surveillance, etc.

The Steering Group will provide oversight and facilitate required communication with the M&O and DOE Management. The Working Group will develop detailed recommendations on modifications to procedures, on additional procedures, and other program changes.

The Steering Committee will consist of my direct report line managers with our QA Manager acting as Chairman, as follows:

Chairman----------Jack Jackson
MGDS Systems----------Jean Younker
MGDS Development----------Bob Sandifer
SBT----------Tom Statton
Support Operations----------Jim Frank

I will expect this Committee to meet regularly at their discretion and to provide me a monthly summary on the health of our QA Program compliance. This minimally should include Surveillance status, CAR status, audit status, procedure modification status and compliance trending.

The Working Committee will consist of members from the organizations represented by the Steering Committee. The following is the suggested membership:

Quality Assurance
MGDS Systems, Regulatory
MGDS Systems, PA
MGDS Development, Surface Design
MGDS Development, Subsurface Design
MGDS Development, Waste Package
MGDS Development, Systems Engineering
MGDS Development, Configuration Management
SBT
Support Operations, Software Configuration Management
Support Operations, Records

This Committee will report to the Steering Committee and will as noted above, act as the focal point for changes to our program where required. The Steering Committee will provide its charter.

Please consider this as your direction to initialize appropriate Steering Committee activities and to appoint the Working Committee. I would appreciate your initial monthly summary by September 10, 1993.

Distribution:

J.W. Frank
J.A. Jackson
R.M. Sandifer
C.T. Statton
J.L. Younker

RMS:lcg

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **A.4**

Develop and distribute for concurrence the action plan for near-term and long-term corrective actions.

Deliverable(s):

1. Action Plan (Design Control Improvement Plan)
2.
3.
4.

Proposed resolution:

Develop and distribute plan for concurrence

Update:

Plan distributed - QA DOE comments incorporated - M&O approval anticipated 13 August 1993

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☐ Yes ☒ No (attached to 6 Aug update)

By: P. S. Hastings Date: 30 July 1993

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QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **B.1**

Complete ILP for revising RSN BFD.

Deliverable(s):

1. Implementing Line Procedure
2.
3.
4.

Proposed resolution:

Develop ILP.

Update:

Approved 30 July 1993

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☒ Yes ☐ No

By: J. L. Naaf Date: 30 July 93

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Civilian Radioactive Waste Management System

Management & Operating Contractor

WBS: 1.2.6
QA: QA

B00000000-01717-5000-00005 REV. 00

IMPLEMENTING LINE PROCEDURE

Title: **REVISIONS TO BASIS FOR DESIGN DOCUMENT ISSUED BY RAYTHEON SERVICES NEVADA**

Procedure Number: **NLP-3-13**

Revision: **0**

Effective Date: **August 4, 1993**

Author: **C. F. Buckey**

Responsible Manager: **R. M. Sandifer**

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CRWMS M&O / LAS VEGAS, NV
COPY NO/01850
THIS IS A RED STAMP

Approvals:

Office Manager — Approval Date: 7.25.93

Manager, Quality Assurance — Approval Date: 7-25-93

1. PURPOSE

This document establishes the responsibilities and procedures for the Civilian Radioactive Waste Management System (CRWMS) Management and Operating (M&O) Contractor design organizations to revise the Basis for Design (BFD) document. The BFD was originally prepared and issued by Raytheon Services Nevada (RSN), accepted by the U.S. Department of Energy/Yucca Mountain Site Characterization Project Office (DOE/YMPO), and transferred to the CRWMS M&O.

2. SCOPE

This procedure defines the specific administrative and quality assurance controls to be applied to the revision of the BFD document that has been accepted by DOE/YMPO, and placed under baseline control by the CRWMS M&O Design Change Control Board (CRWMS M&O CCB). The architect/engineer (A/E) responsibilities for the Exploratory Studies Facility (ESF) were transitioned from RSN on October 1, 1992, with the exception of ESF Design Package 1A responsibilities which were transitioned on December 1, 1992. The activities are applicable to CRWMS M&O Nevada Site only.

3. APPLICABLE DEFINITIONS

None

4. RESPONSIBILITIES

4.1 The Mined Geologic Disposal System (MGDS) Development Manager is responsible for the preparation and maintenance of this procedure.

4.2 The following have responsibilities in this procedure:

A. Lead Document Preparer

B. MGDS Manager

C. Quality Assurance Manager

D. Technical Project Officer

5. PROCEDURE

Review, verification and approval of BFD revisions shall be in accordance with this procedure.

5.1 REVISIONS

5.1.1 The Lead Document Preparer shall identify changes to the BFD and prepare a mark-up of the BFD page(s) or other appropriate documentation, a CRWMS M&O Title Sheet (Attachment I), and Revision Description Form (Attachment IV, QAP-3-11) and initiate review and verification in accordance with QAP-3-1. The review criteria will include, in addition to other criteria, consideration of Determination of Importance Evaluations (DIEs), To Be Verified (TBV) logs, To Be Determined (TBD) logs, and Field Change Requests (FCRs) that impact Package 1A design.

5.1.2 The first revision (designated as Revision 3) to the BFD shall be to show that the CRWMS M&O is the A/E of record as of December 1, 1992. Changes to the content may be included with this revision.

5.1.3 BFD changes shall be noted by a vertical line in the margin. The same revision number shall be used for all changes made in each revision to the BFD. The revision number and date of revision shall be placed on each effected page. A Revision Description Form (Attachment IV, QAP-3-11) shall be used to indicate the pages that were revised and reasons for revision. Individual pages may be revised and issued provided a listing of all pages with their correct revision is given on the Revision Description Form (Attachment IV, QAP-3-11) so that it is possible to ensure that all pages can be verified as the latest issued revision.

5.1.4 The MGDS Manager shall review the BFD revision and sign and date the CRWMS M&O Title Sheet (Attachment I) indicating approval and forward the BFD revision to Quality Assurance.

5.1.5 The Quality Assurance Manager shall review the BFD revision to ensure that all applicable quality assurance requirements have been included. The Quality Assurance Manager shall sign and date the CRWMS M&O Title Sheet (Attachment I) indicating approval and forward the BFD revision to the Technical Project Officer.

5.1.6 The Technical Project Officer shall review the BFD revision and sign and date the CRWMS M&O Title Sheet (Attachment I) indicating approval and forward the BFD revision to the Lead Document Preparer.

5.1.7 The Lead Document Preparer shall submit the approved BFD revision for baselining in accordance with QAP-3-4. When the first revision to the BFD is made, the RSN Title Sheet shall be replaced with the CRWMS M&O Title Sheet (Attachment I). The Revision Description Form (Attachment IV, QAP-3-11) shall be inserted directly behind the CRWMS M&O Title Sheet. Subsequent revisions to the BFD shall be done in accordance with this procedure.

6. RECORDS

The following records generated by this procedure shall be submitted to the LRC in accordance with QAP-17-1:

A. Document Revision Reviewed (Draft)
B. Document Review Records (DRRs)
C. Approved Document Revision

7. ATTACHMENTS

ATTACHMENT	TITLE
I	Sample CRWMS M&O Title Sheet

ATTACHMENT I - SAMPLE CRWMS M&O TITLE SHEET

Civilian Radioactive Waste Management System

Management and Operating Contractor

YUCCA MOUNTAIN SITE CHARACTERIZATION PROJECT

BASIS FOR DESIGN

DOCUMENT NO. RSN-BFD-001

REVISION

APPROVED:_____ DATE:_____
MANAGER, MGDS

APPROVED:_____ DATE:_____
MANAGER, QUALITY ASSURANCE

APPROVED:_____ DATE:_____
TECHNICAL PROJECT OFFICER

Civilian Radioactive Waste Management System

Management & Operating Contractor

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: C.3

Review all CRs for procedural compliance prior to issuing change request.

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

QA will continue to support design to ensure procedural compliance. All CRs will be reviewed prior to issuing request.

Update:

Ongoing - QA is reviewing with Design all CRs prior to issuance of change request for compliance to appropriate procedure. Discrepancies, when found, are brought to attention of appropriate individual for resolution.

Complete? ☐ Yes ☒ No ☐ Deferred: _____

Attachments? ☐ Yes ☒ No

By: P. J. Chomentowski Date: 5 Aug 93

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **D.1**

Complete ILP for documenting TBVs/TBVs and begin tracking activities.

Deliverable(s):

1. Implementing Line Procedure
2.
3.
4.

Proposed resolution:

Develop ILP

Update:

ILP approved 30 July 1993

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☐ Yes ☒ No

By: J. L. Naaf Date: 30 July 93

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Civilian Radioactive Waste Management System

Management and Operating Contractor

WBS: 1.2.6
QA: QA
DI: B00000000-01717-5000-00008 REV 00

IMPLEMENTING LINE PROCEDURE

Title: **TO BE VERIFIED/VALIDATED (TBV) AND TO BE DETERMINED (TBD) STATUS SYSTEM**

Procedure Number: **NLP-3-15**

Revision: **0**

Effective Date: **July 30, 1993**

Author: **J.M. Taipale**

Responsible Manager: **R.M. Sandifer**

Approvals:

Manager, Quality Assurance — Approval Date: 7/30/93

Office Manager — Approval Date: 7/30/93

1. PURPOSE

This procedure establishes the process for a To Be Verified/Validated (TBV) and To Be Determined (TBD) Status System.

2. SCOPE

This procedure applies to the development and maintenance of a TBV and TBD Status System for M&O design documentation. These activities are applicable to the CRWMS M&O Nevada site only.

3. APPLICABLE DEFINITIONS

3.1 **TO BE VERIFIED/VALIDATED (TBV)** - A requirement or design value that has bounds, conditions or values that must be verified.

3.2 **TO BE DETERMINED (TBD)** - A requirement or design value that is undetermined.

3.3 **DESIGN DOCUMENTATION** - Documentation that includes Basis for Design (BFD), Drawings, Specifications, Calculations, and Analyses.

4. RESPONSIBILITIES

4.1 The Mined Geologic Disposal System (MGDS) Development Manager is responsible for the preparation and maintenance of this procedure.

4.2 The following have responsibilities in this procedure:

A. MGDS Systems Engineering Manager

B. TBV/TBD Status Coordinator

C. Document Control Center (DCC)

D. Responsible Design Organization

5. PROCEDURE

5.1 DEVELOPMENT

5.1.1 The MGDS Systems Engineering Manager shall select a TBV/TBD Status Coordinator.

5.1.2 The TBV/TBD Status Coordinator shall develop a TBV/TBD Status System that includes the following information, as a minimum :

A. Source Document Log Number;

B. Documents Affected by TBV/TBD (Listed by Document Identifier and Revision Number);

C. Estimated Completion Date;

D. Actual Completion Date;

E. Responsible Organization;

F. Approved Field Change Request (FCR), Change Request (CR), or Baseline Change Proposal (BCP) Number; and

G. Impacted TBV/TBDs.

5.2 MAINTENANCE

5.2.1 The TBV/TBD Status Coordinator shall maintain the TBV/TBD Status System.

5.2.2 Document Control shall send a copy of the new/revised log of approved TBV/TBDs to the TBV/TBD Status Coordinator after a document has been processed through Configuration Management and approved by the Baseline Change Control Board.

5.2.3 The TBV/TBD Status Coordinator shall enter the data into the TBV/TBD Status System. Data will include:

A. Status Changes (e.g. est. completion dates)

B. Deletions

C. Additions

D. Closures.

5.3 REPORTS

5.3.1 The TBV/TBD Status Coordinator shall issue the following reports:

A. **Initial Report** - The Initial Report shall include all information listed in section 5.1.2. The report will be immediately issued to the responsible design organization following receipt and entry of approved new/revised data.

The Responsible Design Organization shall review the report for accuracy and report any deficiencies to the TBV/TBD Status Coordinator.

B. **Notification of Due Date** - The notification of Due Date Report shall be issued to the Responsible Design Organization one month prior to the Due Date.

C. **Monthly Status Report** - A Monthly Status Report shall be issued at the end of each month. This report shall go to, as a minimum:

1. Nevada Site Manager

2. M&O Quality Assurance Manager

3. Nevada Site Quality Engineering Manger

4. Responsible Design Organizations.

6. RECORDS

No QA Records are generated by this procedure.

7. ATTACHMENTS

None.

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **E.1**

Evaluate the need to an MGDS ILP based on the new QAP for documenting ID reviews.

Deliverable(s):

1. Evaluation
2.
3.
4.

Proposed resolution:

Evaluate need for ILP, and if needed, begin draft

Update:

Evaluation complete - ILP drafted; approval anticipated by 20 Aug 93

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☐ Yes ☒ No

By: J. L. Naaf Date: 5 Aug 93

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **I.2**

Establish MGDS point of contact for all CAR responses for MGDS Development

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Establish point of contact

Update:

Howard Verdery was appointed point of contact for all CAR responses for MGDS Development 23 July 1993; status reports to MGDS Development Management Staff began on 27 July 1993.

Complete? ☒ Yes ☐ No ☐ Deferred: _____

Attachments? ☐ Yes ☒ No

By: R. M. Sandifer Date: 4 Aug 93

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **J.1**

Involve M&O QA more proactively during design development.
- increase consultation
- increase surveillances

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Provide visible QA support in Design work area

Develop aggressive surveillance schedule with emphasis on design activities

Update:

Placed two QA personnel (Ruth and Chemontowski) in Design work area

Evaluating surveillance schedule

Complete? ☐ Yes ☒ No ☐ Deferred: __(Ongoing)_____

Attachments? ☐ Yes ☒ No

By: B. R. Justice, Jr. Date: 6 Aug 93

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QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **J.2**

Invite DOE QA to review M&O design processes

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Invite QA to review design processes

Update:

DOE QA has been invited to assist M&O QA; Heaney and Dana have been identified as contacts. Heaney has provided assistance. DOE QA also reviewed and commented on Design Control Improvement Plan.

Complete? ☐ Yes ☒ No ☐ Deferred: ___(Ongoing)_____

Attachments? ☐ Yes ☒ No

By: B. R. Justice, Jr. Date: 6 Aug 93

QA: N/A

Design Control Improvement Plan
Progress Update

Action item: **L.1**

Evaluate the process by which M&O procedures are reviewed in the field to identify potential improvements.

Procedure review team to trial-run existing procedures adn upcoming revisions.

Deliverable(s):

1. None
2.
3.
4.

Proposed resolution:

Review processes and procedures; establish plan for trial runs

Update:

QA reviewing existing procedures as of 26 July; plan in development for comprehensive review and process improvement (draft plan attached)

Complete? ☐ Yes ☒ No ☐ Deferred: ___(Ongoing)_____

Attachments? ☒ Yes ☐ No

By: P. S. Hastings Date: 6 Aug 93

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M&O MGDS Design Control Improvement Plan
Process Improvement Action

PROBLEM

- Procedures are overly complex
- Procedures are difficult to follow
- Procedures are developed by people who don't use them
- Feedback on problems with procedures by users is inadequate
- Revisions and improvements to procedures are not easily facilitated

M&O MGDS Design Control Improvement Plan
Process Improvement Action

SOLUTION

- Develop a natural thread for each process called for in the QARD — Begin Date 8/9/93
  - Identify potential users for each procedure — 8/16/93
    - Geographical location of most frequent use would determine who is responsible
      - Select an author to develop Section 5.0 of each procedure — 8/23/93
        - Author should limit "shalls" in procedure to QARD traceable requirements
          - QAP-5-1/QAP-5-2 would prohibit anyone who will not use the procedure from writing it — 8/16/93*

* Requires QAP-5-1/QAP-5-2 Change

M&O MGDS Design Control Improvement Plan
Process Improvement Action

SOLUTION

- Continual Process Improvement Board (CPIB) should be established — Begin Date 8/9/93
  - Develop a formal system for identifying problems or enhancements to procedures — 8/13/93
    - Develop CPI form for documenting problems or improvements — 8/16/93
      - Problem reporting system would be a Non-QA CPI system
        - CPIB system would be run by CPIB Chairperson
          - CPIB would include author of procedure

M&O MGDS Design Control Improvement Plan
Process Improvement Action

SOLUTION

	Begin Date
• Changes to procedures would be Revision, Procedure Change Notice (PCN) or Expedited PCN	
• Revision would be complete QAP change-out from QRB with change bars	
• PCN would be change pages only from author	8/16/93*
• Expedited PCN would be list of changes made to procedure by a Department Manager or higher of an urgent nature to allow work to continue, followed up by PCN	8/16/93*
• Expedited PCN would be placed in front of QAP and printed on different colored paper to draw attention to the change	8/16/93*

* Requires QAP-5-1/QAP-5-2 Change

M&O MGDS Design Control Improvement Plan
Process Improvement Action

SOLUTION

- Establish a procedure review "tiger team" to trial run existing procedures — Begin Date 8/9/93
  - If existing procedures will be replaced in next 30-days use replacement procedure
    - Use real work process to exercise procedure — 8/16/93
      - Identify problems and improvements in CPI system in real-time — 8/16/93
        - Re-run procedure (repeat as required)
          - Prepare PCN with author to improve procedure